

# ANDREWS UNIVERSITY SEMINARY STUDIES

VOLUME XIV

Spring 1976

NUMBER 1

HESIBON 1974

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ANDREWS UNIVERSITY PRESS  
BERRIEN SPRINGS, MICHIGAN 49104, USA

ANDREWS UNIVERSITY  
SEMINARY STUDIES

The Journal of the Seventh-day Adventist Theological Seminary  
of Andrews University, Berrien Springs, Michigan

KENNETH A. STRAND

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The opinions expressed in articles are those of the authors and do not necessarily represent the views of the editors.

ANDREWS UNIVERSITY SEMINARY STUDIES is published in January and July of each year. The annual subscription rate is \$6.00. Payments are to be made to Andrews University Seminary Studies, Berrien Springs, Michigan 49104, USA.

Subscribers should give full name and postal address when paying their subscriptions and should send notice of change of address at least five weeks before it is to take effect; the old as well as the new address must be given.

The articles in this journal are indexed, abstracted or listed in: Book Reviews of the Month; Elenchus Bibliographicus Biblicus (Biblica); Index to Religious Periodical Literature; International Bibliography of the History of Religions; Internationale Zeitschriftenschau für Bibelwissenschaft und Grenzgebiete; New Testament Abstracts; Orientalistische Literaturzeitung; Orient-Press; Religious and Theological Abstracts; Seventh-day Adventist Periodical Index; Subject Index to Periodical Literature—Mosher Library; Theologische Zeitschrift; Zeitschrift für die alttestamentliche Wissenschaft.

ANDREWS UNIVERSITY  
HESHBON EXPEDITION  
THE FOURTH CAMPAIGN AT TELL HESBÂN (1974)  
A Preliminary Report

ROGER S. BORAAS  
Upsala College  
East Orange, New Jersey

LAWRENCE T. GERATY  
Andrews University  
Berrien Springs, Michigan

Tell Hesbân, a site some 25 road kilometers southwest of Amman that has been traditionally associated with Biblical Heshbon and the Greco-Roman Esbus, was excavated in a fourth campaign from June 26 to August 14, 1974.<sup>1</sup> Heshbon's history as derived from the literary sources,<sup>2</sup> and the results of the previous three campaigns of 1968, 1971, and 1973, have already been covered in previous preliminary reports.<sup>3</sup>

Sponsorship

Again in 1974 the major sponsor of the expedition in terms of personnel, direction, and financial support, was Andrews University,<sup>4</sup>

<sup>1</sup> A brief report of the 1974 season by L. T. Geraty appeared in *ASOR Newsletter* No. 5 (Nov., 1974):1-8; he submitted reports to *ADAJ* and *RB* also but they have not yet been published.

<sup>2</sup> W. Vynneister, *AUSS* 6 (1968):158-177.

<sup>3</sup> For the 1968 season, see R. S. Boraas and S. H. Horn, *et al.*, *Heshbon 1968* (*AUSS* 7 [1969]:97-239). *AUM*, Vol. 2, 1969; Horn, *ADAJ* 12-13 (1967-68):51-52; Horn, *ASOR Newsletter* No. 3 (1968-69):1-5; Horn, *BA* 32 (1968):26-41; Horn, *RB* 76 (1968):395-398; E. N. Luganbeal and J. A. Sauer, "Seventh-Sixth Century B.C. Pottery from Area B at Heshbon," *AUSS* 10 (1972):21-69; A. Terhan, "Coins from the 1968 Excavations at Heshbon," *AUSS* 9 (1971):147-160.

For the 1971 season, see R. S. Boraas and S. H. Horn, *et al.*, *Heshbon 1971* (*AUSS* 11 [1973]:1-144). *AUM*, Vol. 6, 1973; Horn, *ADAJ* 17 (1972):15-22; Horn, *ASOR Newsletter* No. 4 (1971-72):1-4; Horn, *RB* 79 (1972):422-426; R. G. Bullard, "Geological Study of the Heshbon Area," *AUSS* 10 (1972):129-141; J. A. Sauer, *Heshbon Pottery 1971* (*AUM*, Vol. 7, 1973); A. Terhan, "Coins from the 1971 Excavations at Heshbon," *AUSS* 12 (1974):35-46.

For the 1973 season, see R. S. Boraas and S. H. Horn, *et al.*, *Heshbon 1973* (*AUSS* 13 [1975]:101-247). *AUM*, Vol. 8, 1975; Boraas, *PEQ* 106 (1974):5; 6; Horn, *ADAJ* 19 (1973):151-156; Horn, *ASOR Newsletter* No. 2 (1973-74):1-4; Horn, *RB* 82 (1973):100-105; F. M. Cross, "Ammonite Ostraca from Heshbon: Heshbon Ostraca IV-VIII," *AUSS* 13 (1975):1-20; B. Van Elderen, "A Greek Ostraca from Heshbon: Heshbon Ostraca IX," *AUSS* 13 (1975):21-22; A. Terhan, "Coins from the 1973 and 1974 Excavations at Heshbon," below.

<sup>4</sup> It is a pleasure for the Director to publicly acknowledge the consistent con-

in close cooperation with the American Center of Oriental Research (ACOR) in Amman and the Department of Antiquities of Jordan. ACOR puts its personnel, tools, and excavation equipment at the disposal of the expedition,<sup>5</sup> and the Department of Antiquities, through its Director-General, Yacoub Oweis, issued the excavation and survey permit, loaned personnel and certain pieces of equipment, and provided assistance and courtesies in numerous ways. As with previous seasons, much of the expedition's success must be credited to the cooperation and helpfulness of Mr. Oweis and his associate, Yousef Alami, and their entire staff. Other dignitaries to whom the expedition owes a special debt of gratitude include Prince Raad Zeid Hussein, former Prime Minister Suleiman Nabulsi, Minister of Tourism and Antiquities Chaleb Z. Barakat, and U.S. Ambassador Thomas R. Pickering.

Other institutional sponsors who provided both personnel and generous financial support included Calvin Theological Seminary (Grand Rapids, Michigan), Covenant Theological Seminary (St. Louis, Missouri), Grace Theological Seminary (Winona Lake, Indiana), and the Graduate School of Loma Linda University (Loma Linda, California). The Kyle-Kelso Archaeological Fund provided further funds and Worthington Foods, Inc., provided the staff's textured protein requirements for the season.

Major individual sponsorship came from Mrs. Ruth Kaune Baucum, Eleanor and William Berecz, Jr., Wilber A. Bishop, Sr., Dr. and Mrs. Bernard Brandstater, Dr. and Mrs. Bruce Branson, Dr. Harvey A. Elder, Dr. and Mrs. W. H. Lesovsky, Dr. and Mrs. John Wm. Schnepfer, Walter E. Sooy, and Dr. Lester G. Storz. Numerous private donors provided lesser support.

The expedition tenders its special thanks to all the above institutions and individuals for their generous support which made the fourth season of excavations at Tell Hesbân possible.

couragement and tangible support of Andrews University through the good offices of President Richard Hammill, Vice President (for Academic Administration) J. G. Smoot, Vice President (for Financial Affairs) V. E. Garber, Dean (of the Theological Seminary) S. H. Horn, and Dean (of the College of Arts and Sciences) D. L. Ford.

<sup>5</sup> From its inception, ASOR President G. Ernest Wright was a supporter of the expedition so it was with a good deal of pride and gratitude that his first visit to the site was welcomed during July 25-28, only a month before his untimely death on August 29, 1974.

### Organization

The expedition's headquarters was located between Amman and Tell Hesbân at the Amman Training Centre of the United Nations Relief and Works Agency for Palestine Refugees.<sup>6</sup> The facilities there served admirably to house the 75-member staff and provide laboratory facilities for the expedition's photographers, anthropologists, ceramists, draftsmen, and geologist. The daily program was similar to that already described for the 1968 campaign.

The staff consisted of 15 Jordanians (mostly from the Department of Antiquities and the University of Jordan) and 60 individuals (mostly professors and graduate students) from the United States, Britain, Canada, Australia, New Zealand, Denmark, Norway, and Indonesia.

Though Siegfried H. Horn of Andrews University directed the first three seasons of excavation, his current institutional responsibilities precluded his being with the expedition the entire season; he nevertheless served as senior advisor and object registrar during the final three weeks of the season. Lawrence T. Geraty, also of Andrews University, and an archaeologist who had been associated with the Tell Hesbân project since its inception, became the new director. Roger S. Boras of Upsala College continued as chief strategist and coordinator of specialists, and James A. Sauer of ACOR continued as chief ceramic typologist. Other members of the advisory staff who aided immeasurably in the smooth running of the organization included the official representatives from the Department of Antiquities, Sabri Abbadi and Mahmoud Rusan, and Foreman Muhammad Murshed Khadija who was directly responsible for the oversight of the 150 local workmen. ACOR Director, Bastiaan Van Elderen, gave unselfishly of his time and energy in countless ways both before and during the excavation season.

Continuity in the 1974 excavation staff was evidenced by the fact that 25 of these individuals (a fall third of the staff) had already served on the Hesbôn team during a previous season. In the follow-

<sup>6</sup> Arrangements for use of the facilities were made through the courtesy of Bastiaan Van Elderen, ACOR Director, and Richard Undeland, Public Affairs Officer of the USIS in Amman, in cooperation with John Tanner, Director of UNRWA, Jordan; Husni Ayesli, ATC Principal, and his staff were most accommodating in every way possible.

ing listing, each staff member is mentioned in connection with his or her primary assignment, though in certain cases there were temporary shifts which took place during the season.

Area A on the summit of the acropolis was again supervised by Bastiaan Van Elderen of Calvin Theological Seminary and ACOR. Of the eight squares previously opened, only Squares 5, 7, and 8 were worked in 1974, and Square 9 was begun. The Area A square supervisors were Sabri Abbadi, Kim Baker, Stephen Emmel, Jennifer Groot, Rose Habaybeh, Nola Oppewall, Oscar Schultz, and George Terzibashian.

Area B (and Square D.4) on a level shelf to the southwest of the acropolis summit was again under the supervision of James A. Sauer of ACOR. All squares previously opened (including Square D.4) were worked again in 1974 except test Squares 5 and 6; Square 7 was begun. Square supervisors in Area B were Adib Abu-Shmais, James Battenfeld, James Cox, Trevor Delafeld, Samir Ghishan, Kevin Howse, Kathleen Mitchell, and Susan Sauer.

Area C on the *tell's* western slope was for the first time supervised by W. Harold Mare of Covenant Theological Seminary. Excavation continued in all of the six previously opened squares except Square 4; Squares 7 and 8 were begun. Area C square supervisors were Michael Blaine, Mika Damamk, Omar Daud, Margaret Dittmore, Gerald Finneman, Myra Mare, Eunice Post, Nabil Qadi, Mahmoud Rusan, and Wesley Walters.

Area D, connecting Areas A and B, was for the first time under the supervision of Larry G. Herr of Harvard University (he had last dug at Tell Hesbân in 1971). Though no new squares were begun, all of the previously opened six were continued except Square 6. Square supervisors in Area D were Kerry Brandstater, Glenn Bowen, Zeidan Kafafi, John Lawlor, Lynn Malvitz, David Merling, Mogahed Mohaisin, and Orlyn Nelson.

Areas E (Tombs 4-6) and F (Caves 19-23), on both sides of the Wadi el-Majarr to the west and southwest of the *tell*, were supervised for the first time by James H. Stirling of Loma Linda University. His assistants were Suzanne Brandstater, Richard Dorsett, John Reeves, and Kerry Wiessmann.

Area G was the collective designation for several scattered soundings in the vicinity of the *tell*. Squares G.1-4 were excavated already

in 1973. Square G.5 was the Byzantine/Mamlûk reservoir east of the *tell* supervised by Larry G. Herr and his assistants from Area D. Squares G.6, 7, and 9 were soundings on the *tell's* western slope supervised by W. Harold Mare and his assistants from Area C with help from Area A. Sounding G.8 was located 4.5 km. north of Tell Hesbân on the northern slope of Umm es-Sarab and was supervised by Robert D. Ibach, Jr., of Grace Theological Seminary with his assistants from the archaeological survey team. Tomb G.10, a second Roman tomb found sealed with a rolling stone, was excavated by James H. Stirling.

The archaeological survey begun in 1973 completed its work within a 10 km. radius of Tell Hesbân under the direction of Robert D. Ibach, Jr. His assistants were Abdel Samir Abu-Dayya, Theodore Chamberlain, Patricia Derbeck, and Richard Mannell.

Surveying and architectural drafting was again in the charge of Bert DeVries of Calvin College; his assistants were Paul Brohl, Anita Van Elderen, and Thomas Walters.

Paul H. Denton of Andrews University supervised all photography; his full-time assistants were Paul Bonney, Henry Lamberton, and Robert Lloyd.

The anthropology team was headed by James H. Stirling, whose primary responsibility was the human skeletal remains, and Øystein Sakala Labianca who took charge of the zooarchaeology and ethnography. Their assistants were Shirley Finneman, Douglas Fuller, Ralph Stirling, and Michael Toplyn. Harold James of the Geoscience Research Institute at Andrews University was the expedition's geologist.

Hester Thomsen of Greater New York Academy was once again in charge of all pottery washing, drying, and sorting, and the registration of more than 23,000 saved sherds; Melissa Lloyd assisted her.

The supporting staff included Vivolyn Van Elderen who again served as camp director, assisted by receptionist-secretary Inge-Lise Howse. Michael Blaine coordinated week-end tours and Shirley Finneman was camp nurse. Muhammad Adawi, ACOR's major-domo, was once again chief cook; his assistants were Ishaq Adawi, Hasan Salarn, Issa Muhammad, and Issa Ibrahim.

Contributions by many of these key staff members follow below in this preliminary report of the 1974 season. The contributions and

analyses of several non-staff authors also follow, with many others yet to be completed. The season's pottery report will appear separately.

#### Aims\*

Three major unsolved problems at the end of the 1973 season guided the aims of and supported a commitment to conduct two further seasons of broad excavation effort. These primary questions were 1) the unclear location of the west exterior of the Byzantine basilica on the acropolis, 2) the unclear nature of possible defense installations on the west slope (evidence suggested both Early Roman and Iron II systems might be found), and 3) the unclear relations of portions of what might be a large Iron II reservoir on the southwestern shelf.<sup>8</sup> In addition, the archaeological survey of the Hesbân region was not complete, nor were there necropolis installations for occupation earlier than the Early Roman period. The result of considering these factors was the commitment to assume two additional seasons of work on the site, recognizing that the responsible handling of the stratigraphic work needed to resolve the first and third major questions would require more than one season's effort if done properly. Given that decision, additional strategic options could be considered in relation to necropolis searches; soundings of peripheral architectural evidence on various parts of the site, exploration of reservoir and road locations adjacent to the site, more

\* The strategy adopted for the first three seasons was continued in regard to the stratigraphic examination of a "quarter pie" of the site, using the main N-S and E-W axes of the site grid as balk sections linking the four main Areas (A-D) and excavation on the *tell* proper. Extension work in the form of necropolis search was conducted as Areas E-F and scattered soundings were identified as Area G. The excavation and recording methods were extensions of those employed in previous seasons (see *Heshbon 1968*, pp. 110-117). In this report the Area is designated by a capital letter; the Square by an Arabic numeral preceded by a period, and the Locus by an Arabic numeral preceded by a colon. A.7 refers to Area A, Square 7, whereas C.5:60 refers to Area C, Square 5, Locus 60.

\* Period divisions follow the scheme reported by James A. Sauer, *Heshbon Pottery 1971*, pp. 1-7. Stratum designations with Arabic numerals have been adopted by the authors of reports on Areas B and D as means of distinguishing accumulated stratification within each Area. Because the sequences vary from one Area to another these Strata numbers designate evidence of different periods in some instances. Designation of Strata by Roman numerals is reserved for site-wide Stratum identification, as indicated in *Heshbon 1968*, pp. 114-15.

thorough accumulation of ecological data bases and a test of the adequacy of surface sherd gathering as a guide to the chronology of occupation of outlying settlements in the vicinity of Hesbân.

Within the general aim of completing stratigraphic excavation of all Squares opened, the following specific aims were adopted for the 1974 season: 1) explore the location of the west exterior of the basilica by extending Area A south of the Islamic bath to intersect the southwest corner of the basilica if possible; 2) explore the dimensions of Roman architecture on the acropolis by continuing work in A.5, 6, and 7, as well as through a new Square along the E-W axis west of previous work; 3) attempt to fix the north perimeter of the suspected reservoir in Area B by opening a new Square north of B.2 and 3; 4) continue the work recognized as needing at least two seasons to complete to test the link of the heavy cement layers with the plastered wall-bedrock face in the possible reservoir in B.1, 2, and 4; 5) improve the stratigraphic link between Areas B and D, and test the northern extent of the roadway/plaza on the south shelf next to the acropolis; 6) sound the depression across the road east of the site to test the projected location of an additional reservoir and its dates of construction and use; 7) complete the archaeological survey of the 10 km. zone surrounding the site; 8) sound several projected cave-tomb locations west and southwest of the site; 9) explore further the cave-tomb facilities of Area E across the wadi west of the site, and pursue a rumor concerning a tomb equipped with a rolling stone sealing device; 10) improve the data base of ecological information by flotation seed and pollen sample gathering from all loci (ground surface to bedrock) in three representative new Squares from Areas A, B, and C; 11) test the possible presence of defenses on the west perimeter in C.5 and in a new Square C.7 south of C.3.

#### Accomplishments

A summary of the results of the 1974 season are given here by reporting the new material found for each of the periods involved, beginning with the earliest. It is assumed that the reader is acquainted with the accomplishments reported from the three preceding seasons.

*Iron I* (ca. 1200-900 B.C.). Scattered sherds from the period occurred in a few loci in C.1, 2, and 5. As with such materials found in

1973, the soil layers involved lay just above bedrock, but their mixed ceramic contents suggested materials deposited by weather action or human dump deposition. More substantial evidence was recovered in B.2 and 3. The combination of soil, rock, and ash in B.3:93-97 together with Wall Fragments B.3:86 and B.2:112 (= B.3:80) suggested occupation debris from domestic settlement. The date of Wall B.2:112 (= B.3:80) was confirmed by sherd evidence recovered from the removal of the upper 2 of the 4 surviving courses. The sequence of material suggested an accumulation of destruction debris above sparse evidence of occupation in spaces used in natural or partially modified declivities in bedrock. Ceramic typology comparisons suggested a date ca. 1200-1100 B.C. for the material in Area B. Some additional material was recovered from a layer of silt in Cistern D.1:63 which might be considered the last use deposit or the earliest material lost as use was abandoned. More substantial were the remains found in D.4 where a sequence of soil layers above and below a cobble paving and two wall fragments combined to suggest a domestic occupation accumulation. As in B.2, 3, the utilization of natural or partially worked formations in bedrock was characteristic. While still sparse in variety of evidence, the emerging pattern of domestic settlement using and modifying bedrock formations was considerably strengthened by the results of this season.

*Iron II/Persian (ca. 700-500 B.C.).* One soil layer in the abandoned Cistern D.1:63 and various dump layers in C.2 were datable to the period. A new major extension of Wall C.2:90 (= H73 Wall C.2:52) was just exposed in the new Square C.7 by the end of the season. Traced for 3.10 m. of its length, the thickness of the wall, its substantial construction, and its placement (as continuation apparently of Wall C.3:60 = 26) all suggested that it may have been part of a defense perimeter on the west slope in this period. The work of an additional season is needed to confirm or correct such conclusions, but the evidence available to date indicated very likely defense function for the construction.

The most substantial new information from this period was derived from Area B materials pertaining to the possible reservoir on the south shelf of the site. A series of channels cut in bedrock (some of which were plastered) appeared to have been used to direct water

flow into the basin of the constructed reservoir. Additional material included the earlier constructed Wall B.2:84, the continued line of the east wall of the reservoir as cut vertically in bedrock, and plaster layers laid up as lining on the bedrock face-cuts, presumably to safeguard against leakage of the reservoir contents. As anticipated, the stratigraphic removal of material was insufficient in one season's work to confirm or correct the supposed connection of the heavy floor of cement layers to the lower edge of the constructed wall + plastered bedrock face, but the evidence recovered in this season offered no substantial dissonance from the reservoir hypothesis. Rather, the evidence of the channels and the additional exposure of the wall and bedrock modifications tended to confirm the conjecture that a major water storage facility had been constructed at this portion of the site in the period. The clarification of the nature of this construction remains one of the primary tasks in completing excavation of the site.

*Early Hellenistic (332-198 B.C.).* No new data from this period was recovered. It remains relatively sparsely attested on the site.

*Late Hellenistic (198-63 B.C.).* Of still imprecise date, but possibly early in the Hellenistic occupation of the site, was the massive dumping of large quantities of Iron II/Persian occupation debris into the basin of the reservoir, filling it with rock, soil, and miscellaneous artifacts. The accumulation, combined with the stratigraphic situation on the acropolis (evident in Areas A and D.1, 5, and 6), suggested that the Hellenistic occupants may have "cleaned" most previous occupation accumulations from the acropolis and used the abandoned reservoir as part of their dumping ground. Near the reservoir to the east was a substantial plastered basin in which a thick layer of compact grayish-black clay suggested possible industrial use. It contained a clearly inscribed 2d century B.C. jar handle. Analysis of the soil for possible clues of metallurgical or other industrial function is still under way. Later in the period foundation trench excavation and construction for Wall B.2:62 was conducted, but the function of the construction remained unclear.

Also from this period was the evidence of the sealing of an earlier Iron Age cistern, and two phases of use of some open storage bin and silo installations in Area D, Square 2.

*Early Roman* (63 B.C.-A.D. 135). On the acropolis new Early Roman occupation was evident in a fragment of surface exposed in A.7 (Locus 80) but cut by Late Roman wall construction, and the use of dry storage pits cut into bedrock near the quarry (A.5). On the south access route to the acropolis, an Early Roman dwelling including Walls D.2:85, 21, and 55B, and the enclosed Surface D.2:89 over the levelling makeup fill laid above bedrock may have continued in use into the Late Roman period (ca. A.D. 150). Clearly earlier in construction and destruction/modification by later occupants were the Early Roman Wall D.2:26, plastered Surface D.3:85, parts were the Early Roman Wall D.2:64 with Surface D.2:66 attaching also to a second phase of Wall D.2:26, silos, pits, and Cave D.3:83, all apparently domestic facilities.

On the south shelf of the site, Area B evidence for the period was discernible in two major stages divided by substantial earthquake damage (concluded to be dated in 31 B.C.). Pre-quake settlement was apparently primarily in caves in the bedrock where soil layers, pits cut for storage, and divider walls were found in B.4, all apparently domestic in function. Outside the caves pre-quake facilities included at least two *tabuns*. Through the accidents of between-seasons erosion, remains of two "podium" bases were cleared just north of the later industrial kiln in B.1. With only parts of one or two courses of the neatly worked stone surviving the kiln construction, a sure conclusion as to their function was impossible. They were associated with the earliest of the plaster roadway/plaza surfaces laid down in the period along the full east-west extent of Areas B and D.

Perhaps most impressive from the period was the apparently defensive tower installation on the western perimeter of the site in Area C. In addition to the substantial surviving fragments of Walls C.1:40, 63, reported from work in 1973, additional portions of the construction were located in Square C.5, further west along the main East-West axis. These included the north and west walls of the tower proper (C.5:60 and 77 respectively), a clear segment of the foundation trench for Wall C.5:60, a well constructed doorway into the tower from the west, an entrance corridor to the doorway bounded on the north by Wall C.5:82, and paving stones serving as a surface leading into the doorway (Surface C.5:83). The weight of

all these elements confirmed the previous conclusion that major defensive architecture might be located in this portion of the site, and that Early Roman construction of this sort was indeed substantial. Further work is needed to detect whether the founding of the easternmost wall of the tower on bedrock held true for the downhill construction as well.

Additional Early Roman material was recovered from two tombs and the G.8 test sounding at Umm es-Sarab. Tomb E.6 yielded evidence of having been cut in the period, but there was no burial use in the period apparent. The second tomb found with a rolling stone sealing device had been used for burials during the period, but later robbery had severely disturbed all burial evidence. The evidence from Umm es-Sarab comprised three burials (two adults ca. 25 years old and one child under 12 years) and one commercial installation, possibly a wine vat. The total spectrum of evidence from the period supported the previous observation that Early Roman settlement in the site and its surroundings was substantial and extensive.

*Late Roman* (A.D. 135-324). On the acropolis, work in Area A recovered additional portions of the massive masonry wall with piers first found and reported in 1973 work. It suggested the major classical period structure from which later Byzantine architects culled both column drums and capitals for their basilica construction. It further suggested the classical design temple represented on the "Esbous" coin mint of Elagabalus, but further work is needed to confirm or correct these suggestions. At the south edge of the acropolis, a vault constructed as ceiling for a major cistern (D.5:5) and a soil layer immediately over bedrock comprised the new material recovered for the period.

Down the slope of the acropolis on the south, Surface D.3:45 connected with the north-south boundary wall (D.3:16) for the access route and linked up with "roadway" construction further south in D.4. Roadway/plaza surfacings were found in D.4 and B.1 this season. Partial collapse of the eastern boundary wall for such roadway/plaza surfaces was recovered in rock Tumble D.4:35-53, collapse possibly due to earthquake tremors. In B.1 what appeared to be portions of the same surfaces sealed up against the foundations

stones of the "podium" bases still in place from Early Roman times. No Late Roman burials or tombs were recovered.

*Early Byzantine (A.D. 324-491).* While some Byzantine material could not be dated precisely as to its being early or late, clearly early evidence was found in Areas A, B, and D. In a room apparently outside the north exterior wall of the basilica, previous work had indicated a mosaic floor cut by excavation for an Umayyad *tabun*. Excavation of the soil layer under a part of that mosaic indicated a fourth century *terminus post quem* for the soil layer in the form of a coin of Theodosius I (A.D. 378-395). Also related to the basilica was the ceramically dated early to middle Byzantine material in the back-fill of the foundation trench for the bottom two courses of the south exterior basilica wall (D.5:12). Additional evidence for the period comprises roadway/plaza surfaces and makeup for surfaces as recovered in B.7 and D.4. These were extended segments of such surfaces found earlier in all Squares of Area B and portions of D.3.

*Late Byzantine (A.D. 491-640).* Chief evidence for the period was recovered on the acropolis as part of the basilica and its facilities. The mosaic which lay north of the basilica exterior at the northwest corner was typical in construction, as previously reported, comprising mosaic stones set in cement layers laid over brown clay packed over small stones. Only a fringe around the room edges remained north and south of the later intrusive *tabun*. South of the basilica portions of a drain guiding water apparently from the basilica roof to Cistern D.5:5 were recovered. Part of another drain reused in the period lay in the west balk of D.1 inside the acropolis perimeter. Indications also suggested that the extended paving of the space between the south wall of the basilica and the perimeter wall defending the acropolis had been laid down in this period. Portions allowed to be removed were dated by the ceramics of latest date in the makeup layers beneath the pavers. Earlier in the period, but still Late Byzantine construction, were portions of a tile floor near the gate in the acropolis perimeter wall, paving stone floor leading up to a threshold in the south exterior wall of the basilica (said door subsequently blocked by basilica remodeling), and material in the foundation trench for the upper courses of the south exterior wall of the basilica. This evidence would appear to confirm the previous

judgment of re-design and remodeling construction based on the interior floor evidence from previous seasons' work on the basilica.

Other Byzantine material of less precisely fixed dates included some dump layers and one possible secondary burial in C.5; evidences of uses of caves as domestic or animal shelters (Area F); possible disturbance, but no burial use of Tomb E.6; earliest construction and use of a major open reservoir across the road east of the site (C.5); possible construction of some earliest wall fragments in the vaulted architecture of the Sounding C.6; and disturbance and dumping of terrace clearance debris at Umm es-Sarab (C.8).

*Umayyad (A.D. 661-750).* The major new evidence for the period was through completion of the excavation of the *tabun* north of the basilica's north exterior wall. A foundation pit 2.05 m. in diameter had been dug into the Byzantine floor and layers beneath. Within the pit a ceramic cone 1.39 m. in diameter at its base was constructed with a flagstone floor set for the firing pit. The apparent fuel/draft ~~feeders/shafts~~ was run into the *tabun* from the west, taking good advantage of the prevailing winds to force draft into the firing chamber. In addition to this installation, possible Umayyad surfaces were found in rooms later developed by Ayyūbid/Mamlūk occupants along the west perimeter of the acropolis, and two fragments of possibly Umayyad soil layers were identified in Squares C.3 and 7 on the west slope. It remains to be seen whether another season will allow more precise isolation of Umayyad occupation evidence on that portion of the site.

*Abbasid (A.D. 750-969).* No new clear stratigraphic evidence from the period was identified. It remains unclear at this writing whether additional ceramic distinctions might be concluded from the post-season analyses of 1973 or 1974 ceramic data.

*Ayyūbid/Mamlūk (A.D. 1174-1516).* As in previous seasons, extensive remains were recovered from this period from nearly every sector under excavation. On the acropolis, the extensions of Area A by complete coverage of Square 8 and the opening of the new Square 9 along the axis toward the west brought both additional features of the Islamic bath and new domestic/commercial features to light. Of the bath, the main entrance corridor, its exterior doorway, a door-



way to an interior waiting room, the plastered waiting room equipped with clothing storage slots, and the doorway into the corridor to the bathing room were all recovered, including the lintel height survival of some walls and one intact lintel construction *in situ*. In Square 9, four rooms (one with a vaulted stone ceiling still largely intact) and a long narrow passage or storage chamber were part of the domestic and possibly commercial facilities along the west perimeter of the acropolis. A circular cooking installation was recovered in the southeastern room of the facility and up to five distinguishable living surfaces were cleared in the room on the southwest corner of the Square. Similar walled rooms and courtyard enclosures from the period were excavated in Area C on the west slope in Squares 6, 7, and 8. The stratigraphic sequence included the gradually decayed destruction debris layers, several distinct occupation floors and surfaces (in one instance coin-dated to a *terminus post quem* of the late 12th century), and a rather unusually elaborate double doored sunken entrance. On the south slope of the site, new evidence included added portions of a massive robber pit formerly known in D.2 and 3 and now traced into B.7. In D.4 in addition to ground surface wall fragments used possibly as animal pens, a walled room with a vaulted stone ceiling partly exposed in 1973 was excavated, including related pits for storage, caves used for storage, walls and their foundation trenches, and one possible grave or robber pit used for secondary burial first partially exposed in D.3 in 1968. Supportive evidence of the widespread inhabitation of the site and its environs was found in the evidence of use of caves in Area F as animal or human shelters, similar use of possibly Byzantine built domestic facilities down the wadi west of the tell (Soundings in G.6, 7, and at Umm es-Sarah [G.8]), and the major re-lining and re-habilitation of the large reservoir across the road east of the tell (G.5). Reconditioning that reservoir included laying a solid layer of fist sized stones packed in cement over the finish cement of the earlier Byzantine facility, followed by a substantial layer of their own finish cement. It was not apparent from the three small sectors explored in the sounding whether major structural damage to the side walls had occurred and needed repairs. The Byzantine construction of large stone blocks built into a cement mortared stone

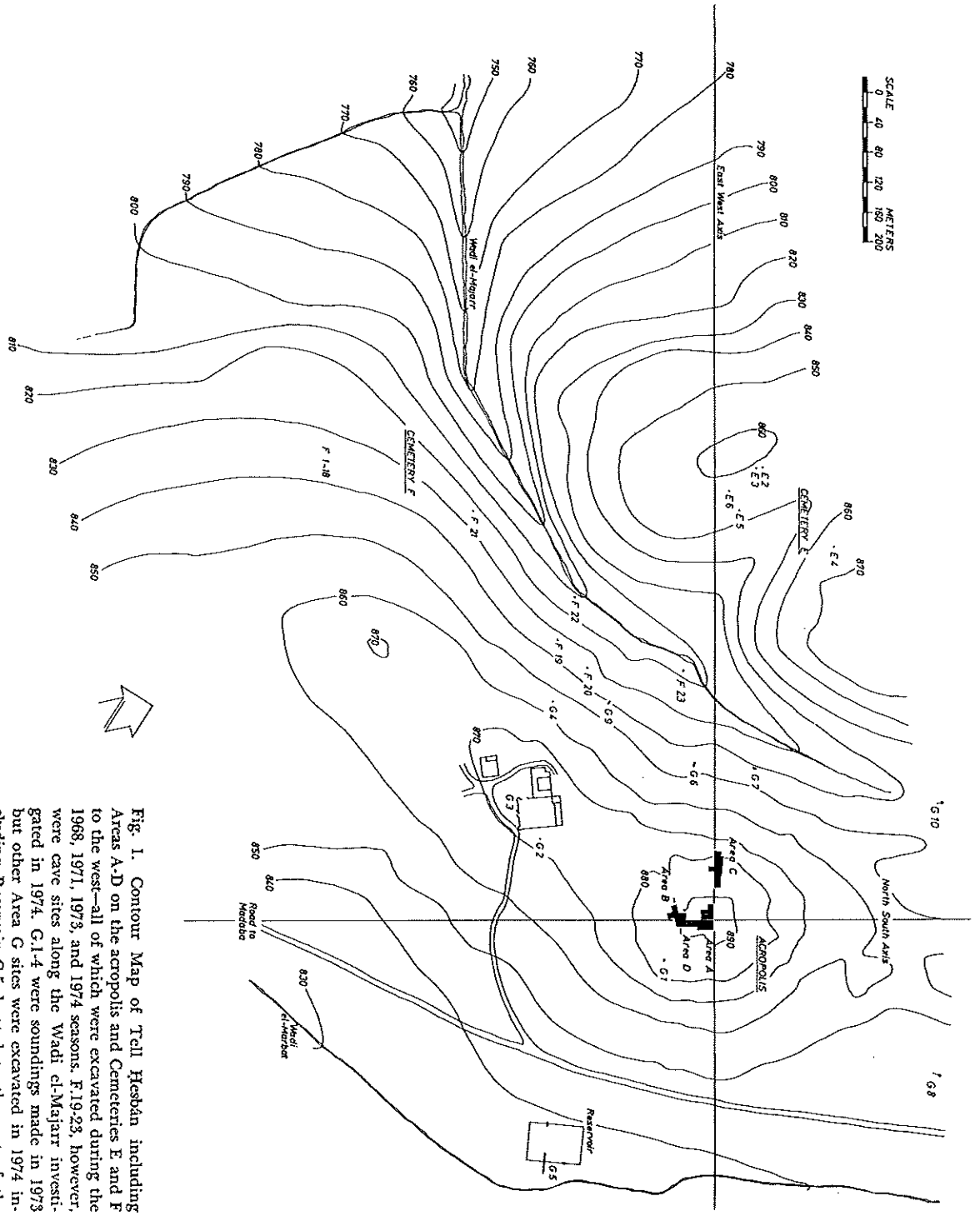
wall lining an earthen rampart as the perimeter of the reservoir was substantially reused in any case.

*Other achievements.* The survey of the 10 km. radial zone around Tell Hesbān was completed with a total of 125 sites identified within the zone. Ceramic and other indications confirm occupation from Chalcolithic times to the modern period. Post season studies will refine the preliminary indications of substantial settlement concentrations in the Early Roman, Byzantine, and Ayyūbid/Mamlūk periods, matters reflected in the volume of evidence available on the tell for those periods.

Of the caves sounded for possible pre-Roman burial evidences, not a single instance provided such data. The rumored rolling-stone tomb (G.10) was located and cleared as reported above. Its blocking stone was set in a track which was constructed only to the left of the tomb door, the right being an extrusion of the natural rock formation which was left untrimmed by the tomb-cutters.

While the results are still too preliminary to draw firm conclusions, the acquisition of seed, pollen, micro-fauna, and soil samples from three newly opened Squares (C.7, B.7, and A.9) was drawn from every soil locus identified in each Square. The intention to continue such sampling on the same scale until work in all Squares is completed should provide a diverse and representative horizon of the pertinent data as a basis of drawing comparisons both within the site sectors and across to other sites as similar studies are pursued at other locations.

In summary, the work allowed the completion of all stated aims for the season. Most disappointing was the lack of success in the location of pre-Roman burials. They continued to elude us. Recognizing the limited expectation regarding the three major architectural problems, solution of which was seen to require two seasons' work to bring firmly satisfying results, it can still rightly be anticipated that the excavations scheduled for the summer of 1976 should bring clarification to all those questions. As for the rest of the processes, we look for additional information to be derived from post-season laboratory and related studies, especially in ceramic typological refinements, zoological analyses, human skeletal analyses, and the still unfolding patterns of floral and micro-faunal studies just barely begun for the site.



**TELL HESBAN AND ITS  
WESTERN CEMETERIES**

DRAWN BY BERN DE VRIES  
JULY-AUGUST 1974

Fig. 1. Contour Map of Tell Hesban including Areas A-D on the acropolis and Cemeteries E and F to the west—all of which were excavated during the 1968, 1971, 1973, and 1974 seasons. F.19-23, however, were cave sites along the Wadi el-Majarr investigated in 1974. G.1-4 were soundings made in 1973 but other Area G sites were excavated in 1974 including Reservoir G.5 located to the east of the Madaba Road. Soundings G.6, 7, 9, on the tell's western slope, Sounding G.8 (Umm es-Sarab) about 4.5 km. north along the Madaba Road, and "Rolling Stone" Tomb G.10 just to the northwest of the tell.