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A Preliminary Museological Analysis of the Milwaukee Public Museum's Euphrates Valley Expedition Metal Collection

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**A PRELIMINARY MUSEOLOGICAL ANALYSIS OF THE
MILWAUKEE PUBLIC MUSEUM'S EUPHRATES VALLEY
EXPEDITION METAL COLLECTION**

by
Jamie Patrick Henry

A Thesis Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Master of Science
in Anthropology

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December 2015

ABSTRACT

A PRELIMINARY MUSEOLOGICAL ANALYSIS OF THE MILWAUKEE PUBLIC MUSEUM'S EUPHRATES VALLEY EXPEDITION METAL COLLECTION

by

Jamie Patrick Henry

The University of Wisconsin-Milwaukee, 2015
Under the Supervision of Professor Bettina Arnold

Destruction of ancient sites along the Euphrates River in northern Syria due to the construction of the Tabqa Dam and the formation of Lake Assad led to many international salvage expeditions, including those conducted between 1974 and 1978 by the Milwaukee Public Museum (MPM) at the site of Tell Hadidi, Syria under the direction of Dr. Rudolph Dornemann. The hundreds of thousands of artifacts collected represent the MPM's share of the excavated material but the site has never been completely published. Only two previous studies have discussed the metal artifacts recovered during excavation. McClellan (1983) provided a short paper detailing compositional analysis of eight metal artifacts. Boor (2012) focused on Area C ceramics, but provided descriptions of 80 metal artifacts, based upon existing museum catalog information. This preliminary analysis presents an updated inventory of 941 metal artifacts as well as a wealth of additional information uncovered about the Tell Hadidi excavations and the Euphrates Valley Expedition, whose publication in some form become has become critical for several reasons recently.

In 1991, with the retirement of Dr. Dornemann, the collection began a gradual decline into the obscurity often experienced by material not intended for extensive use in museum

programs or exhibits. Salvage excavations attempt to maximize collections in order to save as much as possible, but such collections present particular problems for new museum staff members who have no expertise in the geographic area from which the material was excavated. For over 35 years the collection has languished in storage while institutional memory of its significance has gradually faded. More recently, through collections management and programming, as well as graduate thesis projects, it has become a valuable resource for a new generation of museum professionals.

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Chapter 1 Introduction

Orphaned Collections

A collection can be considered orphaned when there is no longer curatorial support, the primary researchers have moved to other projects, or it has been abandoned and/or donated to a museum or repository that has no active interest in the material. These different scenarios can occur in a number of ways, including museum closures, cutbacks, retirement of faculty, premature death of excavators/collectors, abandonment by a private collectors, or as the product of salvage or compliance-oriented excavations (Voss 2012: 147).

In 2003 the Society for American Archaeology's Advisory Committee on Curation commented on the problem of orphaned archaeological collections:

The future of archaeological collections care in the U.S. is in jeopardy and requires action by professional organizations such as the SAA. A practical and financially responsible curation program should be fashioned that recognizes the long-term care of both existing and future collections generated by both compliance and research projects. At the crux of any action plan, however, must be a foundation of information upon which to make decisions. We know little about the range of collections that currently exist nationwide and the qualifications of the repositories that care for our collections (Advisory Committee on Curation 2003).

The committee goes on to discuss the call made 10 years earlier by the SAA Task Force on Curation (Advisory Committee on Curation). While this call for change is well documented in the archaeological collections literature, the problem extends beyond those archaeological collections and their repositories, and is commonplace in many different types of museums. Orphaned collections have been and continue to be a topic of great concern for museum professionals across the world. The Association of Systematic Collections and the Association of Science Museum Directors coordinated a preliminary study in 1985, to be completed in 1988. In 1987, surveys were sent to directors of museums in 1987, drawn from the membership lists of the Association of Museums and Canadian Museum Association directories and included names

of institutions sent to Robert West (the organizer). Working under a definition similar to that noted in Voss, the project outlined its scope as follows:

An endangered/orphaned collection is a substantive body of systematic material which is or soon may be no longer regarded as valued in its present ownership. This may be due to reduction of or absence of staffing or other support or negative or uninformed institutional policy decisions. The collection thus is in danger of becoming lost to the systematic research and education community. For the purposes of this study, the disciplines considered are limited to the areas of natural science (biology, geology, and paleontology) and anthropology. Adoption or acquisition of an endangered/orphaned collection is an activity independent of the normal collecting activities of the museum, university or other entity (West 1988: 65).

This study, and others, also attempted to reach private collectors. Of the 700 surveys sent out in 1988, only 36 (11%) respondents indicated that they maintained a formal listing of currently or potentially endangered collections, 92 (30%) knew of currently or potentially endangered collections, and 214 (70%) said they were unaware of endangered collections, but mentioned a need for confidentiality (West 1988: 68). A number of institutions described specific collections as in danger, but those collections were not documented. The most telling number, however, was the 196 institutions that verified that they had accepted collections or materials that were endangered or orphaned, from a few dozen artifacts to the incorporation of major collections from other institutions (West 1988: 68). West concluded by suggesting that more communication and cooperation among the organizations responsible for systematic collections is necessary and broad infusions of external funds will be required for the physical survival of important endangered collections. Collaboration between different disciplinary societies with museological and educational advocates for a clearer view of systematic collection resources is also stressed (West 1988: 74). The situation has not improved since the late 1980s, as the current study indicates.

There is in general “a basic imbalance between the generation of archaeological

collections through excavations and a corresponding lack of resources and facilities devoted to accessioning, analyzing, reporting, curating, and otherwise caring for these collections” (Voss 2012: 146).

A growth in funding and an increase in archaeological projects starting in the 1960s resulted in an incremental and corresponding increase in archaeological material, more than in the previous 100 years (Peebles 1981: 225). The increase in projects in tandem with the more sophisticated excavation techniques meant that archaeologists were not just bringing back more of the same materials, but small seeds and even smaller bones were also being recovered (ibid: 225). Computers and other new technologies have helped improve analytical techniques, allowing for more control of data, but Peebles (1981) rightly predicted the backlog of materials that would overwhelm curation facilities in the following decades, a problem that poses an ongoing and increasing challenge.

It is partly this backlog that has diminished the perceived value of orphaned, unanalyzed, and unreported collections (Voss 2012: 146), especially when time, money, and the effort involved in researching existing collections are calculated. While the investment required is significant, it can be very rewarding, as I hope to demonstrate in this thesis.

Artifact Research

Before major museum holdings can be seriously studied they must be systematically organized. This immense (and generally thankless) task involves not only the formal compilation of inventories, verification of proveniences, affixing of labels, and securing of storage locations, but also the gathering, sorting, preservation, and analysis of related archival documentation (field notes, correspondence related to donations, publications, graphic and photographic evidence, etc.) (Strauss 2004: ix).

This is the story of a rescue excavation conducted by the Milwaukee Public Museum (MPM) at the Bronze Age site of Tell Hadidi, Syria, from 1974 to 1978 and the disposition of the resulting enormous quantities of excavated material, much of which remains unpublished. This

thesis project began with a very basic goal: to work with a poorly documented collection of metal objects from Bronze Age Syria and provide contextual information for the material for future researchers. In order to do this, a qualitative comparative analysis of artifact types and forms had to be undertaken and the regional context for the Tell Hadidi metal material housed at the MPM as a part of the MPM's Euphrates Valley Expedition 1974-1978 had to be understood. As this project progressed, however, a number of collection related challenges emerged that could not be reconciled by examining the material alone. The primary source of information for the metal material (mainly bronze and iron) was the expedition cards (I will refer to them hereafter as field cards) that were produced during the excavations for artifacts (Figure 1.1).

TYPE OF OBJECT: <i>Bead fragment</i>		MATERIAL: <i>Bronze</i>
CONDITION: Reconstructed <input type="checkbox"/> Defaced <input type="checkbox"/> In- <input type="checkbox"/> Complete <input checked="" type="checkbox"/>		PERIOD:
FROM:	DIMENSIONS:	NUMBERS:
Area: <i>5</i>	Length/Diameter: <i>.5</i>	Object: <i>H74 S222</i>
Plot: <i>XII</i>	Width:	Negative:
Burial:	Height/Thickness:	Drawing:
Locus: <i>12</i>	DECORATION:	SPECIAL TREATMENT GIVEN:
Basket: <i>32</i>		
Field No.: <i>6128</i>		
Date: <i>7/7/1974</i>		
REMARKS:		
<p><i>3rd 9/26/13</i></p>		
<p>TELL HADIDI, SYRIA: 1974 Joint Milwaukee Public Museum - University of Michigan Euphrates Valley Expedition</p>		

Figure 1.1 Tell Hadidi Field Card (H74-S222)

These field cards contained original artifact assessments, measurements, and site context information. In most cases they were filled out after excavation based on small scrap paper tags that accompanied the artifact bags. Publications produced since excavations ended in 1978 have dealt little with the metal, aside from a study by Joanna McClellan (1983), which involved compositional analysis of a limited number of metal artifacts. There is also very little information

about the early planning stages of the expedition and excavations or the reception of the material at the MPM. All of these factors influenced many aspects of this project, and led me to focus both on the metal objects as well as on the production of a project history.

The first part of the thesis therefore focuses on the museological context of the Tell Hadidi metals collection. By working with the physical objects and assessing the current state of the collection, this initial phase was concerned with organization, documentation, and collection history. A complete inventory of the Tell Hadidi metal material was generated to determine the current state of the artifacts recovered by and housed within the MPM. Locating, photographing, and documenting all the material present at MPM has shed new light on an excavation, completed nearly forty years ago, that still presents many mysteries. Dr. Rudolph Dornemann, the excavation director, was still available as a source of information at the time of this writing, as was MPM Department Head of History and Anthropology Carter Lupton, who participated in the final three field seasons (1976-78). In the near future, when both are retired, their knowledge of the collection and the excavations will no longer be available to researchers. This makes documenting their insights into the material especially urgent.

The second part of my thesis research was explicitly anthropological, but was very much influenced by the first. Once the collection had been made more accessible for study, it was possible to look at individual artifact categories, in particular the context of the metal excavated in order to interpret the site (Klein 1992; Moorey 1980; Philip 1989). Completing a stylistic analysis, however, has now become a future research goal based on the condition of the collection and the discovery of an additional 500 metal artifacts that were never documented in the field cards. Additional issues with the artifacts included corrosion, destructive testing of some artifacts, and several interesting documentation issues. Destructive testing included cutting

fragments from artifacts and in some cases setting them in epoxy. Such problems are to be expected given the decades that have passed since the material was brought to the MPM. What became clear was that none of the various specialized studies over the years dealt with the site as a whole. Metal artifacts were encountered in almost every area of the site, but in such small numbers that they were not deemed useful as a major component when putting together the chronology of the site. Analyzing the spatial distribution of metal was considered more helpful for generating an overall interpretation for this thesis than any stylistic analysis of the material, at least given the current state of the documentation.

Bronze Age metal artifacts are rare in Syria, so documenting this aspect of the Tell Hadidi collection will benefit future research in this area. Utilizing published material from other Euphrates Valley sites, including Tell Halawa and Tell es-Sweyhat, as a comparison, it is now possible to place Tell Hadidi in its regional context while contributing new information on the metal industry in Syria during the Bronze Age. Recent publications on the Carchemish sector, Tishrin Dam excavations, and a synthesis of Euphrates River Valley site data are also available for comparison (Cooper 2006a; Fenollós 1999; Peltenburg 2007; Philip 2007; Squadrone 2007). Given the socio-political issues in the region today, the limited access to sites located there and their systematic destruction only adds to the importance of collections like the Tell Hadidi material at the MPM.

Contextual Challenges

Museums like the MPM often find themselves curating large collections, causing concerns over storage space, in many cases exacerbated by a lack of documentation. Leftover research collections from retired staff, old loans, mystery items, and uncatalogued material all pose unique problems for museums that have limited staff, time, and funds to properly document

collections (Mulkerin 2013: 149). And yet, many museums tend to augment collections when gaps are identified and pieces are sought to fill them. At the heart of this issue is the problem that recognizing the potential of a collection is not enough and addressing decades of neglect may be difficult. The more time passes between collection, accession, analysis, and documentation, the more information is lost and the less useful the collection becomes for research or display purposes. Major strides in the care of physical objects can be observed and easily measured because progress is seen throughout the act of preventative conservation, and even after. Documentation, on the other hand, has its own problems (Mulkerin 2013: 150).

The documentation of an object is in various ways just as important as the physical object itself. Without a paper trail of the object's history, it can easily be forgotten or become lost within museum storage. Often the paper trail is accompanied by an oral history, traditionally passed on from one staff member to another (Mulkerin 2013: 151). An organized account of object history should include source information, documentation of movement, and any research conducted relating to the object. These are all important in helping to tell the "story" of museum collections.

Databases are helping to solve this problem, but they have limits. The main one is that they are subject to human error at the data input stage. It is also worth noting that even as we do our best today to provide information that is pertinent and necessary, so did our predecessors. Given the constant changes in the museological field it is hard to predict what information will become a standard for the collections management of the future. It then becomes necessary to keep anything and everything, and sometimes this includes information that databases cannot accommodate.

Limitations aside, it is necessary to research museum collections regardless of the state of the museum documentation or database systems. Mulkerin (2013) provides a methodology for

researching museum collections that proved to be a good starting point for this Tell Hadidi project. While she was interested in individual object research, some of her steps are relevant to this project and have been summarized below (Mulkerin 2013: 160-162).

- Go to the source: By looking at old accession records, correspondence, ledger books, catalog cards, field books, and curatorial files, the researcher ensures a solid foundation to begin constructing information.
- Attempt to verify: Operate under the assumption that the source material is accurate, but still check the accuracy. Sometimes old records are good.
- Donor, purchase, collection: Start with the source of the material. The motivations and circumstances of the object being accepted into the collection are important.
- Look for previous research: Do not recreate the wheel. If someone has done the work, incorporate it because it will save time.
- Do you know what it is: Verify that the object actually is what you think it is.
- Experience and institutional memory: Are there people still affiliated with the museum that are familiar with the subject? Getting help is not a bad thing.

Going to the source, establishing a collection history, and accessing institutional memory were all major components of this project. The discovery of “lost” correspondence and expedition documentation have made it possible to provide additional context for future researchers who may not have access to any of this primary material in the future.

Tell Hadidi and the Milwaukee Public Museum

Most of the primary documentation about the Tell Hadidi expedition had not been reviewed since the 1970s, and until 2015 its location was still a mystery. In the preliminary stages of this research project existing publications appeared to provide a fairly consistent but

limited narrative of the MPM Euphrates Valley Expedition. From 1974 to 1978 the Expedition carried out excavations at the site of Tell Hadidi under the direction of Dr. Rudolph Dornemann (hereafter Dornemann) that resulted in the retrieval of hundreds of thousands of artifacts, total based on Boor (2012), of which approximately 950 have now been identified as being made of metal (bronze, iron, silver, and lead). At the end of each field season artifacts were split 50-50 between the MPM and the Syrian Antiquities Authority, and the MPM's allotment was shipped back to Milwaukee after the final field season (Boor 2012: 74). A number of theses and other publications have analyzed selected material from Tell Hadidi since the final field season, but a comprehensive report of the site history has yet to be produced (Boor 2012; Dornemann 1981, 1985a, 1985b, 1988, 1989; Miller 1985; Rosenow 2005).

For the purposes of this study, photographs, a numbering system, and division of artifacts based on object category were all required to prepare the metal collection for analysis. Initially I was interested in the pins from Hadidi and neighboring sites that had yielded some of the MPM's metal objects; a comparative analysis involving other sites in the region would have helped to provide more information on the metal artifacts recovered, which often lack contextual information. Questions extended beyond the material, however, that could not easily be answered. It was believed when excavations began that the site would be flooded by 1975, but this did not happen. Why did excavations not continue? Metal from other sites is referenced in field documentation; how and why were these additional sources discovered and what was the recovery method? Was the material purchased or acquired through exchanges? Dornemann and Carter Lupton, MPM Section Head of History and Anthropology and Tell Hadidi team member in 1976-1978, are still currently involved with the MPM, but given the absence of a comprehensive excavation and museological history, it was clear that producing a biography for

the collection would enhance its utility, altering the initial path of this project.

Developing a Collection and Excavation History

With the help of Ruth King, volunteer librarian at the MPM, I was able to uncover additional museum documentation on the expedition, briefly described below (Table 1.1). These categories and total numbers are based on the documents included in Appendix A.

Correspondence includes internal (within the MPM) and external (between the MPM and another institution). Newspaper and journal articles listed in the Appendix do not include the *Milwaukee Journal's* week-long series, *The Milwaukee Dig* written by Harry S. Pease, highlighting the expedition in 1974. This was left out because it is on public record at the Milwaukee Public Library, while this thesis focuses on material at the MPM. Grant proposals and field reports give detailed insight into the decision making process.

Table 1.1 Types of Museum Archival Documentation in MPM Archives

Type of Documentation	Total # discovered
Correspondence	91
Newspaper/Journal Articles	11
Grant Proposals/Field Reports	20

This project would not have been possible without access to the physical copies of the correspondence, newspaper clippings, and other documentation related to the MPM's Euphrates Valley Expedition 1974-1978. The following section presents a chronological narrative of the expedition and provides a context for future researchers working with the Tell Hadidi collection. This "new" museum documentation proved to be important in the analysis of the objects in the collection as well. It allowed a framework to be established including the circumstances

surrounding the expedition's beginnings as well as the sequence of events following the last field season. Providing an institutional context for a poorly documented collection is essential for enhancing the research and exhibition potential of such collections. Appendix A provides an inventory of the material referenced. It lists not only the original physical documents that are located in the museum archive, but also the digitized version that can be requested from the MPM.

Tell Hadidi and the Euphrates River Valley

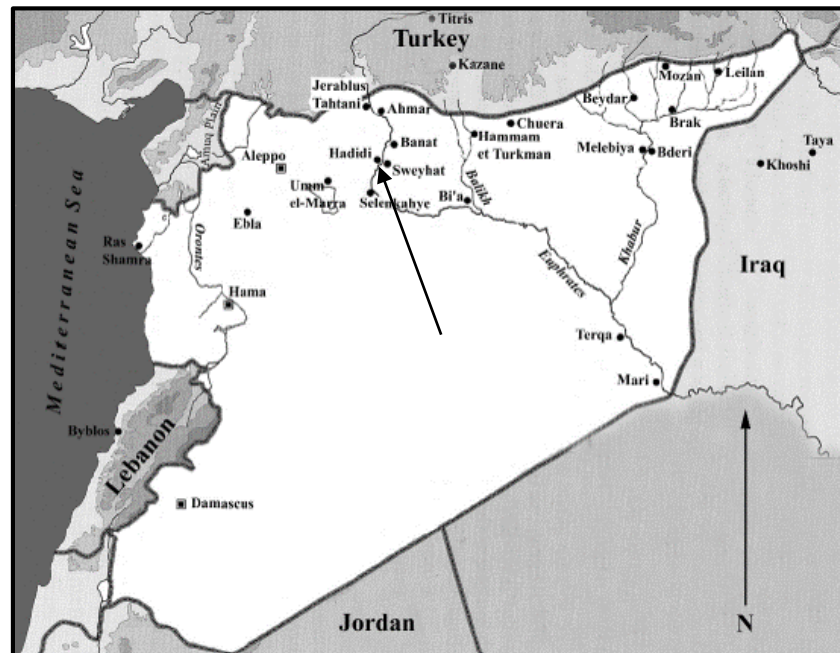


Figure 1.2 Map of Syria (after Boor 2012: Figure 1.2)

Syria is part of the Levant, a somewhat ambiguous term that generally refers to the eastern Mediterranean, first defined in the 16th century (Killebrew and Steiner 2014: 2). The *Oxford Handbook of the Archaeology of the Levant* describes it as the “western region of the fertile crescent, an area south of the Taurus Mountains, bordered by the Mediterranean Sea on the west, and the north Arabian Desert and Mesopotamia to the east” (Killebrew and Steiner 2014: 2). This vast area includes the modern countries of Syria, Lebanon, Israel, Jordan, and Cyprus.

The northern Levant is made up of the western part of Syria as well as Lebanon (Cooper 2014: 278). Tell Hadidi is located in the Upper Euphrates River Valley (Figure 1.2). This area was the focus of almost constant excavation from the 1960s until the early 2000s due to dam construction in both northern Syria and southern Turkey (Peltenburg 2007: 3).

The Tabqa Dam construction project starting in the 1960s was the catalyst for numerous salvage excavations in the area, including the initial excavations at Tell es-Sweyhat and excavations at Tell Hadidi (Dornemann 1979; Wilkinson 2004). Subsequent construction at the Tishrin (also Tishreen) Dam, Carchemish Dam, and Birecik Dam in the past thirty years resulted in numerous additional salvage excavations (Peltenburg 2007: 3-5) (Figure 1.3).



Figure 1.3 Map showing Birecik, Carchemish, Tabqa, and Tishrin Dams Created by Jamie P. Henry (Google Earth 11/30/2015)

These excavations have generated many different narratives, blurring the ecological coherence and contrasts within the Middle Euphrates Valley (Peltenburg 2007: 3; Wilkinson 2007: 28). Several recent publications have made it possible to reconcile the existing data and provide a way to contextualize the sites located within the Upper Euphrates Valley, including Tell Hadidi

(Boor 2012; Cooper 2006a; Fenollós 1999; Lawrence and Wilkinson 2015; Peltenburg 2007; Philip 2007; Rosenow 2005; Stork 2014; Squadrone 2007).

Museum Narrative – A Salvaged Collection

Table 1.2 Excavation Years and Areas Excavated at Tell Hadidi (after Boor 2012: Table 2.2)

Excavation Year	Beginning and End Date of Excavations	Areas Excavated
1974	April -July 1974	A, B, C, D, E, F, G, H
1975	May – July 1975	B, C, J, K, L
1976	May – July 1975	B, C, G, H, L, M, O, P (Also Soundings at El Qatar)
1977	May – July 1975	B, H, N, Q, R
1978	May – July 1975	B, H, R, S, T, U

Tell Hadidi is located in northern Syria, south of Carchemish, along the Euphrates River in an area known as the “big bend” (Boor 2013; Dornemann 1988, 1985a, 1985b, 1981, 1989; Rosenow 2005). The area south of Carchemish has had a mixed settlement history. Areas around the river banks were extremely fertile in prehistory, and settlement there was extensive. Multi-period tells, particularly the major city of Carchemish, demonstrate the early importance of the region, and intensive Roman settlement even in marginal areas testifies to the density of occupation (Cunliffe 2013: 34). After the Roman period, however, the area largely passed out of history, and while numerous small Islamic sites were recorded in the survey, the area does not appear to have had comparable population and cultivation peaks until it came under Ottoman control in the 16th and 19th centuries (Cunliffe 2013: 34-35). The building of new dams along the Euphrates has resulted in a renewed focus on the region, as well as obliterating large parts of the ancient flood plain. For the first time in almost 2,000 years, cultivation is extending again into marginal areas (Cunliffe 2013; Peltenburg 2007).

Dornemann was hired by the MPM in August 1972 to fill the vacant position of Curator V, making him the head of the MPM History Department. This position had previously belonged

to Eldon Wolff, who retired in 1969 (Appendix A16: 1). Dornemann had just received his Ph.D. from the University of Chicago for a dissertation entitled *The Cultural and Archaeological History of the Transjordan in the Bronze and Iron Ages*. Correspondence between Dornemann and Kenneth Starr (hereafter Starr), the MPM Director from 1965 to 1987, in 1971 would document how Dornemann was hired as the new head of the History Department (Appendices: A4, A6, A7, A8, A9, A11, A13, A15). A news release dated August 11, 1972 announced Dornemann's appointment and detailed his many academic exploits, including his work as a conservation assistant from 1962 to 1965 at the Oriental Institute Museum at the University of Chicago, archaeological field work in the Near East from 1963 to 1970 at many different sites, especially in the Euphrates River Valley, and between 1970 and 1971 a position as field director of the joint ASOR-Jordan University excavation and the Amman Citadel in Jordan (Appendix: A16; 1-2). In a letter dated October 5, 1972, Dornemann sent a copy of proposed excavation project at Tell Hadidi to Starr in which he recounted a preliminary trip to Syria in November 1972 (Appendix: A19).

The documentation includes a letter to the National Endowment for the Humanities requesting information on funding. Dornemann explained why the MPM was interested in such a project: "The museum which I will represent has a twofold interest in sponsoring such a project: first, to become more active in research, and second, to develop a collection in an area in which we currently are extremely limited both for purposes of study and display" (Appendix A18: 2). Starr was attempting to professionalize the MPM at the time, which meant hiring staff with Ph.D.'s who were engaged in active research (Carter Lupton, personal communication 2015).

The University of Michigan (UM) was the major institutional partner of the MPM for this project for the first few years, as is indicated in the same letter. As Dornemann noted: "At this

point the University of Michigan, both in its Department of Near Eastern Languages and its Kelsey Museum, has been active in research and publication in the field of ancient Near Eastern Studies” (Appendix A18: 1). It is unclear from the documentation when this partnership ended, but based on discussions with Dornemann it was sometime after the first field season. I contacted the Bentley Historical Library at the University of Michigan for anything that might have been left behind by George Mendenhall, but turned up no additional material.

The NEH grant proposal described the goals of the project as follows: “Salvage of archaeological artifacts... legal additions to the museum’s collection... training for future field archaeologists and locals... adding to the chapter of history in the area... historical process that led to the destruction and regeneration of civilization in the area... and, finally, getting to know modern ways of life in Syria at the time” (Appendix A23: 2-4). The original project was proposed, and presumably funded, under the assumption that the site of Hadidi would be completely flooded by 1975, which ultimately turned out not to be the case (Appendix A23: 2).

The budget was set, a team was decided on and Dornemann had made arrangements to work with some other expeditions in the area, most importantly the University of Leiden team, which had begun work at Tell Hadidi in 1973 (Appendix: A29). Dornemann had written to Dr. Behniai, the Directorate General of Antiquities and Museums in Syria at the time, requesting a permit to excavate; this is referenced in a letter from Van der Leeuw in January 1973 (Appendix A24: 3). However, in March 1973, a rejection from the NEH was received and the entire project was stopped dead in its tracks for a short time. Dornemann and Starr turned their attention from federal funding to local funding and reached out to the MPM’s Friends of the Museum for support (Appendix: A27). There was no reason given for the NEH rejection, other than a general lack of funds to go around (Appendix: A27). The total required is indicated in a Starr document:

“Our need is for a total of \$35,000 (tax deductible) for all costs of transportation, personnel and equipment” (Starr in Appendix: A27).

Both Dornemann and Starr still hoped that the expedition could begin in 1973, but while the Friends of the Museum raised the money relatively quickly, it was not until 1974 that the expedition actually began (Appendix: A40). George Mendenhall, the assistant director of the site and a professor of Near Eastern Languages at the UM, had visited Hadidi in 1973, but Dornemann stayed in Milwaukee attempting to raise funds (Appendix: A33; A39). After meeting with the Dutch crew at Hadidi, Mendenhall reported back in May 1973 that Hadidi was “interesting but not so far spectacular” (Appendix A33; A39).

In June 1973, Jean Lindemann, an officer of the Friends of the Museum, set to work and was able to secure donations of \$10,000 from two sources: \$5000 from the Journal Company and \$5000 from the Walter and Olive Stiemke Foundation (Appendix: A36). By November 1973 over half the money needed had been raised and it became clear that the expedition would take place. As part of the gift from the Journal Company, it was arranged that Harry Pease, a writer for *The Journal*, would travel to Syria once the excavations had started to write a special series beginning in August 1974 (Appendix: A37; A57:1).

Meanwhile, Dornemann was busy with book reviews, giving lectures for the Archaeological Institute of America (AIA) chapter in Milwaukee, and dealing with day to day business in the History Department at MPM (Appendix: A34; A38). In early 1974 he asked for official authorization of the joint MPM-UM expedition, setting the excavation dates between May 6 and July 26, 1974 (Appendix A40). There would be roughly 16 members of the excavation staff from the United States, while other staff would be local “laborers” (Appendix: A40). Bruce R. McCallum was invited to come and photograph the site and he requested the

services of Robert Ross of the University of Wisconsin-Milwaukee's (UWM) Department of Classics (Appendix: A42; A43). In March 1974 Dornemann sent out an informational pamphlet to the team detailing all of the logistics and information regarding lodging. Especially interesting was his personal itinerary. He left the US prior to the rest of the team in April and flew into Damascus. He then took a taxi to Aleppo, purchased equipment, drove to Beirut, Lebanon, to pick up vehicles, and traveled back to Syria to meet up with the rest of the crew. Of note is the fact that around this time in Lebanon a civil war was just beginning (Appendix: A44).

The first season proved to be very productive. Five other expeditions in the area provided access to additional sites to visit and other archaeologists with which to mingle. The team followed the Dutch excavations at Tell Hadidi by adopting the existing surveying strategy, utilizing area designations such as A, B, C, and D. Area D was home to a "Twice robbed tomb. It was extremely interesting however because of its size and has no parallels so far in the Near East" (Appendix: A48; A50). Dornemann's initial report was met with excitement back home and a letter from Starr gave him some advice for the coming field seasons (Appendix: A49):

Your work seems to be going along quite well, for which fact I am very happy. Being a would-be scholar myself I am very understanding of the fact that scientific and scholarly objectives are primary, as indeed they should be. I ask, however, that either you or someone on your staff also consider the benefits to be derived from approaches that will have a broader and more popular appeal. You surely will be asked to share your experiences with the sponsors, the trustees and FOM directors, and the broad community, and in such situations you will have need of at least a few exotic specimens and a wide range of photographs that will tell an interesting story (Appendix: A49).

The benefits alluded to were presumably more funding opportunities in the form of community support for ongoing research. The letter also referenced other MPM departments and their efforts to gain support from donors and the community to help with their ongoing projects. Funding was a constant issue, and ultimately played a role in the MPM's decision to not continue excavations at Tell Hadidi.

After the initial hiccups of the first field season, it appears things became fairly routine during the rest of the project. Dornemann submitted semi-annual reports while in the field. He returned each August to resume his work at the MPM, spending his time preparing preliminary reports on the project, producing additional grant proposals for future funding, and presenting material in lectures (Appendix: A54, A61, A64, A65, A69, A70, A71, A 73, A74, A77, A78). He also found time to become the President of the Milwaukee Chapter of the AIA in 1975 (Appendix A56).

The 1976 excavations picked up where the previous seasons had left off and produced one of the most important finds of the excavations, cuneiform tablets in Area H that refer to the site by name, Azu, a city also mentioned in the royal libraries discovered at Ebla in 1974 (Dornemann 1978: 21; Pettinato 1981: 223; Appendix: A97).

Upon Dornemann's return at the end of the 1976 season the museum switched from city to county management. This changed the governance structure and funding of the MPM (Appendix: A90). This was also the year that Dornemann hired Carter Lupton to provide mapping support at the site of Hadidi (Carter Lupton, personal communication 2015). Lupton had recently completed his Masters at the University of Wisconsin-Milwaukee and he continued to work on the project until it ended in 1978. In 1980 his initial position, funded by the Comprehensive Employment and Training Act (CETA) through 1979, was abolished, but he was hired by the Anthropology department in 1980, which took him away from all Hadidi work and collections. After the resignation and retirements of first Dornemann, and then Dr. Nancy Laurie, head of the MPM Anthropology Department, in the early 1990s, Lupton became section head of both History and Anthropology Departments at the MPM, a post he still holds (Carter Lupton, personal communication 2015).

In 1976 Starr sent a letter to Dornemann in Syria asking him to “make sure to get a fair share of the artifact division” (Appendix: A87). At the same time there appears to have been an increase in MPM administrative duties for Dornemann. This included “making sure the corridors were clear” due to county regulations (Appendix: A89).

Between 1977 and 1978 there is little to note about the excavations, which came to an end in August 1978. At this point it was clear that Hadidi would not be completely submerged by Lake Assad. Dornemann decided to not continue excavations, however, and no other excavations have been conducted at the site since (Dornemann, pers. comm. 2015).

In 1978 Dornemann requested that the MPM attempt to gain corporate membership in the American School of Oriental Research (ASOR), which was approved, presumably by the Board of Trustees. This was followed by his publication in the annual ASOR journal of an article entitled “Tell Hadidi: A Millennium of Bronze Age City Occupation” (Manuscript in Appendix: A102; A103; A104; A109).

In 1979, after the decision had been made to terminate excavations, an NEH grant was procured to begin work on the final publication of the site. Here is a summary by Dornemann from the grant proposal:

In our five seasons of excavation, we worked in 20 areas designated on the site map. Less than .5% of the total surface area of the site was excavated. The area of the site totals about 15 dunam (a dunam is roughly 900sq meters) for the high tell and 25 dunam for the low tell ... Concluding our remarks on the field work, we must say that Tell Hadidi is an important site and much more work can still be done there. It would seem, however, that considerable effort and expense would be required and that most of this effort would duplicate information we now have. We feel sure that we have obtained the sequence of occupation at Hadidi and additional excavation would be repetitious (Appendix A112; 2-7).

It is at this point that MPM documentation stops mentioning Tell Hadidi for nearly five years. By 1981 there is no mention of publications or the excavations. It appears that more

pressing local issues took precedence (Appendix: A113; A115; A116; A117; A118; A119). Also during this time a joint exhibition was being produced by the Milwaukee Public Museum and the University of Wisconsin-Madison titled “Sign, Symbol, Script.” This was a special exhibit providing information on the “The History of Writing,” and apparently took up a good deal of Dornemann’s time. The museum’s painting collection was also inspected by the Art Institute of Chicago around this time, a project that was supervised by Dornemann (Appendix: A116; A118).

Another major project included obtaining a grant for the Costume and Textile collection, which required hiring a cataloger to complete the inventory and housing of the collection in storage, and to prepare parts of the collection for a quilt exhibit in 1985 (Appendix: A119).

In a letter dated January 13, 1985, Dornemann also appears to have been dealing with “a lack of scheduling for contractors who have work to do in our storage areas. I have complained about lack of supervision and lack of proper notice for ages, but we are given little or no consideration” (Appendix: A120).

There is no mention of Hadidi until 1985, when Dornemann applied for and received an NEH grant of \$50,000 to complete publication of Tell Hadidi. The money was spent on outside researchers working with the collection, allowing him to take a leave of absence from his duties to focus on the report. An electronic database of the material was also created, but was unfortunately lost during a system overhaul in the 1990s (Appendix: A122; Dornemann pers. comm. 2014).

The proposed final publication was to be a six-volume set detailing the occupation of the site from the early Bronze Age until the Roman and Islamic periods. Reports on animal, human and floral remains, as well as shell, flint, metal, and other miscellaneous artifacts were proposed (Appendix: A122). The only report actually completed was on flintknapping, by Robert Miller in

May 1985, entitled *Flintknapping and Arrowhead Manufacture at Tell Hadidi, Syria* Copies are still available for sale in the Museum Marketplace at the MPM (Miller 1985).

After the late 1980s there is little information about Tell Hadidi in the MPM records. Immediately after the collection was shipped to Milwaukee Dornemann worked with other departments in the MPM as the collection moved into its “curation, display, and publication mode, which is ongoing” (Dornemann pers. comm. 2015). This included work with the conservation department, the reconstruction of pots by students and education staff members, artifacts being used in exhibits, the writing of a series of preliminary reports and giving papers at national and international conferences. This was all done to keep “Hadidi visible to scholars to work on specific aspects of the collection” (Dornemann pers. comm. 2015). The final publication outlined in the 1985 NEH grant did not survive the elimination of the Museum’s Publication Department (Dornemann pers. comm. 2015). In 1991 Dornemann retired and moved on to other academic endeavors as the head of the American School for Oriental Research in Baltimore and later Boston. He returned to the Milwaukee area in the mid-2000s and continued working on the collection, but ultimately moved to Florida with his wife in 2015. Hadidi artifacts were utilized for two long term MPM exhibits: the first, *Temples, Tells and Tombs*, was opened in 1991, shortly after Dornemann’s move to Baltimore; more recently, *Crossroads of Civilization*, which opened in March 2015, included some material from the site.

Results of the Expedition

The excavations at Tell Hadidi resulted in hundreds of thousands of artifacts being collected and returned to the MPM in the course of five field seasons (Boor 2012; Rosenow 2005). Approximately 950 of these artifacts are made of metal, not all of which are from Tell Hadidi. Twelve additional sites are mentioned by name in the MPM records as being visited by

the team during excavations and metal artifacts were acquired from these locations also (pp. 60-61 of this thesis).

The nearby site of Tell Halawa was excavated by Winfried Orthmann from 1977 until 1986 and yielded a number of metal finds that were published by Novak and Egold (Egold 1994: 245; Meyer et al. 1994; Novak 1994: 237). Halawa was looted extensively prior to excavation and approximately seventy metal artifacts were recovered by the Euphrates Valley Expedition during the excavations there (Appendix: A32; Dornemann pers. communication). Halawa is on the eastern bank of the Euphrates River roughly 25km away from Tell Hadidi (Figure 1.4).



Figure 1.4 Map of Tabqa Dam Region Created by Jamie P. Henry (Google Earth 11/30/2015)

Tell es-Sweyhat, directly across the Euphrates from Hadidi, was extensively excavated by the Ashmolean Museum, resulting in a two volume excavation report published by the Oriental Institute in Chicago. The first volume, edited by T.J. Wilkinson (2004), discusses settlement and land use at es-Sweyhat and the surrounding survey area as well the regional context in which the site is found. The second volume, edited by Thomas A. Holland (2006), is concerned with the

excavation of the inner town, the defensive rampart, but most importantly the “small finds”, which includes metal artifacts. Adding Hadidi to the list of published metal material from this area will provide an additional source of information on regional metalworking traditions, highlighting the relationship between Hadidi, es-Sweyhat and Halawa in the Early Bronze Age. This could lead to a better understanding of interactions along this part of the Euphrates River and more broadly in the Tabqa region as a whole, which includes all sites that were impacted by the construction of the Tabqa Dam and the formation of Lake Assad.

Research Questions

The following research questions were eventually generated after several initial attempts:

1. What is the cultural and temporal context of the metal material recovered from the Tell Hadidi expedition?
2. What potential does this collection have for the Milwaukee Public Museum? Will contextualizing the metal material add value to its use in display, research and teaching?
3. How does the metal material from Tell Hadidi compare to contemporary sites in terms of presence and absence of object types/categories and what might this tell us about its regional role?
4. Can the number, type and distribution data of the metal artifacts at Tell Hadidi provide insights into the site itself, even given the fact that less than .5% of the site was excavated?

Thesis Overview

The following chapters will address the questions to the extent possible given the current state of the documentation. Chapter 2 outlines the Syrian Bronze Age with particular focus on metalworking in the region and the Near East in general. Chapter 3 describes the parameters of

this project, detailing the collections work, archival research, and various pitfalls of working with museum collections of this type. An introduction to the types of artifacts discovered in the collection is also provided, as well as an overview of the many intricacies of working with the Tell Hadidi and the Euphrates Valley Expedition collections. Chapter 4 offers an analysis of the data and introduces Tell Hadidi spatially through maps and photographs. Chapter 5 revisits the research questions and suggests possible future research directions.

Chapter 2 Literature Review and Site History

Metalworking in the Near East and Upper Euphrates

Metalworking in the Near East began almost 10,000 years ago and initially involved native copper, eventually developing into a full blown bronze-working industry. Copper, tin, bronze, gold, silver, electrum, lead, iron, arsenical bronze, and brass have all been documented in the ancient Near East (Muhly 1995: 1502). All of these metals were mined in some fashion, though early evidence is limited. Various technological developments resulted in an increased role for metal in social and cultural contexts over time (Efe and Fidan 2006: 15). Syria has few metal-bearing deposits and even fewer reserves of copper, arsenic, or tin (Fenollós 1999: 444). Even with this lack of natural resources, metal-working became a major industry in Syria beginning in the Bronze Age, as has been documented in the Upper Euphrates region in the vicinity of Tell Hadidi (Cooper 2006a; McClellan 1983; Stork 2014).

Bronze working is one of the rarest material production activities attested archaeologically, partly due to the fact that in early societies, ore preparation sites and metal workshops are typically found by chance and partly due to the discontinuous distribution of copper and tin sources. Metal often has a longer social lifespan when compared to other, more fragile material types such as pottery. Bronze was often reused (Efe and Fidan 2006: 15), so there is less of it in the archaeological record than more disposable material such as pottery.

Most of our material derives from archaeological contexts such as tomb groups or domestic schemes. Such contexts are generally dated on the grounds of ceramic typology, which changes gradually, at different paces in different regions, and is related to absolute chronology in a general way only (Philip 1989: 3).

This section will present information about Bronze Age Syria and other contemporary regions of the ancient Near East, but the main focus will be on the Upper Euphrates Valley. This decision was made because this particular area of northern Syria and southern Turkey has its own

regional variations and developmental trajectory. Additionally, because the main sample collection is comprised of metal almost exclusively from this region, the framework of analysis must reflect that. Archaeological research has been focused on the Euphrates River Valley for a very long time (Stork 2014: 321), mainly due to the construction of dams in northern Syria and southern Turkey, starting with the Tabqa Dam in the 1960s, and continuing today with investigations at Tishrin Dam, Biereck Dam, Carchemish Dam, and various sites in the surrounding area (Akkermans and Schwartz 2003: 163; Cooper 2006a; Fenollós 1999; Peltenburg 2007: 3). While a synthetic review remains to be written, there has been a reassessment of what was known about the archaeology in this region in the last decade (Cooper 2006a; Lawrence and Wilkinson 2015; Peltenburg 2007; Philip 2007; Stork 2014; Squadrone 2007). By illuminating the history of metallurgy specific to this region, the metal artifacts from Tell Hadidi can generate productive new research questions.

Metal was adopted early in Syria. Between 7000 and 6000 BCE, copper was being used for small personal ornaments. Tell Ramad in southwestern Syria and Sabi Abyad both have produced examples of small copper items used for adornment. Sabi Abyad was especially metal rich, producing and consuming artifacts such as rings, pins and small pendants (Akkermans and Schwartz 2003: 133). This was done with limited metal-working technology and with very rudimentary smelting or annealing techniques. Metal was not a vital resource at this time, and was probably not valued as a prestige commodity (ibid: 133). In the fifth and fourth millennia BCE copper was still not widely used. Small fragments of copper tools or possibly ornaments were found at Kurdu in western Syria. The Amanus or Taurus mountain ranges were the most likely source of the copper (ibid: 169). This would change in the late Chalcolithic as influence from Mesopotamian colonies jumpstarted a metalworking complex that would be long lasting in

Syria, especially in the Upper Euphrates Valley (Stork 2014: 321).

The discovery and evolution of metallurgy was a key component of the development of societies in the ancient Near East. These new technologies had a major impact on commercial and exchange activities, reaching new highs at the beginning of the third millennium BCE in Syria (Fenollós 1999: 443). The appearance of metallurgy is linked to a number of phenomena that took place at this time, including the emergence of the first urban societies, craft specialization, the expansion of trade, improvement in agricultural practices, and the production of weaponry (Fenollós 1999: 443). These processes began in the mid-late fourth millennium BCE and continued well into the later Bronze Age.

Syrian Chronology

Syria is located on the Mediterranean Sea and shares borders with modern day Turkey, Lebanon, Jordan, Israel, and Iraq (Figure 2.1).

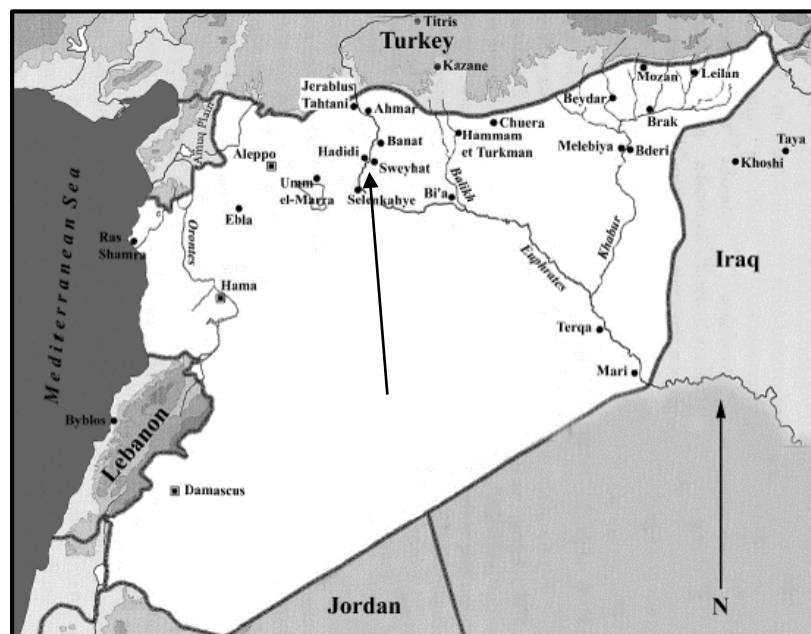


Figure 2.1 Map of Syria (after Boor 2012: Figure 1.2)

This group of modern day countries is referred to in antiquity as the Levant and Mesopotamia,

with Syria including a large portion of the northern Levant connected with southern Turkey and Lebanon (Suriano 2014: 9). Syria's proximity to Mesopotamia would have had an ongoing impact on the people in the area (Akkermans and Schwartz 2003). Tell Hadidi's location in northern Syria resulted in observable similarities in the material culture recovered from the site with contemporary locations in Anatolia. Syria has a long occupational history that stretches back to the end of the last Ice Age, around 16,000 BCE (Akkermans and Schwartz 2003: 154) (Table 2.1).

Table 2.1: General Syrian Chronology (after Wilkinson 2004: Table 6.1)

<i>Date (approx.)</i>	<i>Cultural period</i>
<i>5600-5000 BCE</i>	Halaf
<i>5000-4200 BCE</i>	Ubaid
<i>4200-3400 BCE</i>	Late Chalcolithic
<i>3400-3000 BCE</i>	Uruk
<i>3000-2600 BCE</i>	Early-Early Bronze Age
<i>2600-2300 BCE</i>	Mid-Early Bronze Age
<i>2300-2000 BCE</i>	Late-Early Bronze Age
<i>2000-1600 BCE</i>	Middle Bronze Age
<i>1600-1200 BCE</i>	Late Bronze Age
<i>1200-330 BCE</i>	Iron Age
<i>330-50 BCE</i>	Hellenistic
<i>50 BCE – CE 350</i>	Roman
<i>CE 350-650</i>	Early Byzantine
<i>CE 650-1000</i>	Early Islamic
<i>CE 1000-1300</i>	Middle Islamic
<i>After CE 1300</i>	Late Islamic

For the purposes of this study, however, the chronology will begin in the early Chalcolithic (4200BCE-3400BCE), when copper and bronze metalworking was first introduced. To familiarize the reader with time periods immediately prior to urbanization in Syria, and to help focus on the processes by which the use of metal increased during the Bronze Age, the emphasis is on this early metal using period. While Tell Hadidi has a long occupational history,

its peak was during the Bronze Age. The time frame of this study therefore ends with the introduction of iron in the region around 1200 BCE (Akkermans and Schwartz 2003: 360).

Neolithic to Chalcolithic Transition

Sizable settlement mounds scattered over the landscape are seen in small number throughout the Neolithic (Akkermans 2014: 144). Sites were abandoned, never built to last forever, but they often had monumental visibility, long sequences, complex histories, and permanency of settlement, inhabited by small groups for both short and long time spans (Akkermans 2014: 144).

By the late sixth millennium BCE the Halaf cultural complex dominated much of Syria. The type-site of Tell Halaf on the Syrian-Turkish border produced characteristic painted pottery that is the hallmark of this cultural complex. Lasting from the early to the late sixth millennium BCE, Halaf has been interpreted as a long, continuous process of change that spread from southern Turkey into Syria and possibly even further into Iran (Akkermans and Schwartz 2003: 115).

Halaf material culture is displaced by the appearance of Ubaid material culture that spread from the southern part of Iraq to Syria at the end of the sixth millennium BCE (Akkermans and Schwartz 2003: 154). The shift from Halaf to Ubaid is seen in material culture as well as settlement patterns and structures (ibid: 154). Tholoi, circular living structures made of stone and mud brick, are replaced by rectangular multi-room buildings. This has been interpreted as an indication of the adoption of a sedentary life-style in some locations (ibid: 154). Ubaid buildings vary in size from one room style to irregular sized multi-room buildings. There is also evidence of a type of well-planned tripartite house with a large central hall flanked by smaller rooms that seems to originate in Iraq, but the only example in Syria is at Tell Ziyadeh (ibid: 161).

These new settlements were generally not in close proximity to one another, but there are some examples of large sites associated with smaller ones (ibid: 160). Common artifacts across Syria indicate that there is some uniformity in the tasks of daily life. Stone hoes, adzes for clearing and tilling, and flint sickles for harvesting are commonly found (ibid: 168). Pottery vessels are used in large numbers, with bowls, pots, and jars involved in all types of domestic tasks. Patterns that were commonly observed during the excavation of different Chalcolithic sites include primary burials inside or in the immediate vicinity of dwellings, generally characterized by artifacts being buried with individuals in the tradition of “jar burials” (Artin 2014: 214). The Ubaid/Halaf transition was not one of conquest or war, but exhibited continuous change from one material culture assemblage to the next. Along the Euphrates River the settlement pattern remained the same, with settlements found mainly as a result of survey and salvage excavations in the Tabqa and Tishrin regions (Akkermans and Schwartz 2003: 163).

Evidence for Metal during the Early Chalcolithic

In general there is limited information regarding metal use at this stage due to a lack of data. In northern Iraq, however, we see a range of artifacts made from copper including pins, rings, and axe blades (Akkermans and Schwartz 2003: 169). Copper slag found near furnaces is also observed in Anatolia in the late Ubaid levels at Degirmentepe (Ibid: 169).

Later Chalcolithic into the Uruk Phase

This particular phase has been characterized as the beginning of urbanism in northern Mesopotamia possibly influencing the first period of urbanism in northern Syria as well; the second period of urbanism in Northern Syria begins in the middle of the Early Bronze Age (2600-2000 BCE) (Lawrence and Wilkinson 2015: 329). The late Chalcolithic is limited by an unrefined chronological sequence, but is no less important. During this phase small-scale centers

emerged, no larger than 10-20 hectares, along with some evidence of craft specialization, monumental architecture and long-distance trade (ibid: 329). This is observed across the Levant, and in Syria at the sites of Tell Brak, Tell Leilan, Hamoukar, Hawa, Tell Mazon, Tell Hamman et-Turkman, and Carchemish (ibid: 332).

The end of the fifth millennium and the beginning of the fourth was characterized by a post-Ubaid transitional period in Syria. These post-Ubaid sites are identified by ceramic assemblages that exhibit a significant reduction in the amount of painted pottery (Akkermans and Schwartz 2003: 184). Plain vessels dominate in what has been interpreted as a shift toward mass production with a choice of vegetal temper instead of mineral temper, probably because the former requires less fuel in firing (ibid: 184-185). Evidence for this period is scarce; Tell Brak and Tell Hamoukar are the primary sources of information (ibid: 190). Syrian Canaanite flint blades are also observed during this phase, most notably at Tell Brak (ibid: 185).

By the middle of the fourth century BCE there is evidence of Mesopotamian-style material culture across the Syrian landscape. Cylinder seals and new pottery styles are indicators of this influence (Akkermans and Schwartz 2003: 181, 183, 184). A number of sites have produced evidence for a lengthy occupation reflecting Uruk influence on the region. It is during this period that we see a strong foundation set for the emergence of urban society.

During this phase we see several sites that appear to have their beginnings in the Uruk phase, including Habuba Kabira South (Tell Qannas), Tell el-Hajj, Mureybet, and Sheikh Hassan. Sheikh Hassan specifically has a lengthy occupation history that has been dated to the middle of the Uruk period (Akkermans and Schwartz 2003: 196).

Eventually there is a collapse and it takes nearly a millennium for another urban period to emerge in Syria, which happens in the Early Bronze Age (ibid: 211). Following the collapse,

there was a period of ruralization, with the appearance of dispersed small centers. In western Syria there are a limited number of sites that have produced evidence for this period. These small sites were non-literate communities with little to no evidence of large-scale public architecture or social stratification. One thing to note, however, is that there is evidence for a metallurgical industry and some other indicators of economic specialization (ibid: 226). Sites like Ebla and Halawa have produced examples of large palaces (Ebla) and temples (Halawa) dating to the end of the fourth century BCE and into the third (ibid: 228). This marks the beginning of the Early Bronze Age.

Evidence for Metal during the Fourth Millennium BCE

With the appearance of these centers and the evidence for the re-establishment of long distance trade, it is very possible that more refined metallurgical techniques found their way into Syria during this phase, and there is documented evidence of sophisticated metal-working from the surrounding areas (Philip 2007: 188). Looking to the south at the cave site of Nahal Mishamar in Palestine, a hoard comprised of ivory and manufactured copper mace heads can be safely dated to the beginning of the fourth millennium BCE (Burton and Levy 2001: 1233). The copper mace heads are made of a distinctive copper-arsenic-antimony ternary alloy, likely sourced from ore deposits in eastern Anatolia. At the site of Tell esh-Shuna in Jordan in the fourth millennium BCE similar metal has been found (Philip 2007: 188). Overall, however, the picture is unclear regarding the rarity of metals in the archaeological record from this time period. Part of the reason for this is that bronze had not yet begun to play a significant role in mortuary contexts. During the third millennium BCE, when metal is clearly important to the mortuary context across Mesopotamia, the Mediterranean and the Levant, a much clearer picture emerges (Philip 2007: 187-188). This phase in many ways would set the stage for the major

advances of the beginning of the Bronze Age. Among these was the development of an extremely refined metalworking industry in Syria, specifically in the Upper Euphrates region, but it is difficult to know just how far the metallurgical industry advanced during this transition.

Early Bronze Age

Cooper (2014) divides the Early Bronze Age in Syria into four sub periods, EB I, II, III, and IV. For consistency, however, these will be collapsed into the three EB periods utilized by Wilkinson (Table 2.2).

Table 2.2 Wilkinson (2004) vs. Cooper (2014) EB Time Periods

Time Range	Wilkinson (2004)	Time Range	Cooper (2014)
<i>3000-2600 BCE</i>	Early-Early Bronze Age	<i>3100-2600 BCE</i>	EB I and II
<i>2600-2300 BCE</i>	Mid-Early Bronze Age	<i>2600-2450 BCE</i>	EB III
<i>2300-2000 BCE</i>	Late Early Bronze Age	<i>2450-2000 BCE</i>	EB IV

During the Early-Early Bronze Age (EB I and II) the overall picture is one of limited influence of urbanized societies with more evidence for local culture and some regional traditions carried over from the previous time periods (Cooper 2014: 280). The Middle-Early Bronze Age (EB III) has been documented in great detail based on the appearance of several distinctive classes of pottery and increased evidence for occupation at tell sites (Cooper 2014: 282). It is also during this period that we see evidence for a distinct written language originating in Syria. The excavation of a royal library at the site of Ebla (Tell Mardikh) produced thousands of clay tablets written in a local Semitic language (Akkermans and Schwartz 2003: 239). Mostly administrative in nature, these texts help to illuminate the regional structure. Urban centers reappear during this time and this carries over into the Late-Early Bronze Age (EB IV), during which time urbanism and all of the elements associated with it are seen to a more marked degree (Cooper 2014: 283). Long distance trade in exotic and precious materials, emerging political

authority of key centers, and elite/royal dynasties are all documented in the archaeological record (Cooper 2014: 284).

Evidence for Metal during the Early Bronze Age

It is during this period that metallurgy is best documented. Both in mortuary contexts and in written accounts, the use of and trade in metal throughout the Near East is well attested. Recent excavations at the Birecik Dam Cemetery located in the Carchemish region, salvage excavations spurred on by the construction of the Tishrin Dam in the 1990s, and additional dam projects in northern Syria and southern Anatolia on the Euphrates River (Figure 2.2), have added large quantities of metal greatly enhancing the metalworking dataset dating to this time period (Cooper 2006a; Fenollós 1999; Philip 2007; Squadron 2007).



Figure 2.2 Map Showing Birecik, Carchemish, Tishrin, and Tabqa Dam Created by Jamie P. Henry (Google Maps 12/8/15)

Texts from Mari and Ebla also help to illuminate the vast trade networks that extend throughout

Syria during the Early Bronze Age. Documents from Mari that describe the acquisition of copper in “Karkemis” (Carchemish) refer to both the purchase of “mountain copper” and “washed copper”, indicating the existence of a refining industry. There is no geological evidence of copper deposits in this area of the Euphrates River Valley, so it has been proposed that the source of the copper was in Anatolia (Fenollós 1999: 446).

Examples of metalworking in the Tishrin Dam area are found at the sites of Tell Ahmar, Tell Qara Quazaq, Tell Bazi, and Tell Siyuh Fauqani. At Tell Ahmar, ancient Til Barsip, two stone univalve molds for casting a range of metal artifacts were found under the tiled floor of an Aramaean building (Fenollós 1999: 451-454). Both molds were found in proximity to large quantities of ash and charred wood, which has been interpreted by the French archaeologists who excavated there as evidence of a metal workshop. They have proposed a date during the Late Bronze Age, but some of the artifacts that could have been produced by the molds, and the level at which they were found, suggest they may be from the second half of the third millennium BCE (Fenollós 1999: 452).

Excavations at Tell Qara Quazaq produced a nearly complete casting mold made from a block of very soft white stone. Five different matrices on the different faces of the mold indicate this piece was used to cast a variety of artifacts (ibid: 452). There is evidence from the site of Tell es-Sweyhat for a connection between some kind of central organization and the manufacture of metal (Cooper 2006a: 172). A “burned building” interpreted by excavators as having served as a palace or important public building on the high mound produced a crucible (in Room 3), bronze tongs bent around a piece of metal, and a flat bronze strip, all of which may be connected to metalworking (Cooper 2006a: 173; Holland 1976: 51). Whether or not metalworking was being carried out in this room is impossible to determine, but the presence of an inscribed cuneiform

weight also in Room 3 may point to economic activities associated with metal working, all located within a large public building (Cooper 2006a; 173). Halawa Tell B offers the earliest evidence for Early Bronze Age metal working in the northern Euphrates Valley (ibid 2006a: 170). A limestone mold for a metal axe was discovered near a small fireplace which was presumably used as a source of heat for metal production (ibid 2006a: 170). Tell Hadidi's proximity to both Tell Halawa and Tell es-Sweyhat may indicate there was also metalworking being carried out locally, a possibility that will be explored further in Chapter 5.

Metal assemblages are found most commonly in the burials of important individuals during this period (Cooper 2006a; Philip 2007, 1995; Squadrone 2007; Stork 2014). At the Euphrates site of Tell Ahmar two individuals were buried in the rich stone-built "Hypogeum" with pottery vessels and an astonishing number of metal objects. Bowls, axes, spears, daggers and toggle pins made up the majority of the metal artifacts found with these individuals (Cooper 2006a: 168). Shaft tombs at Tell Halawa also contained metal objects, notably bronze pins, daggers, spearheads, axes, beads, earrings, arm rings, collars, and handles (Cooper 2006a: 168; Orthmann 1981: Taf. 68-70). At Selenkahiye and the neighboring cemetery of Wreide bronze daggers, axes, spear heads and most notably pins accompanied several burials (ibid 2006a: 168).

Philip (1995) describes a warrior burial complex across the Near East, specifically in Syria-Palestine and Mesopotamia, spanning the late third and second millennium BCE. More recently, however, Squadrone (2007) and Stork (2014) have identified different assemblage patterns along the Euphrates River Valley of Syria. Pins appear to hold a very special place in burial contexts for this region during the third millennium BCE (Squadrone 2007; Stork 2014). Pins have been interpreted as the remnants of clothing of the deceased in the Upper Euphrates Valley, presumably having to do with their regional mortuary customs. The widespread use of

pins in the burials of the Upper Euphrates Valley is seen in the regions close to the Carchemish sector, and was probably adopted due to Mesopotamian interaction in the fourth millennium BCE and trade in wool textiles (Stork 2014: 333). Pin styles described by Squadroni (2007) fall into two broad categories, perforated and unperforated. Within these categories specific sub-forms are documented. Unperforated pins can be sub-divided as follows: conical head, round head, spiral head, animal head, and disc head pins. Perforated pins include bow-shaped pins and toggle pins. Toggle pin is a slightly ambiguous term that simply refers to any clothing pin and any of the sub-forms listed above (Squadroni 2007: 199-200). Weapons are also found in burial contexts, as are other ornaments such as pendants (Philip 2007: 194). Bronze tweezers are also noted in the graves of especially prominent individuals (Philip 2007: 192).

Middle Bronze Age

The Middle Bronze Age is divided into two main phases, MB IA 2000-1700 BCE and MB IB 1700-1600 BCE (Bonacossi 2014: 414). The transition from the end of the Early Bronze Age to the Middle Bronze Age has often been interpreted as a “collapse” across the ancient Near East. Along the Euphrates in Syria many different urban centers were abandoned, or shrank drastically in size. Tell Banat was deserted by 2300 BCE and Selenkahiye was deserted by 2000 BCE (Cooper 2006b: 20). Both the sites of Tell Halawa and es-Sweyhat exhibit evidence of shrinking in size during the transition to the Middle Bronze Age, based on the reduction of their fortification systems (ibid 2006b: 20). While there is evidence for this “collapse” in some areas of the Euphrates, excavations and surveys in recent years show that Syria did not follow the pattern of extensive state-level societal collapse seen in other areas during this period (Bonacossi 2014: 428). Instead we see a regional pattern of fundamental continuity in urban and rural settlement. This is linked to centralized political and administrative institutions under the control

of new ruling dynasties of kin-based Amorite groups supported by the interregional exchange system and a strongly developed agro-pastoral economy (Bonacossi 2014: 428-429).

Evidence for Metal during the Middle Bronze Age

A similar pattern of metalworking and metal assemblages carries over into the Middle Bronze Age with the majority of information coming from in burial contexts (Bonacossi 2014: 428). Warrior burials continue throughout the beginning of the second millennium BCE, including assemblages of fenestrated axes, daggers with triangular blades, and riveted butts and socketed spearheads (Philip 1995). Roll headed pins, as well as perforated and unperforated pins, continue to be seen throughout Syria and the rest of the Near East (Klein 1992; Novak 1992). Similarities between Syrian and Palestinian metal types are also observed (Akkermans and Schwartz 2003: 323). True tin-bronze appears to have taken on a much more prevalent role during this phase, indicating continued refinement of the metalworking industry (Bonacossi 2014: 429).

Material culture similarities and the decline of the warrior burial context across a large area in the ancient Near East were influenced by the impact that changes in warfare had on the political landscape of Syria. Chariots, the composite bow, and scale armor appear near the end of the Middle Bronze and beginning of the Late Bronze Age, impacting the representation of “high status, with an associated decline in the deposition of sets of weapons designed for hand to hand combat” (Philip 1995: 153).

Late Bronze Age

The Late Bronze Age is divided into Late Bronze Age I (1600-1350 BCE) and Late Bronze Age II (1350-1200 BCE). Societies in Syria and Turkey shared a similar political structure during this time. Medium to small sized settlements consisting of communal buildings

and temples are documented (Luciani 2014: 510). Seals, exotic imports, and Egyptian influenced bronze figures are all present. Hunting scenes are a common theme, indicating influence from Egyptian, Mesopotamian and Aegean societies (Luciani 2014: 519).

Evidence for Metal during the Late Bronze Age

During this period there is a significant increase in long distant trade, with a concomitant increase in long-range political relations. Material associated with status would have shifted, and metal types during the period reflect the influence of other political centers on Syria. Hittite and Egyptian empires, as well as the Kingdom of Mitanni, would have exerted more influence Syria, and thus influenced the types of material seen (Philip 1995: 154).

Tell Hadidi Chronology

Boor (2012) provides a summary of the Tell Hadidi chronology with an emphasis on Area C, which is the source of the brief site history provided here (Table 2.3).

Table 2.3: Chronology of Tell Hadidi (after Boor 2012: Table 2.7)

Period	Stratum #	Dates	Area of Excavation/ Additional Information
Medieval Islamic	8	1174-1263 CE 630-1918 CE	Scattered surface finds
Roman	7	60 BCE–324 CE	Area S: scattered surface finds
LB- IB	6	1500-1400 BCE	Seven areas; includes deposits associated with two disturbed tombs. Final destruction: Hittite: ca. 1375-1335 BCE. Occupation over entire tell.
A		1550-1500 BCE	Area H: Tablet Building: 18x15.5 m, seven rooms, courtyard.
MB-II C B A	5	1650-1550 BCE 1775-1650 BCE 1900-1775 BCE	Remains for this period found in five areas; best preserved in Area B. Only the high tell occupied. Fortifications continued.
MB-I	4	2000-1900 BCE	Area B: fortification system; extends over five areas, earliest are A and H. 16 ha area on west side of high tell occupied (55 acres)
EB-IV	3	2350-2000 BCE	Both high and low tell occupied. Traces found in 12 areas; includes six tombs. No monumental architecture. City destroyed.
EB-III II	2	2700-2350 BCE 2900-2700 BCE	Area R: fragmentary evidence for five major layers; shifts in architecture
EB-I	1	3050-2900 BCE	Settlement occupied approx. 135 acres. Area R: evidence for three major shifts of buildings' locations.

Tell Hadidi was likely established ca. 3050-2900 BCE, at the beginning of the Early Bronze Age. Earlier occupation layers were not encountered during excavation, nor were earlier ceramics found in significant numbers (Boor 2012: 58; Dornemann 1985a:54).

Throughout the excavations, the EB settlement was observed in all excavated areas, and perhaps occupied the entire tell, approximately 135 acres in size (Figure 2.3). Over time the area occupied fluctuated, and by the Middle Bronze Age was centered on the upper tell, with the last major occupation occurring in the Late Bronze Age. According to Dornemann, “the final destruction of the site seems to be associated with the Hittite destruction and conquest of this region, probably during the reign of Suppiluliuma (ca.1375-1335 BCE)” (Dornemann 1985b: 274 cited in Boor 2012: 58). Finds in Area S show possible reoccupation during the Roman and Islamic periods, but this evidence is limited in scope (Boor 2012: 59).

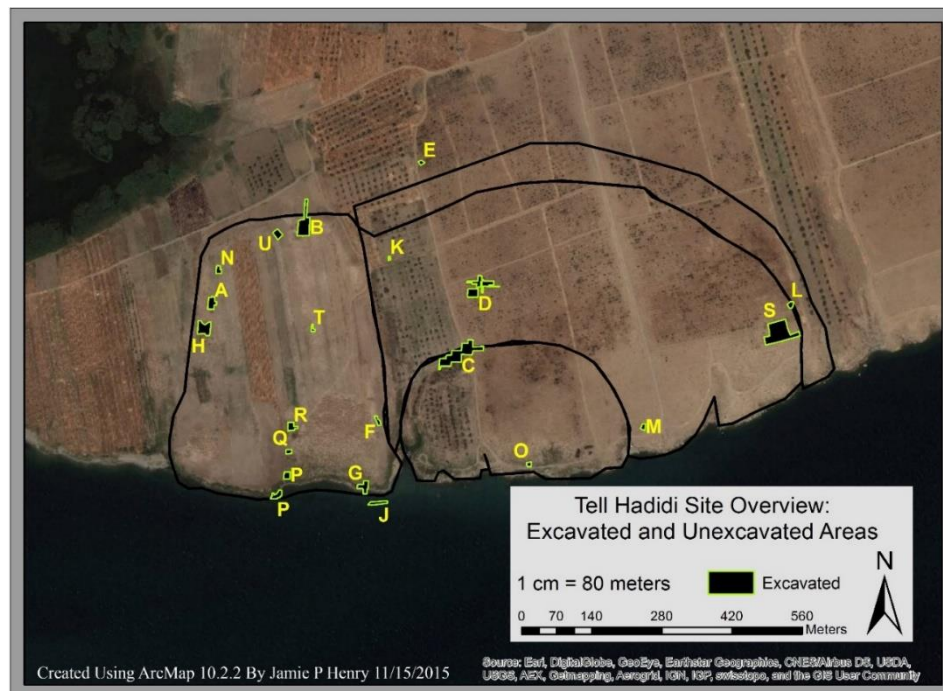


Figure 2.3 Tell Hadidi Site Boundaries and Excavated Areas

Early Bronze Age (3050-2000 BCE)

Severe erosion on the low tell has caused most of the evidence for EB settlement remains to be “extremely shallow” (Boor 2012: 59; Dornemann 1979:116). Evidence for city defenses during the EB are few because of disturbances by later MB/LB fortification activity. Area B, on the high tell, produced most of the information for the thick, mud brick fortifications of this period (Boor 2012: 59).

Four major phases are documented, the earliest with annealing kilns, and evidence of an EB lithic workshop, found in Area B. Two types of cores were found: discoid and Levallois (Boor 2012: 59; Miller 1985:4). Evidence for EB rooms was encountered in Area C where “a series of EB rooms was traced for more than 48 meters along the south side of what appears to be a street, and three construction phases were noted” (Boor 2012: 60; Dornemann 1979:116). In the earliest rooms, floors were prepared by cutting into the conglomerate gravel (bedrock) (Boor 2012: 60; Dornemann 1979:117). Hundreds of beads were found next to a brick pillar that was conical in shape in one of the EB rooms (Dornemann 1979:117; Rosenow 2005: 44-46). The beads were discovered on the eastern side of the pillar and Dornemann has tentatively identified this as a small shrine, due to its similarity to structures on other sites (Boor 2012: 60; Dornemann 1979:117). The plots in this area yielded thousands of artifacts, including pottery (both complete vessels and sherds), jewelry (primarily beads), clay figurines, clay miniature chariot wheels, and stone objects (pestles, mortars, grinding stones and weights), but no metal. Both Area B and C pottery is consistent with the last quarter of the third millennium based on preliminary study (Boor 2012: 60; Dornemann 1979:116). According to Dornemann, “On the whole, the pottery is very well made with a high percentage of thin and sophisticated vessels” and there is “a fairly complete overlap between the forms present in tomb deposits and those from occupation layers” (Boor 2012: 61; Dornemann 1979:132).

Five Early Bronze Age tombs were found, four of which had been disturbed by recent looting (Boor 2012: 61; Dornemann 1979:117). The tombs were either built of stone, or cut as pits into the conglomerate gravel (bedrock). The tombs were found in Area D (1), Area E I (1), Area K (1, intact), and Area L I (2) (Boor 2012: 61; Dornemann 1979:117-118). The Area D tomb is described by Dornemann as the most spectacular monument, with a stair on the east side leading to a small rectangular chamber with burial chambers to the north and south (Figure 2.4). The total length from north to south was 15 meters and the doorways were built with shaped sills, jambs, and lintels and were sealed by large shaped stone slabs. The tomb chamber walls were constructed of roughly shaped stones set in courses that corbel inward. These were roofed over by long, heavy, flat stone slabs. This tomb was reused in the LB, but very little was left undisturbed by tomb robbers (Boor 2012: 61; Dornemann 1979:118).



Figure 2.4 Area D North Chamber (after Dornemann 1979 Fig. 9)

The Area E I tomb was actually a catacomb of burial chambers, most of which had been

robbed. One chamber contained the undisturbed skeleton of a woman and fetus (Boor 2012: 62; Dornemann 1979:118). These human remains were not returned to the MPM (Dornemann pers. comm. 2015).

The undisturbed Early Bronze Age tomb in Area K yielded a limited ceramic inventory and the skeletal remains of eight individuals. None was intact, and this could have been a secondary burial (Dornemann 1979:118).

Middle Bronze Age (2000 – 1550 BCE)

During this period occupation was concentrated on the refortified areas of the high tell. Occupation of the lower tell was suspended until the Late Bronze Age (Dornemann 1979: 132). Areas B and F offer the most complete sequence of layers for the MB occupations, and both areas are located on the high tell (Boor 2012: 62; Dornemann 1979:132). There was little divergence between pottery forms in Areas B and F, with Area B being the main focus of publications to date (Dornemann 1979: 132). Area B is located on the northern edge of the tell and includes part of a trench that cut across the city's fortification systems (Figure 2.3). Area A was located on the western section of the high tell, and could be assigned to the MB-II based on the ceramics found there. Architecture was poorly preserved in this area overall, except for the MB-II fortification system, with walls nearly 4.5 meters thick (Boor 2012: 63). A human skeleton was discovered outside the wall, on a rough surface. The position of the bones indicated the person was not buried, but lay where he had fallen. A field examination of the remains revealed a fractured skull (Boor 2012: 63; Dornemann 1975:16, 1979:141, 1980:220).

Area B was excavated in every field season. Five major phases for the MB, A (the latest) through E (the earliest), were tentatively identified (Dornemann 1979: 131). The best preserved remains were seen in Phase D, which included part of the defensive system with a three meter

thick wall and several small individual rooms, ovens, and a kiln. Several of the rooms were paved with stones (Dornemann 1979: 131). During Phase D five infant burials, dug either into or placed under floors, were found. Dornemann has described these as follows:

The latest of these burials was in a brick-lined pit cut into the floor, with a small brick podium, bowl, and grinding stone of the floor nearby. No door into this room was preserved and no cover was found over the burial, suggesting the possibility of burial in a room which was subsequently sealed. Three burials were less well-preserved and the fourth was found under the floor of a room, in a large cooking pot. In this instance we have a multiple burial with three infants arranged on top of each other along the curve of the vessel body (1979:141) (Figure 2.5).



Figure 2.5 Triple Infant Burial in Cooking Pot from Area D (after Dornemann 1979 Fig. 27)

The pottery from Phase D was dated to MB-II (Boor 2012: 63; Dornemann 1979:132, 141).

Late Bronze Age (1550 – 1400 BCE)

Remains dated to the Late Bronze Age were recovered from Areas C, D, H, L, M, and O. The Area C structural remains for the LB were scanty, and the strongest evidence for this occupation comes from the pottery (Boor 2012: 65; Dornemann 1979:147). The published

evidence for Area D is also limited to ceramics. The “Tablet Building” in Area H, which yielded the only cuneiform texts found at Tell Hadidi, also dates to this period.

The excavation of the Area H structure was begun by the Leiden University team in 1973, when they exposed the upper phases. The MPM 1976 expedition season in the same area led to the discovery of several cuneiform tablets, which provided the ancient name of the settlement: Azu. The cuneiform tablets seem to have been the property of one Yaya, son of Huziru, son of Daganna, and one tablet, T-9, appears to be the will of Yaya (Boor 2012: 65; Dornemann 1985b:273). The tablets were written in the Syrian version of the cuneiform script, a variation of standard cuneiform, using the Babylonian language (Boor 2012: 65; Dornemann 1985c:18). The translations were provided by Dr. R. Whiting of the University of Chicago’s Oriental Institute (Boor 2012: 65; Dornemann 1985a:57). Of interest is Tablet T-7, which requests the return of something taken from the site of Azu. This implies that Tell Hadidi itself was an administrative center in the LB. Eight rooms were uncovered in the Area H structure. The artifacts found in situ included over 125 pottery vessels, three cylinder seals, grinding stones, small crude stone statues, and the 14 cuneiform tablets discussed above.

Area H-XIII, south of the “Tablet Building,” was described as

An interesting paved area with a wall and a bench bounding it on the west and another wall on the east. ...A tremendous amount of pottery was found in the layers overlying this pavement....The two most striking components of this assemblage are the large quantities of gray burnished sherds, which are rare elsewhere on the site, and fragments of vessels that are related to the Palestinian “‘chocolate-on-white’ ware” (Dornemann 1981:41-42).

This assemblage was dated to the LB-IA. Dornemann stated he “would tentatively place our LB-IA materials in the period between the Hittite destruction of Babylon and the beginning of the Mitannian period. The sudden orientation to the south may then be a reflection of 18th Dynasty Egyptian activities in Palestine and Syria and their documentation in the artifactual remains of

our region” (Dornemann 1981:46) In Area L II, a disturbed tomb was located and excavated, and while Dornemann originally noted that the construction techniques were similar to those used at Ugarit, recent work indicates that the best parallel may be found at Tell Banat (Dornemann 1979: 147). The tomb consisted of six chambers, and is approximately 12 meters long (Boor 2012: 69; Dornemann 1979:147). The pottery from this tomb was used extensively by Dornemann in creating the ceramic typology for the site. Finally, Area M contained pottery dated to the LB, as did Area O (Boor 2012: 69).

Summary

The Tell Hadidi excavations yielded a relatively small corpus of material in relation to the size of the site due to the nature of the salvage excavations. Detailed analyses of the fortification system in all periods, the burials and tomb types, all artifact types, and the ceramic assemblages for the other areas remain to be carried out, along with a full publication of the excavations. The selected areas, however, produced enough data to establish a basic sequence of datable occupations, one of the primary research objectives of the project. This chronology and the limited ceramic typology published, with the established connection to the earlier chronology and typology from the ‘Amuq, provided other archaeologists working on contemporaneous and nearby sites with an accessible comparative assemblage for their own work (Boor 2012: 70).

Tell Hadidi Research History

Preliminary reports have been produced by a number of scholars a synthesizing material dealing with Bronze Age Syria and the Euphrates River Valley. Aside from Dornemann’s various articles, there are very few published works dealing specifically with Hadidi. The site was first officially recorded during the 1964 survey of the region by M. van Loon of the University of Chicago (Dornemann 1997:453; van Loon 1967). Dornemann’s early discussions of the site

focused on exposed structures, tomb construction, and dating of the site based on its pottery, placing Tell Hadidi chronologically in the broader context of Syrian Euphrates settlements. Other studies have analyzed the faunal remains (Clason and Buitenhuis 1978), the metal artifacts (McClellan 1983), and lithics (Miller 1985). Two doctoral dissertations focused on pottery from the site: Cooper (1997) utilized the ceramics from Area F and Boor (2012) utilized the ceramics from Area C. In addition, Masters thesis have focused on studied the chemical composition of sediments in the area (Yuen 1979), evaluation of the northern Syrian second millennium BCE chronology via the Tell Hadidi ceramic assemblage (Brug 1980), and the beads excavated at the site (Rosenow 2005). Two unpublished MPM reports include the examination of mixed human and faunal bones housed at the MPM (Handwerk 2005) and the discussion of the Area H “Tablet Building” (Lupton 1978). One issue of the *Contributions in Anthropology and History* series (formerly published by the MPM) was dedicated to a Tell Hadidi lithic analysis by Miller (1985). Final publication of the excavation is ongoing, with Dornemann currently working on a publication detailing Area R. This manuscript will most likely be his last contribution (Dornemann pers. comm. 2015).

Chapter 3 Methodology

Euphrates Valley Expedition Metal Collection

Before going into more detail about the project, it is important to make a distinction that is key to understanding the scope of the metal collection at the MPM and part of the issue with contextualizing it. Previous projects and publications refer to the material held at the MPM as the Tell Hadidi Collection, but after communication with Dornemann and an initial review of the metal artifacts, I determined that a more accurate title would be the Euphrates Valley Expedition Metal Collection (EVEMC), reflecting the two separate assemblages acquired by the expedition. The first subset of material is the Tell Hadidi collection (TH) proper. These are metal artifacts excavated by the MPM at the site of Tell Hadidi. The second subset is the Syrian Comparative Collection (hereafter SCC). This includes metal artifacts collected by the MPM team during expeditions to Syrian sites other than Tell Hadidi. These artifacts were variously excavated, purchased, received as donations, or collected as surface finds. This comparative collection includes materials other than metal, but only the metal artifacts are the subject of this study. Subsumed within these categories is Joanna McClellan's sample material, part of a destructive compositional analysis project carried out in the 1980s at the University of Pennsylvania Museum Applied Science Center for Archaeology (MASCA). Some of these artifact samples were sent back to the MPM after the completion of data collection in the 1980s, but others remained in Pennsylvania at the University Museum (MASCA no longer exists) until 2015, when they were returned to the MPM following a request prompted by this project and by Claudia Jacobson, Registrar at the MPM. The artifacts McClellan sampled were never inventoried, and the numbering system she utilized in the study was her own creation and separate from the field numbers assigned during excavation. While the majority of these pieces have been located,

reconciled with original expedition numbers, inventoried, and provided with limited descriptions, because they were mounted in epoxy, or in very poor condition they were not photographed or identified further (Figure 3.1). Nevertheless, it is important to note their existence here because they pose important questions for the curation of the Euphrates Valley Expedition Metal Collection and include artifacts from both TH and the SCC. The components that make up the Euphrates Valley Expedition Metal Collection at the MPM all have different challenges and limitations. Identifying these separate components will result in a better understanding of the collection as a whole and give future researchers a sense of the kinds of projects that can be carried out.



Figure 3.1 Storage Drawer with McClellan Sample Material

Project Overview

In order to provide a better understanding of the methods utilized in this thesis, I will present an overview of the project chronologically, which has been in progress for the past three

years in the form of coursework, internship projects, and independent studies totaling upwards of 500 hours of collections documentation and program development. A chronological approach is the most effective method of describing the different phases of the project and the reasons for their inclusion. Although specific details are provided on the individual components involved, all the parts are important in understanding the evolution of the thesis project as it was adjusted in its approach and goals over time.

During the spring of 2013 my initial introduction to the Tell Hadidi collection began with an artifact project assigned during coursework for the University of Wisconsin-Milwaukee certificate in Museum Studies. I was given a small ceramic figurine from Tell Hadidi (Figure 3.2) to research and during the semester became familiar with the site through articles and meetings with Dornemann, Carter Lupton, and Dr. Jocelyn Boor (hereafter Boor).



Figure 3.2 Terracotta Figurine Fragment from Tell Hadidi (N25979)

Boor completed her dissertation on Area C ceramics from Tell Hadidi at UWM (2012) and provided many useful citations and other support throughout this project. Initially I was

interested in continuing to work with the Hadidi figurines, but I was informed by Dornemann that a publication by a doctoral student in Germany was already utilizing this collection. The alternative was to work with artifacts in the metal collection.

During the fall of 2013 I completed an internship with the MPM History Department that involved creating an Excel spreadsheet inventory based Tell Hadidi field cards. This was utilized later as the basis for the initial inventory of the metal material. The inventory was completed by January 2014 and helped to illuminate a number of the limitations and problems that emerged in the later stages of this project.

The metal artifacts were initially inventoried during the spring and summer of 2014. After creating a database for all the metal artifacts known at this point, the next logical step was to work with the collection actually housed in the museum. During the initial inventory a number of inconsistencies between the record and the collections were identified that are outlined below.

Between the summer and fall of 2014 additional metal artifacts were discovered, including approximately 50 bronze coins, 30 metal “samples” still in original field bags, and a number of loose artifacts were found in a variety of containers from matchboxes to currency envelopes. Bronze coins were discovered in the History Department, and the remaining material was all located in Lower Film Storage Room (hereafter Lower Film). It was at this time that a small number of Joanna McClellan’s samples set in epoxy were discovered, located on a tray in Lower Film storage, which contains all the material excavated at Tell Hadidi and returned to Milwaukee during and immediately after the Euphrates Valley Expedition.

By December 2014, however, it was thought that all the artifacts discovered had been inventoried and final preparations were made for writing up the information. Photographs were taken, summary tables were created, and a placeholder numbering system was developed

(outlined below), but a number of artifacts remained unaccounted for. The total at that point in time was 418 individual metal artifacts, while the initial card file inventory totaled approximately 360. This discrepancy was initially apparently explained by the discovery of the additional Hadidi samples, which did not have field cards in the original inventory because their field cards were attached to artifact bags.

Then in March 2015, at the suggestion of Dawn Scher Thomae, a search of Lower Film produced approximately 500 additional metal artifacts. These artifacts included more artifacts that had been sampled by McClellan, unmarked iron and bronze pieces, and a large amount of metal still in original field bags with in context information. It was then decided to include these pieces in the project by altering the initial research questions and adjusting the analytical approach from a particular artifact category (pins and weapons) to a more museological discussion coupled with an analysis of the distribution of metal artifacts at Tell Hadidi.

Museum Documentation

Previous publications relating to the Euphrates Valley Expedition had provided little or no information regarding MPM documentation on the expedition as a whole. Boor (2012) and Rosenow (2005) both relied on communication with Lupton and Dornemann for detailed information on field procedures, post-expedition practices, and the general collections philosophy. Field cards, excavation notebooks, and published and unpublished reports had been used to outline the story of the expedition in previous publications, but there were elements missing. Original grant documents, correspondence between Dornemann and MPM administrators, and even promotional documents, such as newsletters or newspaper articles, had not been used previously consulted but are included in the discussion of the archival material here and in Appendix A.

In the fall of 2014 a box in the MPM archives was brought to my attention by Hannah King, who was interning at the time in the Registration Department at MPM. During one of her assignments she had discovered a box with a folder labeled “Tell Hadidi – 1985.” It held museum documentation regarding an NEH grant made in 1985 to Dornemann to finish publication of the excavations at Tell Hadidi. The proposal included a justification for finishing the site report in which Dornemann explained that he was unable to serve as both section head and serve as the primary source on many of the publications (Dornemann pers. comm. 2014). A preliminary table of contents for the three-volume report and a complete budget, including salaries for independent researchers, are included in the grant proposal, although the final report never materialized. The existence of this documentation had been previously unknown and its discovery added depth to the Euphrates Valley Expedition narrative produced for this project. It also highlighted the importance of documenting as much of this material as possible while both Dornemann and Lupton were still available to provide additional clarification when necessary.

After the discovery of this documentation, a systematic search for additional archival material began. With the help of the MPM librarian, Ruth King, a number of additional documents were discovered. Original photos, additional grant documents, correspondence, in-house publications, newspaper articles and hiring paperwork had been stored in archival boxes in the MPM library. Once the documents were located it became clear that reorganization and digitization would be necessary. For the purposes of this project only a portion of the material was relevant (see Chapter 1 and Appendix A) to provide a context for the expedition and collection history. However, the catalog of existing documents at the MPM produced by this project will allow additional research to be carried out in the future.

Each document discovered was sorted into three broad categories:

1. Museum correspondence related to the expedition: Includes memos from Ken Starr to Dornemann, Board of Trustees Minutes from monthly meetings, monthly department reports, Dornemann's original hiring paperwork, correspondence with the University of Michigan, and any other material relating to the excavation that was not a grant or a general report.
2. Newspaper or journal articles: This includes museum publications such as *Wings, Lore*, newspaper clippings (*The Journal's* week long story from 1974 was omitted) and flyers, as well as any additional articles Dornemann published.
3. Original expedition paperwork: includes grant proposals, preliminary reports, instructional information, and any original excavation materials (field books, trench maps, etc.).

The newspaper articles were used sparingly because they detail a different type of story relating to the Euphrates Valley Expedition and are available at the Milwaukee Public Library. Rather than present three separate scanned files, expedition paperwork and correspondence were combined and arranged chronologically, when possible.

Each document was photocopied and digitally scanned. The digital scans will be referenced in Appendix A of this thesis and are available upon request from the MPM. Original copies were returned to the MPM library and placed in their original boxes, but given new folders, original metal staples and paperclips were also replaced by plastic ones to prevent damage. Inventory sheets for each box were updated to reflect additional folders. All the photocopies were then placed in a separate box and added to the excavation documents located in the MPM History Department. It is important to leave original copies in the original document location so the archives remain complete and accessible for people conducting research in the

future. Preserving hard copies in another location for research purposes is also important.

A total of 457 pages of newly discovered museum documentation is included in Appendix A, which provides an inventory and finding aid for both the physical archival material and the PDF of the Appendix. A description of each document, the total number of pages for each entry, the date of the document, and the folder and box location of the physical copy are provided. The photocopies are also presented in this order, in most cases.

Collection History - Initial Review

During the fall semester of 2013 the metal artifacts were inventoried by recording the contents of a box of individual field cards that describe the metal artifacts collected and artifacts housed at the MPM and in Syria at the Aleppo Museum (Figures 3.3 and 3.4).

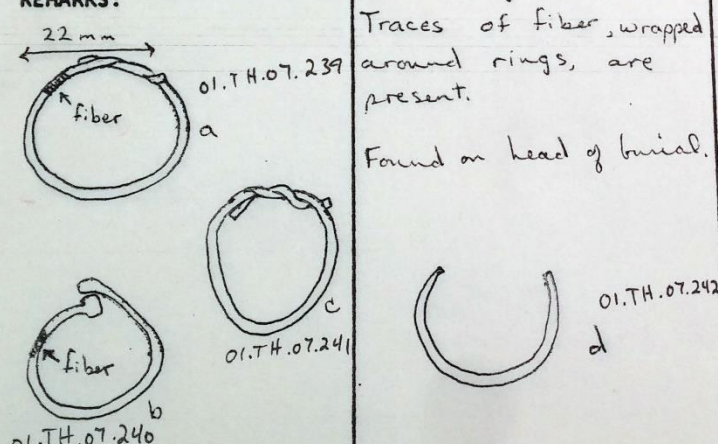
TYPE OF OBJECT Rings		MATERIAL: Bronze
CONDITION: Reconstructed <input type="checkbox"/> Defaced <input type="checkbox"/> In- <input checked="" type="checkbox"/> Complete <input checked="" type="checkbox"/>		PERIOD: Obassid
FROM:	DIMENSIONS:	NUMBERS
Area: HAD.	Length/Diameter	Object: H-76-166
Plot: H II	Width	Negative: H76-61a-2
Burial: H II	Height/Thickness	Drawing:
Locus: II (59) S-32-36	DECORATION: 3 complete rings, most of another, + 4 fragments. Traces of fiber, wrapped around rings, are present. Found on head of burial.	SPECIAL TREATMENT GIVEN:
Basket:		e = 4 fragments 01.TH.07.243
Field No.:		
Date:		
REMARKS:		
		<p>TELL HADIDI, SYRIA: 1974 Joint Milwaukee Public Museum - University of Michigan Euphrates Valley Expedition</p> <p>M16</p>

Figure 3.3 Tell Hadidi Field Card (H-76-166)

Dornemann believes that the majority, if not all, of the metal artifacts from the expedition were

eventually brought to the MPM (Dornemann pers. comm. 2014). With all the excavations being carried out in Syria in the 1970s the Antiquities Directorate of Syria was dealing with an almost unmanageable amount of material. Because of this, and the lack of any truly spectacular metal artifacts recovered at Tell Hadidi, the Syrian representatives probably decided to let the Expedition take the majority of the metal back to Milwaukee. The resulting card file is the only original inventory available for the metal material. Artifacts remaining in Aleppo were stamped with “ALEP M” while those that were returned to the MPM were not, as described by Rosenow in her Masters thesis on the Tell Hadidi beads (Rosenow 2005: 29). Using the card file, Leah Rosenow was able to catalog a total of 3,081 beads collected, with 1,612 documented in the Nunnemacher catalog (, 826 retained by the Aleppo museum from field cards, and a possible 643 beads housed at the MPM, but not cataloged or inventoried due to a status of “sample” (Rosenow 2005: 28). The distinction made between “object” and “sample” during the Hadidi excavations will be described in more detail below, but it is worth noting here that the metal inventory suffered from a similar problem.

TYPE OF OBJECT <i>Bead</i>		MATERIAL: <i>Brass</i>	
CONDITION: <input checked="" type="checkbox"/> Reconstructed <input type="checkbox"/> Defaced <input type="checkbox"/> In- <input checked="" type="checkbox"/> Complete		PERIOD:	
FROM:	DIMENSIONS:	NUMBERS	
Area: <i>8</i>	Length/Diameter: <i>.5</i>	Object: <i>H74 S222</i>	
Plot: <i>XII</i>	Width:	Negative:	
Burial:	Height/Thickness:	Drawing:	
Locus: <i>12</i>	DECORATION:	SPECIAL TREATMENT GIVEN:	
Basket: <i>32</i>			
Field No.: <i>628</i>			
Date: <i>2/7/1974</i>			
REMARKS:			
<i>JPL 9/26/13</i>			
TELL HADIDI, SYRIA: 1974 Joint Milwaukee Public Museum - University of Michigan Euphrates Valley Expedition			

Figure 3.4 Photo of Tell Hadidi Field Card (H74-S222)

While excavations were being carried out, artifacts were divided at the end of each field season. After this split, some of the material was brought home each year, but a “partage” was also kept in Syria and remained there until after the final field season. There is no documentation available for when the metal collection was shipped back to Milwaukee. A “partage” remained in Aleppo until after the final field season was completed (Carter Lupton pers. comm. 2015). It is possible the metal remained as part of the ‘partage’ and was not shipped back to Milwaukee until after the final field season. This presumably explains why “ALEP M” is present on a number of cards for metal artifacts that are actually located at the MPM. Something Rosenow was not aware of when she inventoried the beads in 2005.

At least one set of duplicates for each field card exists. The cards are organized by area/site, or by material type. For example, a pottery vessel recovered from Area C will have a field card filed in the Area C box as well as within the ceramic material box. No official contact between MPM and Aleppo has occurred since the 1990s, due to Dornemann’s retirement, and with the unfortunate political state of Syria at the current time it is unlikely there will be contact any time soon. Unfortunately, this means that we have no way of knowing what material still exists there. The possibility that material has been destroyed, looted, or abandoned due to the socio-political climate is another important motivation for the completion of this project and further highlights the necessity for continued work on the collection.

After an initial review of the field cards in 2013 it appeared that roughly 467 metal artifacts had been collected by the MPM during the Tell Hadidi excavations, with 355 artifacts returning to Milwaukee and 112 remaining in Aleppo (Table 3.1). This will be shown to be an inaccurate estimate.

Table 3.1 Preliminary Metal Artifact Inventory Based on Field Cards as of 2013

<i>Post-excavation locations of metal artifacts</i>	<i>Number of artifacts based on field cards</i>
<i>Milwaukee Public Museum</i>	355 (76%)
<i>Aleppo Museum</i>	112 (24%)
<i>Total</i>	467

Further analysis of the field cards revealed that artifacts in the MPM collection were from at least ten localities: Tell Hadidi itself, Halawa, Jebel Jurem, Jusef (Youssef) Pasha, Shams ed Din, Meskene Qadime, es Sash, El Matbuh, Purchase Lot #3, and an anonymous donor (Table 3.2). This list is not a comprehensive representation of the total number of sites from which material was collected, however. Field bags indicate metal artifacts were also collected at the site of El Qitar, which later would be excavated by Thomas McClellan (assistant field director at Tell Hadidi). Additionally, there are trays of ceramic material located in Lower Film from other Syrian sites that the expedition visited and from which material was collected.

Table 3.2 Preliminary Metal Artifact Inventory by Site Based on Field Cards as of 2013

<i>Source of material</i>	<i>Metal Artifacts Returned to MPM</i>
<i>Tell Hadidi</i>	223 (62.8%)
<i>Tell Halawa</i>	51 (14.3%)
<i>Jusef (Also Youssef) Pasha</i>	37 (10.4%)
<i>El Matbuh</i>	16 (4.5%)
<i>Jebel Jerum</i>	10 (2.8%)
<i>Es Sash</i>	7 (1.9%)
<i>Purchase Lot #3</i>	6 (1.6%)
<i>Anonymous Donor</i>	3 (.8%)
<i>Meskene Qadime</i>	1 (.2%)
<i>Shams Ed Din</i>	1 (.2%)
<i>Total</i>	355

The Anonymous Donor category provided an interesting insight into salvage excavations in the region at the time. Looting of archaeological material has been a major problem in the region for a long time. When salvage projects began there, it was common for workers to bring finds to field directors and local officials. Often these pieces were accepted in order to ensure

that they would not be sold to private collectors (Dornemann pers. comm. 2014). Purchase Lot #3 is believed to be a reference to Halawa material acquired during a trip to the local village near the tell (Dornemann pers. comm. 2014), and suggests the existence of Purchase Lots #1, and #2, whose presence and contents remains unknown. The remaining material recovered is from sites or small towns in the region where surface finds were collected during excursions, or donated by workers to local officials and transferred to field crews (Dornemann pers. comm. 2014).

A database was developed with the help of Dornemann to document all the possible pieces of information found on the field cards (Table 3.3). The N catalog field was filled out for artifacts that had been cataloged by the MPM in the Nunnemacher series, always written in pen on the field card. The Nunnemacher series ledgers are located within the history department and have in most cases mirror information available on field cards. Artifacts from the expedition will be in Nunnemacher ledgers five, six, and seven. Field number proved to be much more complex and is explained in more detail below, but generally has the following form: H or HAD followed by excavation year and ending in some sequence number. An example is H74-345 (Hadidi, excavated in year 1974, the 345th artifact cataloged that year). Season was indicated by excavation year. Area and plot refer to excavation area and plot, always designated by a letter for the area and a Roman numeral for the plot.

Table 3.3 eDatabase Fields for Initial Metal Inventory

N Catalog #	Condition	Locus
Season	Dimensions (L/W/H/T/D)	Sample
Burial	Remarks	Material
Basket	Field #	Artifact Type
Period	Area Plot	Negative

Locus is expressed by a number inside a box, basket number is expressed as number inside a

circle, and sample is expressed by a number inside a triangle (Figure 3.5). Burial context was indicated on a small number of artifacts, but these were also given a burial number. Period means the time period to which the artifact was attributed; this is only filled out on a portion of the field cards.


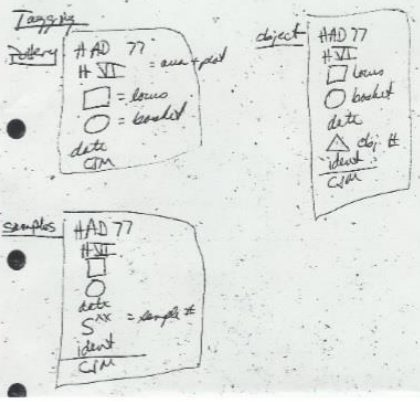


Symbol	Designation	Tagging Instructions
	Locus	
	Basket	
	Object	

Figure 3.5 Tag Instructions from Area H Notebook (1977) (after Boor 2012: 47 Figure 2.4)

Material refers to the type of metal of which the artifact is made. Condition was used to indicate if the artifact was complete or incomplete. Artifact type could be any of the following: blade, dagger, knife, arrowhead, spear, javelin, bracelet, anklet, ring, earring, tweezers, horse fitting, nail, coins, miscellaneous (subdivided by metal type), fragment (subdivided by metal type), and unidentified. Dimensions were only documented on a small number of artifact cards. “Negatives” referred to photos and “Remarks” included descriptions of the artifacts, also a rare occurrence.

After completion of the database the task of the physical inventory began. Due to deterioration of some of the pieces and the general lack of organization of the material this process was difficult (Figure 3.6). This was also when it was first discovered that the artifacts in the Plexi-glass case were not the only metal from Tell Hadidi at the MPM. Thirty-three

additional metal artifacts discovered consisted of fragments, samples, beads, pin shafts, and pin heads and were found in December 2013.



Figure 3.6 Plexi-glass Case of Tell Hadidi Metal Prior to Inventory

The discovery of these artifacts was the first indication that the card file was incomplete and that the Plexi-glass case only included a selection of the metal artifacts. This was confirmed in March 2015 when an additional 500 metal artifacts recovered by the expedition were discovered in storage. For example, of the 99 coins listed in the field cards, approximately 40 were in the Plexi-glass case, 45 were found in History Storage with an additional five empty currency bags referencing coins, and five were found in Lower Film with the 500 additional samples. This leaves four coins unaccounted for in the initial card inventory. A reevaluation of the project goals was obviously required, based on these last minute discoveries of material.

Secondary Review

It was already clear during the initial examination of the material that there were some issues with reconciling the physical artifacts and their respective field cards. As a result, I sought the advice of Dawn Scher Thomae, who suggested a more complete investigation in Lower Film. With the help of five anthropology interns (Emma Noffsinger, Adriana Martin, Jocelyn Slocum,

Lauren Anibas, and Natasha Khan) a form of museum excavation then took place. It was during this phase of data collection that I gained a true appreciation for the scale of the Tell Hadidi collection.

A large portion of McClellan's samples were found during this phase. She had placed objects in epoxy in order to carry out Particle Induced X-Ray Emission (PIXE) and Scanning Electron Microscope (SEM) analysis to determine the composition of a selection of metal artifacts from the TH and SCC collections (McClellan 1983). While a large portion still remained at MPM, as noted earlier McClellan was allowed to take some samples away with her to the University of Pennsylvania's Museum Applied Science Center for Archaeology (MASCA). By March 2015 these artifacts had been returned and have now been reunited with their counterparts at the MPM. Initially the process of inventorying the objects McClellan sampled was problematic because each sample was assigned a new number that was not cross-listed with the original field numbers. Images were not supplied for all the pieces, making it impossible to determine which of the artifacts had been sampled. During the March 2015 storage expedition, however, another box shipped from Pennsylvania (or possibly Australia based on a second return address attached) was discovered. This box contained epoxy samples, as well as currency envelopes with original field numbers written on them and sample numbers, indicated by "Sample #" or the number circled in a different pen. These pieces were consolidated and combined with the other epoxy samples from McClellan's materials analysis project. In total 68 samples were discovered, but this number is misleading. In some cases there are epoxy samples, as well as additional artifacts, in a single currency envelope. With the limited amount of documentation on the envelopes there is also some uncertainty as to whether or not the field numbers refer to a single artifact or several.

Expedition and Database Numbering System

During the initial inventory process, most decisions were based on the assumption that all the artifacts being analyzed could be reconciled with their original field numbers. This proved to be impossible, however, due to a number of issues with the completeness of the card file and the discovery that the card file had not been completed for the entire metal collection. There were a few reasons for this, beginning with the numbering procedure used during field work.

Two steps were involved when excavated material was numbered, primarily due to the requirements of the artifact split at the end of each field season (Dornemann pers. comm. 2015). If an artifact was going to be considered for the division of finds with the Syrian government it had to be registered and logged as an “object” (referred to as artifact in this thesis). If the piece was not considered for the split it could be registered and logged as a “sample”. The material type of the artifact was also indicated in the log and over time this became a component of the numbering system (Dornemann pers. comm. 2015).

For the metal collection this manifested itself in a number of quirks throughout the years with artifacts being initially collected as samples or objects, being assigned one number, and then assigned additional numbers depending on the demands of the division of finds. This is perhaps best illustrated by artifact H77-M-10 (Figure 3.7). Based on the documentation on its tag, H77-M-10 was excavated on July 6, 1977, in Area H, Plot V, Locus 42, Basket 130, Sample (or field) number 15. It was then registered as HSM-77-81 (HSM stands for Hadidi Sample Metal), but the decision was made to register it as an “object”, as indicated by a handwritten note on the tag. It was then registered as HOB-77-69 (HOB stands for Hadidi Object) and finally assigned H77-M-10 as its final number. This practice was apparently common during the excavations, with various field cards reflecting the use of multiple numbering and re-numbering systems during

processing and transport.

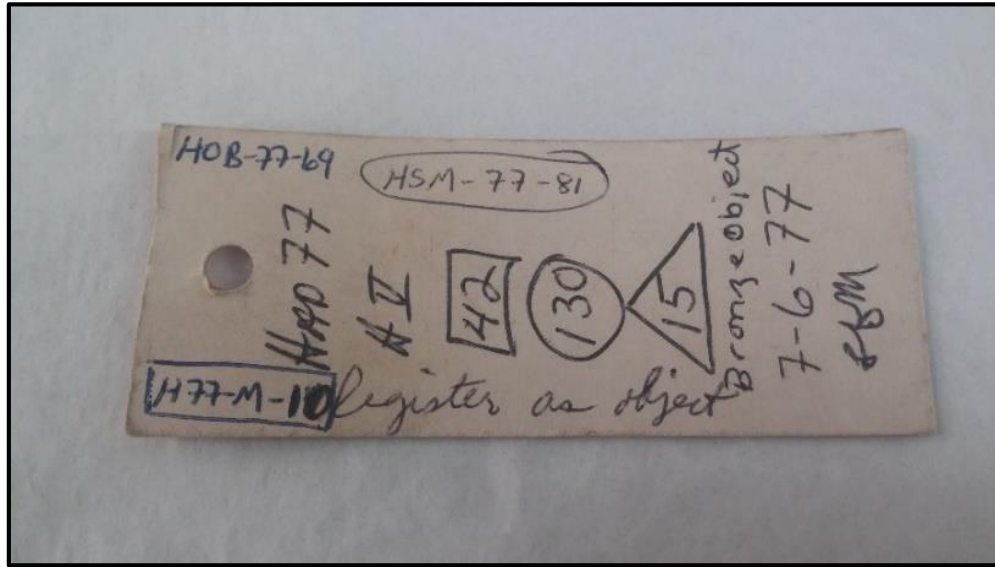


Figure 3.7 Hadidi Field Tag for HOB-77-69/HSM-77-81

Euphrates Valley Expedition Collection

During the initial and secondary review of material, the presence of material from other archaeological sites in Syria resulted in an interesting analytical problem. These artifacts were given Hadidi expedition numbers, some were even cataloged by the MPM, but nowhere was there a comprehensive list of alternative sources of material nor was there an explanation for how the pieces were collected (save for Purchase Lot #3). According to Dornemann there was a time when restrictions on surface collecting were more limited than today. While visiting a site it was common practice to remove artifacts, usually pottery, and combine these with excavated material. It was also possible to purchase artifacts from villagers (Dornemann pers. comm. 2015). With that in mind, a quick review of the additional metal sources below (mostly sites in the TH vicinity) as well as the additional sources documented in Lower Film will be presented, with details provided by from Thomas McClellan, who subsequently excavated the site of El Qitar (1983-1987) and was assistant field director at Tell Hadidi (1976-1978).

Site Designation (for EVE# Sequence)

After the initial review of the TH field cards, a number of additional sources, in Syria, were identified as belonging to the SCC subset. Site designation is important for the reliability rating of an artifact, but also important for understanding the expedition's collection practices and motivations (Table 3.4).

Table 3.4 Site Name and Abbreviations for EVE

Site Name	Numbering Abbreviation in Inventory
Tell Hadidi	TH
Tell Halawa	THa
El Matbuh	EM
Es Sash	ES
Jebel Jerum	JJ
Jusef (also Youssef) Pasha	JP
Meskene Qadime (ancient Emar)	MQ
Purchase Lot #3	PL3
Shams Ed Din	SED
Anonymous Donor	AD
El Qitar	EQ

Metal Artifacts from Sites and Sources Other Than TH (via email from T. McClellan September 2015)

1. Tell Halawa – “Across the river and about 15 km south of Hadidi. Excavated by German team directed by Winifred Orthmann in the 1970s—2-3 volumes published. Dates mainly to 3rd millennium BCE” (T. McClellan pers. comm. 2015).
2. El Matbuh – A site about 5km north of Jusef Pasha, had an extensive Umayyid occupation (Dornemann unpublished report 1976b)
3. Es Sash – Dornemann believes this was a site in the area surrounding Tell Hadidi (Dornemann pers. comm. 2015).
4. Jebel Jerum – No information available.
5. Jusef (Yousef) Pasha – “Fond memories! We lived in this very small very poor

- village which was about 1 km north of el-Qitar. Coming from Australia we dug in the winter—some days of snow and ice. No electricity, no fresh water. We hooked up a generator and discovered the *muktar* (mayor) of the village had secretly spliced cables into our system so he could watch television. He was a jolly old guy, a bit of a crook, but we rented rooms from him and virtually lived with him and his family of four daughters. Nearby there were some caves or old tombs, probably Byzantine. The village is now under water” (T. McClellan pers. comm. 2015).
6. Meskene Qadime – “Means Old Meskene but is the name for ancient Emar, a major city in the Late Bronze Age but also in late third millennium. Many tablets were found there by illicit excavation and by the French team who excavated in the 1970s led by French archaeologist Jean Claude Margueron. In the 1990s a Syrian-German team excavated again led by Uwe Finkbeiner and assisted by Ferhan Sakal, who has published a nice book on third millennium figurines. It is also an important Islamic site excavated by Thomas Leiden from Princeton University. It is located near modern Meskene on the west bank of the Euphrates near the Tabqa Dam” (T. McClellan pers. comm. 2015).
 7. Purchase Lot #3 – Dornemann believes this was actually at the site of Tell Halawa. (Dornemann pers. comm. 2014)
 8. Shams ed Din – “Directly across the river from Hadidi. Back in the 1970s a Syrian or Lebanese woman (American University of Beirut) excavated a Halafian (Neolithic) part there. Adnan Bounni, former Director of Antiquities, directed excavation of Byzantine or Islamic material” (T. McClellan pers. comm. 2015).
 9. El Qitar – The Euphrates Valley Expedition conducted Soundings in 1976 and the site

was excavated by Dr. Thomas McClellan in the 1980s (McClellan in press)

Additional Sites Linked to Ceramic Material at MPM:

1. Tell Barsib – “Dug in the 1930s by French archaeologist Thureau-Dangin who published a great tomb (hypogeum) dating to EB II/IV. In the 1990s the Belgian archaeologist Guy Bunnens, who followed me at Melbourne, excavated a fantastic Iron Age Assyrian fortress there located on the east bank of Euphrates about 20km south of the Turkish border (some 50 km n of Hadidi)” (T. McClellan pers. comm. 2015).
2. Chagar Bazaar – “First excavated in the 30s by Max Mallowan and his wife Agatha Christie (read her book *Come Tell Me How You Live*). In the 1990s new excavations by a Turk from Belgium and Augusta MacMahon (a former student). She worked for Cambridge University. Mallowan’s reports are in the journal *Iraq*. It is located in the Khabur triangle, northwest of Hasake” (T. McClellan pers. comm. 2015).
3. Cacur (Qarqar?) – “This is where Rudy (Dornemann) excavated in the 90s. The site was long identified as the place of a battle between the Assyrians (Tiglath Pileser III) in the 9th (8th) century BCE. The Assyrian text mentions a king of Israel (Jehu) as part of a coalition against the Assyrians. Is located in the Orontes valley near the town of Jisr as-Sugur. Near the main highway between Aleppo and Latakia. During May-July 2015 tremendous amount of fighting at it. Dornemann found a lot of 3rd millennium material here” (T. McClellan pers. comm. 2015).
4. Tell Halaf - “In early 1900s Baron Max von Oppenheim excavated a major Assyrian Iron Age settlement with fantastic sculptures that were mainly in the Aleppo museum. He also found Neolithic layers with beautiful pottery (hence Halafian culture). From the 90s till the current war Mirko Novak of Tübingen and Dominick Bonatz of Freie Universität

Berlin were excavating it” (T. McClellan pers. comm. 2015).

5. Tell Hamoukous – “This must be Hamoukar---excavated in the 1990s to recently by Clements Reichel (Toronto University), and Jason Ur (Harvard), for the Oriental Institute (Chicago). A very large 4th millennium site—as large as some of the “first cities” in Sumer. It is in far northeast Syria near the Iraqi border” (T. McClellan pers. comm. 2015).
6. Fekeniye, Hammaw, and Hamzor Jidle – “These might be sites along the Turkish border between Ras al-Ain (on west branch of Khabur) and Ain al Arab (Kobane) (on Balikh River) the latter where the Kurds defeated ISIS this spring (2015). (Jidle might be downstream from the Balikh a little distance from the Turkish border)” (T. McClellan pers. comm. 2015).
7. Saudi Arabia – Madain Salek “Might be Madina Salah, the site of Nabatean tombs just like Petra. In NW Saudi” (T. McClellan pers. comm. 2015).
8. Tell Leilan – “East of Qamishli and west of Hamoukar in NE Syria. A major 100 hectare site mainly from third & early second millennium. Excavated from the 80s til the war by Harvey Weiss (old classmate at Penn) for Yale. He has a web site. I recall at the end of the season in ‘74 or ’76, Dornemann, my former wife Dr. Joanna McClellan, and I and our department representative Sultan Muhesen (who later became Director of Antiquities in Damascus and even later director in Qatar) took a 2-5 day trip visiting many of these sites” (T. McClellan pers. comm. 2015).
9. Tell Tanir – “This might be a site Tannanir excavated by Michael Fuller and his wife Nieanthi for St. Louis Community College. Was mainly Islamic. It is located on the middle Khabur triangle below Hassake where a dam was built in the 80s-90s. Probably

under water” (T. McClellan pers. comm. 2015).

10. Tell Mardikh (Ebla) – “Of course a tremendous amount of literature on it. Paolo Matthiae, Rome University. Mainly Middle Bronze surface remains and Early Bronze too where the tablets were found. South of Aleppo, about 30 miles” (T. McClellan pers. comm. 2015).

Artifact Sorting and Organization

Once all of the metal artifacts had been assembled in one place at the MPM, it was necessary to organize the collection in a coherent manner. In the mid-1980s, when the Plexi-glass storage case was created for this part of the collection, it appears that there was no systematic method for the placement of artifacts. The main goal seems to have been to stave off bronze disease and other metal corrosion, as the case was sealed with a desiccant inside it. Twenty-two trays were used to arrange the artifacts, but numerous artifacts were not placed on trays and instead rested on the floor of the case. Even with the limited documentation available on the case it became clear that artifacts from various field seasons, areas of the site, and artifact categories had been placed together in a largely random fashion. Additionally, as the project progressed, it also appeared that the artifacts inside the Plexi-glass case were mostly registered “objects” from the split, and contained few or no “sample” artifacts. During the project a number of additional artifact containers were encountered (Figure 3.8).



Figure 3.8 Field Tags and Containers for Euphrates Valley Expedition Metal Collection

During the sorting process, identifying all of the artifacts based on their original field numbers proved to be extremely difficult, and in some cases, impossible. Photographs, especially labeled photographs, are unavailable and the majority of field cards do not include illustrations or object descriptions. A numbering system was devised for this project in order to document all of the metal artifacts currently known to be in the MPM collection and to provide information for future researchers. The numbering system consists of four indicators: 1) reliability, 2) source indication (see Table 3.4), 3) artifact category, and 4) sequence number. This is referred to below as the EVE Sequence.

EVE Sequence

The Euphrates Valley Expedition (EVE) sequence was developed based on the artifacts from Jusef (also Youssef) Pasha found within the Plexi-glass case as well as on the field cards (Figure 3.9). Jusef Pasha was a small village located close to El Qitar (T. McClellan pers. comm.

2015). The discovery of this additional source of material, in combination with the other nine non-TH sites, made it clear that a system for identifying non-TH material would need to be developed.



Figure 3.9 Jusef Pasha Artifacts from Plexi-glass Case

During the years of the Euphrates Valley Expedition, additional material collected from locations other than Tell Hadidi was incorporated into the numbering sequence for the site and became a part of the division of finds. This means that it is unclear from the numbers alone whether an artifact was excavated at Tell Hadidi or collected from somewhere else. The EVE sequence sought to address this by providing specific site identifiers as part of the artifact number. Most of the numbers have the following format 04.TH.04.117 (Table 3.5).

Table 3.5 EVE Numbering Breakdown - ##.XX.##.###x

##	XX	##	###	X
Reliability	Site Designation	Artifact Category	Running Sequence	Lot Designation

Numbering System Purpose

The EVE system was designed to serve as a bridge until the ultimate disposition of the

collection is decided by the MPM. While some of the artifacts in the collection can be linked to their expedition numbers, not all can be and this proved to be an interesting problem in inventorying the artifacts. The EVE system was developed to provide every artifact with a number for the comprehensive inventory (Appendix B) so that each number can be edited to reflect new information gained. For example:

04.TH.04.214 is a pin, probably from Tell Hadidi and was the 214th artifact encountered during numbering. If you were to find the field card matching this object, or discover information in the notes linking the artifact to excavations, it would be possible to change the number. Let's say you discover it actually is a pin from Tell Halawa via a photo of the pin with notes on the back. The number could be changed from 04.TH.04.214 to 02.THa.04.214. Still a pin, still #214, but you have more information regarding the object, so the reliability scale (below) and the site designation (above) change accordingly.

Reliability Scale 1-5

The first part of the number is a reliability number. To determine whether or not an artifact has reliable documentation, a reliability a scale was designed to help the researcher determine whether or not an artifact might be useful to their particular research goals.

Extremely Reliable (1) These artifacts were excavated from Tell Hadidi and were assigned an expedition number that could be reconciled with the excavation notes. These artifacts have high research potential for spatial, temporal, and comparative analysis.

Reliable (2) These artifacts have an object/sample/expedition number. If these artifacts are from Hadidi, they have a number with in-site provenience, but this information is not definitive. Artifacts with expedition numbers that were collected by the expedition in non-Hadidi contexts were given a reliable rating but cannot be considered extremely reliable and have limited research potential beyond comparative analysis.

Moderately Reliable (3) Artifacts in this group are generally pins and came from three site contexts: Hadidi, Halawa, or Es Sash. The moderate designation is due to lack of documentation and the fact that these artifacts are part of a large group of very similar bronze pins.

Minimally Reliable (4) Artifacts given the 4 designation often lack an expedition number. They are probably from Hadidi, based on comparison with artifacts in the reliable category, but no expedition data can be assigned to the artifact. Some artifacts with this designation may be from Halawa, but it is not possible at the current time to say this with any certainty.

Unreliable (5) Artifacts given this designation are probably from Syria and were collected by the Euphrates Valley Expedition team, but there is no indication of where they were collected. These objects are unlikely to be reconciled with field documentation in the future.

Artifact Categories

Twelve artifact categories were designated for the database (Table 3.6).

Table 3.6 Artifact Categories

Artifact Category	#	Explanation
Projectiles	01	Includes both spears and arrows. Can be either bronze or iron
Blades	02	Includes daggers, knives, and hilts. Can be bronze or iron
Axes	03	Any type of axe
Pins	04	Variety of pin-head types. Can be both bronze and iron.
Coins	05	Wide range. Mostly bronze.
Bracelets/Anklets	06	Difficult to distinguish without excavation notes. Can be either bronze or iron
Rings/Earrings	07	Difficult to distinguish without excavation notes. Can be either bronze or iron
Beads	08	Spherical and conical beads not included in Rosenow (2005). All bronze
Nails	09	Iron and of varying size/shape
Pendants	10	Various examples. All bronze.
Tweezers	11	Folded piece of bronze
Miscellaneous	12	Misc. was originally a category for pieces not easily identifiable. In many cases Misc. artifacts are unidentified fragments of bronze and iron artifacts but can include slag, ingots, vessels, horse trappings, buckles, and tools, not all of which can be clearly identified without more expert knowledge.

The categories were originally defined during the initial process of transcribing field cards and later refined. Although each category can be refined further, for the purposes of producing a

coherent inventory, which was the primary focus of the project, this was postponed to a future date.

Running Sequence

This basic sequence provides a count of the number of artifacts that were discovered during the course of this thesis project. Refits count as one artifact in order to avoid duplication and provide a minimum number of specimens. This system was slightly modified by the addition of a lot system number, to keep multiple artifacts given the same expedition number in the field connected through a place holding numbering system.

Lot Designations

Lots are indicated by a letter at the end of the sequence number, starting with A, then B, C, D, and so on. Lot numbers were given to artifacts that refit, were found in association with one another (but not given a lot designation already), were found together in storage (and may have been associated with each other at one time), and for non-metal objects (like pebbles) stored with some metal pieces. Artifacts that were given lot designations with their expedition numbers (H74-264a, H74-264b, etc.) were given their own EVE#s. This was done because they had already been separated in the field according to lots.

McClellan Samples

Some of McClellan's samples were taken from artifacts that had already been inventoried. These were given EVE#'s but were not included in the total count of metal artifacts because this would essentially be counting the same artifact twice. In the "Note" section of the master database it is indicated which EVE# each piece was removed from (See Appendix B). For example, 02.THa.01.669 is McClellan Sample #51. McClellan Sample #51 is H74-420a,

N26440, a bronze projectile from Tell Halawa that was previously inventoried as 02.THa.01.118. These two EVE#s are for the same object, but it was necessary to separate them because of their different object histories (see discussion below for clarification of EVE# Sequence).

Pilot Project Number System

The designation of the artifact categories (pins, coins, projectiles, axes, and blades) was based on the types of artifacts recovered from both Hadidi and Halawa and the potential information that could be produced by an intersite analysis. XRF analysis conducted on material from Tell es-Sweyhat (Goodway 2006) and stylistic analysis of pins and weaponry from Tell Halawa (Egold 1994; Novak 1994) provided context for the metal material examined in this part of the project. It was the aim initially to place the pins, projectiles, and blades into their regional context based on cultural and temporal period and by matching pieces with objects at other sites in the region.

Given the variety of material present in the collection, however, it became clear that a universal measurement system for all the object types would not be workable. The presence of pins, weapons, and coins made it necessary for distinct spreadsheets to be developed that are discussed at length below. The remainder of the material, which included bracelets, rings, nails, tweezers, beads, pendants, and miscellaneous objects, was grouped together in a separate database (See Master Database in Appendix B). The following information categories were generated:

- Catalog, catalog number, and field numbers were all documented when available.
- Separate sequence numbers were given to all pieces.
- Source of material, object category, and condition were all determined when possible.
- Measurements could include weight (g), max length, min/max width, diameter, height,

min/max thickness depending upon the object being documented.

- Additional comments included relevant notes from field documentation or any other descriptions when necessary and/or available.

During the excavations completed by the German excavations at Halawa directed by Dr. Orthmann, fifty-three pins and pin fragments were described in the final report. Twenty-three of these were complete enough to be analyzed and fell into ten separate categories (Klein 1992; Novak 1994). All of the forms may also have ‘eye’ or perforation and were attributed to a time period based on Klein’s (1992) publication *Untersuchung zur Typologie bronzzeitlicher Nadeln in Mesopotamien und Syrien*. Future work comparing not only the TH pins but also the SCC pins with this inventory is rich with potential.

Forty-two additional artifacts were published from Halawa (Egold 1994). Twelve of these artifacts were unidentifiable and those remaining were placed within four functional categories: weapons, personal ornament, tools, and “diversa” or other (Egold 1994). The weapons category is of particular interest because of the large number of weapons recovered during the Hadidi expedition. All of Egold’s designations are based on Philip’s (1989) *Metal Weapons of the Early and Middle Bronze Ages in Syria-Palestine*. Both projectiles and blades were recovered during the Hadidi expedition, so it was necessary to cast a wider net when contextualizing this material within the region and time frame. Egold’s designation were also utilized to indicate the presence of specific types in the Tell Hadidi collection.

McClellan’s (1983) work can also be compared to the analysis of metal artifacts from Tell es-Sweyhat conducted by Goodway about a decade later (2006). Goodway made use of X-Ray Fluorescence (XRF) while McClellan used PIXE and SEM in order to determine the composition of metal objects at the site. Molds and crucibles recovered at es-Sweyhat indicate

that metal was worked there (Goodway 2006). Both studies show that most metal artifacts from these sites were made from arsenical bronze in the Early Bronze Age (Goodway 2006; McClellan 1983). These studies can be utilized to place the sites within a regional context based on the material chosen for crafting particular types of metal artifacts.

The Tell Hadidi material as well as the other sourced material provides us with an interesting basis for comparison with other published assemblages regarding artifact type frequency also. Nine of the twelve arrowheads in the MPM Euphrates Valley Expedition Metal Collection were excavated at Tell Halawa. The blades follow a similar pattern, with four of the six blades recovered during the excavations collected at Halawa. By comparing the styles and composition of arrowheads and blades, as well as the pins, from Halawa, Hadidi, and es-Sweyhat it would be possible to gain insight into the relationship between the three sites.

The overall artifact variety represented by the Euphrates Valley Expedition Metal Collection fits within the expected regional assemblage for the Bronze Age (Chapter 5), and could be an asset in adding to what is known from this particular region in Syria. Determining the appropriate time period and stylistic form for each piece as well as how it was produced will be necessary to evaluate the pieces in the future.

The Pins

A separate spreadsheet was used to collect data on the pins recovered from the expedition. Eighty-eight pins were identified in field records but after initial analysis 255 complete and incomplete pins could be identified. The material is badly corroded, so breaks have made the refitting process difficult, but not impossible. Where an obvious refit was observed these pieces were combined and counted as one object. The spreadsheet fields are listed in Table 3.7.

The catalog and catalog number field are for pins that during the inventory process could be reconciled with documentation, and had previously been cataloged. If a Euphrates Valley Expedition Metal Collection artifact was cataloged it was cataloged using the Nunnemacher MPM sequence, signified by an ‘N’ in the catalog field.

Table 3.7 Pin Database Fields

Catalog	Pin Head (yes/no)
Catalog Number	Shaft (yes/no)
Field Number	Point (yes/no)
EVE Sequence Number	Eye (yes/no)
Source	Eye length (mm)
Length (mm)	Eye distance from head (mm)
Max Diameter (mm) (Or head Diameter if present)	Form (Based on Klein 1992)
Min Diameter (mm)	Table/Illustration (Based on Klein 1992)
Weight (g)	Comments
Condition	

The field number column provides the original field number, if the pin could be reconciled with field documentation. The EVE Sequence is discussed at length earlier in this chapter, but in this particular database the number was condensed to ##.XX.##.###x. Source refers to the artifact’s discovery location. If from Hadidi this included area and plot; if from a different source, the name of the site is provided. Length is the max length of the pin. If a refit is possible, the maximum length is documented in the ‘a’ lot row, with the subsequent rows not documenting length (this process is continued with other artifact types as well). Maximum and minimum diameter were taken using digital calipers and documented in the appropriate fields. Weight was also documented, and in the future could possibly be utilized to track corrosion. Condition was

documented for use in determining best storage practices. Unfortunately, almost every artifact was badly corroded and in most cases it was only possible to record whether the piece suffered from soil mineral accretion, blueish green discoloration (possibly “bronze disease”), or oxidation. The decision was made to seal all artifacts with a desiccant, after the completion of this thesis, in consultation with MPM Registrar Claudia Jacobson. Pin head, shaft, point, and eye fields were all utilized to document the presence or absence of these specific features to help refine the database for use during analysis. In most pin studies the head form and presence/absence of the eye (perforation) are used to help type the piece. Eye length, and eye distance from head were both documented. Pin form and table/illustration (based on Klein [1992]) were both documented in order to help determine specific time period attributions for pins, as well as put them into useful categories for study. The comments field in most cases was used to describe the original storage location of the pin, either the tray it was found upon in the Plexi-container or if it was found outside the container itself.

As each pin was documented and bagged for rehousing, EVE numbers were assigned and recorded on the bag, as were any expedition or museum numbers. This process was repeated for every artifact inventoried. Any complete or diagnostic pins were separated out and placed in appropriate types. Re-contextualizing the known pieces involved consulting field documents to place the pins spatially and geographically. Field documentation was highly subjective based upon the recorder’s level of experience with the archaeological techniques and material recovered. Field logs, maps, and artifact registries are housed within the MPM History Department and include the original field documents. None of the material has been transcribed or organized for visiting researchers to date. This portion of the work was concerned with determining the degree of accessibility of the information and to create a dataset of

documentation for future research.

The Weapons

All the artifact categories reported by other expeditions in the region are found in the Euphrates Valley Expedition Metal Collection also, but not all forms were observed in the TH sub-assembly (see Chapter 4). The weapons posed a challenge due to the variety of forms, types, and different possible measurements as compared to the pin category. Information collected is presented in Table 3.8.

Table 3.8 Weapon Database Fields

Catalog	Catalog #
Field #	EVE Sequence #
Source of material	Category
Condition	Weight (g)
Max Length (mm)	Max Width (mm)
Min Width (mm)	Height (mm)
Max Thickness (mm)	Min Thickness (mm)
Comments	

The fields designated Catalog, catalog #, field #, EVE sequence #, source of material, category, condition, and comments were consistent with the pins. Weight (g), max Length (mm), max width (mm), min width (mm), height (mm), max thickness (mm), and min thickness (mm) were all metrics recorded for use by future researchers. Max width was generally taken at the midpoint of the piece, except in the case of axes and blades where the piece widened most at the tip.

Weapons in Bronze Age Syria are most often discovered in burial contexts (Cooper 2006a; Fenollós 1999; Philip 1989; 1995; 2007; Squadrone 2007). Material purchased or

collected from the other sites in the non-TH MPM collection probably originated in graves or tombs that had been robbed by locals (Appendix A52: 21-24).

The Coins

The coins acquired by the Euphrates Valley Expedition have an interesting history. While a limited number were found at the site itself, the majority are attributed to other sites in the region (SCC material). In most cases they were brought to the excavation by day laborers who had discovered the coins previously and who sold or gave them to the expedition (Dornemann pers. comm. 2014).

As with the weapons and the pins, the coins required a customized set of data fields. This was necessary because coins have both obverse and reverse sides and because the research value of well-preserved examples is especially high. In addition to this, the coins represent a long period of time, with Hellenistic, Roman, and Islamic coins all represented. Most coins were from sites around the Tell Hadidi area but they have a high research value even without a high reliability ranking. The database fields are referenced in Table 3.9.

Table 3.9 Coin Database Fields

Field #	Complete (Y/N)	Condition
EVE Sequence #	Weight (g)	Visibility of Obverse Side?
Source	Thickness (mm)	Visibility of Reverse Side?
Comments	Diameter (mm)	

The only spreadsheet fields specific to the coin category were the complete field and the reverse/obverse visibility fields. When describing coins it is important to document whether or not they could be identified based on the images that are present on both the obverse and reverse

side. In most cases this was limited to a simple yes or no, indicating the potential for more complete study in the future. A field indicating whether or not the artifact is complete was also added to this particular database, and would later be utilized in the master Excel database for the entire collection to help provide more information for future researchers.

All Other Artifact Types

Once the pins, weapons, and coins had been inventoried it was decided to include all other metal artifact categories into one spreadsheet. Initially they were not part of the scope of the project beyond producing a basic inventory and all data gathered were intended to be used by future researchers. It was based on this spreadsheet, however, that the master inventory spreadsheet was produced that is outlined below.

Master Inventory Spreadsheet

When the decision was made not to continue with the individual object type analysis as outlined above, it became necessary to create a simplified spreadsheet that could act as a place holding inventory for the metal collection associated with the EVE (Table 3.10).

Table 3.10 Master Inventory Database Fields

EVE #	Hadidi #	Complete
Reliability	In site information (if available)	Cat
Site	Description	Cat#
Artifact Category	Time Period	Condition
Sequence	# of artifacts	Comments
Lot	Have Field Card (Y/N)	

This inventory could be utilized by researchers who wished to work with components of the collection and would provide basic information that included the total number of possible

artifacts in the collection, basic excavation/source information, as well as additional collection history in the notes section.

Most of the fields had also been used in the previously outlined databases. The EVE# was further subdivided into the following columns (Reliability, Site, Artifact Category, Sequence, Lot) in order to make it easier to search for the individual components that make up the numbering system, specifically the reliability number and the artifact category.

Documenting whether or not there was a field card became important in order to track which artifacts had originally been inventoried at the MPM and could be associated with a physically existing artifact. Time period was documented for those artifacts with a field card that could be attributed to a time period based on review of the material in the field. The condition field was expanded to include if an artifact had been reconstructed or whether conservation work had been done on the piece, such as gluing fragments together. In the condition field McClellan samples were documented based on whether or not the fragment was set in epoxy. Finally the artifact # field was developed in order to generate the minimum number of artifacts inventoried. Refits meant that counting individual lines in the database no longer gave an accurate count. There were also instances where it was decided to keep large numbers of artifacts grouped due to their original excavation context. An example of this was a field container that held 33 complete and 19 incomplete iron nails. While these artifacts were separated into complete (01.TH.09.425a) vs incomplete (01.TH.09.425b) lots, their grouping could only be described using the artifact # column. Summary tables below break down artifact distribution between the TH collection and SCC sites (Tables 3.11 and 3.12).

Summary tables were created with the help of Helen Werner, a doctoral student in biological anthropology at the University of Wisconsin-Milwaukee. The statistical program R

was used for the creation of all tables. A new subset of the data was created that contained only the artifacts given an artifact number of one or greater. Tables were created using both the new subset and the entire data set in order to look at the distribution of artifacts. Proportion tables were also created to show the percentage of artifacts as a proportion of the whole data set or subset. These tables were converted to Word for readability.

Table 3.11 Total Number of Euphrates Valley Expedition Metal Artifacts Inventoried by Site

Source of Material	Total Artifacts Identified at MPM
Shams Ed Din	1 (<1%)
Meskene Qadime	1 (<1%)
El Matbuh	2 (<1%)
Anonymous Donor	2 (<1%)
El Qitar	2 (<1%)
Purchase Lot #3	3 (<1%)
Es Sash	7 (<1%)
Jebel Jerum	16 (1.7%)
No site determined	23 (2.44%)
Tell Halawa	45 (4.8%)
Jusef (Also Youssef) Pasha	53 (5.63%)
Tell Hadidi	786 (83.5%)
Total	941

Table 3.12 TH vs. SCC Metal Material

<i>Artifact Category</i>	<i>Number of artifacts (TH)</i>	<i>Number of Artifacts (SCC)</i>	<i>Total</i>
Tweezers (11)	1	0	1
Axes (03)	0	2	2
Pendants (10)	6	1	7
Blades/Knives (02)	1	14	15
Beads (08)	16	2	18
Projectiles (01)	16	13	29
Bracelets/Anklets (06)	42	5	47
Coins (05)	21	69	90
Rings/Earrings (07)	108	3	111
Nails (09)	148	0	148
Miscellaneous (12)	197	21	218
Pins (04)	230	25	255
Total	786 (83.5%)	155 (16.5%)	941

Spatial Distribution

Once all the metal artifacts had been inventoried, a secondary goal became clear. Most of

the metal “samples” rediscovered in 2015 were in original field bags with tags detailing their excavation context. By combining this information with the artifacts that had been identified during the initial inventory process the focus shifted to plotting metal artifacts known to have been excavated at Tell Hadidi utilizing GIS. The reliability scale and artifact category distinctions already completed meant that interesting queries could be generated and possible patterns of metal use or discard across the site could be identified.

Utilizing topographic maps created during the expedition that show the excavated areas, and superimposing these images as polygons onto more recent satellite imagery made it possible to focus on the areas excavated by the expedition (Figure 3.10). The creation of this base map was then used to generate a number of different distribution maps showing the spatial relationships of areas to one another. Hadidi has often been cited for its tombs and ceramic assemblage, but never its metal. With the information represented in these maps, it would be possible to compare the Hadidi metal information to other sites in the region.

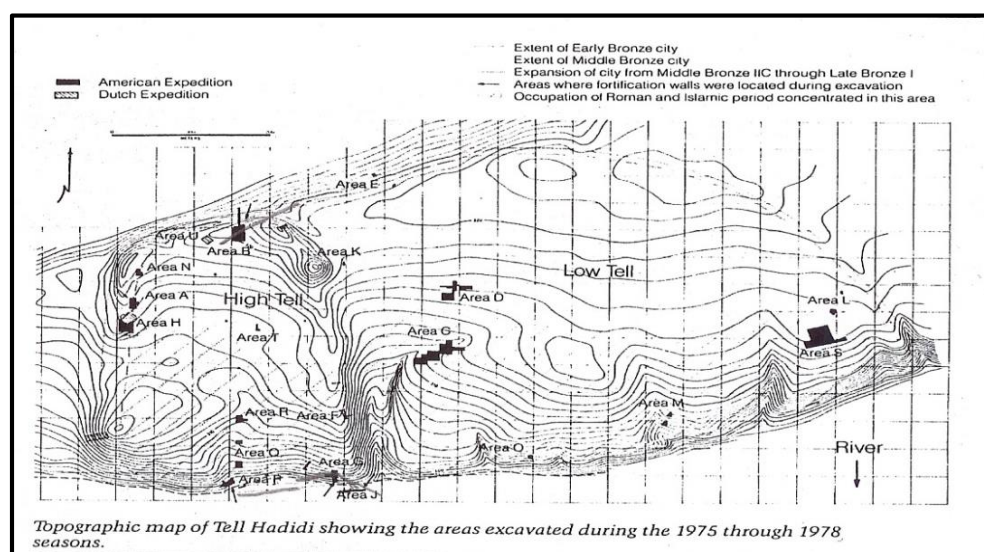


Figure 3.10 Tell Hadidi Topo Map 1975-1978 (after Dornemann 1985a: 54)

The map (Figure 3.11) below and those in Chapter 4 were created with the help of Brian Nicholls, Primary Investigator with the University of Wisconsin-Milwaukee Cultural Resource

Management (CRM), Richard Kubicek, senior project manager for UWM-CRM and Kevin Garstki, a PhD candidate in Anthropology at UWM.

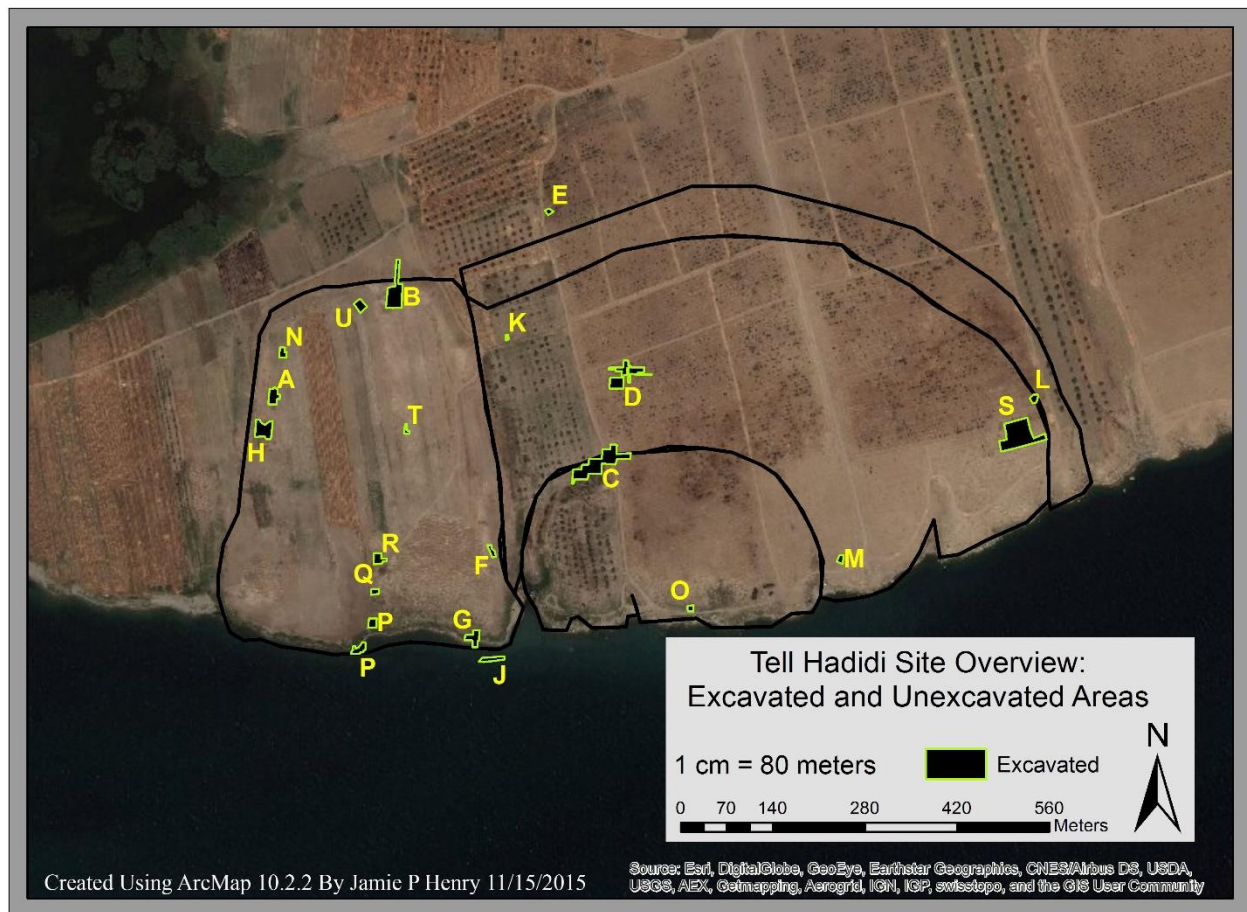


Figure 3.11 Tell Hadidi Site Boundaries and Excavated Areas

It is one thing to read that an artifact is from Area B, and quite another to see precisely where that is within the site. While original topographic maps provide some context for the researcher, they often do not include the surrounding area that can be shown using a map overlaid on a satellite image. Combining the inventory information generated by this thesis project with spatial data representation in a horizontal distribution map adds much needed context to the metal artifacts recovered at the site. It is becoming increasingly important to incorporate spatial information into any large scale archaeological project.

For this reason, spatial databases are far superior as they are able to record morphology and topology in formats that can be queried in ways that attribute-only data cannot. From the perspective of resource management, the advantages of having an integrated system that permits the flexible interrogation of sites within their broader spatial contexts are enormous (Connolly and Lake 2006: 34).

As discussed in Chapter 5, plan and site maps need to be digitized in order to make the Euphrates Valley Expedition Collection accessible enough to place each individual component of the collection in a context that allows for more than individual artifact type analysis. In Chapter 4 as a component of the Artifact Category by Area distribution analysis I attempt to provide biographical information for each area discussed. While there is information available on some areas of the site in preliminary publications this is not sufficient to provide an in-depth analysis of finds from each and every excavated area at Tell Hadidi. Chapter 2 provided a limited site history but while some of the excavated areas are discussed for their important features in previous publications, more often than not in-depth detail is not available. This can be explained by the general lack of organization and accessibility of the excavation notes and general reports completed after each field season. During this project and as a part of an internship I participated in at the MPM History Department, an attempt has been made to reorganize all field related documentation the future digitization and synthesizing. This will be necessary for anyone in the future working with this project, beginning the daunting task of organizing, transcribing, and interpreting excavation notes in order to provide a clearer picture of the results of the expedition.

Case Studies

As an additional component of the discussion and results (Chapter 5) specific artifacts are used to help the reader understand the process of inventorying artifacts in the collection. This was done to give future researchers a better idea of the state of the collections, as well as demonstrate a process for identifying the Euphrates Valley Expedition material in the future.

Particular pieces, such as 02.THa.02.135, 136, 693, provide an interesting illustration of fragments of one artifact being discovered in different locations at MPM. This is important because it shows the impact that the McClellan sampling as well as and wear and tear over time have had on the material and its usability. Combining artifacts is only one of the challenges; mistaken identity is also something that can happen. 04.TH.12.149 and 01.TH.12.043 were thought to be the same cataloged artifact (N25957), but through inquiry and field documentation the correct artifact was assigned to N25957. This is important because it shows the pitfalls of relying solely on the field cards. And finally, due to the various field containers used, sometimes it is unclear which artifact is which. Both 01.TH.07.385 and 04.TH.07.578 were found in different types of field containers, one marked, the other unmarked. Without documenting which is which, however, it would be easy to confuse the two sets of rings.

The following chapter provides a preliminary analysis of the metal inventory generated by this project. Changes in the methodological approach as the project progressed altered the scope of the analysis. While general observations and trends are discussed, analyzing the metal assemblage in a vacuum still leaves much to be desired from a research standpoint. Additionally, excavation data being incomplete for a portion of the inventory reduces the size of the overall sample. It is important, however, to attempt this so that future researchers may add to the work completed here and to provide some insight into the potential of the metal collection for the interpretation of Tell Hadidi.

Chapter 4 Analysis

The analysis that follows is based solely on artifacts that could be physically located in the MPM, and in some cases have been reconciled with excavation information. There are still a number of artifacts that have not been located and were never inventoried during this thesis, or artifacts that were inventoried in a previous project but the physical artifact cannot be reconciled with the existing documentation. These missing artifacts, as well as those artifacts in Aleppo, are not included in the analysis below but will need to be a component of a future project.

Approximately 110 field cards remain unreconciled.

Table 4.1 Euphrates Valley Expedition Metal Collection by Site and Category (organized left to right by largest site assemblage and from bottom to top by most common artifact categories overall)

<i>Artifact Category</i>	<i>TH</i>	<i>JP</i>	<i>THa</i>	<i>NO</i>	<i>JJ</i>	<i>ES</i>	<i>PL3</i>	<i>EQ</i>	<i>AD</i>	<i>EM</i>	<i>SED</i>	<i>MQ</i>	<i>Total</i>
Tweezers (11)	1	0	0	0	0	0	0	0	0	0	0	0	1 (<1%)
Axes (03)	0	0	2	0	0	0	0	0	0	0	0	0	2 (<1%)
Pendants (10)	6	1	0	0	0	0	0	0	0	0	0	0	7 (<1%)
Blades (02)	1	0	12	1	0	0	0	0	0	0	1	0	15 (1.6%)
Beads (08)	16	0	0	1	1	0	0	0	0	0	0	0	18 (1.9%)
Projectiles (01)	16	0	13	0	0	0	0	0	0	0	0	0	29 (3.1%)
Bracelets (06)	42	0	0	2	2	1	0	0	0	0	0	0	47 (4.99%)
Coins (05)	21	44	0	11	9	0	3	0	0	1	0	1	90 (9.6%)
Rings (07)	108	1	0	1	1	0	0	0	0	0	0	0	111 (11.8%)
Nails (09)	148	0	0	0	0	0	0	0	0	0	0	0	148 (15.7)
Misc. (12)	197	7	3	5	2	0	0	2	2	0	0	0	218 (23.2%)
Pins (04)	230	0	15	2	1	6	0	0	0	1	0	0	255 (27.1%)
Total	786	53	45	23	16	7	3	2	2	2	1	1	941

Nine hundred forty one metal artifacts were identified and inventoried in the Euphrates Valley Expedition Metal Collection. Tell Hadidi makes up most of this total, with 786 (84%) artifacts, but this number is somewhat misleading (Figure 4.1). During the inventory process it

was decided that any artifact that could not be identified as having a source but was discovered in association with other artifacts from Tell Hadidi would be assigned to Tell Hadidi. This was based on several assumptions: 1) after a review of the field cards, Tell Hadidi accounted for a majority of material; 2) the majority of artifacts classified as an “object” for the division of finds in Syria were located in the Plexi-glass case, and because of this most of the material not in the case were considered samples, which presumably would not have been collected from sites other than Tell Hadidi (Dornemann pers. comm. 2015).

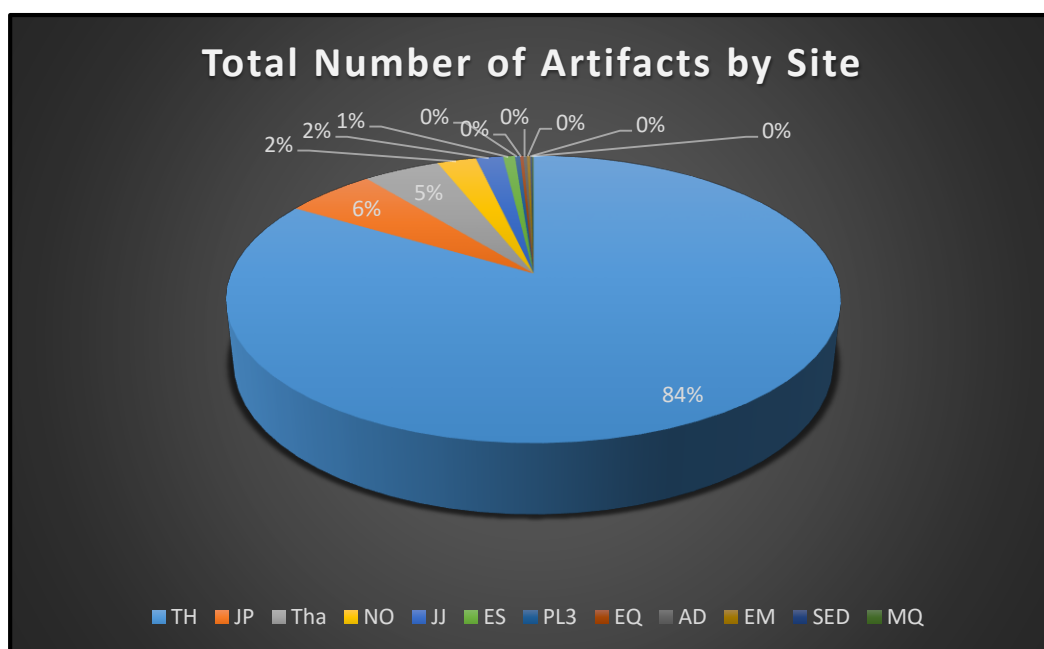


Figure 4.1 Euphrates Valley Expedition Metal Collection by Site

The SCC portion of the collection totals 155 artifacts, 16.5% of the total (Table 4.2). Jusef Pasha and Tell Halawa have the largest artifact totals after TH with 53 (5.63% of total) for Jusef Pasha and 45 (4.8% of total) for Tell Halawa. A no site (NO) designation was given to 23 (2.44% of total) artifacts because they were found unassociated with other artifacts in storage, could not be matched with field documentation, and it is unlikely that reconciling the artifact with field documentation will be possible. A total of 16 (1.7% of total) were sourced to Jebel

Jerum, primarily coins. Es Sash (seven artifacts), Purchase Lot 3 (three artifacts), El Qitar (two artifacts), an anonymous donor (two artifacts), El Matbuh (two artifacts), Shams ed Din (one artifact), and Meskene Qadime (one artifact) each account for less than 1% of the total number of metal artifacts inventoried.

Table 4.2 Total Number of Euphrates Valley Expedition Metal Artifacts Inventoried

Source of Material	Total Artifacts Identified at MPM
Shams Ed Din	1 (<1%)
Meskene Qadime	1 (<1%)
El Matbuh	2 (<1%)
Anonymous Donor	2 (<1%)
El Qitar	2 (<1%)
Purchase Lot #3	3 (<1%)
Es Sash	7 (<1%)
Jebel Jerum	16 (1.7%)
No site determined	23 (2.44%)
Tell Halawa	45 (4.8%)
Jusef (Also Youssef) Pasha	53 (5.63%)
Tell Hadidi	786 (83.5%)
Total	941

Material Categories

Table 4.3 Artifact Categories by Material Type

<i>Artifact Category</i>	<i>Bronze/ Copper</i>	<i>Iron</i>	<i>Lead/ Silver</i>	<i>Metal</i>	<i>Other</i>	<i>Total</i>
Tweezers (11)	1	0	0	0	0	1 (<1%)
Axes (03)	2	0	0	0	0	2 (<1%)
Pendants (10)	7	0	0	0	0	7 (<1%)
Blades (02)	15	0	0	0	0	15 (1.6%)
Beads (08)	18	0	0	0	0	18 (1.9%)
Projectiles (01)	23	6	0	0	0	29 (3.1%)
Bracelets (06)	30	15	2	0	0	47 (4.99%)
Coins (05)	90	0	0	0	0	90 (9.6%)
Rings (07)	99	1	8	0	3	111 (11.8%)
Nails (09)	0	148	0	0	0	148 (15.7)
Miscellaneous (12)	140	62	4	10	2	218 (23.2%)
Pins (04)	240	10	4	1	0	255 (27.1%)
Total	665 (70.6%)	242 (25.7%)	18 (1.9%)	11 (1.2%)	5 (<1%)	941

Bronze/Copper

Bronze or copper (I will use the term bronze to describe this category) artifacts make up the majority of the metal artifacts with 665 (70.6%) of artifacts inventoried (Figure 4.2).

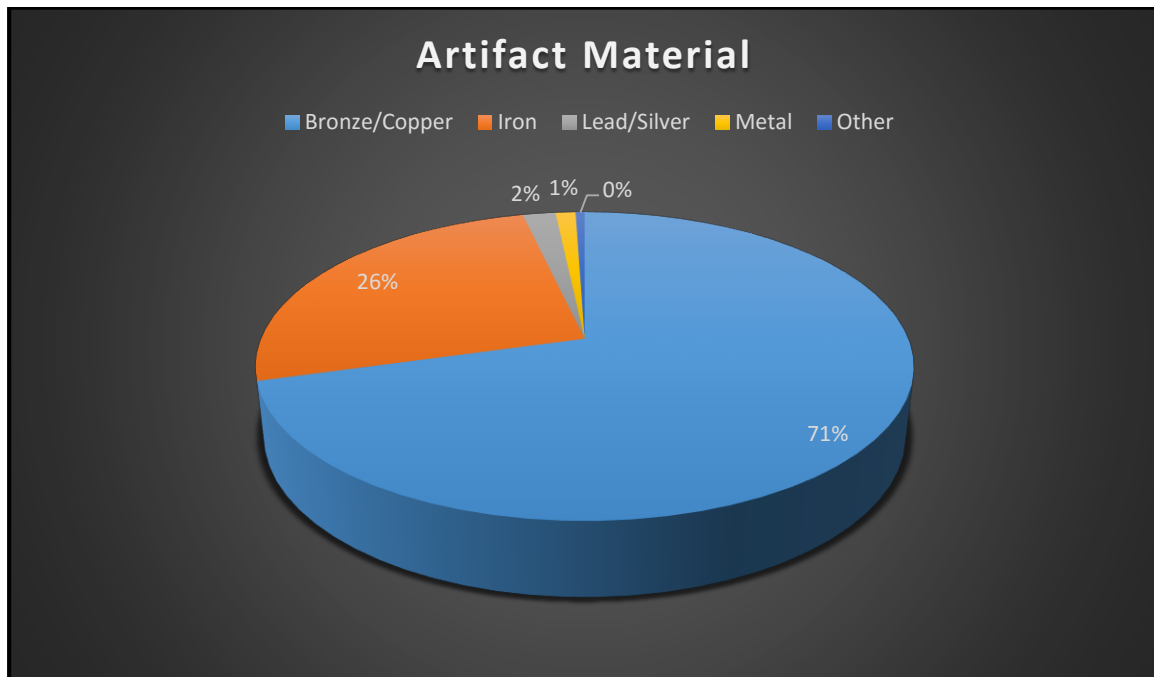


Figure 4.2 Euphrates Valley Expedition Metal Collection by Material

Bronze and copper identification is based on the color of the artifact as well as the color of the corrosion (blueish green). The difference between copper and bronze is difficult to determine without compositional analysis, which was outside the scope of this project. No distinction was made between bronze and copper even when artifacts had previously been identified as being of either material. Based on Joanna McClellan's (1983) results, I would expect that if compositional analysis were completed on every piece we would see a higher tin content in the Middle and Late Bronze Age material and a higher arsenical content in the Early Bronze Age material, but most of the artifacts would be bronze. Another consideration is the condition of the metal artifacts in the collection. Poor - a subjective term in conservation considerations for museum material - best

describes the overall state of the Euphrates Valley Expedition Metal Collection. Most pieces are badly corroded, have soil and mineral accretions, or have been broken in the past.

Bronze pins are the most common artifact category, accounting for 36% of bronze artifacts (240 of 665). The Miscellaneous category is the second most common with a total of 140 of the inventoried artifacts, 21% of all inventoried bronze material. Ninety-nine bronze rings were also documented, accounting for 14.9% of the bronze material inventoried. All 90 (13.5%) of the inventoried coins were identified as being made of bronze. Thirty bracelets (4.5%), twenty three projectiles (3.5%), eighteen beads (2.7%), fifteen blades (2.3%), seven pendants (1.1%), two axes (<1%), and one set of tweezers (<1%) were also inventoried as bronze. No bronze nails were identified.

Iron

A total of 242 (25.7%) artifacts were determined to be made of iron. Iron did not become widely used until the Late Bronze Age and after, although there is some evidence of rudimentary use prior to the Bronze Age (Muhly 1995). Iron was not a common find during the TH excavations, with over half of the iron artifacts consisting of iron nails, most likely used in construction.

Iron nails accounted for 61.2% of the total iron material inventoried (148 of 242). The second most common iron artifact category was Miscellaneous, accounting for 25.6% (62 of 242) of the artifacts inventoried. Fifteen bracelets (6.2%), ten pins (4.1%), six projectiles (2.5%), and one ring (<1%) were also inventoried. None of the inventoried blades, axes, coins, beads, pendants, or tweezers were made of iron.

Lead/Silver

During the inventory process a small number of artifacts were identified as made of lead or silver. Corrosion and discoloration from soil has made it difficult to distinguish between these two metal types, so they have been grouped together here. In total only 18 artifacts were classified as lead/silver, roughly 1.9% of the total collection. The most common artifact category encountered was rings, accounting for 44% of the lead material (eight of 18). Four pins, four miscellaneous artifacts, and two bracelets were also inventoried and classified as made of lead or silver. No projectiles, blades, axes, coins, beads, nails, pendants, or tweezers were made of these materials.

Metal, Unidentified

For 12 (1.2%) artifacts it was not possible to determine the metal used. Corrosion and discoloration were the determining factors in not assigning material designation. Ten miscellaneous artifacts could not be described as anything but metal, accounting for 91% of this category. One pin could also not be identified as anything but metal. No projectiles, blades, axes, coins, bracelets, rings, beads, nails, pendants, or tweezers were made of an unknown material.

Other Materials

Less than 1% of the material inventoried was non-metal but was found with the metal artifacts. These included a ceramic piece, stone beads associated with rings, and unidentified organic material. With artifacts remaining in original field bags and containers, some soil was collected while bagging the metal material. These contents were also kept.

Artifact Categories TH vs. SCC

Table 4.4 TH vs. SCC Material

<i>Artifact Category</i>	<i>Number of Artifacts (TH)</i>	<i>Number of Artifacts (SCC)</i>	<i>Total</i>
Tweezers (11)	1	0	1 (<1%)
Axes (03)	0	2	2 (<1%)
Pendants (10)	6	1	7 (<1%)
Blades(02)	1	14	15 (1.6%)
Beads (08)	16	2	18 (1.9%)
Projectiles (01)	16	13	29 (3.1%)
Bracelets/Anklets (06)	42	5	47 (4.99%)
Coins (05)	21	69	90 (9.6%)
Rings/Earrings (07)	108	3	111 (11.8%)
Nails (09)	148	0	148 (15.7)
Miscellaneous (12)	197	21	218 (23.2%)
Pins (04)	230	25	255 (27.1%)
Total	786 (83.5%)	155 (16.5%)	941

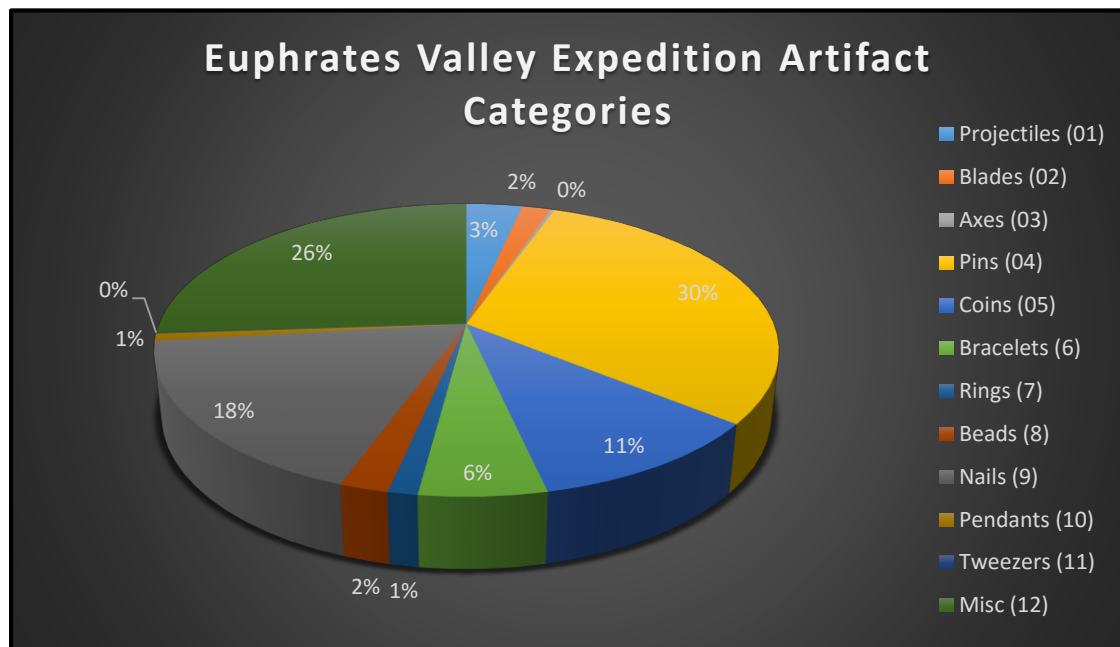


Figure 4.3 Euphrates Valley Expedition Metal Artifact Category Totals

Projectiles (01)

Sixteen of the 29 projectiles inventoried were determined to have come from Tell Hadidi, accounting for 55% of this artifact category. The other 13 projectiles were recovered from Tell Halawa (45%). Projectile points include those with tangs, both straight and curved, as well as

those with sockets. All bronze points have tangs; sockets do not appear in bronze projectiles but are found in the iron point category. Projectiles only make up 3.1% of the Euphrates Valley Expedition Metal Collection.



Figure 4.4 Artifact Category – Projectiles
(Left to right) – 01.TH.01.605 - 01.TH.01.606 - 01.TH.01.128
02.THa.01.120 - 02.THa.01.121 - 01.TH.01.117a,b - 02.THa.01.125a,b

Blades (Knives or Daggers) (02)



Figure 4.5 Artifact Category – Blades (Left to Right)
02.SED.02.140 - 02.THa.02.138 - 02.THa.03.143 - 02.TGa.02.133 -
02.THa.02.139 - 02.THa.02.135, 136, 693 - 02.THa.02.142 - 02.THa.02.137

Blades also make up a small portion of the overall collection, with only 2.2% (15 of 941). Only one blade was inventoried and determined to have been from Tell Hadidi (6.6%). Of the remaining 14 blades, 12 are from Tell Halawa (80%), for one a site could not be determined (6.6%), and one blade was from Shams ed Din (6.6%) Blades utilize rivets or perforations that would have been used to attach a different material, probably wood, for a handle. There is one example of a blade (dagger), 02.SED.02.140, that was cast as one piece with a metal handle.

Axes (03)

Both artifacts identified as axes were made of bronze and were from the site of Tell Halawa. The two bronze axes identified make up less than 1% of the total collection. There are no examples of iron, lead, silver, or unidentified metal axes. No axe socket was found, making this artifact difficult to determine based on style. McClellan sampled 02.THa.03.548, but this piece was never analyzed for publication (Figure 4.6).

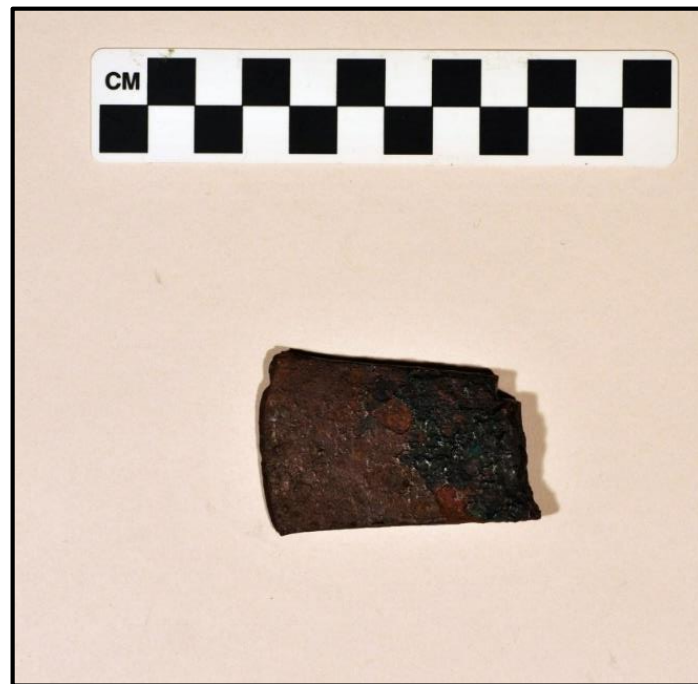


Figure 4.6 Artifact Category – Axe – 02.THa.03.548

Pins (04)

Pins are the most common artifact category in the Euphrates Valley Metal Collection, with 255 artifacts identified as a pin or pin fragment (27.1%). Tell Hadidi yielded 230 pins (90.1%), fifteen were recovered from Tell Halawa (5.9%), six from Es Sash (2.3%), two had no site association (<1%), one was from Jebel Jerum (<1%), and one from El Matbuh (<1%).

Pin form was determined based on head design. Squadrone (2007: 199-202) provides a typology of pins found at the Birecik Dam Cemetery, located on the Euphrates River north of Tell Hadidi. Her categories include perforated and unperforated pins. Unperforated pins include conical head pins (with grooved and knob heads), round head pins with horizontal grooves, animal head pins, and disc head pins. Perforated pins include bow-shaped pins and toggle pins. While Squadrone's inventory has similarities with the Euphrates Valley Expedition Metal Collection, her types do not cover all examples encountered, so Klein's (1992) types (also used by Novak 1994) were utilized where necessary. The Euphrates Valley Expedition Metal Collection included 13 types (Figure 4.7).

Pins with no defined head include both those that are perforated and unperforated examples. Nail-headed pins are present, usually without perforations and sometimes with a ribbed design on the body. Mushroom headed pins are also found both perforated and unperforated. Three variations of ball headed pins are present: perforated, in the double head form and in a curved neck form. Club and segmented head pins are both present, usually with perforations. These two groups were combined because some segmented heads are corroded and cannot be distinguished from club forms. Roll headed pins are present and do not have perforations; the rolled over head takes the place of the perforation, including a roll headed

fibula. Other styles of pins present include bow shaped (not pictured), serpent, and animal headed (not pictured).



Figure 4.7 Artifact Category – Pins (Left to Right)

Top - 01.TH.04.12a,b (Nail Head) - 01.TH.04.013 (Nail Head) - 04.TH.04.105 (No Defined Head) - 04.TH.04.081 (Mushroom Head) - 02.THa.04.009 (Mushroom Head) - 04.TH.04.104 (Ball Head) - 02.THa.04.007 (Double Ball Head) - 02.THa.04.547 (Curved Ball Head) - 01.TH.04.588 (Club Head)

Bot - 02.ES.04.024 (Segmented Mace Had) - 01.TH.04.019 (Fibula; Roll Head) 01.TH.04.016 (Roll Head) - 01.TH.04.014 (Bell Shaped) - 01.TH.04.692 (Serpent) - 04.TH.04.421 (Misc. Flattened)

Coins (05)

Out of the 90 coins inventoried only 21 were determined to have come from Tell Hadidi (23.3%). The remaining 69 coins are from six separate sources. Forty-four coins were from Jusef Pasha (49%), eleven coins had no site association (12.2%), nine were from Jebel Jerum (10%), three were from Purchase Lot #3 (3.3%), one was from El Matbuh (1.1%), and one was from Meskene Qadime (1.1%). Coins and blades are the only two artifact categories where the SCC accounts for a higher percentage of the total collection than Tell Hadidi. Coins were well documented during the Tell Hadidi excavations, and original photos are available with the field

cards. These photos are not labeled, however, and many of the coins have further corroded, making it difficult to match coins and photos.



Figure 4.8 Artifact Category – Coins – 01.TH.05.551

Bracelets/Anklets (06)



Figure 4.9 Artifact Category - Bracelets (left to right)
Top - 02.JJ.06.423 - 02.ES.06.232 - 01.TH.06.233
Bot - 01.TH.06.527 - 01.TH.06.565

Bracelets and anklets are difficult to identify without context information. Most are found in mortuary contexts, and their artifact categorization would depend on where they were worn on

the body of the deceased individual. Bracelet is the blanket term assigned to this category. Forty-seven bracelets have been inventoried, comprising 5% of the total collection. Bracelets occur in closed and unclosed forms. Unclosed forms can be subdivided into flattened end vs rounded end. Forty-two bracelets that were inventoried were determined to have been from Tell Hadidi (89.4%). For the remaining five bracelets, two were given no site designation (4.3%), two are from Jebel Jerum (4.3%), and one is from Es Sash (2.1%).

Rings/Earrings (07)

Rings and earrings proved to be difficult in some cases to differentiate without additional excavation documentation. Corrosion and the fragmentary nature of small ornamental artifacts complicate identification of this category. While there are some clear examples (finger rings with decorative elements, shown in Figure 4.10), as documented in the inventory descriptions, these two categories were combined to await someone with more expertise to make a more accurate identification.



Figure 4.10 Artifact Category – Rings (left to right)
Top – 01.TH.07.170 - 01.TH.07.171 - 02.TH.07.549
Bot – 01.TH.07.388 - 01.TH.07.379, 559 (Refit)

One hundred eleven rings were inventoried, comprising 11.8% of the total metal collection.

Rings appear in a number of forms, from simple enclosed metal circles, to examples with settings that hold intact stones. Of the 111 rings inventoried, 108 were determined to have been recovered from Tell Hadidi (97.2%), one was from Jusef Pasha (.9%), one had no site designation (.9%), and one was from Jebel Jerum (.9%)

Beads (08)

All metal beads inventoried are from Tell Hadidi and make up 2% of the total metal collection. Rosenow (2005) conducted an analysis of the beads recovered from Hadidi, but it is unclear if the beads discovered during this project were included.



Figure 4.11 Artifact Category – Beads
(left to right) 04.TH.08.255 - 01.TH.08.203 - 01.TH.08.414

It is possible that she references beads inventoried here by their field cards. She did not physically analyze the beads, however, her description of the metal beads follows: “The Metal Bead category consists of thirty-seven beads of Bronze (21), Gold (1), Iron (1), Silver (10) and Unidentified Metal (2). The Metal Bead category represents less than 1% of the total beads found at the site” (Rosenow 2005: 49). All artifact beads inventoried could be sourced to Tell Hadidi.

Nails (09)

Nails were most likely used during the construction of buildings or fences. The 148 artifacts identified as nails make up 15.7% of the total metal collection. All nails identified are iron and from Tell Hadidi.



**Figure 4.12 Artifact Category – Nails (left to right)
01.TH.09.432 - 01.TH.09.473a,b (separate)- 01.TH.09.472 - 01.TH.12.443**

Pendants (10)



**Figure 4.13 Artifact Category – Pendants (left to right)
02.JP.10.277 - 01.TH.10.168 - 01.TH.10.153 - 01.TH.10.151**

Pendants in the Bronze Age were generally found in mortuary contexts. Pendants make up less than 1% of the total collection. Six of the seven pendants are sourced to Tell Hadidi (85.7%). The remaining pendant is from Jusef Pasha (14.3%).

Tweezers (11)



Figure 4.14 Artifact Category – Tweezers - 01.TH.11.144

The presence of tweezers in the collection indicates a high status individual lived or was buried at Tell Hadidi (Philip 2007: 192). The one set of tweezers identified is made of bronze, which is common, but was not found in a burial context. Bronze tweezers make up less than 1% of the total collection.

Miscellaneous (12)

Miscellaneous artifacts account for 21% (218 of 941) of the total collection. Of the 218 Miscellaneous artifacts, 197 were determined to have originated from Tell Hadidi, accounting for 90.4% of the artifact category total. Seven Miscellaneous artifacts are from Jusef Pasha (3.2%), five have no site association (2.3%), three are from Tell Halawa (1.4%), two are from Jebel Jerum (<1%), two are from El Qatar (<1%), and are two from an anonymous donor (<1%).



excavation information written on the card. These account for 20 of the artifacts not reconciled. The additional 143 have a reliability rank of 04 (Table 4.7). These artifacts are still thought to be from Tell Hadidi based upon their artifact type, mainly because unidentifiable fragments would not have been collected or purchased from other sites.

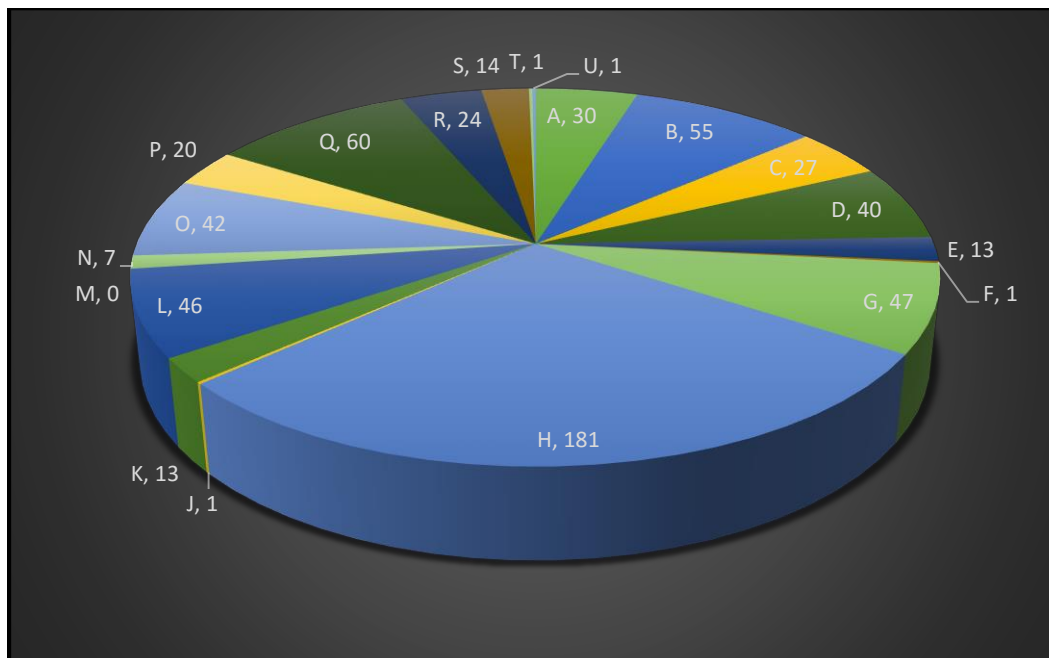


Figure 4.16 Tell Hadidi Metal Distribution – Totals by Area

Table 4.5 Artifact Frequency Distribution by Area at Tell Hadidi

<i>Artifact Category</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i>	<i>Q</i>	<i>R</i>	<i>S</i>	<i>T</i>	<i>U</i>	<i>Total</i>
Axes (03)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Tweezers (11)	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Blades (02)	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Pendants (10)	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	-	6
Beads (08)	1	1	-	3	1	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-	9
Projectiles (01)	1	1	-	1	-	-	2	7	-	-	-	-	1	-	-	-	2	-	-	-	15
Coins (05)	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	12	5	1	-	-	20
Bracelets (06)	2	1	1	1	1	-	3	12	-	-	7	-	-	1	-	2	1	-	-	-	32
Rings (07)	3	-	2	6	3	-	1	29	-	10	14	-	2	9	1	1	-	-	1	-	82
Nails (09)	6	-	2	1	-	-	25	64	-	-	2	-	-	-	4	26	8	9	-	-	147
Pins (04)	6	33	9	10	6	-	1	27	-	1	17	-	1	30	-	5	2	-	-	-	148
Misc. (12)	11	18	13	16	2	1	14	39	-	2	6	-	3	2	13	13	5	3	-	1	162
Total	30	55	27	40	13	1	47	181	1	13	46	0	7	42	20	60	24	14	1	1	623

Artifact Categories by Tell Hadidi Area

Area I

Area I does not exist. The plot system utilized Roman numerals and it is possible area I was omitted to avoid confusion between an “I” designation.

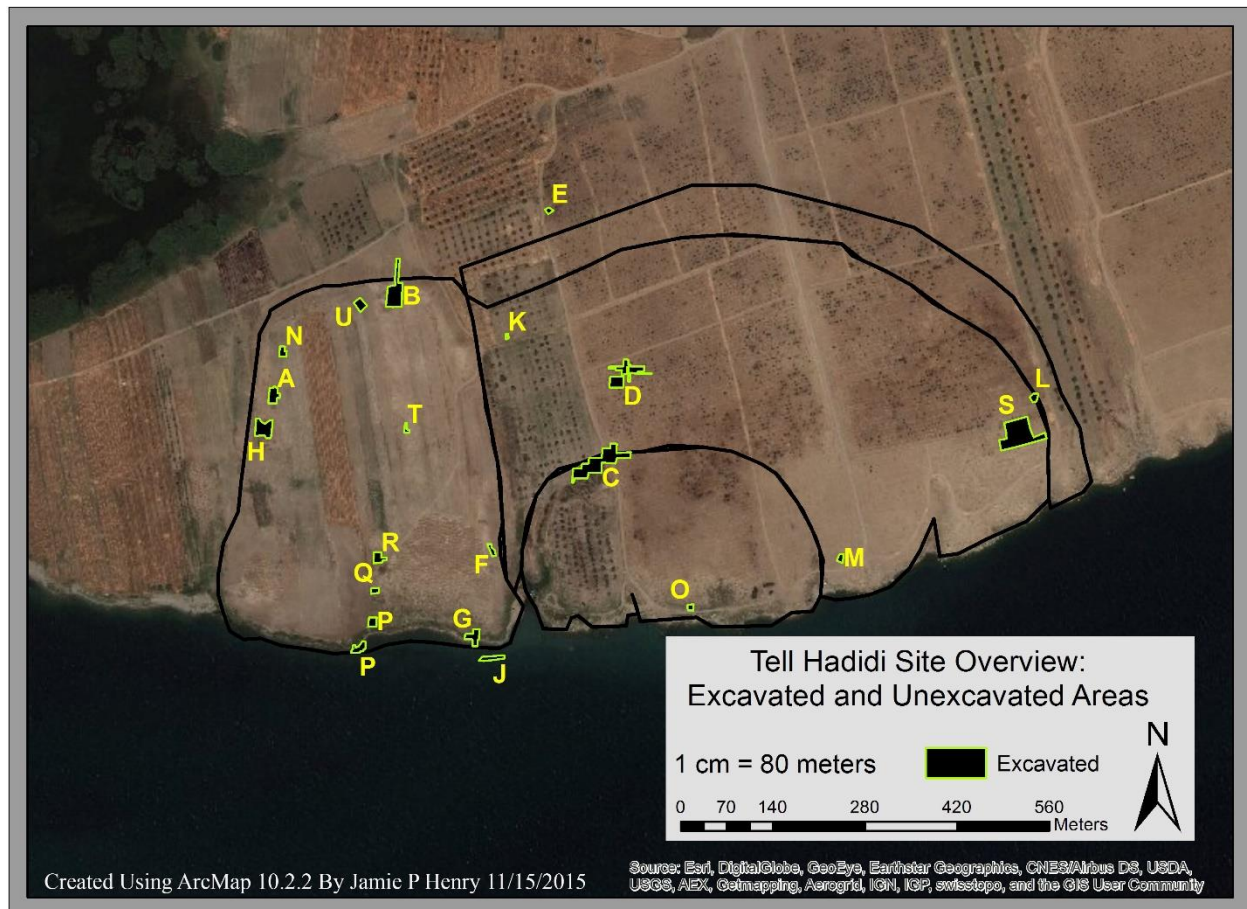


Figure 4.17 Tell Hadidi Site Overview Map

High Tell Areas

Areas A, H, and N

Area A is on the eastern portion of the high tell, north of Area H and south of Area N (Figure 4.18). Blades, axes, coins, pendants and tweezers are all absent from Area A's inventoried metal artifact assemblage. Thirty metal artifacts were recovered from Area A, accounting for 4.8% of the metal artifacts recovered at Tell Hadidi. The most common artifact

category is Miscellaneous, which makes up 36.6% (11 of 30) artifacts documented. Six pins (20%), six nails (20%), three rings (10%), two bracelets (6.6%), one bead (3.3%), and one projectile (3.3%) were also recovered. A massive stone wall, about 6.2 m thick, was encountered in Area A and continued into Area H and is identified as part of the Middle Bronze Age defensive wall (Dornemann unpublished report 1974). Major disturbances were encountered in Area A due to pits and burials dating from the Hellenistic, Roman, and Early Islamic occupations. The Islamic cemetery continued into Area H (Dornemann pers. comm. 2014).

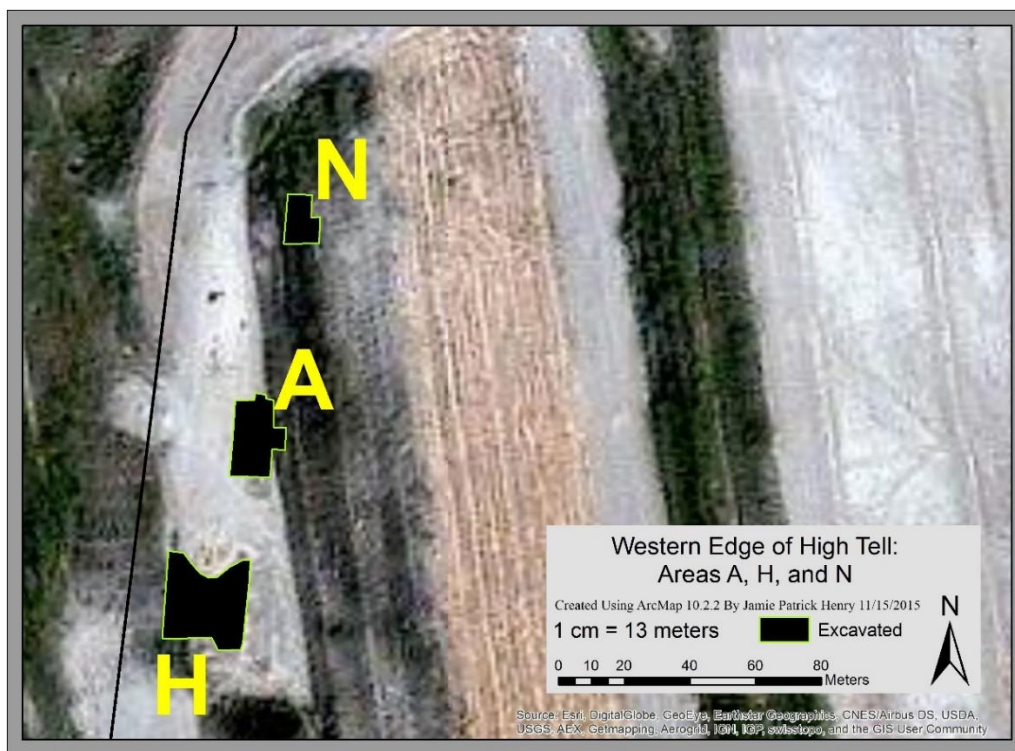


Figure 4.18 Areas A, H, and N

Blades, axes, and tweezers were absent from the Area H inventoried metal artifact assemblage. Area H produced a total of 181 metal artifacts, the most of any excavated area at Tell Hadidi, accounting for 29.1% of the total number of metal artifacts recovered at Tell Hadidi. This is due, in part, to the presence of an early Islamic cemetery in Area H. This is evident from the 64 nails recovered from Area H, accounting for 35.4% of the metal from Area H. The next

most common artifact category is Miscellaneous at 21.5% (39 of 181). Twenty-nine rings, most likely from burials, account for nearly 16% of the metal recovered from Area H. Twenty-seven pins (14.9%), 12 bracelets (6.6%), seven projectiles (3.9%), one coin (<1%), one bead (<1%), and one pendant (<1%) were also recovered in Area H. Area H produced the only well-preserved architecture dating to the Late Bronze Age. The building discovered here (the Tablet Building) had been completely destroyed by fire and contained seven rooms that were laid out on three sides of a courtyard (Dornemann 1985: 273). A building of similar plan was found to the north during excavations by the University of Leiden in 1973 and 1974 and is the evidence for the final phase of Tell Hadidi's Bronze Age occupation (Dornemann 1985: 274). Additionally an early Islamic cemetery was encountered in Area H (Dornemann pers. comm. 2015).

No blades, axes, coins, bracelets, beads, nails, pendants, or tweezers were found in the Area N inventoried metal artifact assemblage. Area N produced a total of seven metal artifacts, 1.1% of the total number of metal artifacts excavated at Tell Hadidi. The most common metal artifact type recovered in Area N was in the Miscellaneous category, which accounts for 42.8% (three of seven). Two rings (28.6%), one projectile (14.3%), and one pin (14.3%) were also recovered from Area N. Reports detailing excavations of Area N could not be located in the MPM archives during this project. Area N's location north of Area A and H, but still along the eastern edge of the site, indicates it could have been excavated to follow the defensive wall dating to the Middle Bronze Age.

Areas B, T, and U

Areas B and U are located on the northern portion of the high tell, with Area B further west than Area U (Figure 4.19). Area T is located directly south of Area B in the center of the high tell. No blades, axes, coins, rings, nails, or pendants were found in Area B, which produced a total of 55 metal artifacts. This accounts for 8.8% of the total number of metal artifacts

excavated at Tell Hadidi. The most common metal artifact category for Area B is pins, accounting for 60% (33 of 55) of metal artifacts recovered. Of the metal artifacts from Area B, 22.7% (18 of 55) of Area B's metal artifacts fall into the Miscellaneous category. One projectile (1.8%), one bracelet (1.8%), one bead (1.8%), and one pair of tweezers (1.8%) were also recovered. The pins and tweezers present in Area B are the most striking features. Throughout the Bronze Age pins and tweezers were associated with mortuary contexts in Syria, but the closest documented tomb near Area B was discovered in Area K (south and west of Area B on the low tell). The remains of the Middle Bronze Age defensive system was discovered in Area B in the form of a three meter thick wall. Small individual rooms, ovens, and kilns were discovered, as were five infant burials were discovered buried into or under floors (Boor 2012: 63; Dornemann 1979: 132,141).

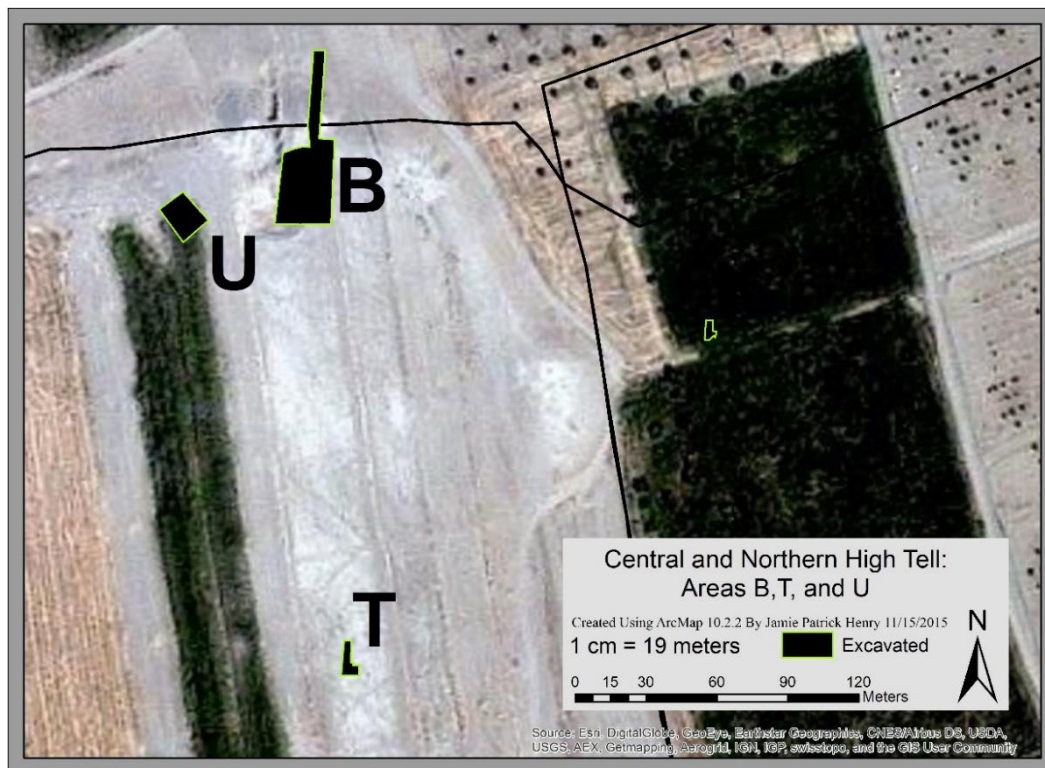


Figure 4.19 Areas B, T, and U

Areas T and U produced only two metal artifacts, combining for less than 1% of the total number of metal artifacts recovered at Tell Hadidi. Area T produced an earring and Area U produced a Miscellaneous iron artifact, possibly a tool. Reports detailing the excavation of Areas T and U could not be located during the completion of this thesis, so no information regarding context is currently available.

Areas Q and R

Area R is located in the center of the southern half of the high tell, while Area Q is approximately 30 meters to the south of Area R (Figure 4.20). Area Q (12 coins) and Area R (five coins) account for 85% of the coins recovered from Tell Hadidi (17 of 20).

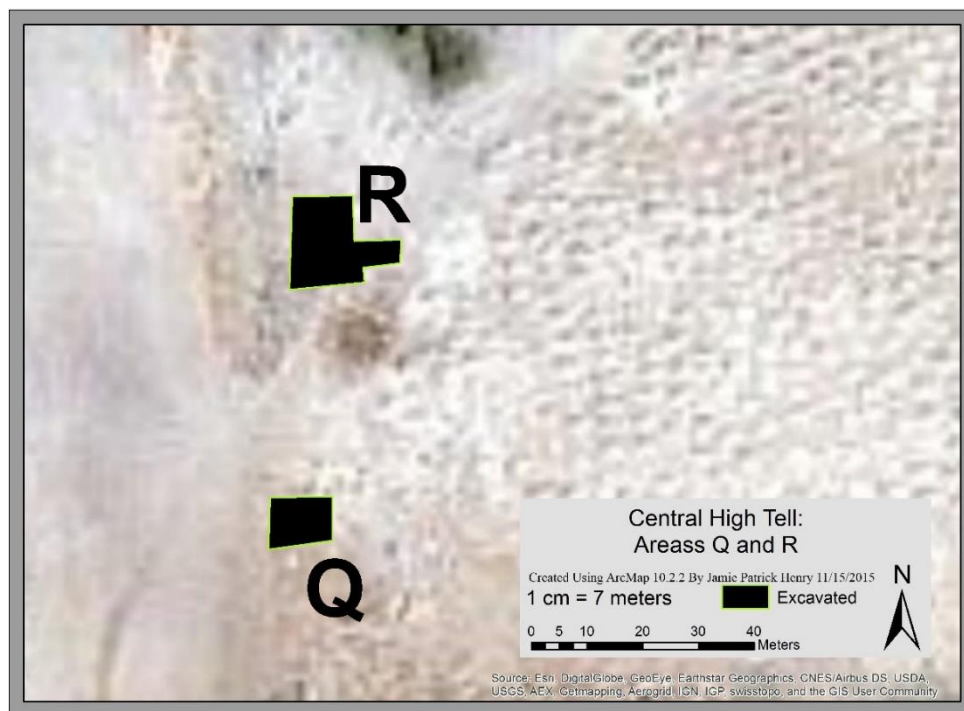


Figure 4.20 Areas Q and R

No projectiles, blades, axes, beads, or tweezers were found in Area Q; the 60 metal artifacts recovered account for 9.6% of the total number of metal artifacts at Tell Hadidi. The most common artifact category is nails, accounting for 43.3% (26 of 60) of the metal artifacts recovered from Area Q. Thirteen miscellaneous (21.7%), twelve coins (20%), seven pins (11.7%),

two (3.3%) bracelets, one earring (1.6%), and one pendant (1.6%) were also discovered in Area Q. Reports detailing excavations of Area Q could not be located so no information regarding context is available.

Blades, axes, rings, beads, and tweezers are all absent from the Area R inventoried metal artifact assemblage. Area R accounts for 3.8% (24 of 623) of the total number of metal artifacts recovered at Tell Hadidi. Nails are the most common artifact found, accounting for 33.3% (8 of 24) of the total metal from Area R. Five miscellaneous artifacts (20.8%), five coins (20.8%), two projectiles (8.3%), two pins (8.3%), one bracelet (4.2%), and one pendant (4.2%) were also discovered. Building foundations were encountered in Area R and dated between 3100 BCE – 2850 BCE. Three major shifts in the location of buildings occurred within eight layers of Early- Early Bronze Age occupation in Area R. Evidence for annual plastering with fine white plaster on the building walls was encountered. There was also evidence of “fragmentary architecture” of the Late-Early Bronze Age (2300 BCE – 2000 BCE) in five layers of strata in Area R.

Areas G, J, and P

Areas G, J, and P are located on the southern edge of the high tell (Figure 4.21). Area J was flooded by the end of excavations in 1978. Blades, axes, beads, pendants, and tweezers are all absent from the Area G inventoried metal artifact assemblage. Area G accounts for 7.5% (47 of 623) of the total number of metal artifacts recovered at Tell Hadidi. Nails are the most common artifact type, accounting for 48.1% (25 of 47) of the metal artifacts recovered from Area G. Fourteen (28%) Miscellaneous metal artifacts were also recovered. Three bracelets, two projectiles, one pin, one coin and one ring were also recovered. Area G produced remains for a defensive wall that was traced to Area P and dated to the Middle Bronze Age (Dornemann 1979: 141). Evidence for Roman period architecture and stratified occupation also were observed in Area G (Dornemann 1985: 269). Roman building activity appears to have either impacted early

construction or destroyed earlier buildings; as a result, excavations were unable to uncover more than the face of the Bronze Age walls (Dornemann unpublished report 1976a: 10).

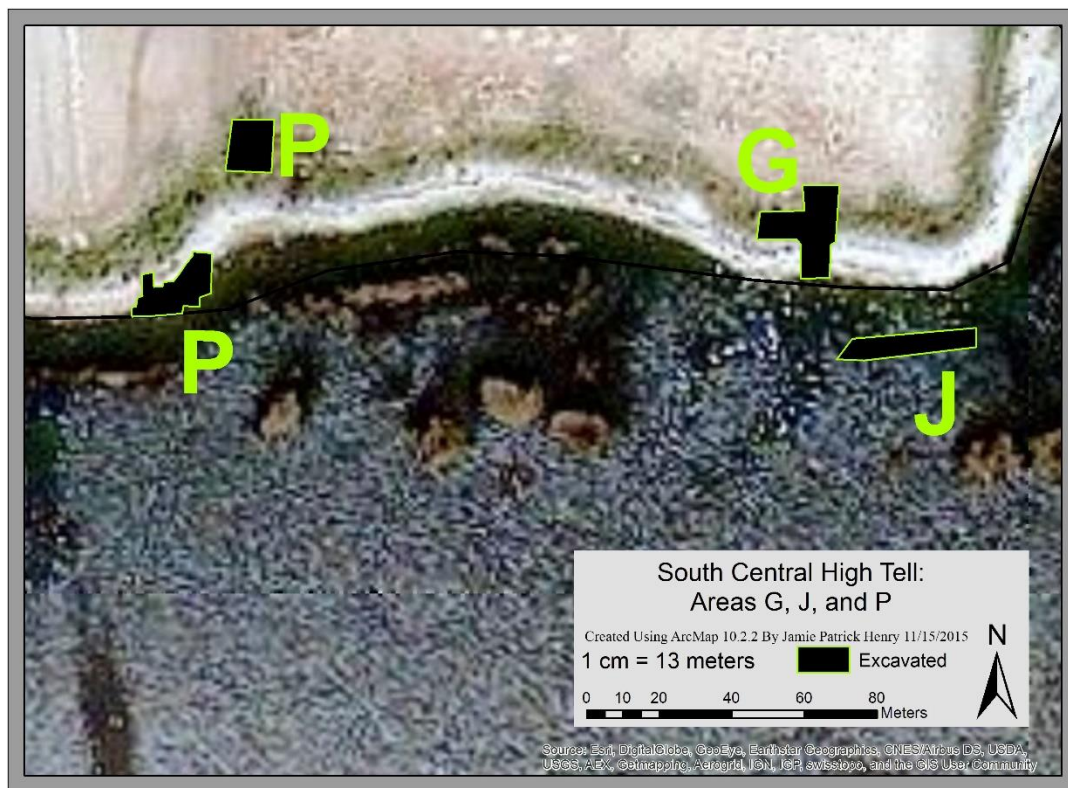


Figure 4.21 Areas G, J, and P

Area J only produced one metal object, a blade. Soil is still adhering to the handle of a blade made of bronze, the only preserved element of this artifact. Prior to water levels rising and submerging Area J, evidence for Roman period architecture and stratified occupation were observed (Dornemann 1985: 269).

The Area P inventoried metal artifact assemblage lacks projectiles, blades, axes, pins, coins, bracelets, pendants, and tweezers. Area P accounts for 3.2% (20 of 623) of the total number of metal artifacts recovered at Tell Hadidi. The most common artifact recovered was in the Miscellaneous category, which accounts for 65% of metal coming from Area P (13 of 20), followed by four nails (20%), two beads (10%) and one ring (5%). Evidence for a defensive wall

was traced from Area P to Area G with a gap that may indicate a gate. Area P excavations were halted when it was submerged by the rising dam water (Dornemann 1979: 142). Bronze Age remains were encountered:

Fragmentary remains of several Bronze Age building levels were preserved inside a 3 meter wide stone wall. Against the wall we found two phases of a heavy mud brick wall, a minimum of 3 meters wide. The outside edge could not be traced since we were following the brick below water level very close to the shore. A substantial wall and doorway were found in the earliest phase encountered inside the wall but associated floors were difficult throughout the area as the soil was waterlogged and the lowest, MB II, floors were right at water level at time of excavation. The water has risen over 0.50 meters above these floors in the meantime (Dornemann unpublished report 1976a: 10).

Area F

Area F is located on the Eastern boundary of the high tell, east of Area R and north of Area G (Figure 4.22).



Figure 4.22 Area F

Only one metal artifact was recovered from area F; it falls into the Miscellaneous category. The Dutch expedition had previously excavated the area, and the MPM expedition continued work there to stratigraphically link the high and low tells. Excavations in Area F were undertaken to stratigraphically link the high and low tells. No building remains were found, however it has been interpreted as a kiln because of the tipped fills encountered, producing huge amounts of pottery dating to the Middle Bronze Age (Boor 2012: 65; Cooper 1997; Dornemann 1979: 132).

Low Tell

Areas C and D

Areas C and D are both located on the lower tell (Figure 4.23). Area C is further south than Area D, located in a raised area that runs into the modern shoreline. Projectiles, blades, axes, coins, beads, pendants, and tweezers are all absent from the Area C inventoried metal artifacts. Area C accounts for 4.8% (27 of 623) of the total number of metal artifacts recovered from Tell Hadidi. The most common artifact is Miscellaneous, making up 50% (13 of 27) of the total metal from Area C. Nine pins were also recovered, accounting for 33.3% of the metal artifacts from this area. Two nails (7.4%), two rings (7.4%), and one bracelet (3.7%) were also present in the inventoried material. The stratigraphy of Area C is unclear, but a large structure containing a small shrine or temple and a series at least 11 rooms were found along a street that is at least 48 meters long. Boor (2012) proposes that “continued use of this possible religious space throughout the inhabited history of Hadidi during the Bronze Age may account for the presence of MB pottery in Area C, after domestic activity had retreated behind the high and broad fortification walls of the upper tell” (Boor 2012: 108-109).

Area D accounts for 6.4% (40 of 623) of the total number of metal artifacts recovered from Tell Hadidi. Blades, axes, coins, and tweezers are absent from the Area D inventoried metal

material. Miscellaneous is the most common artifact type recovered, with 16 of the 40 artifacts (40%). The second most common artifacts are pins, accounting for 25% (10 of 40) of the metal artifacts recovered from Area D. The assemblage also includes six rings (15%), three beads (7.5%), two pendants (5%), one projectile (2.5%), one bracelet (2.5%) and one nail (2.5%). A large, multi-chambered tomb dated to the EB and reused in the LB was discovered in Area D. It had been robbed prior to excavations (Boor 2012: 110; Dornemann 1979: 118)

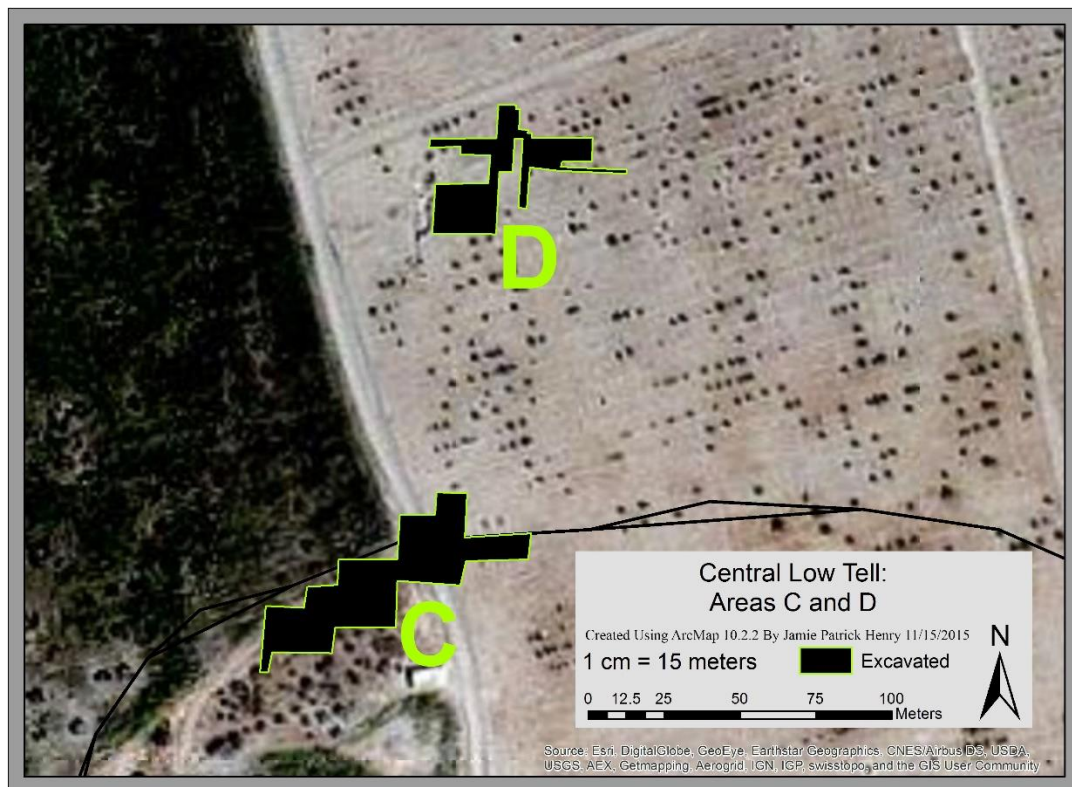


Figure 4.23 Areas C and D

Areas M and O

Area M and Area O are both located on the lower tell close to the southern boundary (river shore) (Figure 4.24). Area M produced no metal artifacts and preservation in this area of the site was extremely poor. Cuts in bedrock were observed and large boulders encountered may have been part of large structures, but there was “no coherence” to the remains (Dornemann unpublished report 1976a: 11).

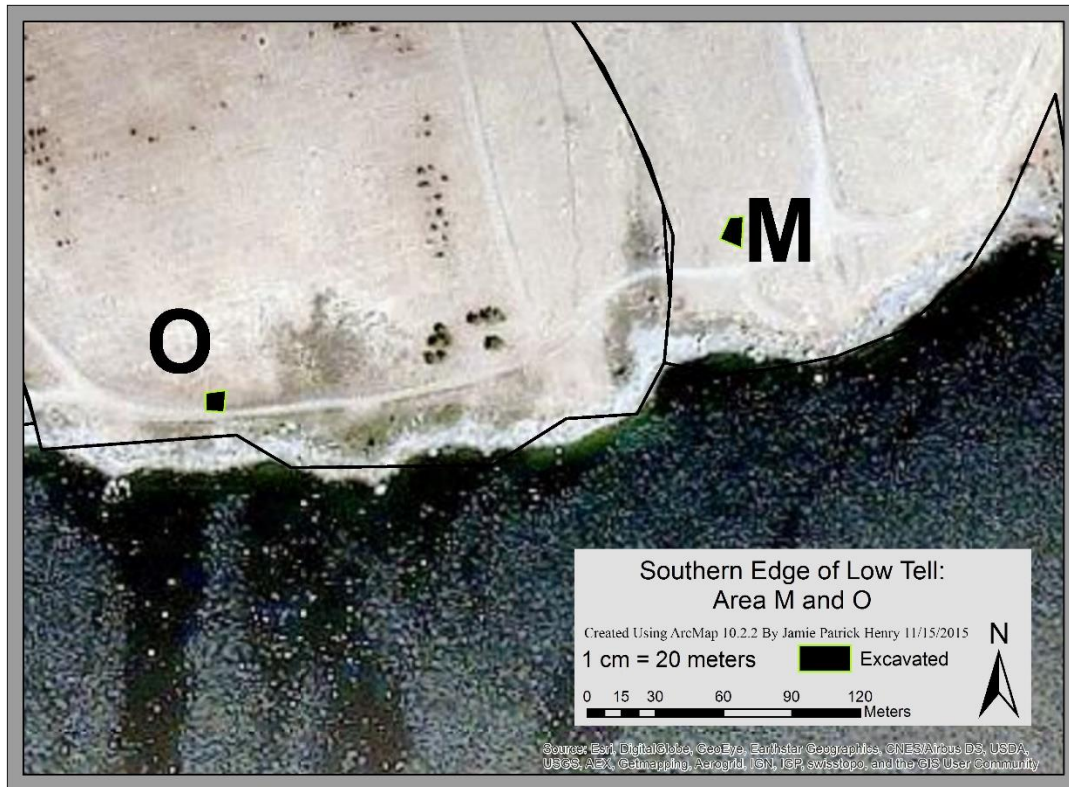


Figure 4.24 Areas M and O

Area O's inventoried metal material did not include projectiles, blades, axes, coins, bracelets, beads, nails, pendants, or tweezers. Area O accounts for 6.7% (42 of 623) of the metal artifacts recovered from Tell Hadidi. Thirty pins recovered from Area O account for 71.4% of the metal artifacts recovered there. Nine rings (21.4%), two Miscellaneous artifacts (4.8%), and one bracelet (4.8%) were also found. Area O contained an LB tomb, summarized by Dornemann below:

We excavated one LB I shaft tomb that had been cut into virgin gravel on the edge of the site, facing the river. Unfortunately, much of the material had been robbed along with that from numerous tombs nearby. A good collection of pottery and other small objects was found and remains of at least 36 skeletons, primarily skulls, were preserved. The tomb had been covered by pit debris of the Byzantine period and it is questionable whether extended excavation would provide information on the relation of the tomb to contemporary settlement (Dornemann unpublished report 1976a: 6).

Area E

Area E is the northernmost area of the low tell (Figure 4.25). Projectiles, blades, axes, coins, nails, pendants, and tweezers were absent from the Area E inventoried material. Area E accounts for 2.1% (13 of 623) of the total number of metal artifacts recovered at Tell Hadidi. Pins are the largest artifacts category at 46.1% (6 of 13). Three rings (23.1%), two Miscellaneous artifacts (15.4%), one bracelet (7.7%), and one bead (7.7%) were also found within area E. A Bronze Age Tomb was present in Area E, based on excavation documentation. Reports detailing excavations of Area E could not be located during the completion of this thesis.

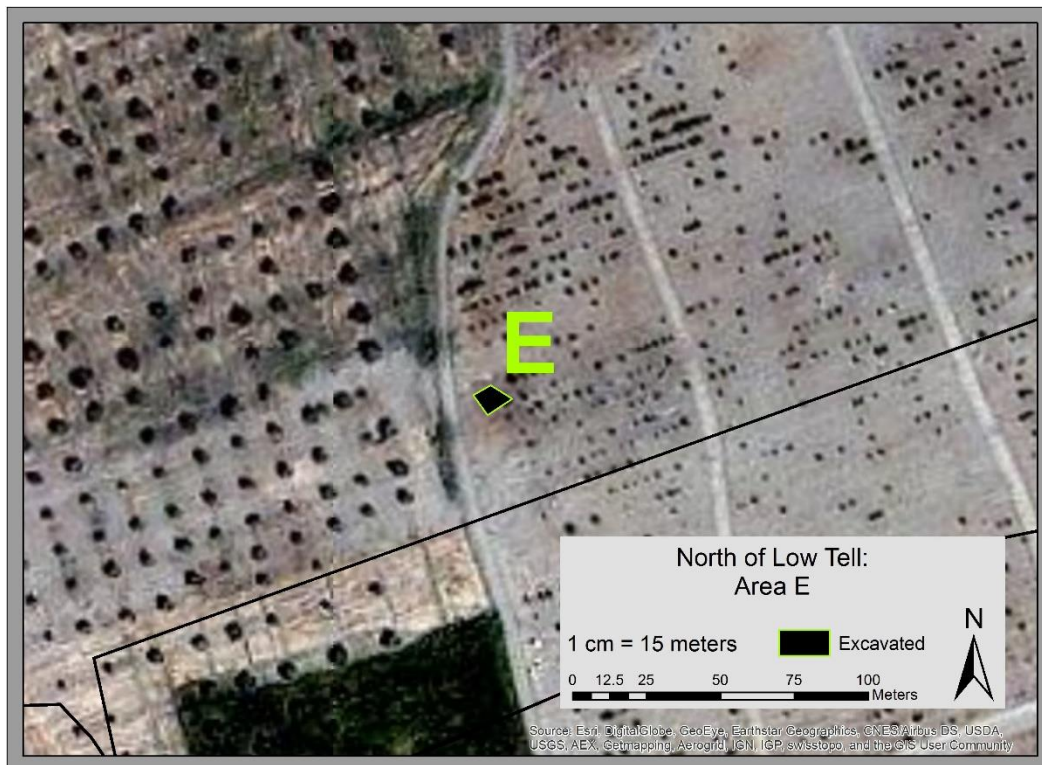


Figure 4.25 Area E

Area K

Area K was located on the lower tell close to the boundary between the high and low tell (Figure 4.26). An undisturbed Early Bronze Age tomb was found in Area K, the only undisturbed EB tomb at Tell Hadidi (Dornemann 1979: 118). Projectiles, blades, axes, coins,

bracelets, beads, nails, pendants, and tweezers are all absent from the Area K inventoried metal material. Area K accounts for 2.1% (13 of 623) of the metal artifacts recovered from Tell Hadidi. The most common artifact category was rings, which account for 77% (10 of 13) of the metal artifacts recovered from Area K. Two Miscellaneous metal artifacts (15.4%) and one pin (7.6%) were also recovered from Area K. The roof had collapsed in the Area K tomb, sealing the tomb and smashing many of the bones. There is limited information on the construction style and size of the tomb (Dornemann unpublished report 1975).

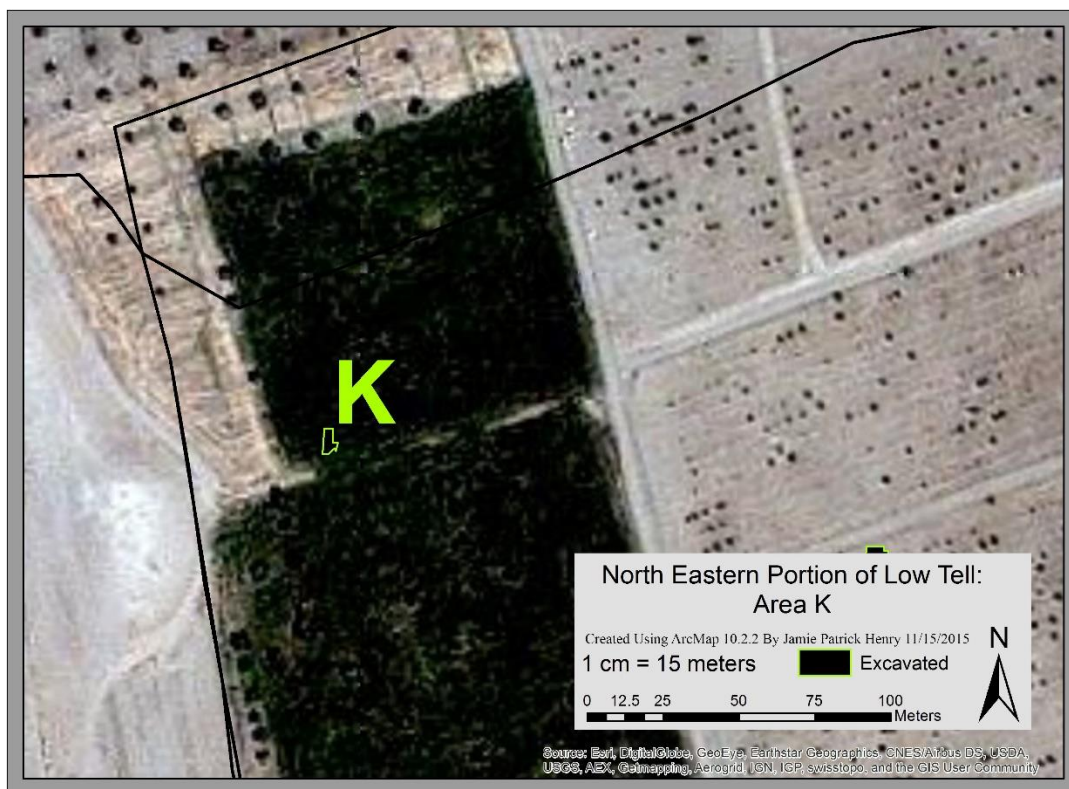


Figure 4.26 Area K

Areas L and S

Areas L and S are both located on the lower tell near the western border of the site (Figure 4.27). Area L accounts for 7.4% (46 of 623) of the total number of metal artifacts recovered from Tell Hadidi. Area L's inventoried metal material does not include projectiles,

blades, axes, coins, beads, pendants, or tweezers. The most common type of artifact recovered was pins, which account for 37% (17 of 46) of the metal artifacts recovered from Tell Hadidi. Rings are the second most common category, accounting for 30.4% (14 of 46). Seven bracelets (15%), six Miscellaneous metal artifacts (13%), and two nails (4.3%) were also recovered from Area L. Excavations in Area L produced two tombs, one dated to the Early Bronze and one dated to the Late Bronze Age. A description of the excavation of the Late Bronze Age Tomb is summarized by Dornemann as follows:

The dimensions of the tomb were 6 meters wide by 10.75 meters long, with a stairway leading down to a room flanked by side chambers and leading to a large room in the rear. The stairway and side chambers were built of dressed stones...but the rear chamber (inside the nicely built doorway) was of cyclopean masonry common in the construction of earlier MB I tombs. Unfortunately, extensive recent and ancient robbing has destroyed most of the information that would have indicated the structures function...We would like to excavate a portion of the late Roman-early Byzantine structure that seems to extend south from this “tomb” south to the edge of the side. We encountered remains of MB I occupation at the edge of our excavations but would be surprised if the later building left much of the earlier remains undisturbed (Dornemann unpublished report 1976a: 7).

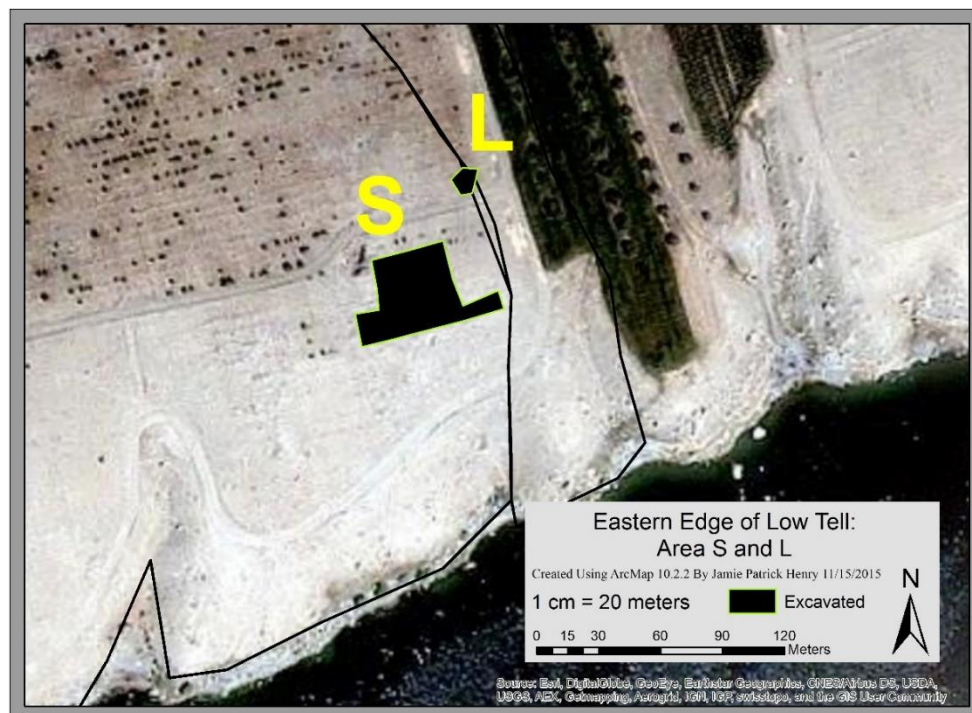


Figure 4.27 Areas L and S

Area S is located southeast of Area L and accounts for 2.3% (14 of 623) of the total number of metal artifacts from Tell Hadidi. Projectiles, blades, axes, pins, bracelets, rings, beads, and tweezers were all absent from the Area S inventoried metal material. The most common artifact category in Area S were nails; they account for 64.3% (9 of 14) of the artifacts recovered Area S. Three miscellaneous metal artifacts (21.4%), one coin (7.1%), and one pendant (7.1%) were also recovered. Excavations in Area S were supervised by Robert C. Ross of the University of Wisconsin-Milwaukee and resulted in the exposure of Roman architecture (Dornemann 1985: 269). Immediately below the surface of Area S were wall foundations between 0.75 and 1.4 meters in thickness. Floors were destroyed by plowing, a common occurrence all over the tell, but portions of more than 33 rooms in at least two phases were observed (Dornemann 1985: 269).

Artifact Categories by Reliability Rating

The reliability scale was initially developed because of concerns regarding provenience for the bulk of the Euphrates Valley Expedition Metal Collection. During the initial review of the collection, this concern proved justified, but with the addition of a large number of more reliably recorded artifacts discovered in storage in 2015, this issue became less of a problem. Artifacts with a reliability of 01 and 02 make up the majority, with 783 artifacts (83.2%) of the collection in those categories (Table 4.6). These artifacts are identified with a field number, site information, excavation information from Tell Hadidi or other SCC site name, and excavation year. Artifacts with a rating of 04 make up the next largest portion with a total of 143 artifacts, 15.1% of the total collection.

Table 4.6 Reliability Rating

Reliability Rating	Total # of Artifacts
01	612 (65.1%)
02	171 (18.1%)
03	1 (.1%)
04	143 (15.1%)
05	14 (1.5%)
Total	941

A small portion of the EVE collection has been cataloged within the MPM. The decision to catalog a small portion of the material during the 1970s and 1980s was made for a variety of reasons. Accessioning and cataloging every artifact brought back to Milwaukee was never intended (Carter Lupton pers. comm. 2015). It was instead important to catalog a sample of the collection, most likely the most extraordinary pieces, and use the rest as a study collection. This would enable the artifacts to be used for education in the museum or trading parts of the collection to Universities or other museums for other artifacts (Carter Lupton pers. comm. 2015). This scenario never materialized, however, and instead the majority of the EVE collection remains in storage uncatalogued.

The pieces that were cataloged were placed within the Nunnemacher series, which had been traditionally reserved for decorative arts. During the research she conducted for her doctoral dissertation, Boor (2012) compiled a list of all the cataloged EVE material and used it to estimate the total amount of metal recovered at 80 pieces. As of the writing of this thesis this list had not been digitized, but the table below provides a list of EVE metal artifacts inventoried during this project and their catalog numbers for use by future researchers (Table 4.7). It provides the catalog number, EVE# and a basic description. This information is also available in Appendix B,

but it is organized here in numeric order by Nunnemacher catalog number. In total 71 EVE artifacts have been reconciled with their catalog numbers. Jocelyn Boor was kind enough to provide an inventory she had completed documenting every cataloged artifact, this list was checked against the table below and it helped identify an additional 19 artifacts that have been cataloged but not reconciled. Cataloged artifacts N25985 (iron arrow head), N26108 (iron arrow head), N26402 (silver earring), N26471 (bronze toggle pin), N26475 (earring), and N27986 (bronze pin) will need to be reconciled with the EVE collection. A collection of metal beads N26580, N27022, N28756, N28792, N28796, N28806, N33390, N33408, N33423, N33599, N33666, N33678, and N33888 will need to be reconciled with Rosenow's (2005) inventory and the EVE inventory. This reconciliation will be aided by the return of color slides and other images from Dornemann in the near future.

Table 4.7 Cataloged Metal Artifacts Inventoried

Catalog #	EVE Inventory #	Basic Description
N25957	01.TH.12.043	Bronze Beer strainer
N25973	01.TH.12.550	Bronze Horse Fitting
N25984	02.SED.02.140	Bronze dagger (molded handle)
	02.SED.02.678	Bronze dagger fragment (McClellan Sample)
N26381	02.ES.04.010	Bronze pin (head w/ shaft fragment) (refit with 011)
	02.ES.04.011	Bronze fragment (shaft w/ tip fragment) (refit with 010)
N26382	01.TH.06.225	Iron bracelet (connected ends)
N26383	02.ES.04.005	Bronze Pin (roll headed)
N26384	02.THa.04.026	Bronze Pin (Mushroom Headed) (Eye)
N26385	02.THa.04.020	Bronze Pin (roll headed)
N26386	02.THa.01.121	Bronze Projectile (tang broken off)
N26387	01.TH.04.013	Bronze Pin (nail headed + Shaft with ribbed design)
N26390	02.THa.01.125a	Bronze Projectile (tang) refit with b
	02.THa.01.125b	Bronze Projectile (Body) refit with a
N26391	01.TH.07.218a	Bronze Ring fragments (2) (Circular setting with stone) (refit with b)
	01.TH.07.218b	Bronze Ring fragment (Band) (refit with a)
N26392	01.TH.10.151	Bronze box clasp
N26398	02.THa.01.124	Bronze Projectile (tang broken off)
N26400	01.TH.07.171	Bronze Ring (setting with stone)
N26401	01.TH.12.172	Unidentified: Lead Hollowed cylinder
N26404	02.THa.01.122	Bronze Projectile (tang broken off)

Catalog #	EVE Inventory #	Basic Description
N26405	02.ES.04.004	Bronze Pin (animal head)
N26408	01.TH.07.230	Bronze Ring (ends not connected)
N26409	01.TH.07.224	Bronze Ring
N26410	01.TH.07.226	Bronze Ring
N26412	01.TH.11.144	Bronze tweezers
N26413	01.TH.04.019 01.TH.04.040	Bronze Pin (rolled head fibula) Bronze pin fragment (Fibula) (McClellan Sample)
N26414	02.JJ.06.423	Bronze Bracelet (Ends hammered flat)
N26415	01.TH.06.231	Bronze Bracelet (flattened ends not connected)
N26417	01.TH.04.016	Bronze Pin (Roll headed)
N26418	01.TH.04.002	Bronze Pin (Ball headed) (ribbed shaft)
N26419	01.TH.06.228	Iron bracelet (ends not connected)
N26420	02.ES.06.232	Bronze Bracelet (ends not connected)
N26434	02.THa.02.138	Bronze Dagger (3 rivets on tang)
N26435	02.THa.03.548 02.THa.03.680	Bronze Axe Bronze axe fragment (McClellan Sample)
N26436	01.TH.12.201 01.TH.12.673	Unidentified: Bronze Spatula Bronze Spatula fragment (McClellan Fragment)
N26437	02.THa.02.139	Bronze dragger fragment (body)
N26438	02.THa.03.143	Bronze Axe blade (MISSING socket)
N26439	02.ES.04.006	Bronze Pin (no head, but most likely nail or mushroom)
N26440	02.THa.01.118 02.THa.01.669	Bronze Projectile fragment (tang and tip broken off) Bronze Projectile (McClellan Sample)
N26441	02.THa.02.132	Bronze blade
N26442	02.THa.02.137 02.THa.02.679	Bronze dagger (bent tang broken tip) Bronze dagger fragment (McClellan Sample)
N26452	02.THa.02.133	Bronze Blade
N26453	02.THa.12.415	Unidentified: Bronze tool (applicator?)
N26455	02.THa.04.642	Bronze pin fragment (rolled head)
N26460	02.THa.04.102	Bronze Pin (mushroom head) (eye)
N26461	02.THa.01.126	Bronze projectile (tang + tip) (Javelin)
N26469	02.THa.04.547	Bronze pin (ball headed) (Eye)
N26472	01.TH.06.527	Iron Bracelet (overlapped ends)
N26473	01.TH.01.129	Bronze projectile (tang + tip) (Javelin)
N26474	01.TH.10.168	Bronze Pendant (2 bails, or possibly clasps)
N26477	01.TH.04.014	Bronze Pin Head (Bell)
N26513	02.THa.01.120	Bronze Projectile (tang)
N26514	02.THa.01.123	Bronze Projectile (tang broken off)
N26515	02.THa.01.119	Bronze Projectile (tang)
N26586	02.THa.12.173	Unidentified bronze curved fragment.
N26588	02.THa.04.017	Bronze Pin fragment (roll headed)
N26637	02.THa.02.142 02.THa.02.668	Bronze dragger tang w/ 2 rivets "Bronze Hilt" (McClellan Sample)

Catalog #	EVE Inventory #	Basic Description
N26638	02.THa.02.131	Bronze Blade fragment (body + tang with 2 perforations)
N26639	02.THa.01.127	Bronze projectile (squared body with tang)
N26653	01.TH.04.012a 01.TH.04.012b	Bronze pin (nail head w/ shaft fragment and ribbed decoration) (refit with b) Bronze pin (shaft fragment w/ tip) (refit with a)
N26656	02.THa.04.007 02.THa.04.670	Bronze pin (two headed probably ball head) Bronze pin fragment (double headed) (McClellan Fragment)
N26657	01.TH.12.147	Bronze fragment (spatula?)
N26659	01.TH.04.001a 01.TH.04.001b	Bronze pin (Ball head w/ eye remnants) (refit with b) Bronze pin (shaft fragment) (refit with a)
N26947	01.TH.12.235	Unidentified: Iron tool
N27023	01.TH.07.227	Bronze Ring (coiled)
N27570	01.TH.12.148	Bronze fragment (flat)
N27579a, b	01.TH.04.021 01.TH.04.022	Bronze Pin (Serpent?) (Shaft fragment w/ tip) refit with 022 Bronze pin (Serpent?) (shaft fragment) refit with 021
N27985	01.TH.12.443	Iron nail (squared head)
N27987	01.TH.01.618	Iron projectile (spear)
N28420	01.TH.12.176 01.TH.12.682	Bronze/Copper band with perforations. Copper band fragment
N28426	01.TH.12.154a 01.TH.12.154b	Unidentified Bronze flattened Fragment Unidentified Bronze looped fragment
N28427	02.THa.04.023	Bronze Pin fragment (shaft) (eye remnant)
N28429	01.TH.07.216	Bronze Ring
N28463	01.TH.07.418	Bronze ring with cloth

Chapter 5 Summary and Conclusions

State of the Collection

This project was primarily intended to organize the metal material from Tell Hadidi in order to test the idea that it might be used for research purposes in the future. With the discovery of the SCC artifacts within the collection there was a shift in research priorities, but contextualizing a subset of the Tell Hadidi material remained a primary goal. The results presented here are therefore preliminary, but they do suggest a number of interesting potential observations about the use of metal at the site of Tell Hadidi. So little was known about the metal recovered during the Euphrates Valley Expedition when this project began that any conclusions drawn will benefit future researchers by providing a foundation for additional study.

Possibly the main contribution of this project was the consolidation of metal artifacts into one location at the MPM, as well as the description and recording of the existing pieces. Lack of an existing inventory was a major limiting factor in the analysis of the Euphrates Valley Expedition Metal Collection. Future researchers now will be able to work from a known set of data, with metal artifacts placed in plastic bags and assigned numbers logged in a reliable database. This is a major improvement from the range of containers and disparate recording information available at the start (Figures 5.1 and 5.2).

Before this thesis was initiated the only summary of metal material consisted of one statement in Boor's doctoral thesis ("Included among the accessioned items are 80 metal artifacts, nearly the complete inventory of the site" [Boor 2012: 50]) and the methodological analysis carried out on eight pieces by McClellan (1983). Boor's estimate was based mainly upon discussions with Dornemann and review of the Nunnemacher catalog ledgers located in the MPM History Department. The actual number now stands at 941 artifacts from Tell Hadidi in

addition to eleven other sites. Highlighting the potential of the data and its relevance of studying metal artifacts from Tell Hadidi, as well as in the broader context of the Euphrates River Valley, has made it possible to address some of the research questions posed in Chapter 1.



Figure 5.1 Sample of Original Excavation Field Containers (before inventory)



Figure 5.2 Sample of Rehoused Euphrates Valley Expedition Metal Collections

Cultural and Temporal Context

In the course of the preliminary research carried out for this project the accepted range of occupation at the site of Tell Hadidi was estimated as spanning from the beginning of the Early Bronze Age up through the Early Islamic Period of Syria (3000 BCE – 1200 CE). Dornemann wrote:

Eight major chronological phases were encountered. The greatest portion of our excavated materials is from stratified sequences of Early Bronze Age IV, Middle Bronze Age, and large Bronze Age I Layers that date between about 2300 and 1350 B.C. Eight Tomb Chambers of Early Bronze Age IV and Late Bronze Age I dates were investigated. The two latest strata, medieval Islamic and Roman (tentatively 11th to 13th century A.D. and 1st century B.C/ to 2nd century A.D., respectively), were encountered in limited exposures but in sufficient quantity to document the basic character of these assemblages. (1985b: 267)

The preliminary analysis of the metal material presented here, including the documentation review and inventory of the artifacts, largely confirms the previously defined cultural and temporal contexts (Table 5.1). The metal artifacts inventoried and reconciled with field cards represent the following time periods: Early Bronze Age (2600 BCE), Early Bronze Age III and IV (2500 BCE-2200 BCE), Middle Bronze Age I and II (2200 BCE-1600 BCE), Late Bronze Age I (1650 BCE-1450 BCE), Hellenistic (330 BCE-50 BCE), Roman (50 BCE-350 CE), Byzantine (350 CE-650 CE), and Early Islamic (with some specific mention of the Abbasid Period 650 BCE-1000 BCE). The range covered by the material is comparable to the architecture and ceramics recovered from the site, but it is more interesting when considering the comparative potential of some of the finds. Early and Middle Bronze Age material from the nearby site of Halawa offers productive comparisons with published material and adds an additional analytical component to this review of the metal artifacts recovered by the Euphrates Valley Expedition. Also worth noting is the fact that 106 of the 201 previously dated artifacts come from the Bronze Age, over 50% of the of the total available for review

Table 5.1 Number of Metal Artifacts by Time Period

Time Period (Designation On Field Card)	# of Artifacts
Early Bronze Age (EB, EB III-IV, EB IV)	55 (27.4%)
Early Islamic (Abbasid)	53 (26.4%)
Middle Bronze Age (MB I, II)	35 (17.4%)
Byzantine	23 (11.4%)
Late Bronze Age (LB, LB I)	16 (8%)
Roman (Early)	18 (9%)
Hellenistic	1 (<1%)
Total	201

Euphrates Valley Expedition Metal Collection – Artifact Assemblages

Overall the combination of metal artifacts recovered from Tell Hadidi fits within the regional assemblages detailed by other excavations. The only notable absence is axes, with both examples of axes in the collection coming from Tell Halawa. The most common artifact encountered during the inventory were pins, totaling 255 (27.1% of total metal artifacts), and the next most common were Miscellaneous artifacts, totaling 218 (23.2%). Pins have a very unique place within the history of the ancient Near East, and specifically within Syria. While limited cloth and fiber material has been discovered dating to the Bronze Age in this region, clothing pins offer insight into one aspect of personal dress in the archaeological record (Iamoni 2012:

349; Selover 2010: 147; Stork 2014). Pins have been documented in sites in Mesopotamia, Syria, Palestine, and Anatolia in large numbers (relative to total metal recovered), and are first observed in the Anatolian Chalcolithic (Selover 2010: 147). Regional styles of clothing pins are a field of study that requires additional research, but there are analyses detailing distributions from the Carchemish sector which is directly north of Tell Hadidi (Squadrone 2007) and a discussion of the use of pins during the Early Bronze Age within the Upper Euphrates Valley as a region (Stork 2014). Both studies indicate that the majority of metal pins discovered come from burial contexts, with a direct connection to appearance and with possible links to status (Squadrone 2007: 205-210; Stork 2014: 333). The pins identified and sourced to Tell Hadidi, Tell Halawa, Jebel Jerum, El Matbuh, and Es Sash now provide an excellent sample for further analysis within this regional context. The Area B pins (22.3% of the TH pins) actually may indicate the presence of a workshop in that part of the site.

In addition to pins, the presence of projectiles, blades, axes, and ornaments (pendants, tweezers, bracelets, and rings) all indicate that the Euphrates Valley Expedition Metal Collection reflects a representative cross section of Syrian Bronze Age burial assemblages. Philip (2007: 192) states that each of the categories listed above is most commonly found in mortuary contexts. Future studies will be needed to compare and contrast the MPM metal artifacts with similar assemblages from the region. The presence of tweezers, especially, indicates the presence of at least one person of extremely high status. Examples of tweezers have been discovered in Crete and Cyprus during the third millennium BCE, as well as in other Euphrates River Valley tombs (ibid: 192). It is interesting to note, however, that the tweezers from Tell Hadidi (01.TH.11.144) were discovered in Area B and not in a mortuary context. Further research into

the excavations in Area B is necessary to recreate the context in which the tweezers were discovered. Tweezers were found in an Area L tomb according to field cards, however.

The Miscellaneous artifact category needs to be refined further as well. A variety of artifacts are documented in this category, but one of the most interesting is the presence of slag. Twelve different examples of slag were encountered during the inventory process from Tell Hadidi as well as El Qitar (Table 5.2).

Table 5.2 Slag Locations by Excavated Area

Site: Area	Number of slag pieces
Tell Hadidi: N (high tell)	4 (33.3%)
Tell Hadidi: H (high tell)	2 (16.6%)
Tell Hadidi: B (high tell)	1 (8.3%)
Tell Hadidi: C (low tell)	1 (8.3%)
Tell Hadidi: D (low tell)	1 (8.3%)
Tell Hadidi: L (low tell)	1 (8.3%)
Tell Hadidi: Surface West of G (high tell)	1 (8.3%)
El Qitar: X	1 (8.3%)
Total	12

Artifact 01.TH.12.703 is a piece of bronze slag discovered in Area C. While 01.TH.12.640 is composed of fragments of bronze slag recovered from Area D. Artifacts 01.TH.12.031 and 01.TH.12.533a were recovered from Area N, which appears to have produced evidence for both iron and bronze working activity. Artifacts 01.TH.12.032, 01.TH.12.034, 01.TH.12.035, 01.TH.12.712 are all pieces of bronze slag recovered from Area H. Artifact 01.TH.12.195d appears to be a ball of iron slag from Area L. Artifact 01.TH.12.474b is iron slag found on the surface west of Area G. Artifact 02.TH.12.496 is bronze slag recovered from Area

B. Artifact 02.EQ.12.576 is iron slag that was recovered from Area X at El Qitar during soundings in 1976. The identification of slag was made with the help of Patricia Coorough Burke, Curator of Geology Collections at the MPM. Both iron and bronze slag imply the working of these metals at Tell Hadidi and El Qitar.

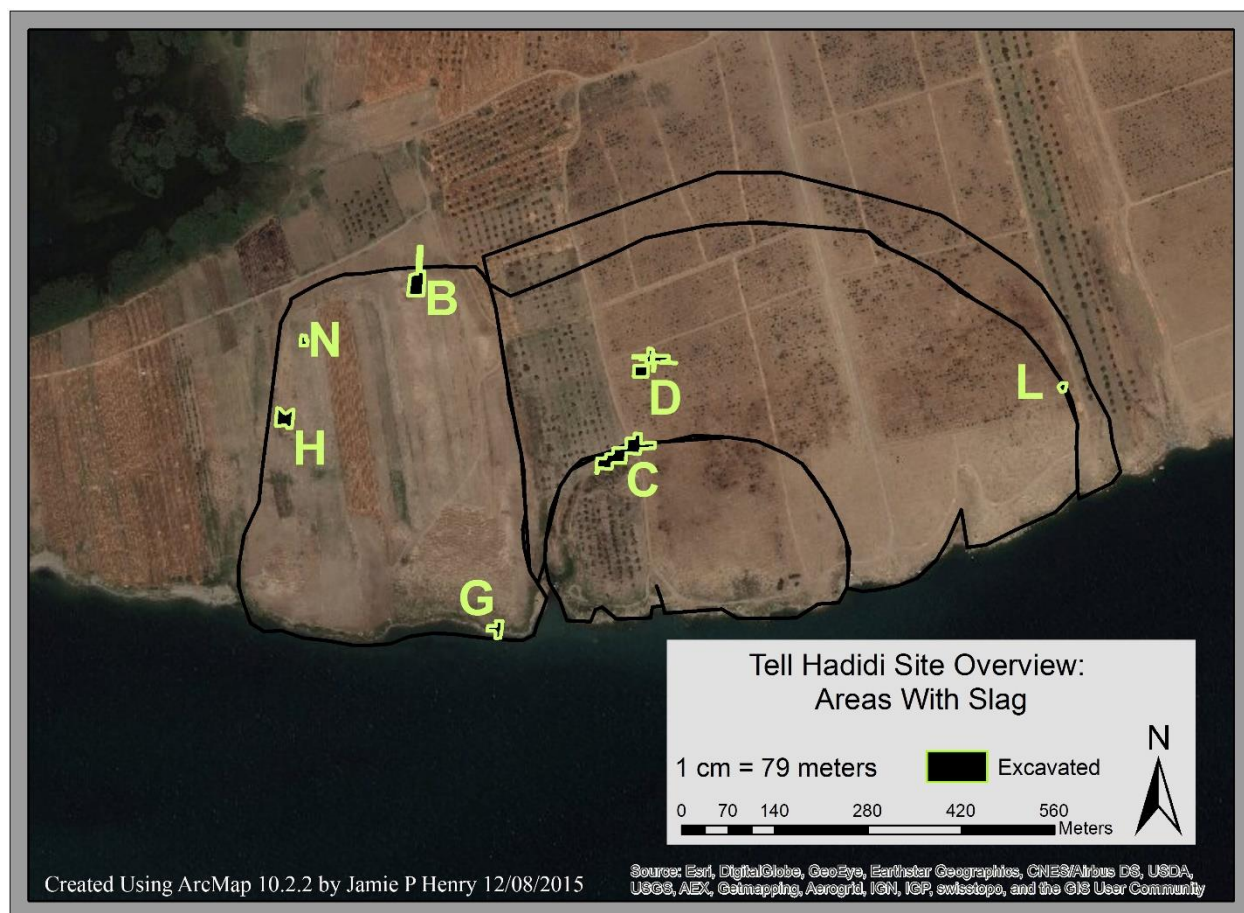


Figure 5.3 Tell Hadidi Areas with Slag

Evidence for metalworking is rare in the Near East, especially during the Bronze Age, partly because it appears to have been carried out in small workshops, often associated with high status households (Cooper 2006a: 175). The presence of slag in the MPM collection, as well as a field card for Tell Hadidi object H74-663 identified as a “mold for metals”, provides a fairly compelling case for the production of metal at Tell Hadidi. Slag recovered from areas H, C, and B could indicate metalworking occurring in these areas. The presence of pins in high numbers in

both Areas B and H in the absence of tombs could also indicate the presence of metal workshops in both Areas. Metalworking is attested to in household contexts in the Early Bronze Ages, and a tentative association between metal production and elites has been made (Cooper 2006a: 170-172). Evidence for metal working at both Tell Halawa and Tell es-Sweyhat (Chapter 2) adds to the evidence for metalworking in this region of the Euphrates River Valley. Reconciliation with excavation notes is necessary to provide a clearer picture for the time period and social setting of this production activity at Tell Hadidi, however.

Case Study in Museological Inventorying

The Miscellaneous artifact category also provides an opportunity to discuss certain challenges encountered during the inventory process. The most time-consuming portion of the inventory was the reconciliation of the museum and field documentation. Photographs, when available, were not labeled and illustrations were not always available or to scale, making identification very difficult. Two artifacts are pictured below (Figure 5.4) to illustrate this problem.

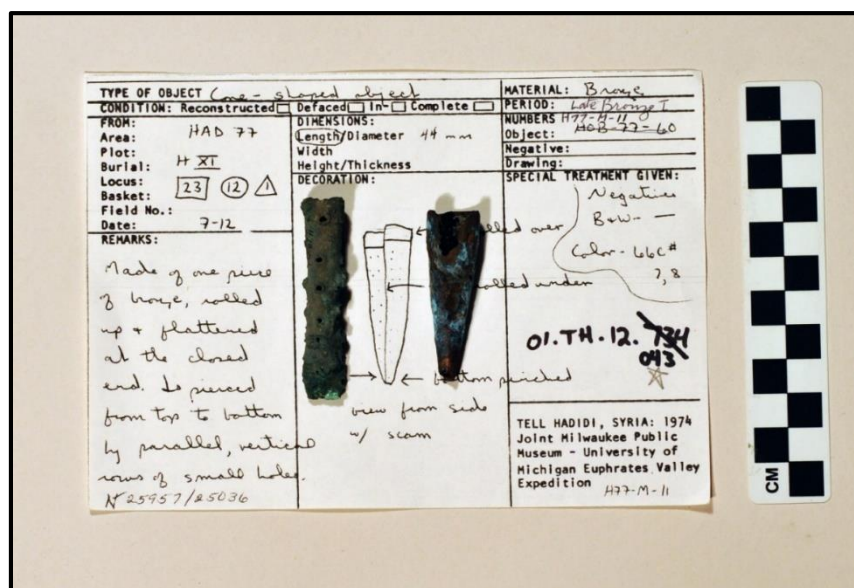


Figure 5.4 01.TH.12.043 (left) Compared to 04.TH.12.149 (right)

Reconciliation of artifacts with field cards is something that still needs to be done.

Approximately 110 field cards remain unreconciled for a number of reasons. Lack of illustrations, descriptions, and photographs make field cards with expedition numbers, but no other information, nearly impossible to reconcile with the artifacts in the metal inventory at this stage.

The artifact on the left is 01.TH.12.043, which was identified as the artifact described on the card and in the illustration. However, the artifact on the right and its striking resemblance to the illustration on the field card complicated this identification. Originally, 04.TH.12.149 was identified as N25957 due to the illustration on the card and because 01.TH.12.043 was not housed with any other piece of Euphrates Valley Expedition Metal. Eventually, 01.TH.12.043 was found by itself in a plastic bag in storage, and it does not really resemble the illustration on the field card. Both artifacts are cone shaped, and both artifacts are roughly 44mm in length. The deciding factor was the description written in the Remarks section, a section that was not used on the majority of field cards. “Made of one piece of bronze, rolled up and flattened at the closed end. Is pierced from top to bottom by parallel vertical rows of small holes.” In the future the close study of field notes may aid in the identification and reconciliation of artifacts, but these records are also incomplete in some cases. The correct field number for 04.TH.12.149 remains unknown, for example, but if 01.TH.12.043 had not been located this piece would have been wrongly identified as N25957.

Artifact 01.TH.12.043 (Catalog number N 25957) has been identified since as the bronze tip of a beer strainer straw. Excavated in Area H and dated to the Late Bronze Age, the same period of the tablet building and clay tablets recovered, this piece is one of several known beer strainers, most of bone (Figure 5.5) (Maeir and Garfinkel 1992: 218). This artifact indicates the

consumption of alcohol in Area H during the Late Bronze Age and may help to interpret this area and its role in the site as a whole.

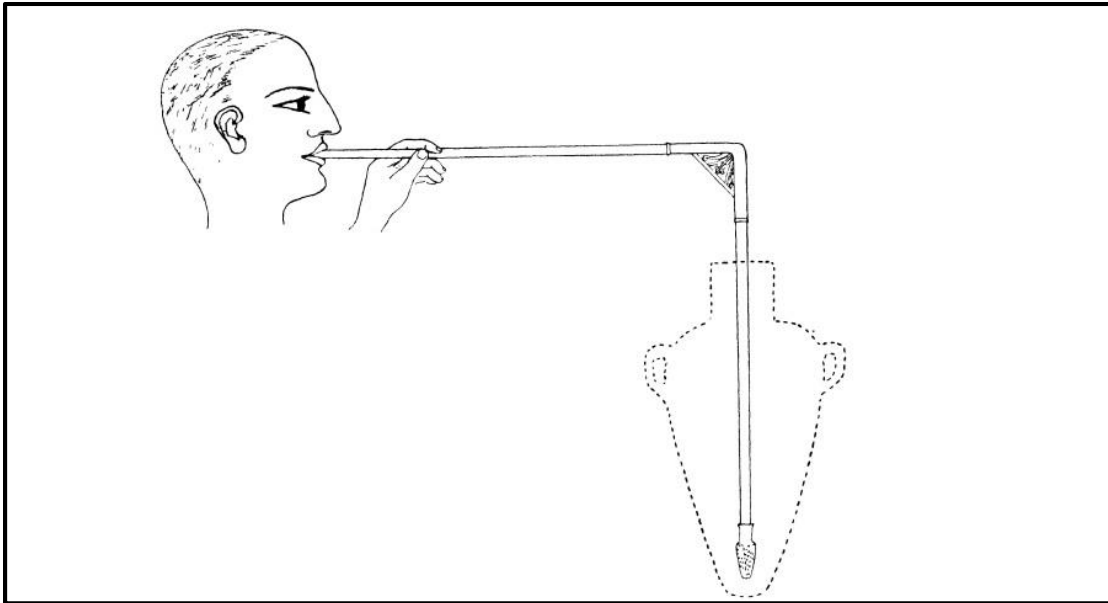


Figure 5.5 Diagram Featuring Straw Tip for Drinking Beer (after F.L. Griffith 1926 Fig. 2)

An additional small find also indicates the importance of alcohol consumption, a small plaque dated to the Middle Bronze Age recovered from Area N (Figure 5.6).



Figure 5.6 Plaque with “Beer Drinking” Scene, Area N (Dornemann 1992 Fig. 21)

This plaque appears to depict a “beer drinking” scene that is similar to a scene found at Zimri Lim’s palace at Mari (Boor 2012: 54; Dornemann 1992: 85).

Tell Hadidi Metal Artifact Distribution

A review of the Tell Hadidi metal by area also allows for some preliminary observations to be made based on the metal collection (Figure 5.7).

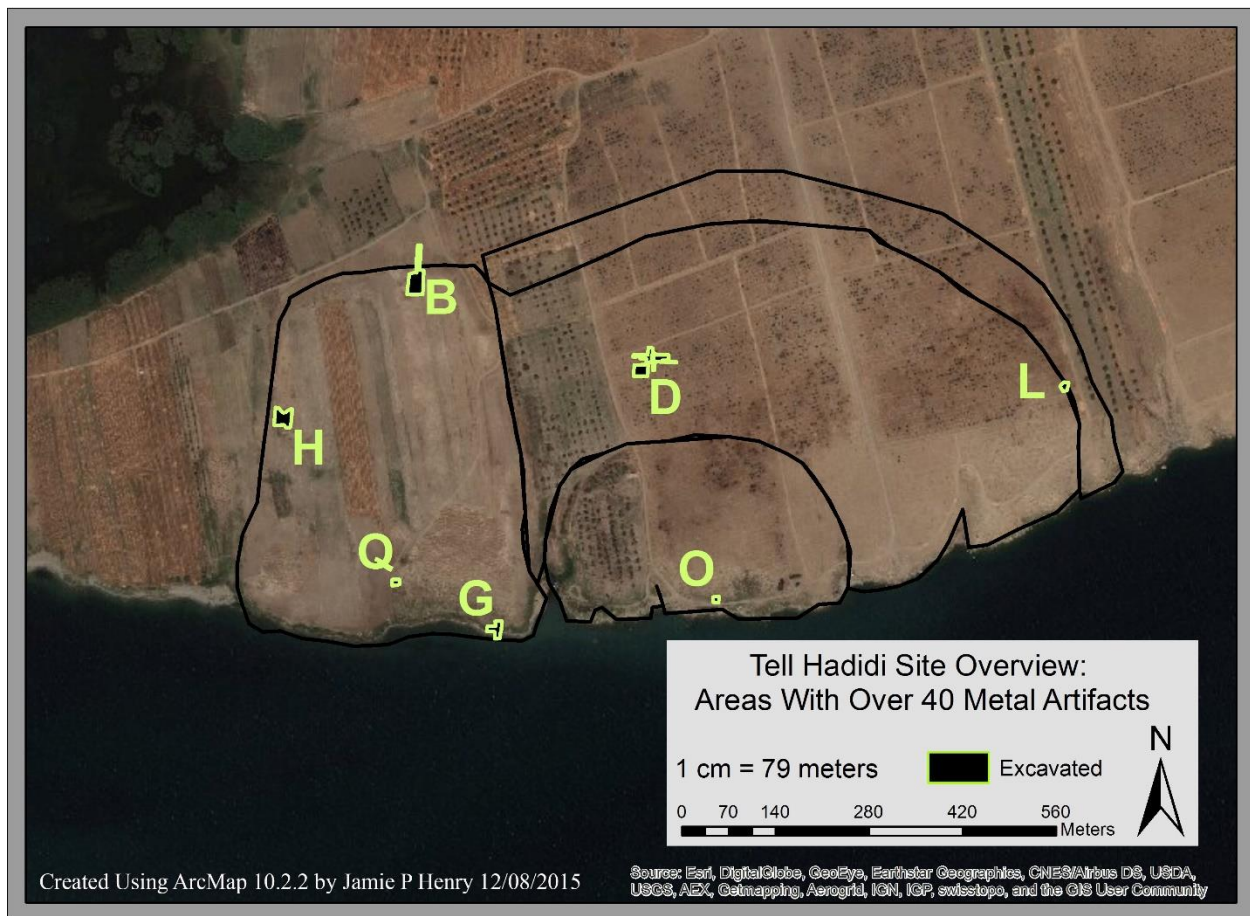


Figure 5.7 Tell Hadidi Areas with 40 or more Metal Artifacts

Area H produced the largest metal inventory, with 181 metal artifacts. This is more than double the amount of metal than in the next most metal abundant area, Area Q, with 60 artifacts (Table 5.3).

Table 5.3 Total Metal Artifacts Inventoried by Area

Area	Number of Artifacts	Area	Number of Artifacts
H	181 (29.1%)	P	20 (3.2%)
Q	60 (9.6%)	S	14 (2.2%)
B	55 (8.8%)	E	13 (2.1%)
G	47 (7.5%)	K	13 (2.1%)
L	46 (7.4%)	N	7 (1.1%)
O	42 (6.7%)	F	1 (<1%)
D	40 (6.4%)	J	1 (<1%)
A	30 (4.8%)	T	1 (<1%)
C	27 (4.3%)	U	1 (<1%)
R	24 (3.9%)	M	0 (0%)
Total Artifacts	623		

The largest artifact category observed in Area H was iron nails. This makes sense because the iron nails were probably used in construction of the Early Islamic cemetery that was excavated at Tell Hadidi. The presence of Islamic period rings, bracelets, and pins all indicate burial contexts. Skeletal material from the excavations was not brought back to the MPM. In some cases individuals were reburied by the local community (Dornemann pers. comm. 2015). Area Q also produced a large number of iron nails (29), indicating that some construction took place in the area.

Area B was excavated during each field season, but only produced the third highest metal artifact total, with 55 pieces. Over half of these artifacts from Area B were bronze pins, mostly fragmentary. In addition to the pins a projectile, bracelet, ring, metal bead, and pair of bronze tweezers were also recovered. This assemblage could indicate the presence of a tomb, or perhaps a rich household that was able to procure this collection of metal artifacts. During the final

stages of my thesis Dornemann produced a manuscript written by Joanna McClellan detailing excavations in Area B. Review of this document will help to substantiate this claim, but I was not able to review the document prior to the completion of this thesis. Areas F, J, T, and U all produced only a single artifact. The only area of the site that did not produce at least one metal artifact was Area M.

Areas D, E, K, and L contained Early Bronze Age tombs and while the majority of these were looted, the presence of certain artifact categories indicates the tombs were outfitted with artifact assemblages matching other sites in the region. The presence of pins and rings in each area fits contemporary burial assemblages observed throughout the Euphrates River Valley (Philip 2007: 192; Stork 2014: 333). Only one projectile was recovered from a tomb context, but that was most likely due to other examples being looted. The Euphrates Valley Expedition Metal Collection contains a representative inventory of regional grave goods from tombs. The complete inventory is not represented in any of the Tell Hadidi tombs, but this is probably a factor of looting rather than actual absence of these artifact categories.

An additional point can be made, however, for the amount of material that can be attributed to the Bronze Age. A conservative estimate for the number of Bronze Age pieces is 423 (45%) of the total 941 artifacts inventoried. This number includes both TH and SCC material and was calculated by subtracting all iron artifacts, all coins, any artifact that had a time period attribution on its field card other than the Bronze Age, was considered missing, or was labeled as “unidentified”. A sum was then calculated based on the “number of artifacts” column. Tell Hadidi Bronze Age metal only drops the number to 358 (45.5%) of the 786 artifacts sourced to Tell Hadidi. This number could be refined further but it would require a considerable amount of work to place each and every artifact into an appropriate time period. Clearly, however, a

substantial portion of the EVE collection dates to the Bronze Age, which would be a useful starting point for future research.

Case Study in Museological Inventory

During the inventory process a number of artifact categories were revealed to have many redundancies. Mushroom headed pins, bronze rings, bracelets, iron nails, and many others all look very similar, and reconciling them with field documentation was not always possible when two artifacts matched the same field card. Artifacts 01.TH.07.385 (H77-M-6a), 01.TH.07.386a,b (H77-M-6b), and 01.TH.07.387 (H77-M-6c) make up a set of bronze rings and were discovered in a matchbox with field number and excavation data written on the outside of the box. With the field numbers it was possible to reconcile these with the appropriate field cards.

04.TH.07.578a,b,c is a set of bronze rings that are almost identical to the ones listed above (Figure 5.8). Both sets of rings are likely Early Islamic and from burial contexts.



Figure 5.8 04.TH.07.578a,b (top) Compared with 01.TH.07.385 (bottom left) and 01TH.07.386a,b (bottom right)

While this particular case is straightforward - one set of rings was found with documentation, the other was not - it illustrates a problem with positive identification. Many of the original field tags were eaten by mice while artifacts were housed at the Aleppo Museum (Figure 5.9). Many of the tags cannot be completely trusted because the artifacts could not be identified with 100% certainty.

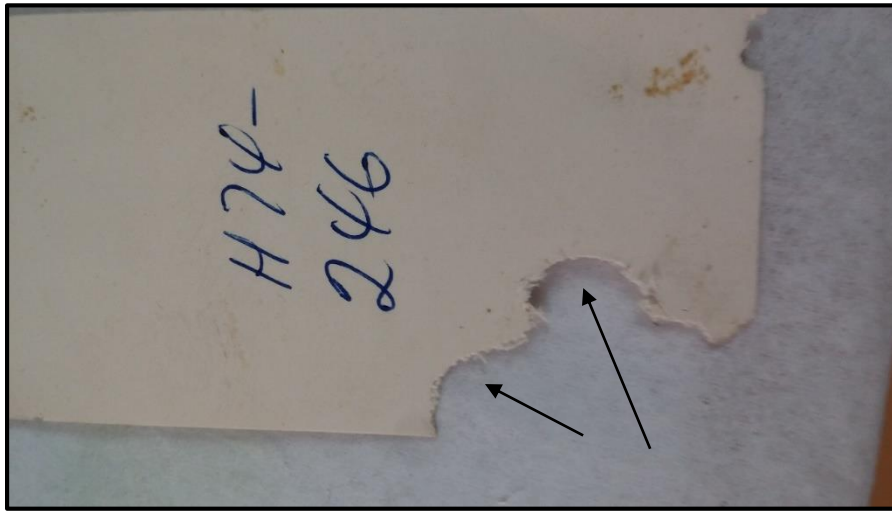


Figure 5.9 Expedition Tag with Mouse Teeth Marks

When working with a museum collection it is important that each individual piece can be referenced. This is why even “found in museum” (FOM) artifacts are added to a running sequence. Numerous examples like the one outlined above were encountered, but now artifacts within the Euphrates Valley Expedition Metal Collection have their own identification numbers. These numbers are not permanent, but will serve as place holders for future researchers to continue to reconcile and identify metal material with original field documentation.

Reliability Ratings

Originally reliability ratings were developed based on the assumption that there would be an expedition number for each metal artifact inventoried. The reliability number would then help

communicate how accurate the identification was, but throughout the process it became clear that the card file only represented a small portion of the artifacts recovered from Tell Hadidi and artifacts began to outweigh the available expedition numbers present in excavation notes and field cards. This issue was exacerbated by the lack of collections organization and the fact that multiple artifacts were assigned to the same expedition number in some cases. Finally, the sampling by McClellan, with no documentation on how much of an artifact was sampled, made consolidation of those artifacts a very trying experience.

Even with these issues, the discovery of the “metal samples” in 2015 produced a large number of additional artifacts in original field containers with original field documentation. The result of this was an increase in 01 and 02 rated artifacts (about 83.2% of the total). Artifacts with 04 ratings account for 15.1% of the total, but the majority of the 04s were found during the initial inventory process and represent a large number of artifacts whose tags were eaten by mice or were found unassociated in storage.

Case Study in Museological Inventory

A number of artifacts discovered in storage were unmarked and found separately from other artifacts. 02.THa.02.135, 136, and 693 were all found in different Lower Film areas without documentation but refit with one another to form one blade, with an original field number H74-393 (Figure 5.10). Artifact 02.THa.02.135 was found in the Plexi-glass case, 02.THa.02.136 was also found in the case on a separate dish from 135, and 02.THa.02.135 was found with McClellan samples in Lower Film Storage. Identification of this piece came nearly two full years after inventorying 02.THa.02.135. It was clear that the tip of the blade was missing, but based on the field card the shape of the point is slightly different from the actual artifact. 02.THa.02.136 was originally identified as H74-402 based upon the illustration (Figure

5.11). It was not until 02.THa.02.693 was discovered with the McClellan samples that the refit was complete, and the other two pieces were reconciled. Each artifact was given its own EVE# to avoid gaps in the sequence and to serve as a reminder of the issues encountered during the inventory process.

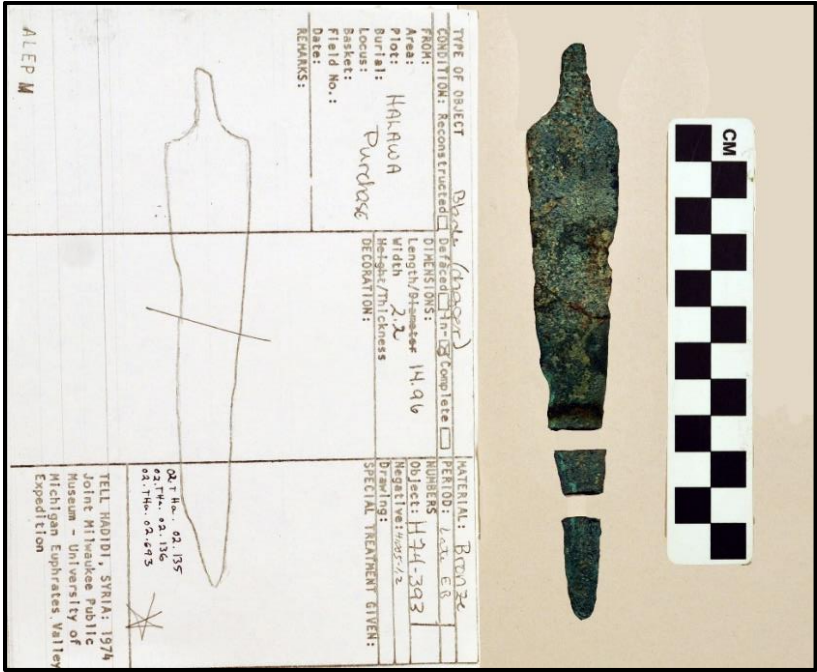


Figure 5.10 02.THa.02.135 (left); 02.THa.02.693 (middle) 02.THa.02.136 (right)

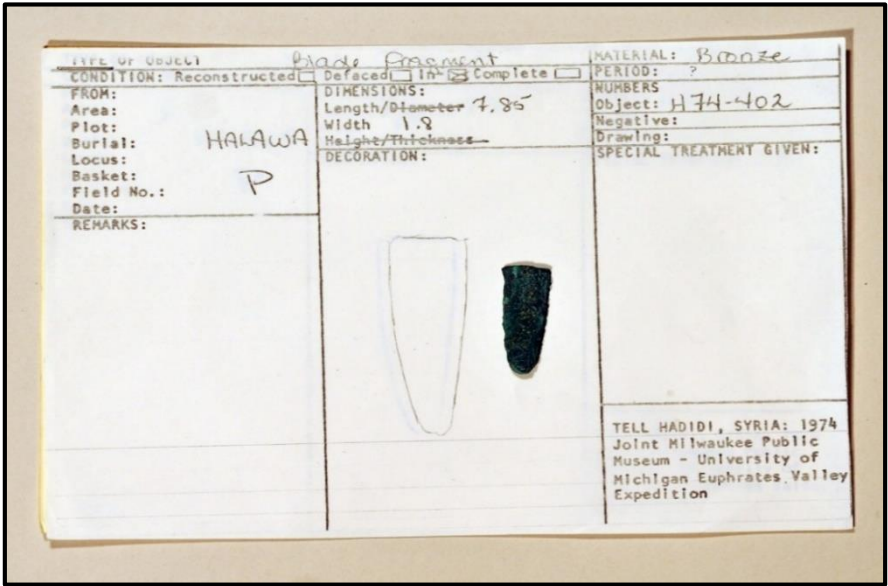


Figure 5.11 02.THa.02.136 Compared with H74-402 Field Card (originally identified).

Future Research

A collection that has been orphaned since the 1990s, the Euphrates Valley Expedition material represents a burden as well as an opportunity for the MPM. This project, and those before it, have sought to create a foundation for future researchers to build upon when working with the Euphrates Valley Expedition collection.

How to Work with the EVE Collection

While this thesis represents a large step towards the rehabilitation of the Euphrates Valley Expedition Metal Collection, it is not a substitute for working with the physical artifacts inventoried or the archival material reviewed. The material has been organized and remains housed at the MPM for future researchers. It is my hope to stay involved with the collection and help facilitate additional research with the collection, however, this may not be possible. Because of this it is necessary to describe the process required to contact the correct employees at the MPM to work with the collections. Additionally, a table of the Euphrates Valley Expedition sources of information available at the MPM for review (Table 5.4)

Table 5.4 Location of EVE Documentation and Collections as of 12/8/2015

Type of Documentation	Location in the MPM	Duplicates	Is it Digitized
Expedition Archival Material	Originals located in the MPM - Copies located in the 6 th floor history research office	Yes	Yes (all that has been found)
Excavation Notes	6 th floor history research office	No	No
Excavation Maps	Originals and copies in Lower Film Storage	Yes	A small portion is digitized but not correctly labeled
Excavation Slides, Photographs, and Negatives	6 th floor history research office	No	No
Expedition Collections	Lower Film Storage	N/A	No.

To work with the expedition collections, first contact the Anthropology Department at the MPM. At the time of this writing, the current Curator of Anthropology Collections is Dawn Scher Thomae (thomae@mpm.edu). Interested researchers should indicate which part of the

collection is of interest to their studies and address what they hope to accomplish with their study.

To work with the archival material it also will be necessary to contact the Registration department at the MPM. At the time of this writing, the current Registrar is Claudia Jacobson (jacobson@mpm.edu). A research application stating the reason for the research and the material you wish to access will be required. Requests for any photographic needs should also be directed to the Registration department.

Should the Collection be Cataloged?

The end of Chapter 4 provides some information on the limited number of cataloged material within the Euphrates Valley Expedition Metal Collection. A total of 71 artifacts inventoried during this project were cataloged previously and have been reconciled. Some consideration should be given to fully accessioning and cataloging the material recovered during the Euphrates Valley Expedition. Currently, however, this would be an impossible task for the collections staff at the MPM and would require a major investment of funds and time.

While excavations are considered the “core method” of archaeological work, the curation crisis that has become an international issue has replaced fieldwork as a major aspect of research (Voss 2012: 149). Curation processes can and should be considered legitimate and necessary sources of knowledge for orphaned archaeological collections. Simply by working with one portion of the Euphrates Valley Expedition Collection major strides have been made in contextualizing and documenting the collection.

A useful model for this project is the work done by Voss (2012) who, using volunteers and independent researchers, has been able to show that orphaned archaeological collections can be rehabilitated and their research value restored through curation practices. The Market Street

Chinatown Archaeology Project was completed in the 1980s in San Jose, California and consisted of “hastily planned compliance-based excavations lacking a formal research design” (Voss 2012: 153). The collection was processed between 1987 and 1989 and then fell into obscurity. It was not until 2002 that Voss was approached to “adopt” the collection and use it for teaching and research (ibid: 155). Over the past decade, a collaborative effort to catalog and inventory the collection and its archival material has produced artifact analyses, contextual information, catalogs, and even research on the collection and the area of San Jose where it was collected from (ibid: 158). While more time has passed for the Euphrates Valley Expedition, all the necessary components are still present at the MPM and while cataloging the entire collection may not be a necessity, the data produced from working with a majority of the collection would help to stimulate productive research questions and provide training opportunities for the next generation of museum professionals and archaeologists.

Metal Collection

Additional work on the Euphrates Valley Expedition Metal Collection is necessary. While the general observations provided above indicate that the collection contains examples of every category expected from a Syrian Bronze Age settlement, the presence of coins and iron artifacts suggests that occupation continued well past the Bronze Age, which is also consistent with the review of ceramic types and architecture encountered during excavations. Analysis of the coins would produce useful data for different areas of the site and indicate the presence or absence of particular groups through time. The coins collected from sites other than Tell Hadidi represent an opportunity to map the distribution of coins in this region of Syria. Analysis of the weapons from both the TH metal and the SCC metal would add to the corpus of types observed in the region, with a built in comparison with published material at Tell Halawa. An in-depth

analysis of pins, the original topic of this thesis, would help to broaden the regional assemblage of pins available to the academic community.

The existence of a previous compositional analysis completed by Joanna McClellan is the basis for another possible future project. Utilizing her samples it would be possible to recreate the analysis she did using modern technology and methods, such as XRF. Combined with the many different examples of slag that have been identified in the collection, this could help to expand on the foundation provided for a more extensive material/elemental analysis. Currently no destructive testing is allowed on MPM collections, so the presence of these previously sampled materials have helped preserve the integrity of the metals from corrosion and is something that warrants reevaluation.

By inventorying and organizing the metal collection it is now possible to conduct not only more in-depth spatial analysis of this material, but researchers can conduct meaningful artifact research with a way to reference individual artifacts that otherwise could not be identified. Additionally, the excavation notes and the maps provided in this thesis will allow future researchers to perform excavated area interpretations combining different artifact materials. The built-in comparative nature of the collection is of the utmost importance when considering the destruction of cultural heritage sites in the Near East and the continued sale of antiquities in the region.

The Rest of the Collection

With the endless supply of ceramic vessels to analyze from Tell Hadidi and other Syrian sites present in the Euphrates Valley Expedition Collection the organization of study collections for different time periods in Syrian history is possible. Reconciliation with excavation notes, and

projects like the dissertations of Boor (2012) and Cooper (2004) will help to expand on the initial ceramic analysis completed by Dornemann.

Flint samples, groundstone tools, faunal remains, soil samples, plaster samples, bitumen samples, and mortar samples from different areas of the site remain unanalyzed. These additional types of projects will go a long way to filling in the picture of Tell Hadidi in the likely absence of a complete final excavation publication.

Archival

Beyond archaeological investigation, the EVE archival material presents a great opportunity for a pilot project in digitizing and transcribing excavation notes. Most plan maps, daily notes, and plot registers were recorded on paper that is not of archival quality and will need to be digitized. This particular project is of extreme importance considering the age of these documents and their inherent value to any future project.

Continued refinement of the archival component of this thesis is important as well. While a large corpus of archival material was included, there is a strong possibility of additional material to be added. Dornemann will be relinquishing his copies of field documentation and this will need to be compared with the museum's inventory in order to refine the museum's collection of documents.

Possible additions include personal notes, documents that were not duplicated while at the museum, ceramic drawings, original photos, and original color slides. This collection of material will be of the utmost importance to the completion of future projects and the evaluation of all past work. Inked and original paper maps are also present in the museum's collection and have never been digitized. With the continued destruction of sites through development in Syria and through destruction by terrorist organizations the recreation of past landscapes through

maps, photographs, and personal accounts will become even more important. This thesis project has provided several possible avenues and opportunities for future research that extend beyond the metal collection. The development and organization of archival material has provided a framework for the study of the rest of the Euphrates Valley Expedition collection, including other material types such as ceramics, groundstone tools, plaster, shells, glass, as well as excavation material such as the maps, notes, and photographs. As more work is done with the collection its visibility and accessibility will increase. A large collection of Syrian archaeological material of this type gains in importance every day that cultural heritage destruction in the Near East continues. Beyond the archaeological value of this material, the sheer size and scope of the collection offers a wide range of research, collections management, and conservation projects for the next generation of museum professionals.

Areas of Concern

Maps, photographs, slides, and excavation notes are all in need of digitization. This project has increased the accessibility of a collection recovered from a site that in many ways does not exist anymore. Current satellite images show a drastic change in the landscape due to different activities in the region (Figures 5.12 and 5.13). Lake Assad has had a major impact on the boundary of the site closest to the shoreline. Development in the area has resulted in planting and construction of additional roads on the lower tell. There has been a focus on the destruction of sites and outrage over artifacts and monuments that are lost and cannot be recovered. Collections like this one provide unique opportunities to recreate these losses through photograph records and artifacts.



Figure 5.12 Composite Satellite Image of Tell Hadidi, Syria Corona 1105-1009AFT 1968 and 1112-2203AFT 1970



Figure 5.13 Google Earth Image Tell Hadidi, Syria 4/8/2014

One final consideration should be the location of material recovered by the Dutch Expedition that conducted excavation prior to the MPM excavations as well as the human skeletal material that was not left in Syria and was never brought to the United States. Its location remains a mystery.

By the end of 2015 it will be 41 years since the beginning of field work at Tell Hadidi and Dornemann is in the process of moving to Florida and planning to discontinue his work on the site. Dornemann until this point has maintained control over original slides, artifact drawings, a portion of the inked maps, and numerous other documents related to the expedition all in the hopes of completing additional publications of the site. He is working on a manuscript of Area R material, but feels that this will most likely be his last contribution (Dornemann pers. comm. 2015). This will be the first time this material will be fully entrusted to someone else at the Milwaukee Public Museum. Decisions will need to be made on the future of the collection. It is an immense strain on storage space, and will require a large investment in order to reach its full potential. Hopefully this thesis will serve as a starting point for approaching not only the collections management of the material, but also the archaeological interpretation of the site itself.

Hadidi Collection – Orphaned or Not?

Orphaned collections are often described as being in limbo, lacking the proper staff to care for and curate the artifacts. While Lupton has kept the collection available to scholars and students since Dornemann's departure in the 1990s, the limited use of the collection testifies to its orphaned status.

Salvage projects by nature often produce such collections. Limited funding and staffing constraints have made keeping the Euphrates Valley Expedition on the radar at the MPM an uphill battle. The decision was made to save as much as possible and provide at least a critical representation of the site. Education, curation, storage, and publication all depended on what personnel, resources, and funding could be found (Dornemann pers. comm. 2015). This expedition is not unique in that respect; while some sites were exceptionally well funded others,

like Hadidi, were challenged to raise what they could. Final reports have been published for some sites, but a number remain in limbo, relying on a second generation of scholars to finish the work completed when salvage excavations began (Dornemann pers. comm. 2015).

It was never my intention to only highlight the negative characteristics of the Euphrates Valley Expedition Metal collection. Instead I hoped to show the untapped potential of a collection that can be considered orphaned. With the atrocities being carried out in Syria today collections like the one housed at the MPM may be the only ones we have left. A twelve-month cooperative agreement between the United States Department of State and ASOR established the Syrian Heritage Initiative (SHI) under the aegis of ASOR's Cultural Heritage Initiatives (CHI) to monitor, assess, and report on the cultural heritage situation, engage in global outreach, and plan for future large-scale reconstruction projects for post-conflict (Danti 2015: 132). Over 646 incidents of cultural heritage damage and destruction were documented and confirmed in the first nine months of the program (Danti 2015: 133). Organized, large-scale destruction and looting of cultural property became a central issue in the current conflict. High numbers of illicit antiquities and other cultural property from the conflict zone offered for sale in Syria and Iran or from neighboring countries to prospective buyers around the world may just be a small portion of what has actually been looted. Social media have been used to help create networks to monitor and expose all facets of the expanding crisis (Danti 2015: 134). With something this large, however, it will be impossible to ever know what has exactly been lost in Syria due to this conflict. Continued work with orphaned collections like the Euphrates Valley Expedition may help to demonstrate what remains available in spite of these atrocities.

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Appendix A

Museum Documentation Inventory*

#	Description of Document	# of Pages	Date: MM.DD.YYYY	Location in MPM Library (Box # / Folder Name)
1.	Dr. Kantor (Professor University of Chicago Oriental Institute) Inquiry to Dr. Kenneth Star (Director of MPM) [KS]	1	11.19.1971	413.1 / Dornemann Hiring Paperwork
2.	KS reply to Dr. Kantor.	1	11.29.1971	413.1 / Dornemann Hiring Paperwork
3.	Handwritten notes on Dr. Rudolph Dornemann [RD] by KS.	2	1971	413.1 / Dornemann Hiring Paperwork
4.	RD to KS Inquiry about Curator Position.	1	12.4.1971	413.1 / Dornemann Hiring Paperwork
5.	Dr. Kantor thank you note to KS.	1	12.20.1971	413.1 / Dornemann Hiring Paperwork
6.	KS to RD invitation to visit MPM.	1	1.7.1972	413.1 / Dornemann Hiring Paperwork
7.	RD to KS accepting invitation to visit.	1	1.15.1972	413.1 / Dornemann Hiring Paperwork
8.	RD to KS thank you note.	1	2.7.1972	413.1 / Dornemann Hiring Paperwork
9.	KS to RD follow up interview.	1	2.10.1972	413.1 / Dornemann Hiring Paperwork
10.	Handwritten memo from Wallace MacBriar (MPM assistant director) to KS.	1	2.11.1972	413.1 / Dornemann Hiring Paperwork
11.	RD to KS appointment for interview in Chicago.	1	2.13.1972	413.1 / Dornemann Hiring Paperwork
12.	Warren Braz (City of Milwaukee) to KS: RD eligible for Curator V position.	1	2.18.1972	413.1 / Dornemann Hiring Paperwork
13.	RD to KS : Letter explaining his delay in response to the position offer at MPM.	3	5.7.1972	413.1 / Dornemann Hiring Paperwork
14.	Wallace MacBriar to Joe Gillaw and Jon Loudtke (History Employees), RD start date, and hand- written notes on the position.	4	6.25.1972	413.1 / Dornemann Hiring Paperwork
15.	KS to RD: Offer of head of the History Department (Curator V).	1	7.26.1972	413.1 / Dornemann Hiring Paperwork
16.	Press Release: Appointment of RD.	2	8.11.1972	413.1 / Dornemann Hiring Paperwork
17.	Handwritten expedition budget and conditions of excavation (Ken Starr?).	1	1972	418 History Department Hadidi 72-76
18.	RD to David Wallace (NEH) Proposed trip to Syria.	3	09.29.1972	418 / History Department Hadidi 72-76
19.	RD to KS Memo about NEH letter.	1	10.5.1972	418 / History Department Hadidi 72-76
20.	Note and Aerial photo showing Euphrates River and Hadidi.	2	10.11.1972	418 / History Department Hadidi 72-76

21. Dr. George Mendenhall (University of Michigan) to RD: Mini course and joint Syria effort.	1	10.23.1972	418 / History Department Hadidi 72-76
22. Dr. George Mendenhall to KS: NEH Proposal letter.	1	11.16.1972	418 / History Department Hadidi 72-76
23. KS letter to NEH + Dornemann's NEH grant proposal/receipt 1972.	13	11.20.1972 11.30.1972	418 / History Department Hadidi 72-76
24. RD to KS + Letter from University of Leiden + copy of letter to Damascus requesting excavation permit.	4	1.23.1973 1.5.1973 1.1973	418 / History Department Hadidi 72-76
25. RD to Dr. James Shey (UWM Classics) funding request.	3	2.23.1973	418 / History Department Hadidi 72-76
26. Dr. Mendenhall to RD: report on RD inquiries.	2	3.2.1973	418 / History Department Hadidi 72-76
27. Friends of Museum memo: Dig in Danger.	1	1973	418 / History Department Hadidi 72-76
28. Ronald Berman to RD - Denial of NEH grant letter.	1	3.5.1973	418 / History Department Hadidi 72-76
29. Letter from van der Leeuw (University of Leiden) about Tell Hadidi and their excavations until that point.	2	1973	418 / History Department Hadidi 72-76
30. Written flow chart for Expedition.	1	1973	418 / History Department Hadidi 72-76
31. Letter from Dr. A.T. Clason (Archaeozoological Dept. Biologisch-Archaeologisch Instituut).	1	6.4.1973	418 / History Department Hadidi 72-76
32. Mrs. Lindeman (FOM) to David Huntington: Funding for Hadidi + Letter from RD detailing the expedition and budget to David Huntington.	5	6.6.1972 6.4.1972	418 / History Department Hadidi 72-76
33. RD to KS + Dr. Mendenhall to RD.	3	6.7.1973	418 / History Department Hadidi 72-76
34. Dornemann book review in <i>Journal of Near Eastern Studies</i> .	3	1973	418 / History Department Hadidi 72-76
35. Funding information handwritten.	2	7.11.1973	418 / History Department Hadidi 72-76
36. Newspaper clipper about funding.	1	1973	418 / History Department Hadidi 72-76
37. Mrs. Lindemann note to Albert F. Gallum Jr. Thanking the Sun Oil Company for its donation.	1	11.5.1973	185 / Syria 1974
38. AIA memo about Dornemann talk "Excavations on the Citadel of Ancient Amman".	2	11.26.1973	418 / History Department Hadidi 72-76
39. Letter to RD "Near Eastern War" + Dr. Mendenhall to RD expedition details.	3	1.21.1974 1.18.1974	185 / Syria 1974

40. Memo: Field Activities Committee.	2	1974	418 / History Department Hadidi 72-76
41. Thank you note to Mrs. Lindemann for raising the funds for the expedition.	1	02.4.1974	185 / Syria 1974
42. RD to KS + RD to Bruce R. McCallum: Letter about photographing the site.	3	02.7.1974	185 / Syria 1974
43. RD Letter to Dr. Cornelius P. Cotter (UWM Classics): Requesting the services of Dr. Robert C. Ross for the expedition.	2	02.11.1974	185 / Syria 1974
44. "The Joint Milwaukee Public Museum University of Michigan Euphrates Valley Expedition at Tell Hadidi".	9	1974	418 / History Department Hadidi 72-76
45. KS to Donald B. Albert (President of Journal Company): Thanking him for the Journal's gift of \$5000.	1	04.17.1974	185 / Syria 1974
46. RD post card to KS.	1	04.24.1974	185 / Syria 1974
47. Peg Nelson (Friends of the Museum?) note to RH.	1	06.5.1974	185 / Syria 1974
48. First progress report RD.	4	06.12.1974	185 / Syria 1974
49. KS to RD thank you letter + RD Postcard to KS.	3	06.18.1974	185 / Syria 1974
50. Hadidi second general report "Things are seldom what they seem".	7	07.12.1974	185 / Syria 1974
51. Handwritten note RD to John (Loudtke?) + Copy of Hadidi second general report.	8	07.12.1974	185 / Syria 1974
52. RD trip journal.	29	08.1974	185 / Syria 1974
53. Handwritten letter RD to KS + Typed response KS to RD.	2	7.20.1974 8.8.1974	185 / Syria 1974
54. KS to RD: Thanking him for his account of Syria for the museum Muses.	1	08.15.1974	185 / Syria 1974
55. KS to Dr. Robert Ross (UWM Classics) thanking him for his part in the presentation of the expedition to the Muses.	1	08.15.1974	185 / Syria 1974
56. KS to RD: Congratulating Dornemann on becoming AIA president.	1	11.8.1974	418 /History Department Hadidi 72-76
57. KS to Mr. Donald B. Albert + Mrs. Lindemann to Donald B Albert (Letter's found together and therefore kept together).	2	8.14.1974 11.27.1974	185 / Syria 1974
58. Thank you to Harry Pease (Reporter for The Journal who had traveled to Hadidi).	1	11.27.1974	185 / Syria 1974
59. RD statement on Hadidi + RD to Mrs. Lindemann.	7	12.16.1974 01.10.1975	185 / Syria 1974
60. Mr. Gorski to RD: Insurance policy renewal information.	2	03.1975	418 / History Department Hadidi 72-76
61. RH to KS: First week of work 1975.	2	05.23.1975	185 / Syria 1975
62. Cover page + Harry Stein (Fiscal Liason City of Milwaukee) to Finance and Personnel Committee city of Milwaukee.	2	05.9.1975	185 / Syria 1975
63. Letter from Alderman Kalwitz to KS Authorizing staff participation in excavation at TH + KS thanking Alderman Kalwitz.	2	05.22.1975 05.29.1975	185 / Syria 1975
64. Progress Report 1975.	3	06.13.1975	185 / Syria 1975
65. Final Reports on 1975.	4	07.23.1975	185 / Syria 1975
66. Handwritten note + Fiction tablet story + "The Cause of Things".	7	07.25.1975	185 / Syria 1975

67. KS to RD: Pleased with field work.	1	08.4.1975	418 / History Department Hadidi 72-76
68. RD: CV.	3	10.1975	418 / History Department Hadidi 72-76
69. Revised budget for Tell Hadidi Excavations.	4	10.1975	185 / Syria 1975
70. RD to Susan Mango (NEH) 2 letters: Supplemental material for grant.	3	10.17.1975	418 / History Department Hadidi 72-76
71. RD to Susan Mango: Staffing and revised budget.	6	10.17.1975	418 / History Department Hadidi 72-76
72. Memo to Robert Ross (UWM Department of Classics) for help with the NEW grant.	1	10.22.1975	418 / History Department Hadidi 72-76
73. KS to Susan Mango.	1	11.4.1975	418 / History Department Hadidi 72-76
74. All staff memo: RD showing super-8 Tell Hadidi movies.	1	12.10.1975	418 / History Department Hadidi 72-76
75. RD Book review.	6	1975/1976	418 / History Department Hadidi 72-76
76. Margo MacInnes (Assistant to the Dean University of Michigan) to RD: University of Milwaukee Alumni event at Tell Hadidi.	1	02.2.1976	185 / Syria 1976
77. KS to NEH grant application + Assurance of Compliance.	2	03.25.1976	185 / Syria 1976
78. Ronald Berman (NEH Chariman) to KS: NEH grant award. (2 copies).	6	03.17.1976	185 / Syria 1976
79. KS to Mark Kotos (NEH): Revised Budget.	1	04.9.1976	185 / Syria 1976
80. RD to Mark Kotos about personal travel expenses.	3	04.12.1976	185 / Syria 1976
81. Mrs. Lindemann to Ronald Berman : Matching funds.	1	4.23.1976	185 / Syria 1976
82. KS to Ronald Berman thanking the NEH for the grant.	1	05.7.1976	185 / Syria 1976
83. Philip Marcus to RD Approval of travel via NEH.	1	05.20.1976	185 / Syria 1976
84. KS to George Keulks Dean of the Graduate School at UW-Milwaukee.	1	05.28.1976	185 / Syria 1976
85. RD handwritten to KS + KS response to RD.	5	06.17.1976 06.30.1976	185 / Syria 1976
86. RD to KS handwritten.	1	07.12.1976	185 / Syria 1976
87. KS to RD: Fair share of artifact split.	2	07.13.1976	418 / History Department Hadidi 72-76
88. Post card to KS from RD.	1	07.1976	418 / History Department Hadidi 72-76
89. KS to RD: Clear History hallways.	1	09.30.1976	418 / History Department Hadidi 72-76
90. KS to RD: Switch from City to county jurisdiction.	1	11.15.1976	418 / History Department Hadidi 72-76

91. RD to Edwin Snider (National Geographic Society) Grant Application.	8	12.7.1976	418 / History Department Hadidi 76-81
92. RD to Dr. J.C. Margueron (Middle Euphrates colloquium correspondence) + Travel Request RD to KS + RD to Max Nickerson (Chairman Field Research Committee) + Colloquium Initiation + Abstract.	7	2.21.1977 3.1.1976	418 / History Department Hadidi 76-81
93. Carol Smallman to RD + KS to RD: Letter from Carol Smallman.	2	3.7.1977	418 / History Department Hadidi 76-81
94. RD to KS: Travel expenses for trip to Strasbourg.	1	3.7.1977 3.22.1977	418 / History Department Hadidi 76-81
95. RD to KS: Strasbourg Convention budget + ASOR annual meeting budget.	3	4.18.1977	418 / History Department Hadidi 76-81
96. Handwritten note + Typed proposed budget for History department.	2	5.9.1977	418 / History Department Hadidi 76-81
97. KS to RD: Memo about proposed budget + "Milwaukee Public Museum Excavations at Tell Hadidi, Syria 1976.	39	5.16.1977	418 / History Department Hadidi 76-81
98. KS to RD: Budget to Strasbourg.	1	5.19.1977	418 / History Department Hadidi 76-81
99. KS to RD: Memo National Geographic Article.	1	10.14.1977	418 / History Department Hadidi 76-81
100. RD to KS: 'Primary factors governing my personal research objectives'.	2	1.23.1978	418 / History Department Hadidi 76-81
101. RH to KS: Memo: Purchasing of tomb group from "Bab-Ed-Drah" excavations.	1	2.15.1978	418 / History Department Hadidi 76-81
102. RD to KS: Requesting MPM ASOR corporate membership.	1	2.15.1978	418 / History Department Hadidi 76-81
103. Handwritten RD to KS ASOR Corporate membership + KS to RD ASOR (2 copies 1 with notes) + KS Handwritten note.	3	3.6.1978 3.8.1978	418 / History Department Hadidi 76-81
104. KS to RD: Memo regarding ASOR.	1	3.21.1978	418 / History Department Hadidi 76-81
105. RD to KS Memo + ASOR Newsletter.	10	9.7.1978	418 / History Department Hadidi 76-81
106. Letter from Ken Trapp to KS + KS to RD: Memo: Ken Trapp (Curator Cincinnati Art Museum).	2	9.29.1978 10.17.1978	418 / History Department Hadidi 76-81
107. Letter from Esther Van Sant (Office of the Director at the University Museum) to KS + KS to Esther Van Sant on behalf of RD + Esther Van Sant thank you note.	4	12.20.1978 1.25.1979 2.2.1979	418 / History Department Hadidi 76-81
108. KS to RD: Norm Lasca lunch.	1	3.2.1979	418 / History Department Hadidi 76-81

109.ASOR Volume 44.	20	1979	418 / History Department Hadidi 76-81
110.Request of RD to attend “First Conference on the History and Archaeology of Jordan + Meeting Minutes of the American Center of Oriental Research Amman Jordan.	4	1979	418 / History Department Hadidi 76-81
111.Grant Documents: Matching gifts letter.	1	08.20.1979	418 / History Department Hadidi 76-81
112.RD to Dr. Philip N. Marcus (NEH Division of Research Grants): NEH publication grants.	22	11.30.1979	418 / History Department Hadidi 76-81
113.KS to RD thanking him for his help in the European Village.	1	01.15.1980	418 / History Department Hadidi 76-81
114.Acknowledgment of receipt and acceptance of the grants.	1	10.27.1980	418 / History Department Hadidi 76-81
115.KS to RD: Don Hoke (History department employee) employment + Don Hoke to KS and RD “Extra museum employment”.	3	11.12.1981 12.8.1981/ 3.1.1982	418 / History Department 81-83
116.Sign, Symbol, Script Budget.	2	6.3.1982	418 / History Department 81-83
117.Art Institute of Chicago Evaluation of history paintings.	10	11.9.1982	418 / History Department 81-83
118.Exhibit Plan for Sign Symbol Script.	2	11.16.1982	418 / History Department 81-83
119.NEA Grant Proposal for Costume and Textile Collection.	17	1982	418 / History Department 81-83
120.Memo: RH to JT: Contractors.	1	01.13.1983	418 / History Department 81-83
121.KS to RH Capital Improvement hearings.	1	07.8.1983	418 / History Department 81-83
122.Memo from RD to Norma Balentine (MPM assistant Public affairs officer) + Norma Balentine news release + All documents of NEH grant proposal.	39	5.23.1985 6.20.1985	253 / Tell Hadidi Grant

*For more information on location or contents of correspondences please contact the author, Jamie P. Henry (JPHenry@uwm.edu) or The Milwaukee Public Museum.

Appendix B

Euphrates Valley Expedition Metal Collection Spreadsheet

The following appendix is an abridged version of the Master Database created during the inventorying process and utilized during the analysis for this thesis. A copy of the Excel file will also be available upon request and will be located on the Milwaukee Public Museum shared drive. For more information please contact the Author, Jamie P. Henry (JPHenry@uwm.edu) or the Milwaukee Public Museum.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.001a	N	26659	H77-M-12	Bronze pin (Ball head w/ eye remnants) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.001b	N	26659	H77-M-12	Bronze pin (shaft fragment) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.002	N	26418	H74-274	Bronze Pin (Ball headed) (ribbed shaft)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.04.003			H77-M-1	Bronze Pin (no defined head; needle like)	Bronze	No	Conservation work; surface patina
02.ES.04.004	N	26405	H76-179	Bronze Pin (animal head)	Bronze	No	Surface corrosion: blueish green discoloration
02.ES.04.005	N	26383	H76-177a	Bronze Pin (roll headed)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.ES.04.006	N	26439	H76-177b	Bronze Pin (no head, but most likely nail or mushroom)	Bronze	No	Surface corrosion: blueish green discoloration
02.THa.04.007	N	26656	H74-375	Bronze pin (two headed probably ball head)	Bronze	No	Surface corrosion: blueish green discoloration
05.NO.04.008				MISSING: Bronze Pin fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.THa.04.009			H74-361	Bronze Pin (mushroom headed)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
02.ES.04.010	N	26381	H76-177c	Bronze pin (head w/ shaft fragment) (refit with 011)	Bronze	No	Surface corrosion: blueish green discoloration
02.ES.04.011	N	26381	H76-177c	Bronze fragment (shaft w/ tip fragment) (refit with 010)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.012a	N	26653	H74-276	Bronze pin (nail head w/ shaft fragment and ribbed decoration) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.012b	N	26653	H74-276	Bronze pin (shaft fragment w/ tip) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.013	N	26387	H76-S287	Bronze Pin (nail headed + Shaft with ribbed design)	Bronze	No	Conservation work; surface patina
01.TH.04.014	N	26477	H74-838a	Bronze Pin Head (Bell)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.THa.04.015			H74-384	Bronze Pin (roll headed)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
01.TH.04.016	N	26417	H76-160 or M10	Bronze Pin (Roll headed)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.THa.04.017	N	26588	H74-374	Bronze Pin fragment (roll headed)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.18			NA	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.019	N	26413	H74-181	Bronze Pin (rolled head fibula)	Bronze	No	Reconstructed + Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.THa.04.020	N	26385	H74-386	Bronze Pin (roll headed)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.021	N	27579a	H74-330	Bronze Pin (Serpent?) (Shaft fragment w/ tip) refit with 022	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.04.022	N	27579b	H74-330	Bronze pin (Serpent?) (shaft fragment) refit with 021	Bronze	Yes	Surface corrosion: blueish green discoloration
02.THa.04.023	N	28427	H74-366	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
02.ES.04.024			HAD-76-S1023	Bronze Pin (Club head with rib design head with eye)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.025			H74-897	Bronze pin (Square nail headed)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.THa.04.026	N	26384	H74-370	Bronze Pin (Mushroom Headed) (Eye)	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.04.027a			H76-s663	Bronze pin head fragment (club headed) (same pin as b not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.027b			H76-s663	Bronze pin body fragment w/ tip (same pin as a not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.028			HSM-77-52	Unidentified bronze fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.029			HSM-77-83	Iron pin fragment (no defined head	Bronze	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.030			HSM-77-37	Bronze pin fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.031			HSM-77-27	Slag fragments (2) (refit) Bronze and iron?	Bronze	No	Soil and Mineral accretion and blueish green discoloration
01.TH.12.032			HSM-78-3	Slag (bronze and iron slag with corroded fragments)	Bronze	No	Soil and Mineral accretion
01.TH.04.033			HSM-78-13	Bronze pin shaft fragment w/ tip (rectangular body)	Bronze	No	Soil and Mineral accretion
01.TH.12.034			HSM-78-36	Bronze - Slag	Bronze	No	Soil and Mineral accretion
01.TH.12.035			HSM-78-18	Slag soil accretion fragments (14)	Bronze	No	Soil and Mineral accretion
01.TH.04.036a			HSM-78-38	Bronze pin shaft fragments (2)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.036b			HSM-78-38	Bronze pin fragment (1)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.037			HSM-78-24	Bronze pin fragments (3) (bent at 90 degree angle) (possibly two different pins)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.038a			HSM-78-40	Bronze pin head fragment(2) (rolled over head or possibly eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.038b			HSM-78-40	Bronze pin body fragments (2) (rolled over head or possibly eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.039			H74-843	Lead link fragments (2) (possibly silver)	Bronze	No	Yellow and white discoloration
01.TH.04.040	N	26413	H74-181	Bronze pin fragment (Fibula)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.041			HAD-76-s342	MISSING currency envelope "Late Bronze Age"	Bronze	No	NA
02.EQ.12.042			HAD-76-s381	MISSING field bag "Useful frags"	Metal	No	NA
01.TH.12.043	N	25957	H77-M-11	Bronze Beer strainer	Bronze	Yes	Surface corrosion: blueish green discoloration
03.ES.04.044			H76-177a/176a	Bronze Pin (Roll headed)	Bronze	Yes	Surface corrosion: blueish green discoloration + Soil mineral accretion
05.NO.04.045a			NA	Bronze Pin (Mushroom Head) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
05.NO.04.045b			NA	Bronze Pin (Shaft fragment w/eye) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.046a			NA	Bronze pin (Club head w/ shaft fragment) possible refit with b	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.046b			NA	Bronze pin (curved shaft fragment) possible refit with a and c	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.046c			NA	Bronze pin (flattened shaft fragment) possible refit with b	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.047a			NA	Bronze Pin (Head/eye remnants) (same pin as b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.047b			NA	Bronze pin (shaft fragment) (same pin as a)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.048a			NA	Bronze pin (mushroom head w/ shaft fragment) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.048b			NA	Bronze pin (shaft fragment w/ tip) (refit with a)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.049			NA	Bronze pin (pointed head) (eye)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.050			NA	Bronze pin (Square nail headed)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.051			NA	Bronze pin fragment (shaft)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.052a			NA	Bronze pin (Shaft fragment) refit with b	Bronze	No	Surface Corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.04.052b			NA	Bronze pin (shaft fragment) refit with a	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.053a			NA	Bronze pin (shaft fragment w/ tip) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.053b			NA	Bronze pin (shaft fragment) (refit with a and c)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.053c			NA	Bronze pin (shaft fragment) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.054			NA	Bronze pin fragment (shaft w/ tip)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.055			NA	Bronze pin fragment (shaft w/ tip) (curved)	Bronze	No	Conservation work; surface patina
04.TH.04.056			NA	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration.
02.TH.04.057a			H76-S307	Bronze Pin (shaft fragment with flake of bronze protruding) possible refit with b	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.TH.04.057b			H76-S307	Bronze pin (shaft fragment) possible refit with a and c	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.TH.04.057c			H76-S307	Bronze pin (shaft fragment) possible refit with b	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.058a			NA	Bronze pin (Shaft fragment) (eye) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.058b			NA	Bronze pin (shaft fragment) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration.
01.TH.04.059			H74-20	Bronze Pin (No defined head)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
04.TH.04.060			NA	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.061a			NA	Bronze pin (Segmented ball or morningstar head) possible refit with b and c	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.061b			NA	Bronze pin (shaft fragment w/ ribbed decoration) possible refit with a and c	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.061c			NA	Bronze pin (shaft fragment) possible refit with a and b	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.062			NA	Bronze Pin (segmented club head or morningstar)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.063			NA	Bronze Pin (Club headed) (eye)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.064a			NA	Bronze Pin (shaft fragment) refit with b	Bronze	No	Surface corrosion: blueish green discoloration.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.04.064b			NA	Bronze pin (shaft fragment) refit with a	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.065			NA	Bronze pin fragment (curved shaft and point)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.TH.04.066			H76-S330/74-340	Bronze pin fragment (segmented ball head or morningstar)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.067a			NA	Bronze Pin (Roll headed) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.067b			NA	Bronze pin (shaft w/ tip) (refit with a)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.068			NA	Bronze Pin (roll headed w/ shaft)	Bronze	No	Conservation work; surface patina
04.TH.04.069			NA	Bronze Pin (segmented ball head or morningstar w/ ribbed shaft) (eye)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.070a			NA	Bronze Pin (Mushroom headed) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.070b			NA	Bronze pin (shaft fragment) (refit with a)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.071a			NA	Bronze pin (Shaft fragment w/ ribbed decoration and 'guard') (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.071b			NA	Bronze pin (shaft fragment) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.072			NA	Bronze pin fragment (shaft)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.073a			NA	Bronze Pin (No defined head w/ shaft) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.073b			NA	Bronze pin (Shaft fragment w/ tip and bulb) (refit with a)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.074a			NA	Bronze Pin (Shaft fragment w/ tip) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.074a			NA	Bronze pin (shaft fragment) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.075a			NA	Bronze pin (Shaft fragment and eye remnant) (refit with b)	Bronze	No	Conservation work; surface patina
04.TH.04.075b			NA	Bronze pin (shaft fragment w/ tip) (refits with a)	Bronze	No	Conservation work; surface patina
04.TH.04.076			NA	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.077			NA	Bronze Pin (mushroom head)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.078			NA	Bronze pin fragment (shaft)	Bronze	No	Surface corrosion: blueish green discoloration.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.04.080			H75-S334	Bronze Pin fragment (mushroom head w/ eye)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.081			NA	Bronze Pin (Mushroom Headed) (Eye)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.082			NA	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.083			NA	Bronze pin fragment (shaft w/ tip)	Bronze	No	Repaired; Badly corroded; surface corrosion: blueish green discoloration.
04.TH.04.084			NA	Bronze pin fragment (shaft w/tip)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.085			NA	Bronze Pin (roll headed w/ shaft)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.086			NA	Bronze pin (roll headed)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
04.TH.04.087			NA	Bronze Pin fragment (No defined head) (Eye)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.088			NA	Bronze pin shaft fragment	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.04.089			NA	Bronze pin (segmented ball or morningstar) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.090a			NA	Bronze pin (ball head w/ shaft fragment) (eye) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.090b			NA	Bronze pin (shaft fragment) (refit with a and c)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.090c			NA	Bronze pin (shaft fragment w/ tip) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.091a			NA	Bronze pin (Segmented club head or morningstar) (eye remnants) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.091b			NA	Bronze pin (shaft fragment and eye remnants) (refit with a and c)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.091c			NA	Bronze pin (shaft fragment w/ tip) (refits with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.092a			NA	Bronze pin (Segmented club head or morningstar) (eye remnants) (refit with b)	Bronze	No	Pitting; Surface corrosion: blueish green discoloration.
04.TH.04.092b			NA	Bronze pin (shaft fragment) (refit with a)	Bronze	No	Pitting; Surface corrosion: blueish green discoloration.
04.TH.04.093			NA	Bronze pin fragment (segmented ball head or morningstar) (eye)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.094a			NA	Bronze pin (Segmented club or morningstar w/ shaft fragment) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.04.094b			NA	Bronze pin (shaft fragment w/ eye) (refit with a and c)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.094c			NA	Bronze pin (shaft fragment) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.095			NA	Bronze Pin (segmented ball head or morningstar)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.096a			NA	Bronze pin (not defined head w/ shaft fragment and eye remnants) (refits with b)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.096b			NA	Bronze pin (shaft fragment and eye remnants) (refits with a)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.097a			NA	Bronze pin (shaft fragment, eye remnant and ribbed decoration) (refits with b)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.097b			NA	Bronze pin (shaft fragment and eye remnant) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.098			NA	Bronze pin (shaft) (eye)	Bronze	Yes	Surface corrosion: blueish green discoloration.
04.TH.04.099			NA	Bronze pin fragment (shaft) (rectangular)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.100			NA	Bronze pin fragment (shaft)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.101			NA	Bronze pin fragment (head)	Bronze	No	Surface corrosion: blueish green discoloration.
02.THa.04.102	N	26460	H74-368	Bronze Pin (mushroom head) (eye)	Bronze	Yes	Surface corrosion: blueish green discoloration.
04.TH.04.103			NA	Bronze pin (nail head) (square shaft)	Bronze	Yes	Surface corrosion: blueish green discoloration.
04.TH.04.104			NA	Bronze Pin (ball headed)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.105			NA	Bronze pin (not defined head, eye is a part of the head)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.106			NA	Bronze pin fragment (shaft w/ point)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.107			NA	Bronze pin fragment (shaft)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.108			NA	Bronze Pin fragment (ball head)	Bronze	No	Surface corrosion: blueish green discoloration.
04.TH.04.109			NA	Bronze pin (mushroom headed)	Bronze	No	Surface corrosion: blueish green discoloration.
01.TH.04.110			H74-156	Bronze Pin (not defined head)	Bronze	No	Surface Corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.111			NA	Bronze Pin shaft fragments (12)	Bronze	No	Surface corrosion: blueish green discoloration.
01.TH.04.112a			H74-S194	Bronze pin fragments w/ shaft (Not defined head) (refit with b)	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.04.112b			H74-S194	Bronze pin shaft fragment (refit with a)	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.04.113			H74-S37	Bronze pin fragment	Bronze	No	Surface and Core corrosion: Blueish green discoloration
01.TH.04.114			H74-S219	Bronze Pin Shaft Fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.115a			H74-S122	Bronze pin fragment (Shaft fragment and eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.115b			H74-S122	Bronze bracelet fragments (2) (Flattened) (Refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.115c			H74-S122	Stone	Stone	Yes	Small stone
01.TH.04.116			H74-S261	Bronze Shaft Fragments (5+)	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.01.117a			H77-M-5	Bronze Projectile (Body + rectangular tang)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.01.117b			H77-M-5	Bronze Projectile (Tip)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.THa.01.118	N	26440	H74-420a	Bronze Projectile fragment (tang and tip broken off)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.THa.01.119	N	26515	H74-420b	Bronze Projectile (tang)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
02.THa.01.120	N	26513	H74-420c	Bronze Projectile (tang)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
02.THa.01.121	N	26386	H74-420d	Bronze Projectile (tang broken off)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.THa.01.122	N	26404	H74-422a	Bronze Projectile (tang broken off)	Bronze	No	Reconstructed + Surface corrosion: blueish green discoloration
02.THa.01.123	N	26514	H74-422b	Bronze Projectile (tang broken off)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.THa.01.124	N	26398	H74-422c	Bronze Projectile (tang broken off)	Bronze	No	Surface Corrosion: Soil and mineral accretion
02.THa.01.125a	N	26390	H74-422d	Bronze Projectile (tang) refit with b	Bronze	No	Surface Corrosion: blueish green discoloration
02.THa.01.125b	N	26390	H74-422d	Bronze Projectile (Body) refit with a	Bronze	No	Surface Corrosion: blueish green discoloration
02.THa.01.126	N	26461	H74-424	Bronze projectile (tang + tip) (Javelin)	Bronze	Yes	Surface Corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.THa.01.127	N	26639	H74-425	Bronze projectile (squared body with tang)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.01.128			H74-804	Bronze projectile fragment (tang)	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.01.129	N	26473	HSM-78-43	Bronze projectile (tang + tip) (Javelin)	Bronze	Yes	Surface corrosion: Blueish green discoloration
01.TH.01.130a			H76-17	Iron projectile point (socketed)	Bronze	No	Surface corrosion: Oxidation and soil accretion
01.TH.01.130b			H76-17	Iron projectile point fragments (5)	Bronze	No	Surface corrosion: Oxidation and soil accretion
02.THa.02.131	N	26638	H74-400	Bronze Blade fragment (body + tang with 2 perforations)	Bronze	No	Pitting + Surface corrosion: blueish green discoloration
02.THa.02.132	N	26441	H74-404	Bronze blade	Bronze	Yes	Reconstructed + Surface corrosion: blueish green discoloration
02.THa.02.133	N	26452	H74-406	Bronze Blade	Bronze	Yes	Reconstructed + Surface corrosion: blueish green discoloration
02.THa.02.134			H74-408	Bronze Blade (body fragment)	Bronze	No	Pitting + surface corrosion: blueish green discoloration
02.THa.02.135			H74-393	Bronze Blade (body with tang)	Bronze	No	Surface corrosion: blueish green discoloration
02.THa.02.136			H74-393	Bronze Blade (tip fragment)	Bronze	No	Surface corrosion: blueish green discoloration
02.THa.02.137	N	26442	H74-412	Bronze dagger (bent tang broken tip)	Bronze	No	Evidence of heavy conservation work done.
02.THa.02.138	N	26434	H74-415	Bronze Dagger (3 rivets on tang)	Bronze	No	Pitting + Surface corrosion: blueish green discoloration
02.THa.02.139	N	26437	H74-416	Bronze dragger fragment (body)	Bronze	No	Surface corrosion: blueish green discoloration
02.SED.02.140	N	25984	H76-175	Bronze dagger (molded handle)	Bronze	No	Surface corrosion: blueish green discoloration
02.THa.02.141a			H74-407	Bronze Blade (refit with b)	Bronze	No	Surface soil and mineral accretion. Evidence of oxidation on edges
02.THa.02.141b			H74-407	Bronze blade (handle with 3 rivets, 1 MISSING) (refit with a)	Bronze	No	Surface soil and mineral accretion. Evidence of oxidation on edges
02.THa.02.142	N	26637	H74-403	Bronze dragger tang w/ 2 rivets	Bronze	No	Surface corrosion: soil and mineral accretion
02.THa.03.143	N	26438	H74-398	Bronze Axe blade (MISSING socket)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.11.144	N	26412	H75-M-2	Bronze tweezers	Bronze	Yes	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.AD.12.145			HAD-76-S1023a	Bronze Buckles	Bronze	Yes	Surface corrosion: blueish green discoloration
02.AD.12.146			HAD-76-S1023b	Bronze Buckles	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.147	N	26657	H74-123	Bronze fragment (spatula?)	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.12.148	N	27570	H74-65	Bronze fragment (flat)	Bronze	No	Surface Corrosion: Soil and mineral accretion
04.TH.12.149			NA	Unidentified Bronze cone	Bronze	Yes	Surface corrosion: Blueish green discoloration
01.TH.12.150			H77-M-8	Bronze Ignor or tool	Bronze	Yes	Pitting. Surface corrosion: blueish green discoloration.
01.TH.10.151	N	26392	H74-822	Bronze box clasp	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.10.152			HSM-78-32	Bronze pendant (perforation and broken bail)	Bronze	Yes	Conservation work; surface patina
01.TH.10.153			HSM-78-31	Bronze pendant (perforation and bail)	Bronze	Yes	Conservation work; surface patina
01.TH.12.154a	N	28426	H74-173c	Unidentified Bronze flattened Fragment	Bronze	No	Surface Corrosion: Soil and mineral accretion
01.TH.12.154b	N	28426	H74-173a	Unidentified Bronze looped fragment	Bronze	Yes	Surface Corrosion: Soil and mineral accretion
01.TH.12.155			HSM-78-39	Unidentified Bronze Chunk	Bronze	No	Pitting, variety of surface corrosion and discoloration
01.TH.04.156			H74-S139	Bronze Pin Fragment (J shape)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.157			H74-S151	Bronze pin fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.158			H74-S86	Bronze Pin Fragment (stone studded?)	Bronze	No	Stone Studded; Surface corrosion: Soil and mineral accretion
01.TH.04.159a			H74-S263	Bronze pin fragment (shaft w/ tip) (refit with b)	Bronze	No	Corrosion: Surface and core discoloration
01.TH.04.159b			H74-S263	Bronze pin fragment (shaft fragment) (refit with a)	Bronze	No	Corrosion: Surface and core discoloration
01.TH.12.159c			H74-S263	Stone found with a and b	Stone	No	Stone
01.TH.04.160			H74-S239	Bronze Pin Fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.161			H74-S192	Bronze Pin Fragment	Bronze	No	Surface corrosion: Soil Mineral Accretion
01.TH.04.162a			H74-S269	Bronze pin head fragment (Not defined head) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.162b			H74-S269	Bronze pin shaft fragment (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.163			H74-S104	Bronze Pin fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.164			H74-S45	Bronze Pin fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.165a			H74-S123	Bronze pin fragment (stone studded) (refit with b)	Bronze	No	Stone Studded; Surface corrosion: Soil and mineral accretion
01.TH.04.165b			H74-S123	Bronze pin fragment (stone studded) (refit with a)	Bronze	No	Stone Studded; Surface corrosion: Soil and mineral accretion
01.TH.04.166a			H74-S125	Bronze Pin (shaft fragment)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.166b			H74-S125	Bronze pin head (bead?)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.167a			H74-S223	Bronze pin head fragment (Not defined) (refit with b)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.167b			H74-S223	Bronze pin (shaft fragment) (refit with a and c)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.167c			H74-S223	Bronze pin (shaft fragment w/ tip) (refit with b)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.10.168	N	26474	H74-161	Bronze Pendant (2 bails, or possibly clasps)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.07.169			H75-M-4	Bronze Ring (coiled)	Bronze	Yes	Surface corrosion: soil and mineral accretion
01.TH.07.170			H74-291	Bronze Ring (setting with stone)	Bronze	Yes	Surface corrosion: blueish green discoloration.
01.TH.07.171	N	26400	H74-312	Bronze Ring (setting with stone)	Bronze	Yes	Conservation work: blueish green discoloration.
01.TH.12.172	N	26401	H75-M-1	Unidentified: Lead Hollowed cylinder	Lead	No	White discoloration Surface corrosion: soil and mineral accretion.
02.THa.12.173	N	26586	H74-382	Unidentified bronze curved fragment.	Bronze	No	Surface corrosion: blueish green discoloration.
01.TH.12.174			H74-251d	Unidentified: Bronze Flattened fragment	Bronze	No	Repaired; Surface corrosion: Oxidation and soil mineral accretion
01.TH.09.175			H74-199	Iron Nail (question mark shape MISSING head)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.176	N	28420	HSM-77-66	Bronze/Copper band with perforations.	Bronze	No	Conservation work; surface patina
01.TH.06.177			H74-S220	Silver bracelet fragment	Silver or Lead	No	Yellow and white discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.06.178			H74-S69	Bronze bracelet fragment	Bronze	No	Surface corrosion: soil and mineral accretion
01.TH.08.179			H74-S266	Bronze Bead (sphere)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.12.180			H74-S109	Unidentified bronze fragment (possibly bead)	Bronze	No	Corrosion: blueish green discoloration
01.TH.08.181			H74-S245	Bronze Bead (sphere)	Bronze	Yes	Surface corrosion: soil and mineral accretion
01.TH.08.182			H74-S222	Bronze Bead (sphere)	Bronze	Yes	Surface corrosion: soil and mineral accretion
01.TH.12.183			H74-S46	Unidentified bronze fragment (Flat)	Bronze	No	Surface corrosion: soil and mineral accretion
01.TH.12.184			H74-S187	Unidentified bronze fragments (4) (dust)	Bronze	No	Corrosion: blueish green discoloration
01.TH.12.185			H74-S206	Unidentified bronze Fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.186			H74-S210	Unidentified bronze fragments (3)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.187			H74-S154	Unidentified bronze Fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.188			H74-S114	Unidentified bronze fragments (2) (refit)	Bronze	Yes	Corrosion: blueish green discoloration
01.TH.12.189			H74-S129	Unidentified bronze fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.190			H74-S107	Unidentified bronze Fragment (curved)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.191			H74-S105	Unidentified bronze Fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.192			H74-S242	Unidentified bronze fragment (Flat)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.06.193a			H74-S226	Bronze Hooked end of possible bracelet (refit with parts b)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.06.193b			H74-S226	Bronze fragment (refit with parts a and c)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.06.193c			H74-S226	Bronze Fragment (refit with part b)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.06.193d			H74-S226	5 small bronze fragments broken off from a,b,c	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.194			H74-119	Bronze pin fragment (shaft w/ tip) (possibly rolled head)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.195a			H76-S404	Bronze pin (Shaft fragment with eye remnant) (possible refit with b)	Bronze	No	Surface corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.195b			H76-S404	Bronze pin (shaft fragment) (possible refit with a and c)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.195c			H76-S404	Bronze pin (shaft fragment w/ tip) (possible refit with b)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.195d			H76-S404	Unidentified: Bronze or slag ball	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.196			H74-S207	Unidentified bronze and soil fragments.	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.09.197			H74-201	Iron Nail (coiled)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.198a			H74-71a	Iron Nail (Head)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.198b			H74-71a	Iron Nail (Point)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.199			H74-193	Iron Nail/tack (flat round head)	Iron	Yes	Surface corrosion: Soil and mineral accretion
01.TH.09.200			H74-251b	Iron Nail (J shape no head)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.201	N	26436	H75-M-8	Unidentified: Bronze Spatula	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.202			H76-S263	Unidentified bronze artifact with large perforation	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.08.203			H74-165 (a)	Bronze bead (morningstar)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.TH.12.204			H74-341	Unidentified: Spiral fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.10.205			H74-60	Bronze Pendant (bail)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.NO.08.206			NA	Bronze bead (cylindrical)	Bronze	Yes	Surface corrosion: blueish green discoloration
04.TH.07.207			NA	Bronze ring fragment (band)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.07.208a			H74-830	Bronze Ring Fragment (refit with b)	Bronze	No	Surface corrosion: Soil and mineral accretion
02.TH.07.208b			H74-830	Bronze Ring fragment (refit with a)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.08.209			NA	Bronze Bead (oval/sphere)	Bronze	Yes	Surface corrosion: blueish green discoloration
04.TH.07.210			NA	Bronze earring (crescent)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.06.211			NA	Bronze Bracelet Fragment	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.06.212			NA	Bronze Bracelet Fragment	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.213			NA	Unidentified: Flattened bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.06.214a			NA	Iron Bracelet fragment (refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.06.214b			NA	Iron Bracelet fragment (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.06.215			NA	Bronze Bracelet (ends not connected)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.216	N	28429	H74-92	Bronze Ring	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.TH.06.217			NA	Bronze bracelet fragment.	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.218a	N	26391	H76-12	Bronze Ring fragments (2) (Circular setting with stone) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.218b	N	26391	H76-12	Bronze Ring fragment (Band) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.07.219a			H76-S342	Bronze earring (crescent)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.TH.07.219b			H76-S342	Bronze earring (crescent)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.TH.07.219c			H76-S342	Bronze earring (crescent)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.TH.12.219d			H76-S342	Unidentified bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.220a			NA	Unidentified bronze fragment refit with b	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.12.220b			NA	Unidentified bronze fragment refit with a	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.06.221			NA	Bronze bracelet fragment	Bronze	No	Surface corrosion: blueish green discoloration
05.NO.07.222			NA	Bronze bracelet fragments (2) (refit)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.06.223			NA	Bronze bracelet fragment.	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.224	N	26409	H74-182	Bronze Ring	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.06.225	N	26382	H74-89	Iron bracelet (connected ends)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.07.226	N	26410	H76-16	Bronze Ring	Bronze	Yes	Surface corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.07.227	N	27023	H75-119 (M11)	Bronze Ring (coiled)	Bronze	Yes	Conservation work; surface patina
01.TH.06.228	N	26419	H76-41	Iron bracelet (ends not connected)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.07.229			NA	Bronze ring fragment (coiled)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.230	N	26408	H74-643	Bronze Ring (ends not connected)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.06.231	N	26415	H77-M-3	Bronze Bracelet (flattened ends not connected)	Bronze	No	Surface corrosion: blueish green discoloration
02.ES.06.232	N	26420	H76-181 (M23)	Bronze Bracelet (ends not connected)	Bronze	Yes	Conservation work; surface patina
01.TH.06.233			H76-42	Bronze Bracelet (ends not connected)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.06.234			NA	Bronze bracelet	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.235	N	26947	HSM-78-27	Unidentified: Iron tool	Iron	No	Surface corrosion: Oxidation and soil accretion
02.TH.07.236			H76-S132	Bronze Ring fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.12.237			H76-S179	Unidentified: Bronze applicator?	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.238			NA	Unidentified: Small bronze fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.239			H76-166a	Bronze ring with traces of 'fiber'	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.07.240			H76-166b	Bronze ring with traces of 'fiber'	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.07.241			H76-166c	Bronze ring with traces of 'fiber'	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.07.242			H76-166d	Bronze ring fragments (2) (refit) with traces of 'fiber'	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.243a			H76-166e	Bronze ring fragments (2) (refit) (curved)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.243b			H76-166e	Bronze ring fragment (straight)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.243c			H76-166e	Bronze ring fragment (slight curve)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.243d			H76-166e	Bronze ring fragment (slight curve w/ hook on end)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.06.244			NA	Iron Bracelet	Iron	No	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.12.245a			NA	Unidentified Iron fragment (curved) (refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.245b			NA	Unidentified Iron fragment (curved) (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.246			NA	Unidentified Iron fragment (curved)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.08.247a			NA	5 bronze beads affixed together and 1 refit fragment	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.08.247b			NA	Cylindrical bronze bead	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.08.247c			NA	Cylindrical bronze bead	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.08.247d			NA	Half Cylindrical Bronze Bead	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.08.247e			NA	Spherical Bronze Bead	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.248a			HSM-78-41	Iron rod fragments (curved) affixed together (refit with b and c)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.248b			HSM-78-41	Iron rod fragment (Curved) (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.248c			HSM-78-41	Iron rod fragment (Curved) (possible refit with a,b)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.249			NA	Iron fragment (curved)	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.08.250			NA	Bronze Bead (oval/sphere)	Bronze	Yes	Surface corrosion: blueish green discoloration
04.TH.08.251			NA	Bronze bead fragment (sphere)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.252a			H74-948	Bronze Pin (2 shaft fragments affixed) (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.252b			H74-948	Bronze pin (2 shaft fragments affixed) (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.08.252c			H74-948	Bronze bead (cylindrical) (found w/ a + b)	Bronze	Yes	Surface corrosion: blueish green discoloration
05.NO.12.253			NA	Unidentified bronze fragment (curved)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.254			NA	Bronze pin fragment (shaft) (curved)	Bronze	No	Surface corrosion: Blueish green discoloration.
02.JJ.08.255			HAD-76-S1059	Bronze Bead (sphere)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.JJ.12.256			HAD-76-S1059	Unidentified bronze fragment.	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.JJ.06.257			HAD-76-S1059	Bronze Bracelet (ends not connected)	Bronze	No	Surface corrosion: blueish green discoloration
02.JJ.07.258			HAD-76-S1059	Bronze ring fragment	Bronze	No	Conservation work; surface patina
02.JJ.12.259			HAD-76-S1059	Bronze Vessel Handel	Bronze	No	Conservation work; surface patina
02.JJ.12.260			HAD-76-S1059	Unidentified Bronze Vessel fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.261			H76-163a	Unidentified Bronze Sheath?	Bronze	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.262			H76-9	Iron Nail (circular flat head)	Iron	Yes	Repaired. Surface corrosion: Soil and mineral accretion
04.TH.01.263			NA	Bronze projectile fragment (body)	Bronze	No	Surface corrosion: blueish green discoloration
05.NO.12.264			NA	Bronze spoon (Roman)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.265			NA	Bronze pin fragment (bowed shaft fragment) (has eye)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.266			H74*	Bronze ring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.267			H75-S57	Unidentified: Chain links (silver?)	Silver or Lead	No	White discoloration Surface corrosion: soil and mineral accretion.
01.TH.07.268			H76-S581	Bronze Ring/earring 3 fragments	Bronze	No	Conservation work; surface patina
02.JP.07.269			HAD-76-S930	Bronze ring (setting is possibly a stamp)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.12.270			HAD-76-S930	Unidentified Bronze fragment (folded over)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.12.271			HAD-76-S930	Unidentified bronze fragments (2) (refit)	Bronze		Surface corrosion: blueish green discoloration
02.JP.12.272			HAD-76-S930	Unidentified: Bronze Square with "N"	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.12.273			HAD-76-S930	Unidentified bronze π shaped fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
02.JP.12.274			HAD-76-S930	Unidentified Bronze Vessel fragments	Bronze	No	Conservation work; surface patina
02.JP.12.275			HAD-76-S930	Unidentified bronze Possibly key?	Bronze	No	Surface corrosion: Soil and mineral accretion
02.JP.12.276			HAD-76-S930	Unidentified bronze pendant fragment?	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.10.277			HAD-76-S930	Bronze pendant (squared w/ bail) or buckle	Bronze	Yes	Surface corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.JP.05.278			H76-189-M31d	Bronze coin	Bronze	Yes	Surface corrosion: blueish green discoloration
04.NO.05.279			NA	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
04.NO.05.280			NA	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
04.NO.05.281			NA	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.NO.05.282			NA	Bronze coin (clipped) (visible design)	Bronze	No	Conservation work; surface patina
04.NO.05.283			NA	Bronze coin (clipped) (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
04.NO.05.284			NA	Bronze coin (clipped) (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
04.NO.05.285			NA	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
04.NO.05.286			NA	Bronze coin (visible design)	Bronze	Yes	Conservation work; dark patina
04.NO.05.287			NA	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.288			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Pitting Surface corrosion: blueish green discoloration
02.JP.05.289			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.290			HAD76-S930	Bronze coin (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.291			HAD76-S930	Bronze coin (clipped) (design not visible)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.292			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Conservation work; dark patina
02.JP.05.293			HAD76-S930	Bronze coin (clipped) (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.294			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.295			HAD76-S930	Bronze coin (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.296			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.297			HAD76-S930	Bronze coin (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.298			HAD76-S930	Bronze coin (clipped) (design not visible)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.299			HAD76-S930	Bronze coin (visible design)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.JP.05.300			HAD76-S930	Bronze coin (clipped) (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.301			HAD76-S930	Bronze coin (clipped) (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.302			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.303			HAD76-S930	Bronze coin (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.304			HAD76-S930	Bronze coin (clipped) (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.305			HAD76-S930	Bronze coin (design not visible)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.306			HAD76-S930	Bronze coin (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.307			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.JP.05.308			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.JP.05.309			HAD76-S930	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.JP.05.310			H76-186-M28a	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.311			H76-186-M28b	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.312			H76-186-M28c	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.313			H76-186-M28e	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.314			H76-186-M28f	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.315			H76-186-M28g	Bronze coin (clipped) (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.316			H76-186-M28h	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.317			H76-186-M28i	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.318			H76-186-M28j	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.319			H76-187-M29a	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.JP.05.320			H76-187-M29b	Bronze coin (perforation) (visible design)	Bronze	Yes	Conservation work; surface patina

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.JP.05.321			H76-187-M29c	Bronze coin (clipped) (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.322			H76-187-M29d	Bronze coin (clipped) (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.323			H76-188-M30a	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.324			H76-188-M30b	Bronze coin (clipped) (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.325			H76-188-M30c	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.326			H76-189-M31a	Bronze coin (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
02.JP.05.327			H76-189-M31b	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.328			H76-189-M31c	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JP.05.329			H76-189-M31e	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JP.05.330			H76-189-M31f	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.JJ.05.331			HAD-76-S1059	Bronze Coin (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JJ.05.332			HAD-76-S1059	Bronze Coin (design not visible)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.JJ.05.333			HAD-76-S1059	Bronze Coin (design not visible)	Bronze	Yes	Chips around the edges Surface corrosion: blueish green discoloration
02.JJ.05.334			HAD-76-S1059	Bronze Coin (design not visible)	Bronze	No	Pitting/Clipped or broken Surface corrosion: Light blueish green discoloration.
02.JJ.05.335			HAD-76-S1059	Bronze Coin (worn design)	Bronze	No	Surface corrosion: light blueish green discoloration
02.JJ.05.336			HAD-76-S1059	Bronze Coin (worn design)	Bronze	Yes	Signs of repair. Surface corrosion: light blueish green discoloration
02.JJ.05.337			HAD-76-S1059	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.JJ.05.338			HAD-76-S1059	Bronze Coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration.
01.TH.05.339			H77-C-1	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration.
01.TH.05.340			H77-C-2	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.05.341			H77-C-3	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration.
01.TH.05.342			H77-C-4	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration.
01.TH.05.343			H77-C-5	Bronze coin (visible design)	Bronze	Yes	Dark discoloration Surface corrosion: blue green discoloration.
01.TH.05.344			H77-C-8	Bronze coin (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.05.345			H77-C-9	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.05.346			H77-C-10	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.05.347			H77-C-11	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.05.348			H77-C-12	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.05.349			H77-C-14	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.PL3.05.350			H76-190-M32a	Bronze coin (visible design)	Bronze	No	Conservation work; surface patina
02.EM.05.351			H76-192-M34	Bronze coin (clipped) (visible design)	Bronze	No	Conservation work; surface patina
02.JJ.05.352			H76-230-M47	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
02.PL3.05.353			H76-191-m33	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
01.TH.05.354			H76-m-8	Bronze coin (design not visible)	Bronze	Yes	Surface pustule; surface corrosion: blueish green discoloration
01.TH.05.355			H74-260	Bronze coin (design not visible)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
02.PL3.05.356			H76-190-M32c	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
02.MQ.05.357			H76-229-M46	Bronze coin (visible design)	Bronze	Yes	Conservation work; surface patina
01.TH.05.358			HSM-78-7	Bronze coin fragments (2) (refit) (Design not visible)	Bronze	No	Surface corrosion: Blueish green discoloration
01.TH.05.359			HSM-78-12	Bronze Coin (design not visible)	Bronze	No	Surface corrosion: Blueish green discoloration
01.TH.05.360			HSM-78-15	Bronze Coin (design not visible)	Bronze	Yes	Surface pustule; Surface corrosion: Blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.05.361			HSM-78-33	Bronze coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
05.NO.05.362			NA	Bronze coin (visible design)	Bronze	Yes	Evidence of conservation work. Patina on surface
02.JJ.04.363a			HAD-76-S1059	Bronze Pin fragment (Shaft) (refit with b) (Round nail head)	Bronze	No	Conservation work; surface patina
02.JJ.04.363b			HAD-76-S1059	Bronze pin fragment (shaft) (refit with a)	Bronze	No	Conservation work; surface patina
01.TH.04.364			H77-M-10	Bronze Pin (ball head) (eye)	Bronze	Yes	Core and Surface corrosion: Blueish green discoloration
04.TH.04.365			NA	Bronze Pin (ball headed) (eye) (curved)	Bronze	Yes	Conservation work; surface patina
04.TH.04.366			NA	Bronze pin (ball head) (eye)	Bronze	Yes	Conservation work; surface patina
04.TH.04.367a			NA	Bronze Pin (Roll headed) (refit with b)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.04.367b			NA	Bronze pin (shaft w/ tip) (refit with a)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.04.368			NA	Bronze Pin (flattened, probably was a roll headed)	Bronze	No	Conservation work; surface patina
01.TH.04.369			H74-209	Bronze Pin fragment (probably curved ball headed)	Bronze	No	Surface corrosion: Blueish green discoloration
04.TH.04.370			NA	Bronze pin fragment (shaft)	Bronze	No	Conservation work; surface patina
04.TH.04.371			NA	Bronze pin fragment (Segmented club or morningstar)	Bronze	No	Surface corrosion: Blueish green discoloration
04.TH.04.372			NA	Bronze pin fragment (mushroom head)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.04.373			NA	Bronze Pin (mushroom headed)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.04.374			NA	Bronze Pin fragment (shaft) (eye remnant)	Bronze	No	Surface corrosion: Blueish green discoloration
04.TH.04.375			NA	Bronze pin fragment (shaft with flattened end)	Bronze	No	Surface corrosion: Blueish green discoloration
04.TH.04.376			NA	Bronze pin fragment (shaft)	Bronze	No	Surface corrosion: Blueish green discoloration
01.TH.04.377			HAD-76-S441	Bronze pin head (mushroom)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.378a			HSM-78-41	Bronze Ring	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.07.378b			HSM-78-41	Bronze ring fragment (MISSING setting)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.378c			HSM-78-41	Glass frit bead/pendant found with bronze rings	Bronze	No	Surface corrosion: Soil and mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.07.378d			HSM-78-41	2 glass beads w/ bronze fragment affixed	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.378e			HSM-78-41	2 glass beads w/ bronze fragment broken	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.379			H75-117	Bronze Ring fragment.H488	Bronze		Surface corrosion: Soil and mineral accretion
02.TH.07.380			H75-M-9	Bronze earring (crescent)	Bronze	yes	Surface corrosion: blueish green discoloration
02.TH.07.381			H75-M-9	Bronze earring (crescent)	Bronze	yes	Surface corrosion: blueish green discoloration
01.TH.07.382			HAD76-S321	Bronze Ring fragments (2) (refit)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.07.383a			HSM-78-28	Bronze Ring (MISSING setting)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.383b			HSM-78-28	Stone found with 383a	Stone	No	Surface corrosion: Soil and mineral accretion
01.TH.07.384			HAD-76-S295	Bronze ring fragments (3)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.385			H77-M-6a	Complete bronze ring w/ beads	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.07.386a			H77-M-6b	Bronze Ring 2 fragments refit w/ trace fiber	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.386b			H77-M-6b	7 loose beads.	Glass/Ceramic	No	Surface corrosion: Soil and mineral accretion
01.TH.07.387			H77-M-6c	Incomplete bronze ring 2 fragments	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.07.388			H77-M-7a	Complete bronze ring	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.07.389a			H77-M-7b?	Bronze Ring (2) fragments refit	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.07.389b			H77-M-7b?	Bronze ring (2) fragments refit	Bronze	No	Surface accretion: Soil and mineral
01.TH.07.389c			H77-M-7b?	Bronze ring fragment w/ beads affixed (2 beads)	Bronze	No	Surface accretion: Soil and mineral
01.TH.07.389d			H77-M-7b?	Bronze ring fragment w/ beads affixed (2 beads)	Bronze	No	Surface accretion: Soil and mineral
01.TH.07.389e			H77-M-7b?	Bronze ring fragment w/ beads affixed (2 beads)	Bronze	No	Surface accretion: Soil and mineral
01.TH.07.389f			H77-M-7b?	Bronze ring 2 fragments.	Bronze	No	Surface accretion: Soil and mineral
01.TH.04.390			H74-282	Bronze Pin (Mushroom Headed)	Bronze	No	Surface corrosion: Blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.391			HSM-77-58	Metal hook (silver?)	Silver or Lead	No	Surface corrosion: Soil and mineral accretion
01.TH.12.392			HAD-76-S230	Metal hook (silver?)	Silver or Lead	No	Surface corrosion: Soil and mineral accretion
05.NO.05.393			NA	Bronze Coin (no visible design)	Bronze	No	Yellow/brown discoloration. Surface corrosion: Soil and mineral accretion
01.TH.12.394			H74-107	Unidentified Bronze double spiral	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.TH.12.395a			NA	Bronze fragment with interior groove and hook end	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.12.395b			NA	Bronze fragment with interior groove and ball end	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.12.395c			NA	Bronze fragment with interior groove	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.12.395d			NA	Bronze fragment with interior groove	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.396			H74-177	Bronze fragment, spiral wire	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.TH.12.397			NA	Bronze fragment, rectangular	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.398			NA	Bronze fragment (half of hollow cylinder?)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.399			NA	Bronze fragment, strange concretion.	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.400			NA	Unidentified bronze fragment	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.12.401			NA	Unidentified bronze fragment.	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.402			NA	Unidentified Bronze fragment (sphere)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.07.403a			NA	Bronze Ring fragment bulb on one end (possibly refit with B or C)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.07.403b			NA	Bronze Ring fragment mostly straight with bend on one end (Refit with C)	Bronze	No	Surface corrosion: Soil and mineral accretion
04.TH.07.403c			NA	Bronze Ring fragment straight (Refit with B)	Bronze	No	Surface corrosion: Soil and mineral accretion
05.NO.12.404			NA	Unidentified: Rectangular tool bronze	Bronze	Yes	Surface patina: Blueish green discoloration
04.TH.07.405a			NA	Bronze ring fragment	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
04.TH.07.405b			NA	Bronze Ring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.406			H74-252	Bronze ring	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.TH.07.407a			NA	Bronze Ring fragment (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.07.407b			NA	Bronze Ring fragment (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.408a			HAD76-S889	Unidentified bronze ring or pin	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.408b			HAD76-S889	Unidentified bronze ring or pin	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.408c			HAD76-S889	Unidentified bronze ring or pin	Bronze	No	Surface corrosion: blueish green discoloration
05.NO.12.409a			NA	Unidentified Bronze fragment (flat)	Bronze	No	Surface corrosion: blueish green discoloration
05.NO.04.409b			NA	Unidentified bronze pin, concretion	Bronze	No	Surface corrosion: blueish green discoloration
05.NO.06.410			NA	Bronze bracelet fragment (curved band)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.411			NA	Unidentified: Iron Possibly pin, tack, or nail	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.412			NA	Unidentified: Iron pin shaft, nail, or bracelet	Iron	No	Surface corrosion: Soil and mineral accretion
05.NO.06.413			NA	Bronze bracelet fragment.	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.08.414			H74-753	Bronze bead (cylindrical)	Bronze	Yes	Core and Surface corrosion: blueish green discoloration
02.THa.12.415	N	26453	H74-405	Unidentified: Bronze tool (applicator?)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.12.416			NA	Unidentified: Bronze pendant, bead, or addition to pin	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.12.417			NA	Unidentified: Bronze fragment (hollow cylinder)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.418	N	28463	HSM-77-87	Bronze ring with cloth	Bronze	Yes	Surface corrosion: Soil and mineral accretion
05.NO.02.419a			NA	Bronze hilt with rivets	Bronze	No	Badly Oxidized and with evidence of surface accretions.
05.NO.02.419b			NA	Bronze blade	Bronze	No	Badly Oxidized and with evidence of surface accretions.
05.NO.02.419c			NA	Bronze hilt fragment with single rivet (refit to a)	Bronze	No	Badly Oxidized and with evidence of surface accretions.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.420			HSM-78-35	Bronze Pin (no defined head)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.TH.04.421			NA	Bronze Pin (Flattened head)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
04.TH.04.422			NA	Bronze Pin (No defined head)	Bronze	Yes	Whitish discoloration Surface corrosion: Soil and mineral accretion
02.JJ.06.423	N	26414	H76-228	Bronze Bracelet (Ends hammered flat)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.12.424			HAD-76-S419	Unidentified Iron blob	Iron	Yes	
01.TH.09.425a			HSM-77-62	Iron Nails (33 complete)	Iron	Yes	Surface Corrosion: Oxidation
01.TH.09.425b			HSM-77-62	Iron Nails (19 Incomplete)	Iron	No	Surface Corrosion: Oxidation
01.TH.09.425c			HSM-77-62	Soil recovered with nails and in original bag.	Soil/Mineral	NA	NA
01.TH.09.426a			HSM-77-8	Iron nail head (refit with b)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.426b			HSM-77-8	Iron nail body and tip (refit with a)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.427a			HSM-77-20	Unidentified straight iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.427b			HSM-77-20	Unidentifiable straight iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.427c			HSM-77-20	Unidentifiable straight iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.427d			HSM-77-20	Unidentifiable rounded and curved iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.428			HAD-76-S125	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.429			HSM-77-30	Iron nail shaft fragment w/o head	Iron	No	Surface corrosion: Oxidation and soil accretion
02.TH.09.430			H76-S18	Iron nail shaft fragment w/o head	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.431a			HAD-76-S82	Iron nail head fragment (refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.431b			HAD-76-S82	Iron nail partial head fragment and partial shaft (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.432			HSM-77-31	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.09.433a			HSM-77-71	Iron nail body fragment (refit with b and c)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.433b			HSM-77-71	Iron nail fragment head (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.433c			HSM-77-71	Iron nail body fragment (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.434a			H74-S61	Iron nail head and body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.434b			H74-S61	Iron nail body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.434c			H74-S61	Iron nail body fragment w/ stone adhered	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.435a			HSM-77-86	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.435b			HSM-77-86	Iron nail body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.436a			HSM-78-22	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.436b			HSM-78-22	Iron disk, flattened	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.437			HSM-78-16	Iron nail head fragment	Iron	N	Surface corrosion: Oxidation and soil accretion
01.TH.09.438a			H76-S1067	Iron Nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.438b			H76-S1067	Iron Nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.438c			H76-S1067	Iron Nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.438d			H76-S1067	Iron Nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.439a			HSM-77-63	Iron nail head with partial body (refit with b and c)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.439b			HSM-77-63	Iron nail body fragment (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.439c			HSM-77-63	Iron nail tip fragment (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.440a			HSM-77-10	Iron nail head fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.440b			HSM-77-10	Iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.441a			HSM-78-6	Glass fragment	Glass	No	Soil and Mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.441b			HSM-78-6	Unidentified Iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.441c			HSM-78-6	Unidentified Iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.442			NA	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.443	N	27985	H74-198	Iron nail (squared head)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.444			HSM-78-19	Iron nail fragment body	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.445a			HSM-77-41	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.445b			HSM-77-41	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.445c			HSM-77-41	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.446			HSM-77-80	Iron nail (tack)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.447a			HAD-76-S261	Iron nail fragment (refit) (2)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.447b			HAD-76-S261	Iron nail flat head	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.447c			HAD-76-S261	Iron nail fragments (refit) head and body (2)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.447d			HAD-76-S261	Iron nail (bent)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.448			HAD-76-S264	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.449a			HAD-76-S301	Iron nail (squared head)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.449b			HAD-76-S301	Iron nail fragments (refit) body with tip (2)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.449c			HAD-76-S301	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.449d			HAD-76-S301	Iron nail fragment (L shaped)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.449e			HAD-76-S301	Iron nail head fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.450a			HSM-77-54	Iron nail head fragment (rounded)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.450b			HSM-77-54	Iron nail fragment (shaft)	Iron	No	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.09.450c			HSM-77-54	Iron nail fragment (curved)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.450d			HSM-77-54	Iron nail fragment (J shaped)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.450e			HSM-77-54	Iron nail head fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.451a			HAD-76-S267	Iron nail head fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.451b			HAD-76-S267	Iron nail shaft fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.451c			HAD-76-S267	Iron nail fragment (curved)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.451d			HAD-76-S267	Iron nail head fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.452a			HAD-76-S454	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.452b			HAD-76-S454	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.453a			HAD-76-S266	Iron nail fragments body	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.453b			HAD-76-S266	Iron nail fragment head	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.454a			HAD-76-S203	Iron nail fragment (refit) head and shaft	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.454b			HAD-76-S203	Iron nail fragment (curved)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.454c			HAD-76-S203	Iron nail fragment (tip)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.455a			HSM-77-11	Iron nail shaft fragment (J shape)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.455b			HSM-77-11	Iron nail head fragment (rounded)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.456			HSM-77-32	Iron nail fragment	Iron	No	White discoloration Surface corrosion: Oxidation and soil accretion
01.TH.09.457			HSM-77-2	Iron nail (rounded)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.458a			HAD-76-S270	Iron nail fragment (refit with b)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.458b			HAD-76-S270	Iron nail fragment (refit with a)	Iron	Yes	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.09.459a			HSM-78-21	Iron nail Head fragment (refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.459b			HSM-78-21	Iron nail body fragment (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.459c			HSM-78-21	Iron nail fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.459d			HSM-78-21	Iron hook with loop	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.460a			HSM-77-43	Iron nail fragment head	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.460b			HSM-77-43	Iron nail fragment tip	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.460c			HSM-77-43	Iron nail fragments (10)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.461			HSM-77-79	Iron Nail (round head)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.462a			HSM-78-20	Iron nail fragments (2) (complete refit)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.462b			HSM-78-20	Iron nail fragments (head and body)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.462c			HSM-78-20	Iron nail (no distinguished head)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.462d			HSM-78-20	Iron Nail body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.462e			HSM-78-20	Iron nail body fragment with tip	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.462f			HSM-78-20	Iron nail body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.462g			HSM-78-20	Iron nail body fragment with tip	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.463			HSM-77-17	Iron nail body fragment with tip	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.464			HAD-76-S13	Iron nail head and body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.465a			HAD-76-S200	Iron Sickle shaped with rivets (2)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.465b			HAD-76-S200	Iron nail body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.465c			HAD-76-S200	Iron nail body fragment with tip	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.465d			HAD-76-S200	Iron nail body fragment with tip	Iron	No	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.TH.12.466a			HSM-78-9	Unidentified Iron Fragment: Flat oval with tail and two perforations	Iron	Yes	Surface corrosion: Oxidation and soil accretion
02.TH.12.466b			HSM-78-9	Flakes of rust from a	Iron	No	Surface corrosion: Oxidation and soil accretion
04.TH.12.467			NA	Bronze/Copper inclusions in surrounding matrix of dirt	Bronze	Yes	Soil and Mineral accretion
02.TH.09.468			HSM-77-2	Iron Nail fragments (6)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.469			HAD-76-S273	Iron nail fragment head and partial body	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.470			HSM-77-74	Iron nail fragment head and partial body	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.471			HSM-77-47	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.472			HSM-77-6	Iron nail fragment head and partial body	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.473a			H-76-S1143	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.473b			H-76-S1143	Iron nail	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.474a			HAD-76-S522	Iron nail (2 pieces refit)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.474b			HAD-76-S522	Iron Slag	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.475a			HAD-76-S42	Iron nail (tack)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.475b			HAD-76-S42	Iron nail head and partial body	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.475c			HAD-76-S42	Iron nail body fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.475d			HAD-76-S42	Unidentified material, possibly organic	Organic	No	NA
01.TH.12.476			HAD-76-S41	Unidentified iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.477a			HSM-77-46	Iron nail body fragments (2) (refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.477b			HSM-77-46	Iron nail head (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.478			HAD-76-S650	Unidentified iron blob	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.479			H74-S124	Unidentified iron fragments (3)	Iron	No	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.480			H74-S10	Unidentified iron fragment (round)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.481			H74-S106	Unidentifiable iron fragments (3)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.482			H74-S47	Unidentifiable iron fragments (2)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.483			H74-S76	Unidentifiable iron blob	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.484			H74-S115	Unidentifiable iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.485			HSM-77-12	Unidentifiable bronze fragments (3)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.486			HSM-77-56	Unidentifiable bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.487			H75-S18	Unidentifiable bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.12.488a			HAD-76-S405	Unidentified iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
02.TH.12.488b			HAD-76-S405	Unidentified iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
02.TH.12.488c			HAD-76-S405	Unidentified iron fragments (3)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.489			HAD-76-S670	Unidentifiable bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.490			HSM-77-13	Unidentifiable bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.491			HSM-77-4	Unidentifiable metal fragment	Metal	No	Surface patina
01.TH.12.492			HSM-77-5	Unidentifiable bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.493			HSM-77-22	Metal hemisphere; perhaps piece of jewelry	Metal	No	Surface patina
01.TH.12.494			HSM-77-18	Bronze fragment; 2 bumps on top	Bronze	No	Surface corrosion and mineral accretion
02.TH.12.495			NA	Unidentifiable bronze fragments	Bronze	No	Surface corrosion and mineral accretion
02.TH.12.496			NA	Bronze Slag	Bronze	No	Surface accretion: Soil and mineral
01.TH.12.497			HSM-78-34	Unidentified Bronze Fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.498			HSM-77-45	Unidentified Bronze Fragment	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.499			HSM-78-8	Unidentified Bronze Fragments (2)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.12.500			NA	Unidentified Bronze Fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.501			HSM-77-21	Unidentified Bronze Fragments (10)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.502			HSM-77-38	Unidentified Bronze Fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.12.503			HSM-78-1	Unidentified Bronze Fragments (2)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.12.504			HAD-76-S206	Unidentified Bronze Fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.505			HAD-76-S334	Unidentified Bronze Fragment (Bent shaft)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.506			HSM-77-68	Unidentified Bronze Fragment (3)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.507			H74-S36	Unidentifiable iron fragment (rounded tip)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.508			H74-S62	Unidentifiable iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.509a			HAD-76-S224	Iron fragment curved, possibly bracelet	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.509b			HAD-76-S224	Unidentifiable iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.510			H76-S988	Natural iron, not very refined	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.511a			H75-S44	Unidentifiable iron fragment (refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.511b			H75-S44	Unidentifiable iron fragment (refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.512a			HSM-77-61	Iron ore unworked; low grade (12 large pieces)	Iron	No	Decomposing iron ore
01.TH.12.512b			HSM-77-61	Iron ore unworked; low grade (Soil and smaller pieces)	Iron	No	Decomposing iron ore
01.TH.12.513a			HAD-76-S85	Iron Fragment (circular) possibly a link	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.513b			HAD-76-S85	Unidentified Iron Fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.513c			HAD-76-S85	Unidentified Iron Fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.514			HSM-77-15	Unidentified Iron Fragments (5)	Iron	No	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.515			HSM-77-73	Unidentifiable iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.516			HSM-77-25	Bronze fragment broken: Semi-circular	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.09.517			HSM-77-76	Iron nail head fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
05.NO.12.518			NA	Unidentified Bronze 'hemisphere'	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.09.519a			HSM-77-75	Iron Nail fragments (3) refits (a,b,c all likely the same nail)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.519b			HSM-77-75	Iron Nail Fragments (2) refits (a,b,c all likely the same nail)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.09.519c			HSM-77-75	Iron nail fragments refits (a,b,c all likely the same nail)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.520a			HSM-78-23	Iron fragment; flattened sheet (same piece as b)	Iron	No	Surface mineral accretion
01.TH.12.520b			HSM-78-23	Iron fragment; flattened sheet (same piece as a)	Iron	No	Surface mineral accretion
01.TH.06.521a			HAD-76-S402	Bronze bracelet fragment refit with b	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.521b			HAD-76-S402	Bronze bracelet fragment refit with a	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.521c			HAD-76-S402	Bronze fragments; possibly apart of bracelet	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.522			HSM-78-4	Unidentified Bronze Fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.528			HSM-77-55	Unidentified bronze fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.524a			HAD-76-S651	Flattened bronze fragment w/ 2 rivets	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.524b			HAD-76-S651	Flattened bronze fragment w/ 2 rivets	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.524c			HAD-76-S651	Unidentified bronze fragments (2)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.525			HAD-76-S111	Unidentified Iron Fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.526a			HAD-76-S108	Possible Bronze bracelet fragment (a,b,c refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.526b			HAD-76-S108	Possible Bronze bracelet fragment (a,b,c refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.526c			HAD-76-S108	Possible Bronze bracelet fragment (2 curved fragments adhered) (a,b,c refit)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.526d			HAD-76-S108	Unidentifiable bronze fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.527	N	26472	H77-M-9	Iron Bracelet (overlapped ends)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.06.528			HSM-77-51	Iron bracelet (connected ends)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.529			HSM-77-34	Iron crescent shaped fragment (possibly ring)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.530			HSM-77-65	Unidentified Bronze Fragments (5)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.531			HAD-76-S227	Unidentified Bronze Fragments (3)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.532			HSM-77-7	Unidentified Bronze Fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.533a			HAD-76-S1171	Iron Slag	Iron	No	NA
01.TH.12.533b			HAD-76-S1171	Soil found in original field bag with a	Bronze	No	NA
01.TH.12.534			HSM-77-77	Unidentified bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.535			H74-S176	Unidentified Iron fragments (refit) (2)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.536			H74-S237	Unidentified bronze fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.537			H75-S163	Unidentified bronze fragments	Bronze	No	Surface accretion: Soil and mineral
05.TH.12.538			NA	Unidentified bronze fragments	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.539			HSM-77-64	Unidentified iron fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
02.TH.06.540			None (HAD77)	Silver Bracelet Fragment	Silver	No	Soil and Mineral accretion
01.TH.06.541			HSM-77-2	Bronze Bracelet (hammered flat)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.542a			HS-78-41	Unidentified flattened bronze adhered to ceramic base	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.542b			HS-78-41	Small piece of bronze (refit to a adhered to ceramic)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.542c			HS-78-41	Small piece of bronze (refit to a adhered to ceramic)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.543a			HSM-77-35	Bronze Pin shaft w/ eye (no defined head)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.12.543b			HSM-77-35	4 non-human bone fragments	Bone	No	NA
01.TH.06.544			HAD-76-S126	Bronze bracelet	Bronze	No	Surface Oxidation: Red Powder
02.TH.12.545			HAD-76-S406	Unidentified Iron loop	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.546a			HAD-76-S671	Iron Buckle; Horse Harness?	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.01.546b			HAD-76-S671	Iron Spear Butt	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.09.546c			HAD-76-S671	Iron Nails (2)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.12.546d			HAD-76-S671	Iron Fragment w/ perforation	Iron	No	Surface corrosion: Oxidation and soil accretion
02.THa.04.547	N	26469	H74-341	Bronze pin (ball headed) (Eye)	Bronze	Yes	Evidence of conservation work. Patina on surface
02.THa.03.548	N	26435	H74-428	Bronze Axe	Bronze	No	Evidence of conservation work. Patina on surface
01.TH.12.549			H74-67	Bronze Earring	Bronze	Yes	Evidence of conservation work. Patina on surface
01.TH.12.550	N	25973	H77-M-14	Bronze Horse Fitting	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.05.551			H77-C-13	Bronze Coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.05.552a			HSM-77-70	Bronze Coin (visible design)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.05.552b			HSM-77-70	Bronze coin fragments (2) (refit) (Design not visible)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.05.552c			HSM-77-70	Bronze coin fragment (visible design)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.553a			HAD-76-s293	Iron bracelet fragment refit with b,c,d	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.553b			HAD-76-s293	Iron bracelet fragment refit with a, c, d	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.553c			HAD-76-s293	Iron bracelet fragment refit with a,b,d	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.553d			HAD-76-s293	Soil and Iron bracelet fragment refit with a,b,c	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.554			HAD-76-s668	Iron bracelet fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.555a			HSM-77-85	Iron bracelet fragment refit with b	Iron	Yes	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.06.555b			HSM-77-85	Iron bracelet fragment refit with a	Iron	Yes	Surface corrosion: Oxidation and soil accretion
02.TH.06.556			HSM-77-57	Bronze bracelet fragment	Bronze	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.557a			HSM-77-40	Iron bracelet fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.557b			HSM-77-40	Iron bracelet fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
02.TH.07.558a			H75-M-9	Bronze earring	Bronze	Yes	Surface corrosion: Oxidation and soil accretion
02.TH.07.558b			H75-M-9	Bronze earring fragments (2) (refit)	Bronze	Yes	Surface corrosion: Oxidation and soil accretion
02.TH.07.558c			H75-M-9	Stone beads (2)	Stone	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.07.559			H75-M-10	Bronze ring fragment (coiled)+H242	Bronze	Yes	Evidence of repair; glued together Surface corrosion: soil and mineral accretion.
01.TH.07.560			HSM-77-26	Bronze ring fragments (4)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.07.561a			HOB-77-65	Bronze earring fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.07.561b			HOB-77-65	Bronze earring fragments (3)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.08.562			HAD-76-S219	Bronze bead fragment w/ dust	Bronze	No	Corrosion: blueish green discoloration
01.TH.04.563			HSM-78-37	Iron pin	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.06.564a			HAD-76-S888	Iron bracelet fragments (4) refit	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.06.564b			HAD-76-S888	Iron bracelet fragments (10)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.06.565			HSM-77-29	Iron bracelet	Iron	Yes	Evidence of repair; glued together
01.TH.06.566a			HSM-77-36	Iron bracelet fragment refit with b,c,d	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.06.566b			HSM-77-36	Iron bracelet fragment refit with a,c,d	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.06.566c			HSM-77-36	Iron bracelet fragment refit with a,b,d	Iron	Yes	Growth on side Surface corrosion: oxidation and soil accretion
01.TH.06.566d			HSM-77-36	Iron bracelet fragment refit with a,b,c	Iron	Yes	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.TH.07.567			H78-M-6	Bronze earring fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.568			HAD-76-s175	Bronze ring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.569			HAD-76-S578	Bronze ring (overlapped setting)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.07.570			HSM-78-17	Iron earring (cone shaped)	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.10.571			HSM-77-59	Bronze pendant	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.08.572			HSM-77-69	Bronze bead (or bronze waste)	Bronze	Yes	Surface corrosion: Soil and mineral accretion
01.TH.08.573			H76-8	Bronze bead	Bronze	Yes	Surface corrosion: blueish green discoloration
04.TH.04.574a			NA	Bronze pin (Nail headed w/ shaft fragment)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.07.574b			NA	Bronze ring (possibly setting; oval shaped tapered on both sides)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.575			H75-S311	Unidentified iron fragment with stone	Iron	Yes	Surface corrosion: Oxidation and soil accretion
02.EQ.12.576			HAD-76-S348	Iron Slag	Iron	Yes	Surface soil and mineral accretion. Evidence of oxidation on edges
04.TH.07.577			NA	Bronze ring w/ 2 stone beads	Bronze	Yes	Surface soil and mineral accretion.
04.TH.07.578a			NA	Bronze ring w/ 4 stone beads	Bronze	Yes	Surface soil and mineral accretion.
04.TH.07.578b			NA	Bronze ring w/ 2 stone beads (1 bead broken)	Bronze	Yes	Surface soil and mineral accretion.
04.TH.07.578c			NA	Bronze ring fragments (3)	Bronze	No	Surface soil and mineral accretion.
04.TH.07.579a			NA	Stone beads from bronze ring (4) (attached to bronze)	Bronze	No	Surface soil and mineral accretion.
04.TH.07.579b			NA	Stone beads from a bronze ring (5) (attached to bronze)	Bronze	No	Surface soil and mineral accretion.
04.TH.07.579c			NA	Stone beads from a bronze ring (2) (loose)	Bronze	No	Surface soil and mineral accretion.
01.TH.07.580a			H75-M-12	Silver earring	Silver	Yes	Surface tarnish
01.TH.07.580b			H75-M-12	Silver earring	Silver	No	Surface tarnish
01.TH.07.580c			H75-M-12	Silver earring	Silver	No	Surface tarnish
01.TH.07.580d			H75-M-12	Silver earring	Silver	No	Surface tarnish

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.06.581a			H74-S178	Bronze bracelet fragment	Bronze	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.581b			H74-S178	Ceramic sherd	Ceramic	No	Ceramic
01.TH.04.582a			HAD-76-s341	Bronze pin fragments (2) (ball head refit w/ shaft)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.582b			HAD-76-s341	Bronze pin shaft fragments w/ eye refit (2)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.582c			HAD-76-s341	Bronze pin shaft w/ eye remnants	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.582d			HAD-76-s341	Bronze pin shaft	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.582e			HAD-76-s341	Bronze earring fragments (2)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.582f			HAD-76-s341	Dust and bronze corrosion found in field bag with a,b,c,d, and e	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.583a			HAD-76-S117	Bronze pin (3) (refit) (club head w/ eye)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.04.583b			HAD-76-S117	Bronze pin (2) (refit) (ball head w/ eye)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.583c			HAD-76-S117	Bronze pin fragment (ball head)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.583d			HAD-76-S117	Bronze pin fragments (3) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.583e			HAD-76-S117	Bronze bracelet fragments (3) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.583f			HAD-76-S117	Bronze earring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.583g			HAD-76-S117	Bronze pin fragments (15) (none refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.583h			HAD-76-S117	Unidentified Bronze Fragments (27)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.584			HSM-77-84	Bronze pin shaft fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.585a			HSM-77-44	Iron pin shaft fragment refit with b	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.585b			HSM-77-44	Iron pin shaft fragment refit with a	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.586			HAD-76-S754	Bronze pin shaft fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.587			HSM-77-14	Iron pin fragment w/ tip	Iron	No	Surface corrosion: Oxidation and soil accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.588a			HSM-77-72	Iron pin head fragment (club headed)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.588b			HSM-77-72	Iron pin tip fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.589			HSM-77-49	Bronze pin shaft fragment (3) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.590a			HSM-77-82	Bronze pin head fragment (ball headed) (possible refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.590b			HSM-77-82	Bronze pin body fragment (possible refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.591a			HSM-77-16	Bronze pin head fragment (nail/squared)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.591b			HSM-77-16	Bronze pin fragment (no defined head)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.12.591c			HSM-77-16	Unidentified bronze fragments (2)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.592a			H75-S291	Bronze pin head fragment and tip fragment (2) (not refit but same pin	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.592b			H75-S291	Bronze bracelet fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.592c			H75-S291	Unidentified bronze fragment (3)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.593a			H75-S57	Lead pin body fragment	Lead	No	Surface corrosion: Soil and mineral accretion
01.TH.12.593b			H75-S57	Unidentified bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.594			HSM-78-26	Iron pin shaft fragment	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.04.595a			HSM-77-19	Bronze pin shaft with tip fragment (refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.595b			HSM-77-19	Bronze pin shaft fragment (refit with a)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.04.596a			NA	Bronze pin head fragment (not defined) (not refit but same pin as b)	Bronze	No	Surface corrosion: Oxidation and soil accretion
02.TH.04.596b			NA	Bronze pin shaft fragment (not refit but same pin as a)	Bronze	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.597			HSM-77-1	Bronze pin head fragment w/ body (nail headed)	Bronze	No	Surface corrosion: Soil and mineral accretion
01.TH.04.598a			HAD-76-S227	Bronze pin shaft fragment w/ tip (possible refit with b)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.598b			HAD-76-S227	Bronze pin shaft fragment (possible refit with a)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.599a			H75-S179	Bronze pin fragments w/ eye (3) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.599b			H75-S179	Bronze pin fragments (3) (possible refit with tip)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.599c			H75-S179	Bronze pin fragment (possibly has eye)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.599d			H75-S179	Bronze earring fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.599e			H75-S179	Bronze earring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.600a			H75-S324	Bronze pin head fragment (ball headed w/eye) and body fragment (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.600b			H75-S324	Bronze Pin body fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.600c			H75-S324	Bronze bracelet fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.601a			HAD-76-S278	Bronze pin head fragment (rolled over) (same pin as b, not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.601b			HAD-76-S278	Bronze pin shaft fragment (same pin as a, not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.602			HSM-77-23	Metal squared shaft fragment	Metal	No	Surface corrosion: yellow and white
02.TH.04.603			HAD-76-S409	Iron pin shaft w/ tip	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.604a			HAD-76-S292	Iron pin shaft fragment (not refit with b)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.604b			HAD-76-S292	Iron pin shaft fragment (not refit with a)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.01.605			HAD-76-S78	Iron projectile point	Iron	Yes	Surface corrosion: Oxidation and soil accretion
01.TH.01.606			HSM-78-5	Iron projectile point	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.01.607			H74-251	Iron projectile point	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.04.608a			H76-S15	Bronze pin fragments (3) (refit)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.04.608b			H76-S15	Bronze pin fragments (2) (refit)	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.04.609			HAD-76-S253	Iron pin fragment (hooked)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.01.610a			H76-253	Bronze projectile fragment (tang)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.01.610b			H76-253	Bronze projectile fragment (tip)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.01.610c			H76-253	Bronze projectile body fragments	Bronze	No	Badly Corroded: blue and green discoloration
01.TH.01.610d			H76-253	Bronze corrosion dust	Bronze	No	Badly Corroded: blue and green discoloration
01.TH.04.611			HAD-76-S385	Bronze pin shaft fragments (2) (Tip and body fragment refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.612			HAD-76-S323	Lead pin body fragment w/ eye	Lead	No	Surface corrosion: yellow and white
01.TH.04.613			H75-S328	Bronze pin shaft fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.614a			HAD-76-S298	Organic fragment (shell?)	Organic	No	NA
01.TH.04.614b			HAD-76-S298	Bronze pin shaft fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.614c			HAD-76-S298	Bronze pin shaft fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.01.615			HAD-76-S112	Iron projectile (tip broken)	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.12.616			HAD-76-S106	Iron rolled over fragment	Iron	No	Surface corrosion: Oxidation and soil accretion
01.TH.02.617			H75-56	Bronze blade handle adhered to soil	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.01.618	N	27987	H76-162	Iron projectile (spear)	Iron	No	Repaired (glue) Surface corrosion: Oxidation and soil accretion
01.TH.04.619			HAD-76-S423	Bronze Pin shaft fragment and blue green dust	Bronze	No	Corrosion: blueish green discoloration
01.TH.04.620			H76-S15	Bronze pin fragment (dust from field bag)	Bronze	No	Corrosion: blueish green discoloration
01.TH.04.621			HSM-77-39	"Bronze Heavy pin shaft"	Bronze	No	1 sample set in epoxy resin.
01.TH.01.622			HSM-78-29	"Bronze Arrow"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.623			H75-S310	"Bronze Pin with ball head"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.624			H76-S375	"Bronze Pin? LB?"	Bronze	No	1 sample set in epoxy resin.
01.TH.a.01.625			H74-414	"Bronze Dagger EB"	Bronze	No	2 samples set in epoxy resin.
01.TH.04.626			HSM-78-14	"Bronze Pin, cut piece from longest (MBI?) fragment"	Bronze	No	2 samples set in epoxy resin.
01.TH.01.627			HSM-78-10	"Bronze Arrow"	Bronze	No	1 sample set in epoxy resin.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.04.628			HSM-78-30	"Bronze Pin"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.629			H76-S615	"Bronze Pin"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.630			HSM-78-25	"Bronze pin" (rolled head)	Bronze	No	1 sample set in epoxy resin.
01.TH.01.631			HSM-77-9	"Bronze Point"	Bronze	No	1 sample set in epoxy resin.
01.TH.12.632			H75-S401	"Bronze Tweezer" Most likely a bracelet	Bronze	No	2 samples set in epoxy resin.
02.THa.01.633			H74-420e	"Bronze Arrowhead or spatula"	Bronze	No	1 sample set in epoxy resin.
01.TH.12.634			H76-S582	"Bronze Implement handle, pierced"	Bronze	No	2 samples set in epoxy resin.
02.THa.04.635			H74-387	"Bronze Toggle pin with nail head"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.636			H76-s579	"Bronze Pin shaft LB"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.637			HSM-77-88	"Bronze pin with squared shaft"	Bronze	No	1 sample set in epoxy resin.
01.TH.04.638			H75-S280	Bronze pin fragments	Bronze	No	1 sample set in epoxy resin.
01.TH.12.639			H74-S233	Unidentified bronze fragments	Bronze	No	1 sample set in epoxy resin.
01.TH.12.640			H74-S26	Unidentified bronze fragments "Slag?"	Bronze	No	1 sample set in epoxy resin.
01.TH.12.641			HSM-77-24	Unidentified bronze fragment	Bronze	No	2 samples set in epoxy resin.
02.THa.04.642	N	26455	H74-383	Bronze pin fragment (rolled head)	Bronze	No	1 sample set in epoxy resin.
01.TH.12.643			HSM-77-78	Unidentified bronze fragment w/ perforation	Bronze	No	1 sample set in epoxy resin.
01.TH.12.644			HSM-78-42	Unidentified bronze fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.04.645			H76-S449	Bronze pin tip fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.04.646			HSM-77-50	Bronze pin fragment	Bronze	No	0 epoxy resin samples.
01.TH.12.647			HSM-78-2	Unidentified bronze fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.07.648			H76-s256	Bronze ring, pin, and link?	Bronze	No	2 samples set in epoxy resin. This sample includes A, B, and C
02.THa.04.649			H74-371	Bronze pin fragment with eye	Bronze	No	1 sample set in epoxy resin.
01.TH.12.650			H76-S234	Unidentified bronze fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.04.651			HSM-77-42	Bronze Pin Head (morningstar)	Bronze	No	1 sample set in epoxy resin.
01.TH.07.652			H74-777	Silver link fragments?	Silver	No	1 sample set in epoxy resin.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.07.653			H76-S442	Bronze ring fragments	Bronze	No	1 sample set in epoxy resin.
01.TH.06.654			H74-S256	Bronze bracelet fragments	Bronze	No	1 sample set in epoxy resin.
02.THa.04.655			H74-373	Bronze pin fragment (rolled head)	Bronze	No	1 sample set in epoxy resin.
01.TH.04.656			H74-S153	Bronze pin fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.01.657			HSM-77-33	"Bronze Arrow"	Bronze	No	2 samples set in epoxy resin.
02.THa.04.658			H74-s138	Bronze pin	Bronze	No	1 sample set in epoxy resin.
01.TH.04.559			H76-S373	Bronze pin fragments	Bronze	No	0 epoxy resin samples.
01.TH.04.660			H76-s322	Bronze pin fragments	Bronze	No	1 sample set in epoxy resin.
01.TH.04.661			H76-S319	Bronze pin fragments	Bronze	No	?
01.TH.04.662			H75-S402	"Bronze pin with bracelet"	Bronze	No	1 sample set in epoxy resin.
04.TH.12.663			NA	MISSING: "No#: Ro14: 28 HAD-45 Big Mount"	Metal	No	0 epoxy resin samples.
01.THa.12.664			H74-948	Bronze Pin fragment	Bronze	No	2 samples set in epoxy resin.
02.THa.04.665			H74-398	Bronze pin fragment	Bronze	No	1 sample set in epoxy resin.
02.TH.12.666			H77-M-3	Unidentified Bronze fragment	Bronze	No	1 sample set in epoxy resin.
02.JJ.04.667			HAD-76-S1059	Bronze pin (round nail head) with eye	Bronze	No	1 sample set in epoxy resin.
02.THa.02.668	N	26637	H74-403	"Bronze Hilt"	Bronze	No	2 samples set in epoxy resin.
02.THa.01.669	N	26440	H74-420a	Bronze Projectile	Bronze	No	0 epoxy resin samples.
02.THa.04.670	N	26656	H74-375	Bronze pin fragment (double headed)	Bronze	No	1 sample set in epoxy resin.
01.TH.12.671			H74-123	Unidentified Bronze Fragment	Bronze	No	?
04.TH.12.672			NA	"No #, Roll 4:27"	Metal	No	?
01.TH.12.673	N	26436	H75-m-8	Bronze Spatula fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.04.674			H74-330	Bronze Pin fragment	Bronze	No	1 sample set in epoxy resin.
02.THa.01.675			H74-425	Bronze Projectile	Bronze	No	1 sample set in epoxy resin.
04.TH.07.676			H75-S337	Bronze ring "A-c; HAD 58a,b,c	Bronze	No	2 samples set in epoxy resin.
02.AD.04.677			HAD-76-S1023d	Bronze pin fragment	Bronze	No	2 samples set in epoxy resin.
02.SED.02.678	N	25984	H76-175	Bronze dagger fragment	Bronze	No	1 sample set in epoxy resin.
02.THa.02.679	N	26442	H74-412	Bronze dagger fragment	Bronze	No	1 sample set in epoxy resin.

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
02.THa.03.680	N	26435	H74-428	Bronze axe fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.04.681			H77-m-10	Bronze pin fragment	Bronze	No	1 sample set in epoxy resin.
01.TH.12.682	N	28420	HSM-77-66	Copper band fragment	Copper	No	1 sample set in epoxy resin.
01.TH.09.683			HSM-77-43	Iron nail fragment	Iron	No	1 sample set in epoxy resin.
02.THa.02.684			H74-415	Bronze dagger fragment (empty bag)	Bronze	No	1 sample set in epoxy resin.
04.TH.12.685			HAD-275	Unidentified bronze fragment	Bronze	No	?
04.TH.04.686			NA	Bronze pin head fragment (club headed)	Bronze	No	1 sample set in epoxy resin.
02.TH.04.687a			H77	Bronze pin body fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
02.TH.04.687b			H77	Bronze pin fragment	Bronze	No	Surface corrosion: blueish green discoloration
02.EQ.12.688			H76-S440	"Frag of Rod"	Metal	No	1 sample set in epoxy resin.
01.TH.04.689a			H74-s6	Bronze pin head and body fragment (mushroom headed)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.689b			H74-s6	Unidentified bronze fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.690			H74-s284	Bronze pin head fragment (mushroom headed)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.691			H74-s200	Bronze earring	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.04.692			H74-s157	Lead twisted shaft (possibly silver)	Lead	No	Yellow and white discoloration
02.THa.02.693			H74-393	Bronze blade fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.694			H74-s141	Bronze ring fragments (3) has fiber but MISSING beads	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.695			H74-s145	Bronze pin fragments (3) (refit) (no defined head)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.696			H74-s142	Lead ring (possibly silver)	Lead	No	Yellow and white discoloration
01.TH.07.697			H74-s180	Lead ring (possibly silver)	Lead	No	Yellow and white discoloration
01.TH.04.698			H74-s203	Bronze pin fragment (corrosion dust and soil in bag)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.699			H74-s196	Bronze pin fragments (4) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.700			H74-s32	Unidentified metal fragments (23)	Metal	No	Surface corrosion: blueish green discoloration
01.TH.12.701			H74-s307	Unidentified bronze fragments (3)	Bronze	No	Soil and Mineral accretion

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.07.702a			H74-s48	Bronze earring (possibly)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.702b			H74-s48	Bronze earring	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.08.702c			H74-s48	Bronze bead	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.702d			H74-s48	Bronze pin shaft fragments (2) (different pins one has eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.702e			H74-s48	Bronze bracelet fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.703			H75-s58	Bronze slag	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.704a			H75-s346	Bronze earring fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.704b			H75-s346	Bronze earring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.704c			H75-s346	Bronze earring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.704d			H75-s346	Bronze earring fragments (2) (not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.704e			H75-s346	Bronze corrosion dust	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.705			H75-s185	Unidentified bronze fragments (2) (Not refit)	Bronze	No	Soil and Mineral accretion
01.TH.12.706			H75-s94	Unidentified bronze fragments (4) (Not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.707a			H75-s182	Bronze bracelet fragments (3) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.06.707b			H75-s182	Bronze bracelet fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.707c			H75-s182	Bronze earring	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.707d			H75-s182	Bronze pin shaft fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.707e			H75-s182	Bronze pin shaft fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.707f			H75-s182	Unidentified bronze fragments (5) (Not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.708			H75-s400	Bronze pin head and shaft fragment (nail headed) (square shaft)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.709			H75-s157	Bronze head and shaft fragment (ball head)	Bronze	No	Surface corrosion: blueish green discoloration

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.07.710a			H75-s317	Bronze earring	Bronze	Yes	Surface corrosion: blueish green discoloration
01.TH.07.710b			H75-s317	Bronze earring	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.710c			H75-s317	Bronze earring fragments (2) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.710d			H75-s317	Bronze earring fragments fused together (2)	Bronze	No	Soil and Mineral accretion
01.TH.12.711			H76-s691	Bronze slag	Bronze	No	Soil and Mineral accretion
01.TH.12.712			H76-s318	Bronze cylindrical fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.713			H76-s455	Bronze ring fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.714a			H76-s277	Bronze pin head and shaft fragment (2) (not refit same pin) (head) (eye remnant)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.714b			H76-s277	Bronze pin shaft fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.714c			H76-s277	Bronze pin shaft fragments (6) (some same pin)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.714d			H76-s277	Bronze pin fragments (unidentified badly corroded)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.12.715			H76-s108	Unidentified bronze fragments (2) (refit) (resemble modern washer)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.716a			H76-s178	Bronze pin head fragment (morningstar)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.716b			H76-s178	Bronze pin shaft fragment	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.717a			H76-s251	Bronze ring fragments (3) (refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.717b			H76-s251	Bronze ring fragments (10) (possibly refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.07.717c			H76-s251	Bronze pendant bail	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.718a			H76-s663	Bronze pin head fragment (club headed) (same pin as b not refit)	Bronze	No	Surface corrosion: blueish green discoloration
01.TH.04.718b			H76-s663	Bronze pin body fragment w/ tip (same pin as a not refit)	Bronze	No	Surface corrosion: blueish green discoloration
04.TH.04.719			NA	Bronze pin fragment (ball head)	Bronze	No	Surface corrosion: blueish green discoloration.
01.TH.05.720			H76-186-M28d	MISSING: Coin	Metal	No	NA

EVE #	Cat	Cat#	Hadidi #	Description	Material	Complete	Condition
01.TH.05.721			H76-189-M31d	MISSING: Coin	Metal	No	NA
01.TH.05.722			H76-189-M31b	MISSING: Coin	Metal	No	NA
01.TH.05.723			H76-229-M46	MISSING: Coin	Metal	No	NA
01.TH.05.724			H-78-M-2	MISSING: Coin	Metal	No	NA
01.TH.12.725			HSS-78-91	MISSING: Unknown (Stone?)	Metal	No	NA
01.TH.07.726			HAD-76-S471	MISSING: Bronze Ring Fragment	Bronze	No	NA
01.TH.12.727			H78-M-1	MISSING: Tip of drinking straw	Bronze	No	NA
04.TH.07.728			HAD-77	MISSING: Bronze Earring	Bronze	No	NA
04.TH.12.729			H74-246	MISSING: Unknown	Metal	No	NA
01.TH.12.730			H-76-s160	MISSING: Unknown Bronze	Bronze	No	NA
01.TH.07.731			HAD-76-S581	MISSING: Bronze Ring Fragment	Bronze	No	NA
01.TH.12.732			HSM-77-48	MISSING: Unknown	Bronze	No	NA
01.TH.06.733			H77-M-9	MISSING: Iron Anklet	Iron	No	NA
01.TH.12.734			H74-S130	MISSING: Iron	Iron	No	NA
01.TH.04.735			H76-167	MISSING: Bronze Pin	Bronze	No	NA