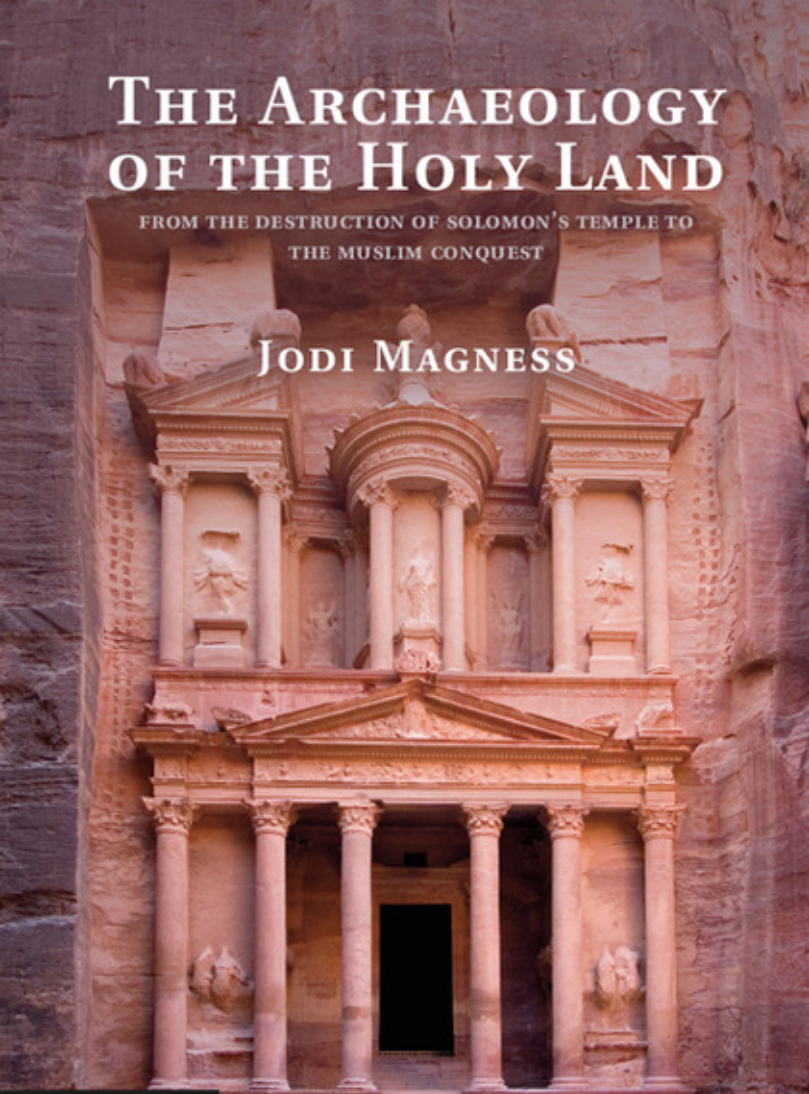
The Archaeology of the Holy Land

From the Destruction of Solomon's Temple to the Muslim Conquest

Jodi Magness



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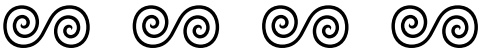
The Archaeology of the Holy Land

This book provides an introduction to the archaeology and history of ancient Palestine – modern Israel, Jordan, and the Palestinian territories – from the destruction of Solomon's temple in 586 B.C.E. to the Muslim conquest in 640 C.E. Special attention is paid to the archaeology of Jerusalem and to the late the Second Temple period, that is, the time of Herod the Great and Jesus. For each period, the book offers historical background for the Mediterranean world, the ancient Near East and Palestine. Major sites such as Masada, Caesarea Maritima, and Petra are examined in archaeological and historical detail, along with the material culture – coins, pottery, glass, and stone vessels – typical of each period. This book provides a thorough overview of the archaeology of this historically rich part of the world.

Jodi Magness is the Kenan Distinguished Professor for Teaching Excellence in Early Judaism in the Department of Religious Studies at the University of North Carolina at Chapel Hill. She is the author and editor of several books, including *Stone and Dung, Oil and Spit: Jewish Daily Life in the Time of Jesus* (2011)*; The Archaeology of the Early Islamic Settlement in Palestine* (2003); and *The Archaeology of Qumran and the Dead Sea Scrolls* (2002).



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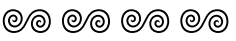


To Jim, with love

CONTENTS

LIST OF ILLUSTRATIONS

PREFACE

For more than twenty years I have wanted to write this book. That's how long I have been teaching the material covered here as an introductory-level course to undergraduate students. Over the years, repeated proposals that I submitted to various presses were rejected on the grounds that there was not enough demand to make such a textbook profitable. Therefore, I am grateful to Beatrice Rehl at Cambridge University Press for offering me a contract. I also thank Mary Robinson-Mohr and Jason Staples for their helpful comments on an earlier draft of this manuscript.

I got the time I needed to write this book thanks to a Chapman Family Faculty Fellowship at the Institute for the Arts and Humanities (IAH) at the University of North Carolina at Chapel Hill. The research fund awarded with the fellowship paid for the reproduction rights and preparation of many of the images. My work on the book was enriched by weekly meetings with the other Fellows at the IAH during the fall of 2010. I also wish to thank the faculty and staff of the Department of Religious Studies and Dean William Andrews at UNC-Chapel Hill for their support, including granting me a leave of absence for the 2010–2011 academic year.

I am grateful to the many friends and colleagues who generously granted reproduction permission or provided the images that are a key component of this book, including Todd Bolen (BiblePlaces.com), Felicity Cobbings (Palestine Exploration Fund), Gwyn Davies, Hillel Geva (Israel Exploration Society), Gabi Laron (Hebrew University Institute of Archaeology), Leen Ritmeyer, Ronny Reich, Zev Radovan, Hershel Shanks (Biblical Archaeology Society), Zeev Weiss, and Jane Cahill West. I owe special thanks to Jeffrey Becker and Richard Talbert at the Ancient World Mapping Center at UNC-Chapel Hill, who prepared an original series of maps for this book.

This book is informed by decades of learning from teachers, students, colleagues, friends, and family. Although it is impossible to acknowledge them all, I wish to remember some of those who are no longer with us: James A. Sauer and Keith de Vries, who were my teachers and dissertation advisers at the University of Pennsylvania; my close friend and colleague Hanan Eshel; and my dear friends Tsvi (Harvey) Schneider and Ora Sinai. They had a lasting impact on my life and are deeply missed.

I am fortunate to have a loving and supportive family, including my parents, Herbert and Marlene Magness; my husband, Jim Haberman; and my nephew Mike Miller. This book is dedicated to Jim, for whose unconditional love and companionship I am grateful. Jim works as the photographer on my excavations, and he gets the credit for preparing many of the illustrations in this book as well.

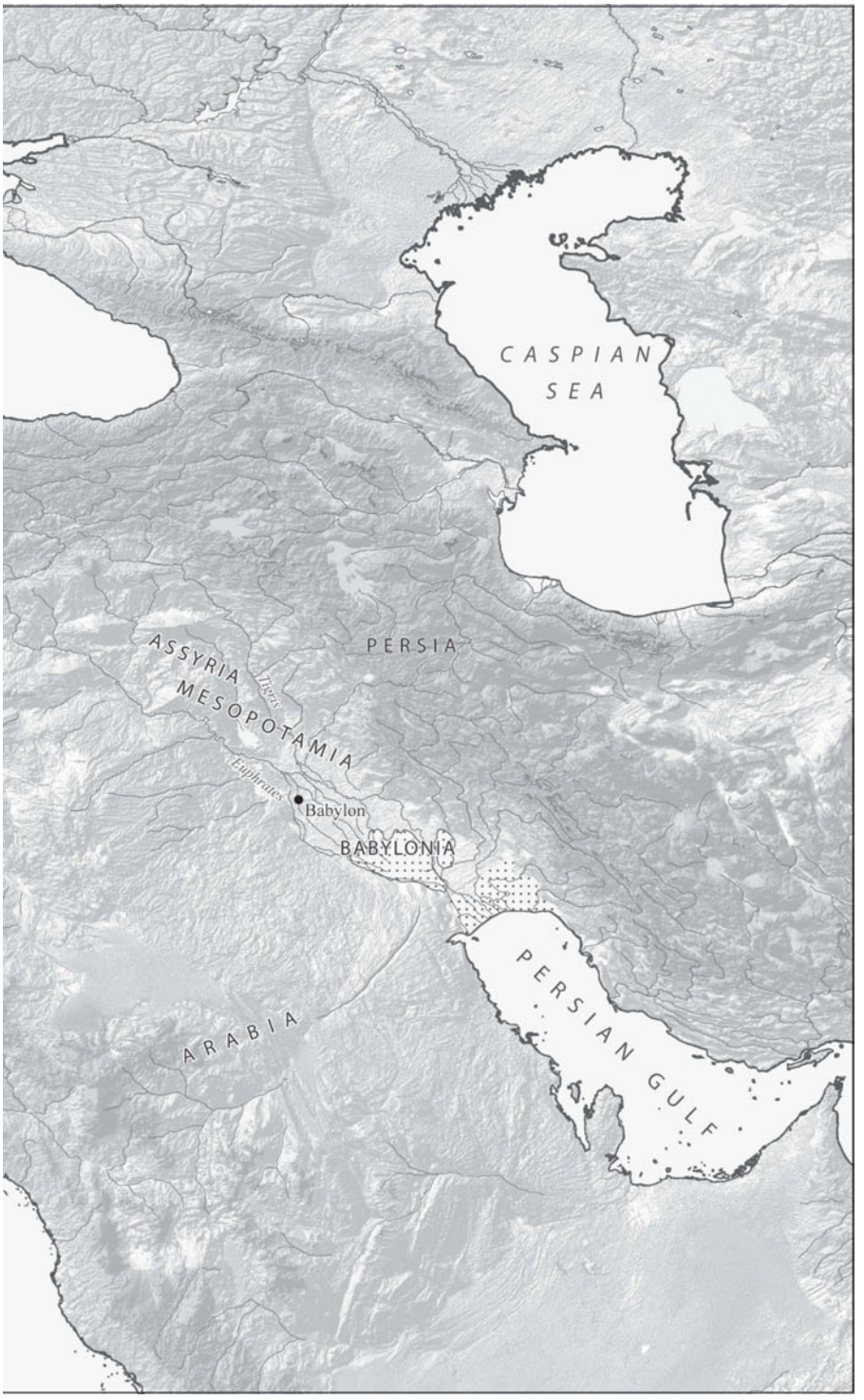
ONE

INTRODUCTION

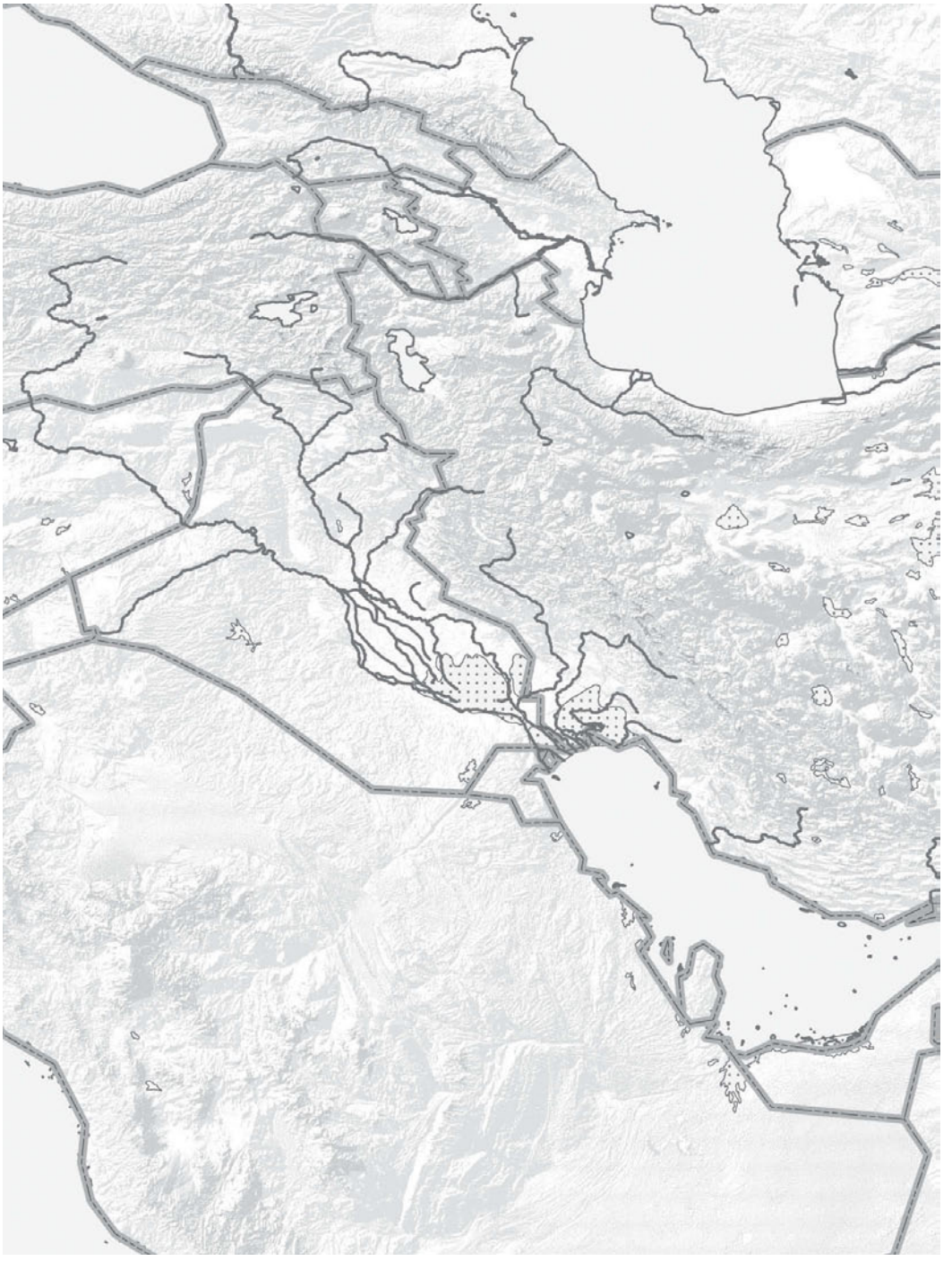
In the heart of the ancient Near East (modern Middle East), at a crossroads between once-mighty powers such as **Assyria** to the east and Egypt to the south, is a tiny piece of land – roughly the size of New Jersey – that is as contested as it is sacred. One cannot even name this territory without sparking controversy. Originally called **Canaan** after its early inhabitants (the **Canaanites**), it has since been known by various names. To Jews this is *Eretz Israel* (the Land of Israel), the Promised Land described by the Hebrew Bible as flowing with milk and honey. To Christians it is the Holy Land where Jesus Christ – the messiah, or anointed one – was born, preached, and offered himself as the ultimate sacrifice. Under the Greeks and Romans, it was the province of **Judea**, a name that hearkened back to the biblical kingdom of **Judah**. After the **Bar-Kokhba Revolt** ended in 135 C.E., Hadrian renamed the province Syria-Palestina, reviving the memory of the long-vanished kingdom of Philistia. Under early Islamic rule the military district (*jund*) of Filastin was part of the province of Greater Syria (Arabic *Bilad al-Sham*). In this book, the term *Palestine* is used to denote the area encompassing the modern state of Israel, the Hashemite kingdom of Jordan, and the Palestinian territories.

This book introduces readers to this complex and fascinating land, the birthplace of Judaism and Christianity, drawing on archaeological evidence and literary (historical) information, including the Bible. Archaeological remains give voice to the narratives of forgotten peoples who contributed to its rich cultural tapestry: Phoenicians, **Edomites** and **Idumaeans**, **Moabites**, **Ammonites**, **Ituraeans**, **Nabataeans**, **Samaritans**, **Philistines**. Today, scholars generally use the term "biblical archaeology" to refer to the archaeology of Palestine in the Bronze Age (ca. 3000–1200 B.C.E.) and Iron Age (ca. 1200–586 B.C.E.) – that is, the Old Testament period, when the land was inhabited by Canaanites and

1.1 Map of the ancient Near East. Ancient World Mapping Center, University of North Carolina at Chapel Hill (www.unc.edu/awmc).


CASPIAN
SEA
PERSIA
ASSYRIA
MESOPOTAMIA
Tigris
Euphrates
Babylon
BABYLONIA
ARABIA
PERSIAN GULF

1.2 Map of the modern Middle East. Ancient World Mapping Center, University of North Carolina at Chapel Hill (www.unc.edu/awmc).



Israelites. In contrast, our focus is on the period from 586 B.C.E. to 640 C.E. – that is, from the fall of the kingdom of Judah and the destruction of **Solomon**'s temple (the end of the First Temple period) to the Muslim conquest of Palestine. In other words, this book covers the "post-biblical" periods (from a Jewish perspective) or the New Testament period (from a Christian perspective), including the Second Temple period (516 B.C.E.–70 C.E.).

Because this book is intended as an introductory text it is not footnoted, but a glossary of terms and timelines are included for reference purposes. For additional information, readers are encouraged to consult the recommended readings at the end of each chapter.

Chronological Framework

In the Mediterranean world and ancient Near East (the "Old World"), historical periods begin around 500 B.C.E. because this is when history writing began in the modern sense of the word, with Greek authors such as **Herodotus**. The prehistoric periods in the Old World are defined according to the most advanced material used at the time to manufacture tools: Stone Age, Bronze Age, Iron Age. Each of these periods is further subdivided – for example, Old Stone Age (Paleolithic), Middle Stone Age (Mesolithic), New Stone Age (Neolithic); Early Bronze Age (EB), Middle Bronze Age (MB), Late Bronze Age (LB).

This system of periodization was developed in the nineteenth century, when scholars sought to impose order on the thousands of ancient artifacts that had been amassed in museums and private collections. It is not a coincidence that in the nineteenth century – at the height of the Industrial Revolution – scholars devised a chronological framework defined by the materials used to make tools. This reflects the view current at that time that civilizations using stone tools were less advanced (or more "primitive") than those using metal tools, especially iron tools. Of course, we now recognize the inherent bias of a system of periodization that ranks human progress according to materials used for tool making. Furthermore, there existed highly developed civilizations in Mesoamerica and other parts of the world that never emerged from the "Stone Age." Nevertheless, because this terminology is entrenched, it is still used by scholars working in the Mediterranean world and the ancient Near East. In other parts of the world, such as the Americas, where scholarly interest in archaeology developed later, other systems of periodization are employed.

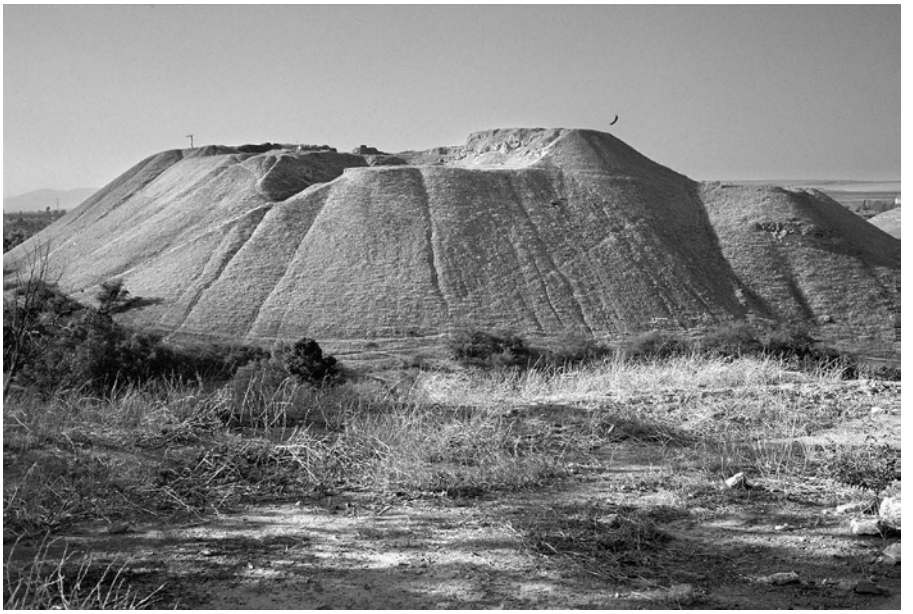
Historical periods (after ca. 500 B.C.E.) are dated on the basis of events recorded in written sources. For example, in Palestine the early Hellenistic period begins with **Alexander the Great**'s conquest in 332 B.C.E. and ends with the Maccabean revolt in 167 B.C.E. In contrast, although the Stone Age–Bronze Age–Iron Age system of periodization helps organize artifacts in a relative sequence (meaning that, relatively speaking, the Stone Age is earliest and Iron

Age is the latest), it does not provide absolute dates for these periods. For the Iron Age (beginning ca. 1200 B.C.E.), some dates can be gleaned from written sources, such as the Hebrew Bible and Assyrian records. However, before the invention of radiocarbon dating in 1950 (discussed later), Egypt was the main chronological peg for prehistoric periods in the Mediterranean and ancient Near East, as it is the only country with a continuously dated calendar going back approximately 5,000 years (although scholars disagree about the precise dates of many events). Egyptian artifacts found at sites around the Mediterranean and ancient Near East provided absolute dates for associated remains and levels. The reliance on Egyptian chronology underlies the tripartite division of the Bronze Age around the Mediterranean, with the Early Bronze Age corresponding roughly with the Old Kingdom in Egypt, the Middle Bronze Age with the Middle Kingdom, and the Late Bronze Age with the New Kingdom.

What Is Archaeology?

Before embarking on our journey through the Holy Land, we must first understand the fundamental principles of archaeology. Archaeology is the study of the past as evidenced by human material culture – that is, built features and **artifacts** such as architecture, works of art, tools, and vessels that were manufactured and used by people. Only a small portion of human material culture has survived the ravages of time, most of it having been irretrievably destroyed by natural disasters or human agency, or – in the case of perishable materials – simply having disintegrated. Archaeology does not include the study of remains that predate humans (such as dinosaurs), the physical remains of humans (skeletons), or floral and faunal remains (animals and plants). These types of remains are studied by specialists in allied disciplines such as paleontology, physical or biological anthropology, zooarchaeology, paleobotany, and so on. Of course, archaeologists often include information from these disciplines when studying the remains of human material culture.

History is also the study of the past, but it is based on information provided by written documents or texts rather than material culture. In other words, although both archaeologists and historians study the past, they use different methods and sources to obtain the information. These sources of information often provide different (although not necessarily mutually exclusive or conflicting) pictures of the past. For example, because many texts were written by or for the ruling classes (elites) of ancient societies, they tend to reflect the concerns, interests, and viewpoints of those classes. In comparison, although archaeologists often uncover the palaces and citadels of the ruling classes, they also dig up houses and workshops that belonged to the poorer classes of ancient societies. Archaeological evidence can be used to complement or supplement the information provided by written records, and in cases in which there are



1.3 A tel (Beth Shean).

no written records (such as prehistoric societies), it may be our only source of information.

Principles of archaeology

Whereas some ancient sites were inhabited for only one brief period or phase, many sites in Palestine were occupied over longer periods. At such multiperiod sites, the buildings and debris from the successive phases of occupation accumulated, forming a series of levels one above the other, like a layer cake. At many biblical (Bronze Age and Iron Age) sites in Israel, there are twenty or more different occupation levels, forming an artificial mound called in Hebrew a ***tel*** (Arabic ***tell***). The famous tels of **Megiddo** and Hazor provided the models for James A. Michener's 1965 novel, *The Source*. Although many people think that successive layers of occupation at a site will always take the shape of a tel, this is not the case. In fact, tels derive their distinctive shape from a specific type of fortification system that was widespread in Middle Bronze Age Palestine and elsewhere in the ancient Near East. This type of system, called a **glacis** or **rampart**, was created by digging a deep ditch or dry moat around the outside of a town, piling up the dirt from the ditch in a huge embankment encircling the town, and plastering the embankment (the glacis or rampart) to make a steep, smooth slope. Fortification walls were erected at the top of the slope. This type of

defensive system must have developed in response to the introduction of a new type of offensive warfare – perhaps chariots or battering rams – or, perhaps, it was intended to prevent the mining of the fortification walls from below. By the post-biblical periods, new types of weapons and warfare had rendered the glacis and rampart system ineffective and obsolete. Therefore, sites established in these periods are not tels, even if they were occupied continuously for centuries, as, for example, Caesarea Maritima.

Archaeologists refer to occupation levels at sites as **strata** (singular, **stratum**), and to the sequence of levels as **stratigraphy**. Although it is helpful to visualize the strata of ancient sites as a layer cake, the reality is never that neat and simple. This is because the inhabitants frequently disturbed earlier levels when constructing the foundations of buildings or digging pits. In the course of such activities, they cut into or through earlier strata, churning up earlier material (potsherds, coins, etc.) with the dirt and stones. This means that at multiperiod sites, we always find earlier artifacts mixed in with later material. For this reason, we use the latest artifacts to date the stratum we are excavating and disregard the earlier material (at least for dating purposes).

Imagine that we are standing in a modern school building in Los Angeles that was built in 1972. When the school was built, a deep pit (trench) was dug into the ground for the foundations. At the time the floor was laid, it sealed the foundation trench and everything in it. If the floor is intact and we dig under it today, we should find nothing later dating than 1972 in the fill. However, we will almost certainly find objects that were manufactured before 1972, such as old Coke bottles, coins dating to the 1950s and 1960s, and so on, which were mixed with the dirt and deposited when the foundation trench was filled in. Now, let us suppose that the latest datable object we find under that floor is a penny minted in 1968. This coin will provide what archaeologists call a ***terminus post quem*** (Latin for "date after which") for the construction of the school. In other words, the coin will tell us that the school was constructed no earlier than 1968. Further, let us suppose that the school was destroyed by an earthquake in 1985, which caused the building to collapse, burying everything inside. The objects found on top of the floors will represent the items in use at the moment when the building collapsed. They will also provide us with a ***terminus ante quem*** (Latin for "date before which") for the construction of the school. In other words, if the latest datable objects found buried in the collapse were books printed in 1985, the school building must have been constructed on or before that date. One of the most famous ancient examples of such a catastrophic destruction is the eruption of Mount Vesuvius in 79 C.E., which buried Pompeii and Herculaneum in volcanic ash and mud. Walking through the excavated streets of these towns today gives us a glimpse into what they looked like at the moment of their destruction.

1.4 Excavated square at an archaeological site (Huqoq). Photo by Jim Haberman.

Methods of Archaeology

During the course of excavation, archaeologists destroy the remains that are dug up. This is because once a shovel of dirt or a stone is removed from the ground it can never be put back the same way. For this reason, archaeologists record the excavation process using every means possible. If you have ever visited an excavation, you might have noticed that archaeologists dig in squares measuring 5 × 5 or 10 × 10 meters. The squares in the grid are separated from each other by banks of earth about 1 meter wide called **baulk**s (or **balk**s). This system enables archaeologists to measure and record the exact location of every excavated object and feature (by "feature," I mean something that is constructed, as opposed to an artifact, which is a portable, manufactured object). The recording is done by measuring levels (absolute heights or elevations within the excavated squares), keeping daily diaries, making drawings and taking photographs, and increasingly using computers and other technologies. Ideally, once a final excavation report is published, it should be possible for the reader to reconstruct the site as it looked before everything was dug up.

Archaeologists use various devices to keep track of the point of origin (**provenance** or **provenience**) of every excavated artifact and feature. One way to do this is to subdivide each square horizontally and vertically. One of the most common subdivisions used in excavations is a **locus** (plural **loci**). Locus means "spot" or "place" in Latin; archaeologists use this word to designate any excavated feature. For example, a locus can designate an oven, a pit, a room, or any

part of a room. It is simply a device to help subdivide the area being excavated, to enable us later to pinpoint the exact spot where an artifact or feature was found. For example, let's say that we begin excavating a square on top of the present ground surface. We would give the entire square one locus number (L1 [L = Locus]). About 10 centimeters below the surface, we notice that the soil is changing in color and composition from reddish brown to dark brown mixed with lots of stones. At this point, we would measure the absolute height or elevation (with the same kind of equipment used by surveyors), and change the locus number from L1 to L2. Five centimeters below this, we begin to come upon a line of stones cutting diagonally across the square, which looks like the top of a wall. We would again measure the absolute height and change the locus number, giving the areas on either side of the wall different locus numbers (L3 on one side and L4 on the other). The pottery and other artifacts discovered during the course of excavation are saved and labeled according to their context.

This system of excavating and recording is the standard one used by archaeologists working in Israel and neighboring countries today (with minor variations from excavation to excavation). This system developed gradually, with the growing realization that ancient sites are composed of successive layers of occupation, with the earliest layers at the bottom and the most recent at the top (stratigraphy). Thomas Jefferson, the third president of the United States, was among the first to recognize this fundamental principle of archaeology, which he applied to his excavation of a Native American burial mound. The importance of stratigraphy to understanding and excavating multilayer sites began to have an impact on archaeologists in the Mediterranean world in the 1880s, with Heinrich Schliemann's excavations at the mound of Hissarlik (Troy). The principle was first applied to an excavation in Palestine by the British archaeologist Sir William Flinders Petrie, who excavated at Tell el-Hesi in 1890. Because the system of stratigraphic excavation has developed over time, not all the elements of this system were used by earlier generations of archaeologists, just as this methodology undoubtedly will continue to be refined by future archaeologists.

Methods of Dating

When we excavate an ancient house, what types of artifacts tell us when it was built, occupied, and destroyed or abandoned? The answer is artifacts that are very common finds on archaeological excavations, or artifacts that carry their own date. The main methods of dating used by archaeologists working in historical periods in Palestine include (1) **radiocarbon dating** (sometimes called carbon 14 or C14 dating), (2) coins, (3) inscriptions or other written materials found in excavations, (4) ancient historical or literary sources, and (5) pottery (ceramic) typology.

Before we discuss each of these dating methods, note that this list does not include human or animal bones, tools, or architectural styles. Although human and animal bones can provide much useful information (for example, animal bones can tell us about the ancient environment and diet, and human skeletons can provide information about ancient populations), they cannot be dated unless enough collagen is preserved for the purposes of radiocarbon dating.

Tools are another matter. Stone tools used by prehistoric populations can be dated according to their type in a manner analogous to the way pottery is dated (discussed later). But once pottery appears in Palestine (ca. 5000 B.C.E.), it replaces stone tools as a more precise method of dating. Remember the criterion that the object must be a very common find on archaeological excavations? Tools made of bronze or iron are not common finds, because all metals were valuable in antiquity and therefore usually were recycled rather than discarded. For example, nearly all the Classical Greek statues of the fifth and fourth centuries B.C.E. were made of cast bronze. Most disappeared long ago because they were melted down and made into something else. What survive today are later Roman copies in stone of lost Greek masterpieces and rare examples of bronze originals, most of which have been recovered from ancient shipwrecks. In addition, because metal tools tend to be utilitarian, they did not change much in shape over the centuries. For these reasons, metal tools are not useful for dating even when they are found in excavations.

What about architectural styles? Although archaeologists sometimes use distinctive architectural styles (or tomb types) as a means of dating, this can be done accurately only in rare instances. This is because once an architectural style was invented it could be copied or imitated by later generations. If you have ever seen the 30th Street Station in Philadelphia or any other modern building constructed in a Classical Greek style, you know what I mean. However, most of the remains archaeologists dig up are not that distinctive. For example, much of the ancient construction in Palestine is very simple, consisting of rough (uncut) field stones and mud brick.

Now let's discuss the dating methods we have just listed. Each method has its own advantages and disadvantages.

Radiocarbon (Carbon 14) Dating

The Oxford Companion to Archaeology defines radiocarbon dating as "an isotopic or nuclear decay method of inferring age for organic materials." This method works roughly as follows. Carbon 14 is a radioactive isotope of carbon 12. All plants and living creatures contain carbon 14 while they are alive. When a living thing dies, it begins to lose the carbon 14 at a steady rate: approximately half the carbon 14 is lost every 5730 years (the "half-life" of radiocarbon). Therefore, if archaeologists find a piece of charcoal in an excavation, by measuring the

amount of carbon 14, a lab can determine roughly when the tree from which the charcoal came was chopped down. A type of radiocarbon dating called *accelerator mass spectrometry* (AMS) can be used for dating smaller samples of organic matter. Because wood was valuable in Palestine's arid environment and therefore sometimes was in use for long periods or recycled, it yields less precise dates than grain and seeds (in other words, a piece of wood could have been used or reused as a ceiling beam for decades and even centuries before it was burnt).

Radiocarbon dating has the advantage of being the only "scientific" method listed here (meaning that the date is supplied by a laboratory). However, it has the disadvantage that every date returned by the lab has a plus/minus range, representing a margin of statistical error. There is a 67 percent chance that the date provided by the lab falls within the plus/minus range. A date of 4000 plus/minus 100 would mean that our tree was chopped down 4000 years ago, with a 67 percent chance that it was chopped down within a range of 100 years either way (the accuracy goes up if the range is doubled). Radiocarbon dates conventionally are published in the form of uncalibrated radiocarbon years before present (BP), with "present" measured from 1950 C.E., when the method was invented. Conversion of these dates to calendar years requires calibration because of past fluctuations in the level of carbon 14 in the atmosphere. Calibration can increase the range of a radiocarbon date.

For these reasons, radiocarbon dating is most useful in cases in which there are no other closely datable types of artifacts, such as prehistoric sites in Europe or Native American sites in the United States. It is less useful for historical period sites in Palestine, where other, more accurate methods of dating are available. Nevertheless, radiocarbon dating is valuable even in Palestine, as indicated by its centrality in the ongoing debate about the kingdom of **David** and Solomon (the key question being whether certain archaeological remains are associated with these kings or are later in date). Another disadvantage of radiocarbon dating is that it can be used only on organic materials, which are exactly the kinds of remains that are rarely preserved at ancient sites. Organic materials such as wooden furniture, rugs, woven mats and baskets, clothing, leather, and scrolls may survive in extremely arid conditions such as the area around the Dead Sea, but for the most part have disintegrated in other parts of Palestine as a result of humidity.

There are other scientific methods of dating such as **dendrochonology** (tree-ring dating), but they are rarely employed for the historical periods in Palestine.

Coins

Coins have the advantage of carrying their own date. However, there are also disadvantages associated with coins. First, coinage was not invented in the

Mediterranean world until about 600 B.C.E. Therefore, coins are not found at Mediterranean sites or levels that antedate the sixth century (or in other parts of the world, such as North America, until much later). Second, in antiquity coins often remained in circulation for long periods – up to hundreds of years – after they were minted. Although this is especially true of gold and silver coins, it can also be true of lower-value bronze coins. For this reason, finding a coin that was minted in 100 C.E. on the floor of a house can be misleading if it fell onto the floor 100 or 200 years later. It is best to use more than one coin when possible, or coins along with other methods of dating, to obtain an accurate date. Third, because coins were valuable, ancient peoples were careful not to lose them. This means that it is possible to excavate a level at a site and not find any coins. Fourth, because most ancient coins are tiny pieces of bronze (much smaller than our modern pennies), they have often corroded to the point at which the date can no longer be read. Excavation reports typically include lists of illegible coins.

Inscriptions or Other Written Materials Found in Excavations

Although this type of object is an archaeological find because it comes from an excavation, it falls into the category of historical materials (written texts). Sometimes inscriptions or written materials include a date. For example, a monumental inscription from **Justinian**'s **Nea Church** in Jerusalem provides the dedication date (see Chapter 15). However, most inscriptions do not record a date but instead consist of very brief texts – sometimes just a name or even a single letter. Often these texts are written in ink on broken pieces of pottery (**ostraca**; singular **ostracon**), the "post-it notes" of antiquity. Nevertheless, even brief, undated texts can yield valuable information. For example, the language of the inscription may reflect the ethnicity of the writer: Latin was used mostly by Romans, Hebrew by Israelites and Jews, and so on. Even undated texts can be given an approximate date by specialists who study the development of handwriting styles and letter forms over time (**paleographer**s or **epigrapher**s).

Relevant Ancient Literary Sources

Ancient literary sources can be helpful for dating purposes but must be used carefully and critically. The Hebrew Bible is often used as a source of information by archaeologists excavating Iron Age sites in Israel. However, because the biblical writers had certain biases and agendas (and were not motivated by a desire to write history in the modern sense of the word) their accounts cannot always be taken at face value. Furthermore, many of the events described occurred long before the Hebrew Bible was written down, which calls into

question the accuracy of these accounts. This problem is most acute for the period prior to the arrival of the Israelites in Canaan (ca. 1200 B.C.E.), because the composition of the earliest books of the Hebrew Bible probably did not begin before the eighth and seventh centuries B.C.E., although scholars now debate the historicity of the biblical account for the Iron Age as well. For the Second Temple period in Palestine, **Flavius Josephus**, the Jewish author of the first century C.E., is our most valuable historical source. Other historical or literary sources for the periods covered in this book include the **Dead Sea Scrolls**, **apocrypha** and **pseudepigrapha** (deutero-canonical and noncanonical books), the New Testament, **Philo Judaeus**, **rabbinic** literature (the **Mishnah** and **Talmud**), and the church fathers.

Pottery

This is the only type of artifact in this list that does not carry its own date. Have you ever wondered how an archaeologist can pick up a seemingly nondescript potsherd (sherds are pieces of broken pottery, as opposed to shards, which are glass) and tell you the date? Here is how the process of dating pottery works. Imagine that we are excavating a multiperiod site with three main occupation levels (strata), one above the other. In the lowest (earliest) stratum, we find a certain type of bowl with red-painted decoration. In the next stratum above (the middle level), we find a different type of bowl with rounded walls and a flat base. In the uppermost (latest) stratum, we find another type of bowl covered with a black glaze. We can now establish the following relative typology (that is, a relative sequence of types): the bowl with the red-painted decoration is the earliest type; the bowl with rounded walls and a flat base is the middle type (in date); and the bowl with the black glaze is the latest type. In other words, we can construct a relative sequence of types in which one type is the earliest (relatively speaking), another is in the middle, and another is the latest. We determine the absolute dates of these pottery types based on their association with dated objects. For example, if we find coins minted by the Roman emperor Tiberius together with (in the same stratum as) the bowl with the red-painted decoration, we can assume that this type of bowl dates to the first century C.E. If, in the future, we find that same type at the next site down the road, we will know its date.

Dating pottery in this way is a complex process that is done by specialists. Not only do pottery types change over time, but they also vary among geographical regions. For example, when I was working on my dissertation, I found that the pottery types characteristic of Jerusalem and Judea in the fourth to seventh centuries C.E. are completely different from those found in **Galilee**. In addition, certain pottery types are better chronological indicators than others (that is,

certain types can be dated more precisely). The best types for dating purposes are fine wares and oil lamps, as they tend to change in form and decoration fairly quickly. Fine wares are the dishes that were used for dining – that is, they are table wares such as cups, plates, and bowls. Fine wares and oil lamps are often decorated, whereas utilitarian vessels such as storage jars and cooking pots tend to be plain and are more difficult to date precisely. We refer to plain, undecorated vessels as *coarse wares*. Because of their utilitarian nature, storage jars and cooking pots usually display only minor changes in shape over long periods. For these reasons, pottery typologies must be constructed for different sites in different geographical regions and for every period and every vessel type. This has to be done on the basis of carefully excavated, multiperiod sites that provide sequences of levels and associated pottery types. There are still huge spans of time and space for which we lack ceramic typologies. Ironically, the biggest gaps in Palestine are the most recent periods (Islamic to Ottoman), which have received less attention from archaeologists than earlier periods.

Sometimes people wonder how ceramics specialists can tell different types apart. After all, couldn't the same types have been imitated in later periods, as were architectural styles? In fact, this is not true of pottery. The combination of shapes, clays, firing processes, and decorative techniques yielded a unique product. This means that even if a shape was duplicated in a later period (and this rarely happened), the combination of different clays, firing processes, and decorative techniques yielded a visibly different product. For example, even a nonspecialist can distinguish between modern imitations of Greek black-figured vases, such as those offered for sale to tourists in shops in **Athens**' Plaka, and the original masterpieces displayed in museums.

Why do archaeologists go to so much trouble to date pottery? Why not rely on other methods of dating? The reason is simple: pottery is ubiquitous at archaeological sites in the Mediterranean and Near East. In antiquity, everyone owned and used pottery. Wealthy people might have owned fine imported wares, whereas poorer people had only the cheap knockoffs from the local potter. However, every household was equipped with pottery vessels. Furthermore, once that pot was fired in the kiln, it might break into pieces but it would not disintegrate. This means that an archaeologist might excavate a structure that yielded no organic materials (for radiocarbon dating), no coins, no inscriptions or written materials, and about which no historical sources provide information. But if archaeologists find nothing else, we know that we will find potsherds – and lots of them – at ancient sites in Palestine. If we can date the pottery, we can date the levels and remains we are excavating.

Pottery can be dated using scientific techniques such as thermoluminesence (which can give the approximate date of the last firing), although these have not been widely employed because of their cost and difficulty. A new technique for

dating pottery, called **rehydroxylation**, is more promising, as it is less expensive and yields relatively precise dates. Rehydroxylation works by measuring the hydroxyl groups (OH) in pottery, which are molecules in clay that react with environmental moisture (H_2O). The process of firing a ceramic pot in a kiln dehydrates the clay. From that point on, the pot reacts with water vapor in the atmosphere and begins to form hydroxyl groups. Rehydroxylation dates pottery by measuring the hydroxyl groups, taking into account environmental factors such as changes in temperature over time. This technique has not yet been employed on pottery from Palestine, but presumably this will change in the future.

Archaeology and Indiana Jones

Although films such as the *Indiana Jones* series have succeeded in thrusting archaeology into the public spotlight, they have also created a highly romanticized and grossly inaccurate image of the discipline. Often, when I tell people that I am an archaeologist, they ask, "What is the best thing you've ever found?" I am always at a loss to answer this question (which is asked in innocence), because it stems from the popular misconception of archaeologists as treasure hunters. Archaeologists are scientists; whatever we find is not our personal property but belongs to (and usually must remain in) the host country. Archaeologists seek to understand the past by studying human material remains through the process of excavation and publication, as described earlier. For this reason, professional archaeologists do not search for objects or treasures such as Noah's Ark, the Ark of the Covenant, or the Holy Grail. Usually these sorts of expeditions are led by amateurs (nonspecialists) or academics who are not archaeologists. Therefore, I have no good answer to the question, "What is the best thing you've ever found?" – because there is no single "thing." Archaeology is a process, a journey of discovery.

The archaeological endeavor involves piecing together all available information, not just one artifact taken out of context. Context is the reason that archaeologists go to so much trouble to document the provenance of every feature and artifact dug up on an excavation. Archaeologists oppose the sale of undocumented artifacts on the antiquities market because they come from illegal excavations, meaning these artifacts were removed without scientific excavation and documentation. Without context, most of the information about an artifact is irretrievably lost. Take, for example, a Roman statue, displayed in a museum, that was purchased on the antiquities market but lacks documentation of its origin (provenance). Based on its style, art historians might be able to estimate the rough date of the statue. Had the statue been properly excavated and documented, the context would have provided a secure and more accurate date for the statue. Scientific excavation could provide other information,

such as the statue's original use – was it set up as decoration in a private house or garden, or was it a cultic object in a sanctuary? Not only was all this information lost when the statue was ripped from its context by looters, but the illegal excavations also destroyed the area around the statue and other parts of the site.

Illegal excavations and looting destroy evidence of a world heritage that belongs to all of us. Archaeologists seek to illuminate the past through scientific excavation and publication, thereby preserving and making this heritage accessible to everyone.

Setting the Stage

To set the stage for the rest of this book, the next chapter presents a brief overview of the Bronze Age and Iron Age – that is, the Canaanite and Israelite periods. We focus especially on Jerusalem, to which much attention is devoted throughout the book. The remaining chapters cover the period from 586 B.C.E. to 640 C.E. In 586 B.C.E. the kingdom of Judah fell to the Babylonians, Jerusalem and Solomon's temple (the first temple) were destroyed, and the Judahite elite were exiled to **Babylonia**. Sixty years later the Persian king Cyrus allowed the exiles to return to Judea and rebuild the Jerusalem temple, ushering in the beginning of the Second Temple period. By the late Second Temple period (first century B.C.E.–first century C.E.), ancient Palestine (= modern Israel, Jordan, and the Palestinian territories) had come under Roman rule and its population was divided along religious, ethnic, economic, class, and sectarian lines. Seventy years after the death of King **Herod the Great** and about forty years after Jesus' death, a Jewish revolt against Rome erupted, culminating in 70 C.E. with the destruction of Jerusalem and the second temple. A second Jewish revolt against Rome led by a messianic figure known as Bar-Kokhba ended disastrously in 135 C.E. The centuries that followed witnessed the rise of Christianity and the transformation of Judaism from a religion centered on a temple with a sacrificial cult led by priests to the rabbinic Judaism of today, characterized by congregational prayer and worship in synagogues. Our story ends in 640 C.E., when Caesarea Maritima – the last major city in Palestine still under Byzantine control – fell to the Muslims after a seven-month-long siege. A brief epilogue examines the transition to early Islamic rule.

The material in this book is presented in chronological order, divided into successive periods. Each period begins with a historical summary, followed by a presentation of the major archaeological sites and monuments, and descriptions of various categories of artifacts (mainly pottery, oil lamps, and coins). Some chapters are thematic, focusing on topics such as the site of Qumran and the Dead Sea Scrolls, ancient Jewish tombs and burial customs, and ancient synagogues.

Sidebar: What do the terms B.C.E. and C.E. mean, and why are they used in this book?

Today, many people use the terms B.C. and A.D. when referring to calendar dates. B.C. is an abbreviation for "Before Christ," and A.D. stands for "Anno Domini" – Latin for "in the year of the/our Lord" (that is, the year of Jesus Christ's birth). Because these terms presuppose the acceptance of Jesus as the messiah, some people (especially, but not only, those who are not of the Christian faith) prefer a more neutral terminology: B.C.E. ("Before the Common Era" or "Before the Christian Era") instead of B.C., and C.E. ("Common Era" or "Christian Era") instead of A.D. The more neutral terminology has been adopted for this book.

Recommended Reading

*For the material covered throughout this book, readers are also referred to the popular journals or magazines *Biblical Archaeology Review* and *Biblical Archaeologist/Near Eastern Archaeology*.

Eric H. Cline, *From Eden to Exile: Unraveling Mysteries of the Bible* (Washington, DC: National Geographic, 2007).

Martha Joukowsky, *A Complete Manual of Field Archaeology: Tools and Techniques of Field Work for Archaeologists* (Englewood Cliffs, NJ: Prentice-Hall, 1980).

Jerome Murphy O'Connor, *The Holy Land: An Oxford Archaeological Guide* (New York: Oxford University, 2008).

Ephraim Stern (ed.), *The New Encyclopedia of the Archaeology of the Holy Land, Vols. 1–5* (New York: Simon and Schuster, 1993 [vol. 5 published in 2008]).

Bruce G. Trigger, *A History of Archaeological Thought* (New York: Cambridge University, 2006).

TWO

THE TOPOGRAPHY AND EARLY HISTORY OF JERUSALEM (TO 586 B.C.E.)

Topography of Jerusalem

Jerusalem sits atop the watershed between the wooded Judean hills and fertile lowlands (Shefelah) to the west, and the barren wilderness of Judea (Judean desert) to the east, at an elevation of 800 meters above sea level, compared with the Dead Sea at 400 meters below sea level. The landscape provides a dramatic setting for this holy city, which is powerful and inspiring because of its starkness rather than its natural beauty. The first people who settled Jerusalem some 5,000 years ago were attracted to this spot for more prosaic reasons – specifically, by water. Jerusalem's earliest settlement was located on a small hill that forms a spur to the south of the **Temple Mount** (in Hebrew, *har ha-bayit*; in Arabic, ***al-haram al-sharif***, which means the Noble Enclosure or Sacred Enclosure), the great esplanade (open platform) in the southeast corner of the modern Old City. This small hill came to be known by several names: the **City of David**; the **eastern hill**; and the **lower city**. Despite its size (only about 11 acres) and relatively low elevation, Jerusalem's first inhabitants settled on this hill because of its proximity to the only perennial source of fresh water in the area: the **Gihon spring**, which gushes forth at the foot of the eastern slope of the City of David. The City of David offered early inhabitants the additional advantage of natural protection, consisting of the **Kidron Valley** to the east and, to the west, the **Tyropoeon** [pronounced tie-rho-PEE-un] **Valley** (an ancient Greek name meaning the "Valley of the Cheesemakers"; it is sometimes also called the Central Valley because it begins at the modern Damascus Gate and runs south through the center of the Old City today). The Kidron and Tyropoeon valleys meet at the southern tip of the City of David. The **Mount of Olives**, which is the highest mountain ridge in Jerusalem, rises to the east of the Kidron Valley

2.1 Aerial view of Jerusalem from the south. Courtesy of Zev Radovan/BibleLandPictures.com.

before dropping steeply down toward the Dead Sea further to the east. The configuration of bedrock in the City of David is such that the bedrock is lowest at the southern tip and rises steadily toward the north, culminating in a rocky outcrop that eventually became the Temple Mount.

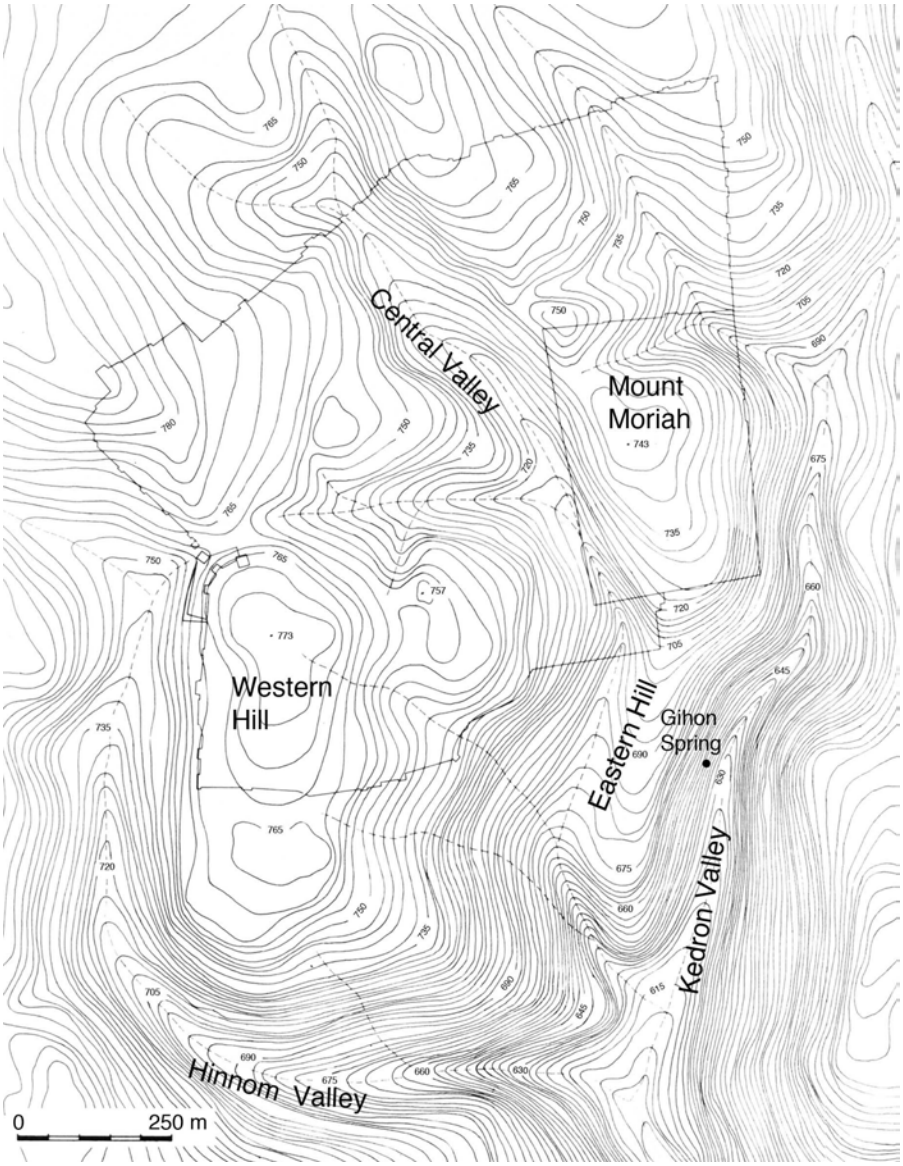
Archaeological remains – consisting mostly of pottery vessels from tombs and fragmentary walls belonging to houses – indicate that Jerusalem was first settled in the Early Bronze Age (ca. 3000 B.C.E.). By the Middle Bronze Age (ca. 1800 B.C.E.), the settlement was fortified and equipped with a sophisticated water system (discussed later). Bronze Age documents from Egypt called the Execration Texts (ca. 1900 B.C.E.) and the el-Amarna letters (ca. 1400 B.C.E.) confirm the existence of a settlement in Jerusalem at this time. These documents refer to Jerusalem as "Rushalimum," similar to the name "Urusalim" which is mentioned in later Akkadian texts. The original Hebrew name was probably Yerushalem. Although by the late Second Temple period Yerushalayim had come to be understood as deriving from the Hebrew word *shalom* (peace), the original name probably referred to Shalem, apparently the patron god of the city. In antiquity, many towns and cities were named in honor of the patron deity. For example, Athens was named after Athena, and **Jericho** (Hebrew *yericho*) was probably named in honor of the moon god (*yare'ach*). Genesis 14:18 mentions Melchizedek, the king of Shalem, likely a reference to Jerusalem: "And King

Melchizedek of Salem (Hebrew: *Shalem*) brought out bread and wine; he was priest of God Most High'' (New Revised Standard Version [NRSV]).

During the Bronze Age the rest of the country was inhabited by the Canaanites, who established an urban civilization centered on fortified cities such as Hazor, Megiddo, Shechem, Gezer, and Lachish. In contrast to other parts of the ancient Near East, such as Egypt and **Mesopotamia** (the area of modern Iraq), the Canaanite city-states were never united under the rule of a single monarch. According to the Hebrew Bible, by the time the Israelites arrived in Canaan (ca. 1200 B.C.E.), Jerusalem was inhabited by the **Jebusites**. We do not know whether the Jebusites were Canaanites or an ethnically unrelated population. The original settlement in Jerusalem was confined to the small hill south of the later Temple Mount, which became known as the City of David after King David conquered the Jebusite city (ca. 1000 B.C.E.).

David reportedly brought the Ark of the Covenant to Jerusalem and made it the capital of his kingdom. Jerusalem was a logical choice as capital city both because of its central location and because it was conquered by David, and therefore did not belong to any one of the twelve tribes. David's son and successor, Solomon, expanded the city to the north, building the first temple (Solomon's temple) and a new palace on the Temple Mount. The temple apparently stood on a natural outcrop of bedrock (today enshrined in the Muslim **Dome of the Rock**), which physically dominated the City of David and transformed the Temple Mount into the city's acropolis. Although today many people associate an ''acropolis'' with Athens, most ancient towns and cities had an acropolis – that is, a fortified citadel that contained key political and religious buildings.

By the latter part of the eighth century, Jerusalem's population could no longer be accommodated on the small hill of the City of David alone. The city did not expand to the east – the Mount of Olives always lay outside the walls and was used from the earliest periods as Jerusalem's **necropolis** (cemetery/burial ground) – but instead grew to the west, across the Tyropoeon Valley. This area, called the **western hill**, is larger and higher in elevation than the City of David, and therefore is also known as the **upper city** (in contrast to the City of David, which is the lower city). The western hill had the advantage of natural protection on three of four sides. On the east, the western hill is bounded by the Tyropoeon Valley, which separates it from the Temple Mount and City of David. On the west and south, the western hill is encircled by the **Ben-Hinnom Valley**, which begins by the modern Jaffa Gate (the main gate in the middle of the western side of the Old City today), and joins the Kidron and Tyropoeon valleys at the southern tip of the City of David. The Ben-Hinnom Valley is notorious as the place where some Israelites offered child sacrifices, a Canaanite and Phoenician practice that was condemned by the prophet Jeremiah: '''For the people of Judah have done evil in my sight,' says the Lord; they have set their abominations in the house that is called by my name, defiling it. And they



2.2 Topographic map of Jerusalem. A reconstruction by Leen Ritmeyer ©.

go on building the high place of Topheth, which is in the valley of the son of Hinnom (Ben-Hinnom), to burn their sons and their daughters in the fire" (Jeremiah 7:30–31; NRSV).

Only the north side of Jerusalem was not protected by deep natural valleys. Instead, a shallow ravine called the **Transverse Valley** marks the northern end of the western hill, running east from the modern Jaffa Gate to the Temple Mount, where it joins the Tyropoeon Valley. In antiquity, Jerusalem usually was attacked from the north because of the lack of natural defenses. For example,

when the Romans besieged Jerusalem in 70 C.E., they attacked from the north, even though this side of the city was protected by three successive lines of walls.

The area we have just described – the City of David, Temple Mount, and western hill – constituted the city of Jerusalem until its destruction by the Romans in 70 C.E. (although by then settlement had expanded farther to the north). Nowadays many visitors to Jerusalem have the mistaken impression that the Old City is the ancient city. In fact, the current walls of the Old City date to the Ottoman Turkish period (sixteenth century C.E.), and they enclose only part of the original ancient city but leave outside the City of David and the southern part of the western hill (now known as **Mount Zion**). In other words, the walled city has shifted to the north since antiquity. This shift occurred when the Roman emperor **Hadrian** rebuilt Jerusalem in the second century C.E. as a pagan Roman city called **Aelia Capitolina** (see Chapter 13). The line of the current Ottoman walls reflects this later shift to the north.

Today the area inside the walls of the Old City is divided into four quarters. The Jewish Quarter occupies the southern part of the city – that is, the area around and opposite the Western Wall ("Wailing Wall") and the Temple Mount. The Christian Quarter is in the northwest part of the city, surrounding the **Church of the Holy Sepulcher**. The Armenian Quarter is in the southwest corner of the Old City, and the Muslim Quarter occupies the northeast part. The huge esplanade of the Temple Mount takes up the southeast corner of the Old City.

Historical Background: The Iron Age (1200–586 B.C.E.)

By the end of the Late Bronze Age (thirteenth century B.C.E.), the eastern Mediterranean was ringed by mighty powers, including the New Kingdom in Egypt, the **Mycenean kingdoms** in Greece, and the **Hittites** in **Anatolia** (**Asia Minor** or modern Turkey). Documents such as the el-Amarna letters indicate that the rulers of these empires and kingdoms corresponded with one another, and imported artifacts found in archaeological excavations attest to lively international trade and contacts. Around 1200 B.C.E., these powers collapsed. The reasons for the collapse are debated, although it must have been caused by a complex and interrelated series of events. Certainly the collapse involved large-scale movements of peoples, some of whom may have been hostile invaders responsible for the waves of destruction, whereas others were refugees uprooted from their homes as a result of the upheavals. The year 1200 B.C.E. marks the great watershed between the Bronze Age and the Iron Age around the eastern Mediterranean. According to later tradition, the **Trojan War** was fought around this time, followed by the Dorian invasion of Greece (the arrival of tribes speaking the Doric Greek dialect).

It was against the backdrop of these events that the Israelite tribes arrived in Canaan and settled the interior hill country from Galilee to the northern **Negev**. Many scholars now believe that at least some of the early Israelites were actually Canaanites, who joined with new arrivals (including perhaps a small group from Egypt – hence the story of the Exodus) to form a new group unified by their worship of a patron deity known as YHWH (Yahweh). The interior hill country is a harsh, rocky, and relatively arid region compared with the fertile lowlands and coastal plain to the west. The Israelite settlement, at least initially, consisted of small villages whose inhabitants survived by raising crops such as grain, olives, and grapes, and herding animals, mainly sheep and goats. The coastal plain was settled around the same time by groups of refugees from the Aegean (the **Sea Peoples**). One of these groups, the Philistines, established a kingdom (Philistia) on the southern coastal plain centered on five cities: **Gaza**, Ashdod, **Ashkelon**, Gath (Tell es-Safi), and Ekron (Tel Miqne). The Hebrew Bible describes ongoing hostilities between the Israelites and their Philistine neighbors, including episodes involving Samson and Delilah, David and Goliath, and the death of Saul (the first Israelite king) and his three sons in a battle against the Philistines at the foot of Mount Gilboa.

The Iron Age in Palestine is characterized by a process of state formation that gave rise to the emergence of different – albeit sometimes related – peoples and kingdoms. In addition to the Israelites and Philistines, the Hebrew Bible mentions Ammonites (in the area around modern Amman in Jordan), Moabites (in the territory to the south of Amman, east of the Jordan river and northeast of the Dead Sea), and Edomites (in the territory to the south of Moab, southeast of the Dead Sea). The area to the north, corresponding with modern Lebanon, was occupied by the **Phoenicians**, who were the Iron Age descendants of the Canaanites. The designation *Phoenician* originated with ancient Greek writers, who grouped under this rubric the inhabitants of independent cities such as **Tyre**, **Sidon**, Byblos (Gebal), and Beirut (Berytus). With access to the interior blocked by the anti-Lebanon mountain range, the Phoenician coastal cities turned to the sea, controlling much of the trade around the Mediterranean basin during the Iron Age. The Phoenicians established a series of trading posts and colonies around the Mediterranean littoral, and traded with the Greeks, who adopted the Phoenician alphabet in the eighth century. **Carthage** (in modern Tunisia), which was founded as a Phoenician colony, later became a great power that threatened Rome.

The Hebrew Bible describes contacts – sometimes hostile and sometimes friendly – between the Israelites and the surrounding peoples. For example, King Solomon formed political alliances with neighboring kingdoms by marrying their princesses: "King Solomon loved many foreign women along with the daughter of Pharaoh: Moabite, Ammonite, Edomite, Sidonian [Phoenician], and Hittite women" (1 Kings 11:1; NRSV). Solomon also signed a commercial treaty