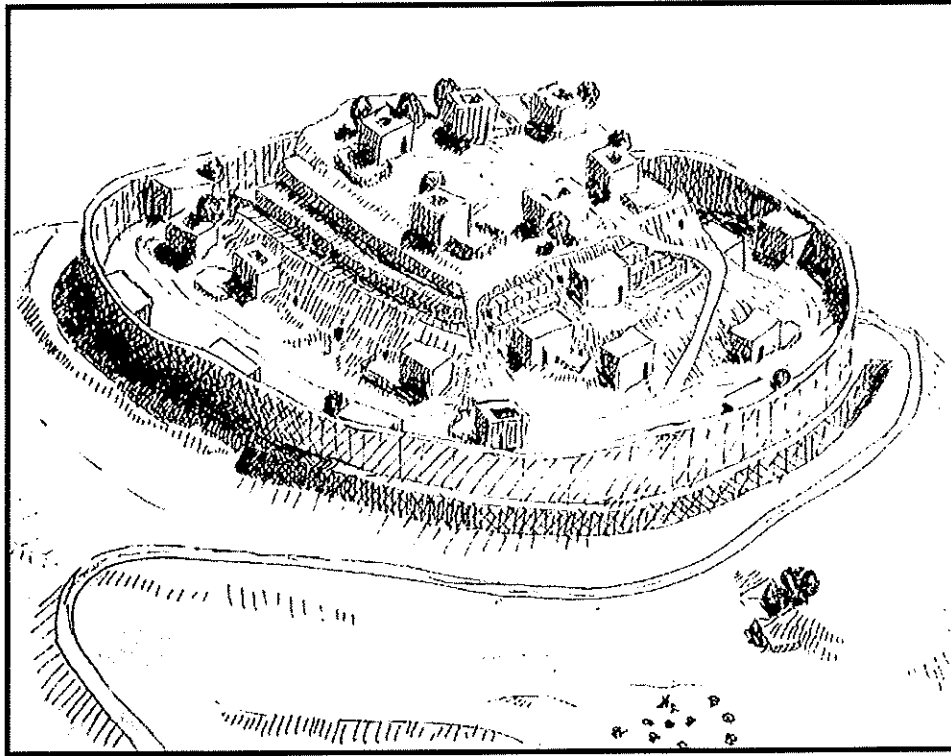


# TALL HISBAN



## LESSONS IN THE ARCHAEOLOGY OF CENTRAL JORDAN

THE OUTLINE OF THESE LESSONS WAS SET UP BY ASTA SARALA LABIANCA, DR. OYSTEN LABIANCA, AND MAFOUS ABDUL HAFIZ, TEACHER OF THE LOCAL SCHOOL AT HISBAN. THE LESSONS WERE WRITTEN BY CHARITY NETTEBURG PITTON, WITH ASSISTANCE FROM DR. PAUL RAY, DR. BETHANY WALKER, AND DR. LABIANCA. LAYOUT AND GRAPHICS WERE CREATED BY SHARON PREST ULLOM. A DEBT OF GRATITUDE GOES TO THE MADABA PLAINS PROJECT, AND ESPECIALLY THE HISBAN EXPEDITIONS, FOR THEIR GROUND-BREAKING RESEARCH AT THIS UNIQUE SITE.

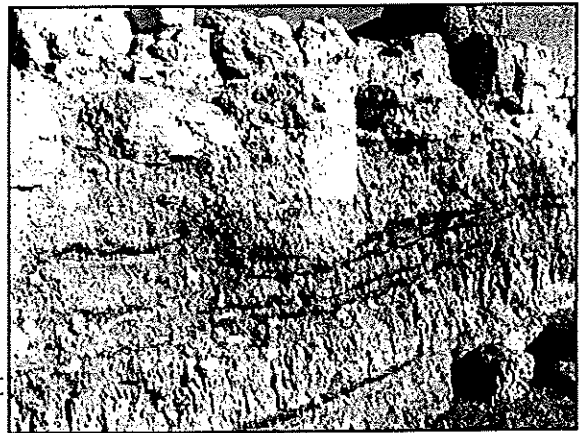
# LESSON 1:

## INTRODUCTION TO ARCHAEOLOGY

The country of Jordan has a rich and varied history. Many empires have dominated the area and its peoples over thousands of years. One of the ways historians learn about the past is through the science called archaeology. This is especially true in Jordan, a country rich in archaeological remains.

Archaeology is the careful and thorough study of the past done by digging in the ground to find the remains of things the ancient people used, built, or grew and finally discarded. Archaeology differs from history, which studies the past by analyzing written sources. Archaeology studies the physical remains (the actual, touchable things people leave behind) of people's lives, like abandoned houses, table scraps, and garbage.

You may wonder why the archaeologist's work is important. Why does a piece of pottery in the dirt matter? The archaeologist's work is critical in helping us understand our past. It can help us answer questions like: What past events shaped who we are today as a nation? What changes have happened in our climate and our landscape? Are there some things that the ancient people did that we can benefit from? Are there mistakes they made that we can avoid?



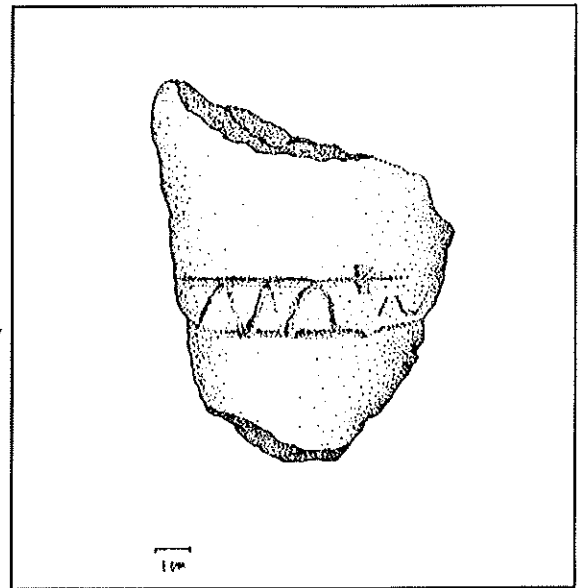
Layers in a tall

The typical site for an archaeological dig is a tall. A tall is a mound of dirt formed by years of soil and debris collecting around the spot where a city or town was built. Usually a

LESSON 1:  
INTRODUCTION TO ARCHAEOLOGY

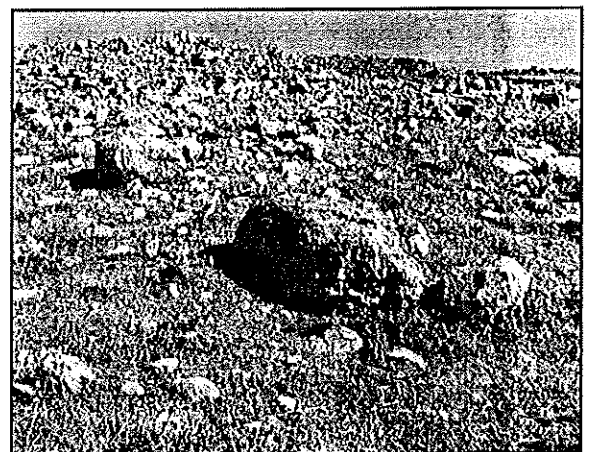
tall is made of many layers of soil, which have collected over hundreds of years. Often, each civilization built its city using remains of the previous city's structures. This makes the archaeologist's work like a puzzle, putting together the pieces of information to figure out what it can tell us about the people that used to live at the tall.

Archaeologists have specific things they want to learn when they study a tall, and they very precisely locate the area of the tall which would best answer their questions. They do this in various ways. They might conduct a survey, and collect sherds (pieces of broken pottery) from the surface of the tall. They may make a probe, excavating a defined area to a depth of several meters. Sometimes they simply walk all over the tall, making note of different architectural features such as rock walls, pillars, or unusual mounds of dirt. Their knowledge of other tall also helps them decide where to dig.



Pottery drawings

Archaeologists use these methods to determine the location of their excavations. For example, they may be trying to learn about how people lived in the Islamic period. As they conduct their survey, they may find sherds from that period everywhere. That indicates that the tall was indeed used during the Islamic period, but it doesn't help locate an area to excavate. However, as they walk around the tall, they may notice rocky mounds of dirt. From their previous experience, they may know that a

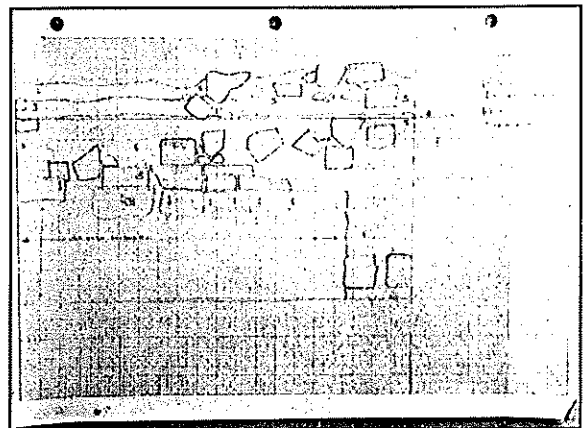


Rocky mound photo

LESSON 1:  
INTRODUCTION TO ARCHAEOLOGY

mound that looks a certain way could mean a barrel-vaulted room is underneath, and that barrel-vaulted rooms were common in the Islamic period. They can then conduct a probe in that area and the probe may confirm that the mound actually is an Islamic dwelling. The archaeologists can then be certain that this particular area is worth studying for several years--that it will help answer their questions about how people lived in the Islamic period.

Archaeologists often study a tall by measuring 5m X 5m squares at various places around the tall. Once the squares are marked off, they begin to probe and peel. They do this by systematically removing layers of dirt, watching for a change in the color or the texture of the dirt. That gives them clues about the use of an area. If they find a layer of hard-packed dirt, they know the area was probably used as a room. If the layer is full of debris and rubble, it was probably used as a dump during the period to which that layer belongs.



Balk drawings

As the archaeologist removes the soil layers and the square becomes deeper, the sides of the squares begin to look like earth walls. Those walls of the square are called balks. Balks are useful to archaeologists because they help to show the stratigraphy, or earth layers, of the square. It is important to keep the balks of the square straight and flat, without curves or bumps. When the balks are crooked, it is easy to accidentally knock soil or rock from the balk down into the square. That--other material getting into the soil layer--is called contamination, which confuses the archaeologist's research.



Pile of animal bones

## LESSON 1: INTRODUCTION TO ARCHAEOLOGY

When archaeologists dig, they look for many things. Some of these are artifacts--anything made or modified by humans. Others are ecofacts--biological remains, like seeds and bones. Artifacts that are almost whole or have other special features are objects. Archaeologists look for architectural features such as the remains of walls. They also look for other remains of human occupation, like ovens and cisterns.

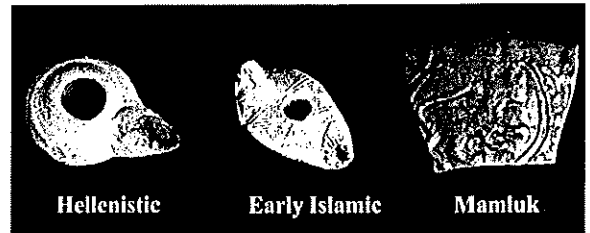
Archaeologists keep detailed notes about their finds. Objects are removed by patiently digging the layers of dirt around them, so that important historical information is not lost forever. Once the layers of dirt are gone, the position and condition of each object is recorded before the object is moved. Then, the object is gently lifted out and brought back to the laboratory for cleaning and study. This allows it to be studied in context. (That is, to study the object in relation to the surrounding soil layers, artifacts, and architectural structures.)

Sherds are some of the most informative artifacts an archaeologist finds. From the pottery, an archaeologist can learn the date of the soil layer in which it was found. That can help date the other artifacts, objects, and architectural features that are in context with that soil layer.

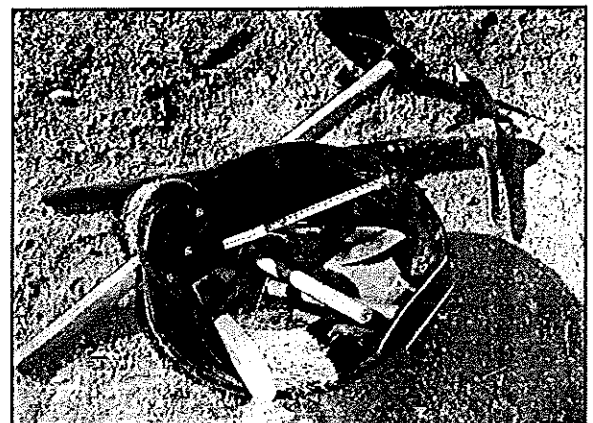
Patience and carefulness are the most important skills for an archaeologist to learn. The difference between soil layers can be difficult to determine.

The image shows a detailed 'EXCAVATION SHEET' form. It includes sections for 'GENERAL INFORMATION' (site name, location, date), 'STRATIGRAPHY' (layer descriptions and depths), and 'FINDS' (listing items like pottery, metal, and bones). There are also checkboxes for 'PLANT' and 'ANIMAL' remains, and a section for 'DRAWINGS'.

Sample recording forms



Pottery from Major Periods



Typical Digging Tools

LESSON 1:  
INTRODUCTION TO ARCHAEOLOGY

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A large piece of pottery or bone can be tempting to pull out, instead of digging the soil layers around it first. The balks may dry out and become fragile, and the archaeologist must be careful to avoid touching them so that balk material does not fall and contaminate the square. Without carefulness and patience, much information about our past would be lost.

**Review Lesson 1**

1. What is archaeology?
2. Why is archaeology important?
3. What is a tall?
4. How do archaeologists study a tall?
5. What is contamination?

## LESSON 2: THE SPECIALISTS

Think about your hometown. Imagine archaeologists coming along hundreds or even thousands of years later and trying to find out how people in your town lived. You have learned how archaeologists select areas to dig, but obviously they won't see all of your town. They can't dig up everything.

Will the archaeologists be able to open the front door and find your house just as you use it now? Of course not. Think about what you leave behind. What they will find will only be bits and pieces of your life. They might find the last few centimeters of a pencil that you dropped and didn't bother to pick up, or a broken toy your sister left behind somewhere, or the coin your neighbor lost. The archaeologists will only have a little information, like small puzzle pieces, to try to figure out how you live today.

That makes the archaeologist's work especially difficult. The previous lesson mentioned the meticulous care that archaeologists give their excavations, so that they can ensure no information is lost. Using specialists is another way that archaeologists get information from what you leave behind. The archaeological team includes many specialists who help solve the puzzle of the site they are excavating.

Stratigraphers supervise the actual digging. They are alert to see new soil layers and features in stone that might show building parts or walls. Stratigraphers often use ordinary trowels, picks, and guffas (rubber buckets). They use metric tapes to measure objects and features for accurate recording. They also use



Stratigrapher inspecting layers

## LESSON 2: THE SPECIALISTS

buckets and bags to collect objects, paint brushes for cleaning detailed or fragile items, framed screens for sifting soil, and of course pencils and paper.

Epigraphers are specialists in ancient styles of writing. They recognize and can read languages no longer in use.

Cultural anthropologists study cultures of the past as well as the present. Culture is the unwritten rules which tell people how to behave in a particular society. They help archaeologists reconstruct how people's way of life changed over time.

Zooarchaeologists work with animal bone fragments. They can look at bone pieces and identify the animal they were part of. They know the animal's age at time of death, whether it was healthy or not, and whether the bone had been chewed on by dogs or butchered in a particular way. An archaeologist can infer information about the people who left those bones behind. If there are a lot of sheep bones, the people ate a lot of lamb. If they find the remains of fish that can only come from the Red Sea, they know the people had contact with people in the region of the Red Sea. Archaeologists also learn about the environment through the study of bones. By knowing what wildlife lived in a region, they can tell what the environment was.

Bioanthropologists specialize in human bones. They use special tools to dig these bones



Zooarchaeologist at work; bone reading



Bioanthropologist at work excavating bones



## LESSON 2: THE SPECIALISTS

without breaking them, and carefully record the placement of the bones at the site. Once the bones are removed and cleaned, the bioanthropologist can tell the age and gender of the person, and whether the person had certain diseases or was malnourished. When bioanthropologists can compare the remains of several people from a period, they can give an idea of the population at that period--their diseases, age of death, nourishment, etc.

Paleobotanists work with plant remains. When a seed is near a heat source for a period of time, it becomes "toasted" into its shape. While other seeds may decay, the basic shape of the "toasted" seed will stay the same. This allows Paleobotanists to identify the remains to help archaeologists know what people ate and what the environment was like. They can tell if a seed was wild or cultivated for farming. They also help archaeologists study the ways people used plant fibers to make containers, clothing, or shelter.

Ceramicists are experts who specialize in pottery. They know the types of pottery that were made in different periods, and help stratigraphers determine when a soil layer was deposited on the tall. Ceramicists may know that a type of pottery was made only in a certain area, which can tell archaeologists about trade. They can sometimes identify the type of vessel a sherd came from. This helps the archaeologist know the uses of different areas of the tall. For example, if sherds from large jars are found in an area, the archaeologist can guess that the area was a storage room.



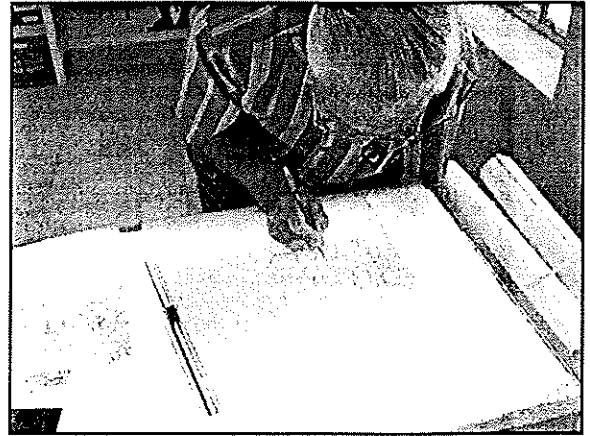
Pottery reading

Lithicists are scientists which study worked stone. They can often look at a stone tool (like an arrowhead or scraper) and

## LESSON 2: THE SPECIALISTS

tell when it was made by the style of the tool, like ceramicists know about pottery. They are also knowledgeable about the different types of stone and where those types can be found.

Architects and surveyors help lay out the squares on the field. They also draw plans of building remains that archaeologists can refer to when they are trying to reconstruct a more complete idea of the site during a period.



Architect drawing

Conservators and registrars help archaeologists preserve and organize the remains they find. Conservators specialize in cleaning artifacts. They know how to wash pottery for ceramicists to study, how to clean bones without scratching them, and how to store fragile objects. Registrars specialize in numbering and recording remains so that they can be easily located.



Pottery Conservation

Computer specialists are important as well. Archaeologists record a vast amount of information. These specialists organize that information on a computer so that it is easier to access and store. Once this information is on computer, they can link different types of facts (facts about pottery in a one square and bones in another) to give a more complete picture of life during a particular period.

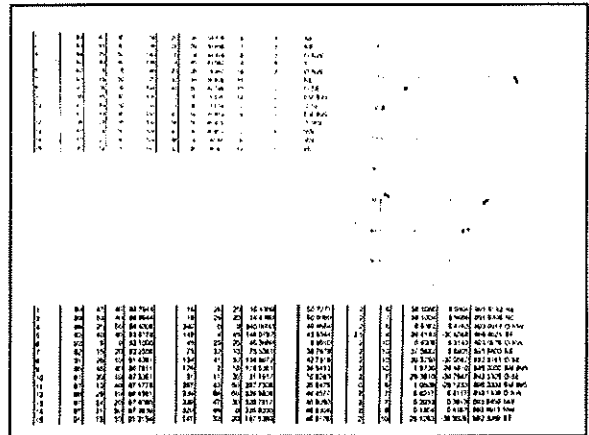
Archaeologists also use specialists in specific computer systems. Ground Penetrating Radar (GPR) is a system that uses radar waves to take a picture of things beneath



GPS

## LESSON 2: THE SPECIALISTS

the soil, sort of like an x-ray. This helps give information, before digging, about architectural features that may be hidden. Global Positioning System (GPS) uses a hand held electronic device that receives signals from satellites that are orbiting the earth. Using this, archaeologists can determine their exact location on the surface of the earth. They can then pinpoint this site on a map, and others can return to that area for additional study.



Computer data file

Another computer application that they use is Geographic Information Systems, a combination of information and maps. These systems help them display and analyze information that has to do with specific locations.

Photographers and artists carefully document every object and architectural feature. Photographers take pictures both at the tall and at camp. These pictures are often taken with digital cameras and stored on computer. Artists also work at the tall and at camp. They draw objects and architectural features as they actually appear, and also simulate what they may have looked like.

Archaeologists don't find things exactly as people used them. What they have are small pieces left behind. To discover all the information they can from these pieces, and to organize and record that information, they use the help of specialists.

LESSON 2:  
THE SPECIALISTS

**Review Lesson 2**

1. Why do archaeologists use specialists?
2. List three specialists who help archaeologists learn information about ancient people.
3. List three specialists who help archaeologists record the information they learn.

# LESSON 3:

## THE BEGINNINGS OF TALL HISBAN

Often when archaeologists study a tall they find the remains of people from several periods of history. Tall Hisban is located in an area that throughout history was a crossroads for competing empires. Many of them wanted to control this region. This makes Tall Hisban especially interesting. Archaeologists have found remains from almost every period throughout history.

Lithic (stone tool) remains have been found at Tall Hisban from the Paleolithic, Epipaleolithic, and Neolithic periods. During these periods the people lived as hunter-gatherers, traveling from place to place for food and other resources. No remains of permanent settlement at Hisban during these periods have been found.

As archaeologists excavated Tall Hisban, they saved pottery sherds and noted in which soil layers they were found. After the sherds were washed and dried, deramicists were able to determine when the sherds were made, because each period of history had unique types of pottery. From that information, archaeologists know that the earliest remains of permanent settlements found at Tall Hisban are from the Iron Age.

Think again about your town. If archaeologists excavated your town 2000 years from now, how would they know who lived there? If everyone in your village left and no one replaced you, it wouldn't be too hard to know. But it is more likely that people would live there after you. They would change what you left behind.

**Ajarmeh Village**

ca AD 1870-present

**Mamluk Regional Capital**

ca AD 1260-1500

**Abbasid Pilgrim Rest**

ca AD 750-1260

**Umayyad Market Town**

ca AD 650-750

**Byzantine Ecclesiastical Center**

ca AD 350-650

**Roman Temple Town**

ca 63 BC-AD 350

**Hellenistic Fortress**

ca 198-63 BC

**Ammonite Citadel**

ca 900-500 BC

**Proto Ammonite Village**

ca 1200-900 BC

**Traditional Ammorite Stronghold**

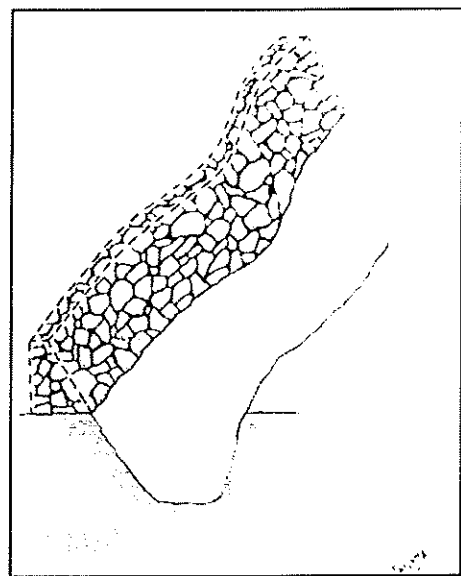
Dynasties in Jordan's past

### LESSON 3: THE BEGINNINGS OF TALL HISBAN

That is one of the questions an archaeologist must answer: Who lived here? For some periods of history, that question is easy to answer. However, the older the site, the harder that question is to answer. Much of what remains from the earliest layers of a tall has been scraped away or reused by later residents. There isn't as much to find.

Archaeologists know that several people groups lived in this area during the Iron Age. The Ammonites, Reubenites, Moabites, and Amorites all claimed it as theirs. But they didn't leave a sign saying, "Moabite people live here in 800 B.C." They didn't stamp their pottery, "Made by the Reubenite people of the town of Hisban." Archaeologists had to compare the remains from Hisban with remains from other tall. That comparison suggested to them that some or all of those groups probably lived at Hisban at one time or another.

Because they knew that other people wanted to inhabit Tall Hisban, one of the groups who lived at Hisban protected their village by building a dry moat. A dry moat is a deep trench dug into the bedrock on the slopes outside the village. If another group of people tried to attack, they would have to find a way across this dry moat. While they were trying to get across, they would be very vulnerable. It would be easy for the people of the village to shoot arrows or roll stones down at them.



Drawing of dry moat

Archaeologists guess that this trench was only on the southern side the city, but remember, archaeologists do not dig up all the dirt on a tall. That would take a long time, because archaeologists do not just move dirt, they stop and carefully

### LESSON 3: THE BEGINNINGS OF TALL HISBAN

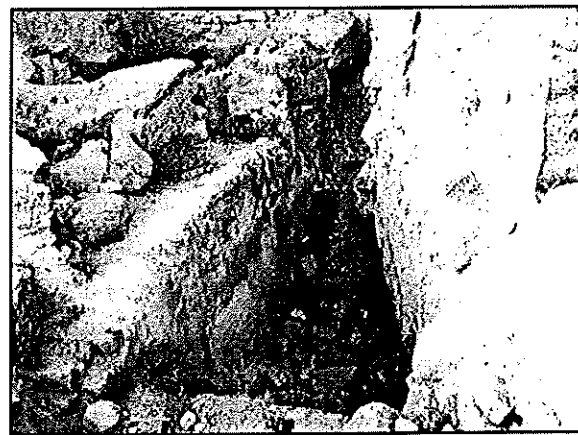
record everything they find. Archaeologists have only uncovered the moat on the southern side of the tall. They believe the people of the village only felt vulnerable from the southern side. This side has a gradual slope, while the other sides of the tall are much steeper. Extra protection was only needed on that side. The villagers would not have cut a trench out of bedrock around the entire city if it was only needed on the southern side.



Photo of dry moat

Later, the Ammonites lived at Hisban. One of their concerns was the water supply, since Hisban doesn't have a natural spring. The villagers cut a huge reservoir out of the bedrock--17.5 meters square and 7 meters deep. It could hold over 2,200,000 cubic liters of water!

Archaeologists have excavated much of this reservoir and found that it was plastered as well. Visitors can easily see this Iron Age reservoir, the largest found in Jordan.



Reservoir

Here is an example of the inferences that archaeologists make--taking pieces of the puzzle to figure out what life was like. The easiest inference is this: that the villagers were concerned about having enough water.

Now, none of them left a note saying, "We're worried about having water, so we built this huge reservoir." Archaeologists assume from the fact that the reservoir exists that the people were concerned about their water supply.

There is another inference archaeologists can make which is not as easy to see: that the people used their village as a water collection system. Later, the next group of people

LESSON 3:  
THE BEGINNINGS OF TALL HISBAN

scraped the remains of that village off the tall. The archaeologists do not actually have the remains of the water collection system. But the reservoir was so big that it could not have been filled simply by rain falling on it. It is not likely that the villagers went several kilometers away and hauled water back. Archaeologists know from other tall that people sometimes made channels to collect rainwater from the village. So they infer that the Iron Age villagers at Hisban used the same system to fill their reservoir.

**Review Lesson 3**

1. How do sherds help date a soil layer?
2. Who are some of the people groups that wanted to inhabit the Tall Hisban region?
3. What is a dry moat?
4. Why do archaeologists think the village was used as a water collection system?



## LESSON 4

### THE HELLENISTIC PERIOD

The next cycle of settlement at Tall Hisban began during the Hellenistic period. The Greek empire ruled the entire area. During this period, the Greek culture became very influential throughout the Near East.

From the previous lesson you know that the remains of the Iron Age village had been scraped off the tall. So these layers from the Hellenistic period are the layers farthest down, right above bedrock.

That means that everything else on the tall, the remains from the Roman, Byzantine, and Islamic periods, are on top of the remains from the Hellenistic period. This brings up two points about archaeology. One of them you have already studied: careful record keeping is essential.



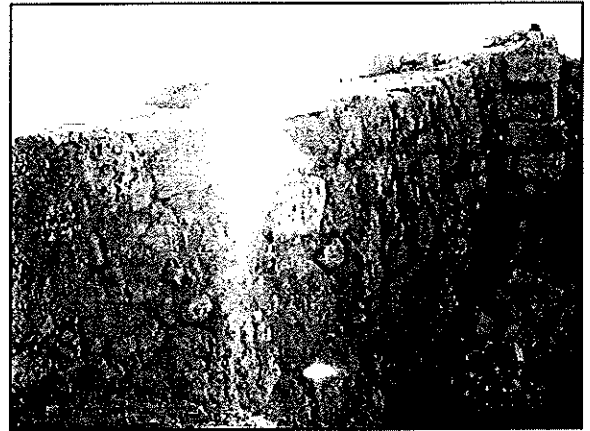
Record keeping

What if an archaeologist doesn't know much about the Islamic period? As the archaeologist digs down through the layers that belong to the Islamic period, those layers are destroyed. The evidence from those layers is gone. Now, what if another archaeologist who wants to learn about the Islamic period comes along? If the first archaeologist excavated the Islamic layers and threw them out, the second archaeologist can't learn anything from them. If, on the other hand, the first archaeologist took the time to save artifacts and keep careful notes, the second archaeologist can study the artifacts and notes and learn almost as much as if the soil layers were still there.

## LESSON 4 THE HELLENISTIC PERIOD

Here is the second point about archaeology: Archaeologists don't always dig every square down to bedrock. What if they find the remains of a beautiful temple or palace? If they continue to dig, that will be destroyed. Sometimes archaeologists choose not to continue digging so that they can preserve the remains of some other structure.

This happened at Tall Hisban. Archaeologists found what looks like a city wall from the Hellenistic period. They think that there were probably four round towers at the corners of the city. However, on top of the places those four round towers would be, there are the remains of four square towers from the Islamic period. At this time, the archaeologists have chosen to leave the square towers, instead of removing them to see if there are round towers underneath.



Hellenistic city wall

Another difficulty in excavating the Hellenistic period at Hisban comes from the fact that subsequent people used Tall Hisban also. Many of the structures built during the Hellenistic period were taken apart for their buildings.

So how do we know what is there? How can we find out about Hellenistic life at Hisban?

One way is to compare Hisban with other tells that have remains from the Hellenistic period. Remember, during this time people were copying Greek culture, so many areas may have been similar to each other. Another way is to use the other clues, the other puzzle pieces, that archaeologists have found at Hisban.

## LESSON 4

### THE HELLENISTIC PERIOD

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What are the other clues? The wall was probably not big enough to provide defense for a city. There are caves on the slopes around Tall Hisban, and clues from those caves, like pottery, tell archaeologists that people used them during the Hellenistic period.

Archaeologists don't agree on how to interpret these clues. Some believe that Hisban was a farmstead similar to a plantation. The wall would have provided a little protection for the farmstead. The workers on the farm possibly lived in the caves around the tall, while the owner may have lived inside the wall on top of the tall. Others say that Hisban was a small fortification, and a few villagers lived in caves around the fortification. The inhabitants would have done some farming to provide food for themselves.

#### **Review Lesson 4**

1. Why is it important for archaeologists to keep careful records?
2. Why didn't the archaeologists excavate to see if there were round towers?
3. What is one theory about what life was like at Hisban during the Hellenistic period?

## LESSON 5: THE ROMAN PERIOD

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The Hellenistic period ended in this part of the world in 63 BC with the coming of the Romans. It is important to realize that the people of the ancient world would not have seen the change quite as neatly or clearly as history books like to make it seem. The Roman empire replaced the Greek empire as the major force in the Near East, but that did not happen overnight. Although the government of Rome took the place of the government of Greece, Roman culture never really took the place of Greek (Hellenistic) culture. The two became somewhat intertwined, and the transition was a gradual one.

While Roman culture may not have had a major effect on the daily lives of people, the Roman government did. Roman armies were strong and well-disciplined, and the Roman empire extended farther than any empire before it. Because of the power of Rome, a rare period of peace came to this area of the world--the "Pax Romana."

When archaeologists notice a cultural change, it is because they see evidence in the remains. However, the effect of the Pax Romana is apparent at Tall Hisban, at least in part, because of what is not there. During the Iron Age, the villagers built a dry moat and later walls for defense. In the Hellenistic period, the inhabitants also built walls to protect themselves. Yet during the Roman period, Tall Hisban had no structure that was used for defensive purposes. The Pax Romana was so complete that they had no need for protection against attack.

Hisban flourished during this time. The people of the town dumped rock into a large pit cut into part of the moat. Over

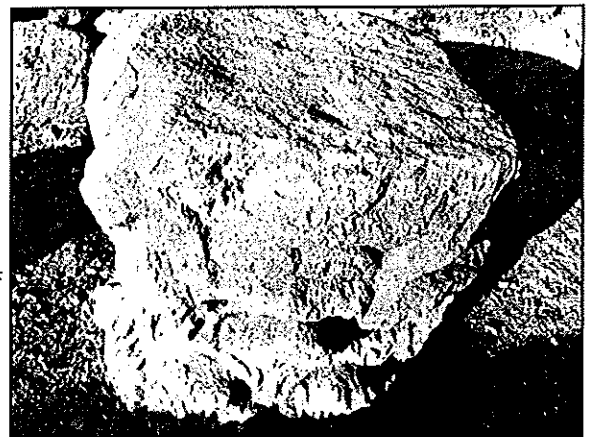
## LESSON 5: THE ROMAN PERIOD

it and what was left of the moat and the reservoir (which had cracked and could no longer hold water) they built a large open plaza. On the northern edge of the plaza, a set of steps led up to the acropolis (the highest point of the tall).

In lesson 4 you learned that archaeologists have chosen, for the moment, not to remove the square Islamic towers to see if there are round Hellenistic towers underneath them. An Islamic structure covers part of Tall Hisban. It is a fascinating place, and the archaeologists, together with the government of the Kingdom of Jordan, has decided to keep it intact.

But archaeologists are naturally curious. They want to know where those steps go. How do they find out what is at the top of them? Once again, they look for other clues to find an answer to their questions.

During their excavations, they noticed some odd things about a Byzantine building on the tall. The bases of some columns looked like they had been pulled off an older structure and then reset into the new building. The pillars looked like they had been re-used. One of the stones in the wall had detailed carving, similar to Corinthian capitals (tops of pillars). A Corinthian capital had been re-used as a wall stone. Corinthian capitals were made during Roman times, not Byzantine.

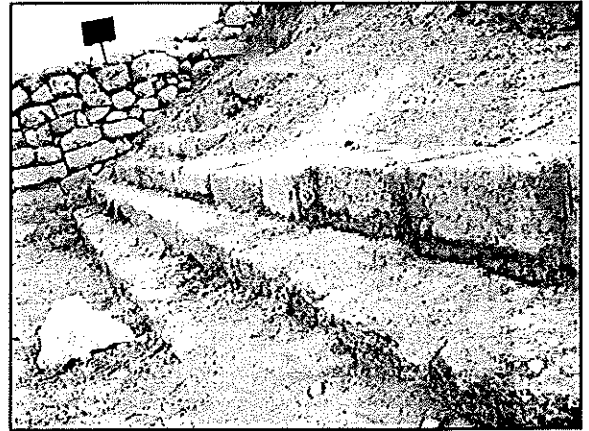


Corinthian capital

A few meters away from the Byzantine building, under the northern side of the Islamic structure, archaeologists found the foundation wall of a large building. Most of the stones were from the Islamic period, but the lower courses of stone

## LESSON 5: THE ROMAN PERIOD

(the bottom rows) had a style of carving that was used during the Roman period. Pottery from the Roman period was found next to these stones. Consequently, they knew that those steps from the plaza led to a large building with pillars and Corinthian capitals. Next they wanted to figure out what that building was. A palace? A temple? A government building?



Roman stairs

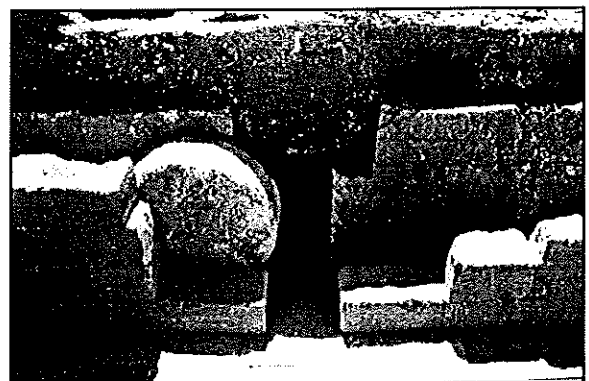
Remember that in archaeology each artifact is cleaned, preserved, and studied, so that the information from that artifact can be used later. One of the artifacts the archaeologists found was a coin that had the word "Esbus" and a picture of a large building with pillars. They knew that "Esbus" was the name for Hisban during the Roman period, and they knew that important towns would sometimes make coins with the name of their city and a picture of an important structure in their city. On the coin the archaeologists had a picture of the building on the acropolis.



Esbus coin

What was the building? In between the pillars on the coin was a figure. Looking at it closely, they realized it was a Roman goddess. The structure had been a temple. Using a series of clues, the archaeologists were able to determine what was underneath the Islamic structure without having to remove it.

In the area around Tall Hisban, a tomb excavation team found a cemetery from the Roman period. This cemetery helped them understand more about this period at Hisban. For one thing, people are often buried with



Rolling stone tomb

## LESSON 5: THE ROMAN PERIOD

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things they used in their daily lives. This gives interesting insights into how those people lived. Another thing this cemetery does is confirm that Hisban, or Ebus, flourished during the Roman period. Poor, struggling towns do not build cemeteries. They bury the dead however and wherever they can. In addition, one of the tombs is a rolling stone tomb, which requires many hours of work (and therefore quite a bit of money) to build.

### **Review Lesson 5**

1. What were some of the clues that showed there was a building on the acropolis?
2. What artifact revealed the type of building?
3. What does the cemetery tell us about life at Hisban during the Roman period?

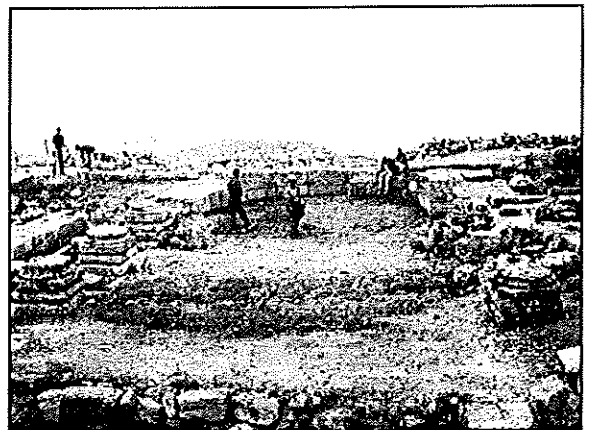
## LESSON 6: THE BYZANTINE PERIOD

At the end of the third century AD the Roman empire began to undergo many changes. Gradually, the empire was becoming more Christian. It was also expanding greatly, both to the east and to the west. In the first part of the fourth century, Emperor Constantine made two significant changes: he moved his capital to Constantinopolis (present day Istanbul) and he granted legal protection to the Christian church. These changes signaled the beginnings of the Byzantine empire, and a new period in history.

When thinking about this change in history, remember what you learned about the change from the Hellenistic period to the Roman period. The governments changed, and some changes were made in the daily life of the people, but the changes did not occur overnight. The same type of transition was made from the Roman period to the Byzantine period.

Of course, this does not mean that there were no significant changes. The Roman period brought the Pax Romana, which can be seen at Hisban because there is no defensive wall. The Byzantine period brought the legalization of Christianity. That change is also evident at Hisban.

The legalization of Christianity gave Christians permission to take apart the earlier Roman temples. The inhabitants of Hisban did just that. The temple at the acropolis was dismantled, and many of the pieces were used for a new Christian basilica (such as the Corinthian capital which was trimmed to be used as a wall stone). This basilica was quite large, with



Basilica



## LESSON 6: THE BYZANTINE PERIOD

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two rows of four pillars leading to the apse at the eastern end of the church. At least two mosaics, one of which is now in the Madaba museum, covered the floor of the church.

Throughout these lessons, you have been learning how archaeologists look for clues, studying artifacts carefully and using the help of specialists. With the basilica, they had another source for information: a literary source.

As the Christian church grew larger, church historians began to keep all sorts of records. They listed who gave what edict, who went to what town to start a new church, and who attended what councils. Some of those lists indicate that the basilica at Hisban was actually a cathedral, because they record that Hisban (called Ebus at the time) sent a bishop to several church councils. If Hisban had a bishop, the church there must have been a cathedral.

Just as Hisban flourished during the Roman period, it flourished during the Byzantine period. The city covered not just the hill, but also the entire area of the present town of Hisban. The slopes leading down to the wadis were covered with terraces, which helped the soil retain moisture. These terraces would have been planted with fruit trees and olive groves. Hisban was a productive agricultural center during Byzantine times.

In the first lesson you read that archaeology can help us learn what mistakes from the past we can avoid, and what good things they did that we can learn from. One of the things we can learn from is the way they used water.

## LESSON 6: THE BYZANTINE PERIOD

Throughout ancient times at Hisban, its residents have been concerned about having a sufficient water supply. They didn't have a spring, and there wasn't a government water source. They had to collect enough rainwater to last all year.

We may think of people living back then as sort of backwards, and not having much technology. We think of ourselves as more advanced. But in the area of rainwater, that isn't true. People in ancient times had very simple, useful ways of saving rainwater. Today, we lose most of our rainwater.



Map of ancient water collection facilities

What were some of the things they did? You have already read about the terraces that help retain moisture through the hot summer months. You have also read that the Iron Age settlement had a large reservoir. There were many other water collection methods as well.

Usually, each house had a cistern. Rain that fell on the roof of the house was collected and channeled into this cistern, and the family could use the water for the rest of the year. The wadis were also turned into systems for retaining moisture. Dams were built along the sides and across the wadis.

Today, we can learn a lot about the way they collected rainwater. The water supply in Jordan is running dangerously low. The rain running down slopes and through wadis is not only lost, it often takes valuable topsoil with it.



Cisterns

The archaeologists wanted to be able to use what they had learned about collecting rain-

## LESSON 6: THE BYZANTINE PERIOD

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water to help the people in the area. They created a plan called Project Rainkeep. They had already identified many ancient cisterns in the area of Tall Hisban. Project Rainkeep helped local people restore and utilize those cisterns. Now, several families in the Hisban area have a cheaper water supply that doesn't deplete the government sources.

### **Review Lesson 6**

1. What evidence is at Tall Hisban for the change brought about by the Byzantine period?
  
  
  
  
  
  
  
  
  
  
2. What source of information did archaeologists use to learn more about the basilica?
  
  
  
  
  
  
  
  
  
  
3. Why is it important for us to learn about the way the ancient people collected rainwater?

## LESSON 7: THE ISLAMIC PERIOD

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Over the centuries, the Byzantine empire declined. For a while, Hisban was hardly inhabited. No significant structures were built, and there are not many artifacts from the years just after the decline of the Byzantine empire.

Great changes were gradually taking part in this area of the world. Arab armies under Umar ibn al-Khattab conquered most of the former Byzantine empire. Many people converted to Islam, but some did not. It appears that the inhabitants of Hisban did not. Often, basilicas were turned into mosques by creating a mihrab (niche) in the southern church wall, but there is no mihrab in the basilica at Tall Hisban.

After that time (during the Umayyad dynasty), people began to leave Tall Hisban. During the Abbassid and Ayyubid dynasties, there were people living in this region, but there is not evidence of intense settlement, such as during the Byzantine period.

Around AD 1260, the Mamluk dynasty in Egypt began to gain power. This started a new, intense cycle of occupation at Hisban. The town seems to have been larger than any previous town at the site, and sherds from this period are scattered all over the tall and the slopes down toward the wadis.

The Mamluks recognized the strategic importance of this region. It was on one of the main routes between Europe and the east. The Bedouins in this region raised horses, and horses were crucial to the Mamluk army. The Mamluks began to invest resources in and develop this region. By the fourteenth century, Hisban had become the capital of the Balqa region.

## LESSON 7: THE ISLAMIC PERIOD

Scholars study the Islamic period very differently than they study, for example, the Iron Age. Most of what existed during the Iron Age is gone. Their structures have fallen down or been taken apart to build new structures. Much of the written record they left behind has been lost. On the other hand, many Islamic castles, palaces, and homes are still standing. Detailed written records still exist. Study of the Iron Age generally requires the use of archaeology. But scholars can study the Islamic period, however, simply by reading the written record and studying the art and architecture from that period. Generally, archaeologists don't study the Islamic period; historians do.

That creates a problem. In the Near East, most archaeological sites have Islamic remains. In the past, archaeologists did not specialize in the Islamic period. They wanted to get to the earlier layers. They removed the Islamic layers, hopefully keeping careful notes, but they were not experts in the study of the Islamic period. The Islamic historians, who were knowledgeable in that area, were not usually involved in the archaeological excavation of Islamic sites. This made it easy for some sites to be misinterpreted.

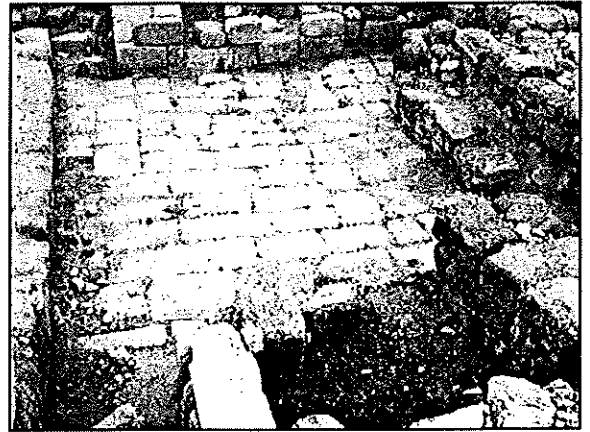
We have an example of this misinterpretation at Tall Hisban. When the archaeologists first excavated the acropolis, they found the remains of a bath, courtyard, and several rooms from the Islamic period. They knew that a traveler, Abu 'l Fida, wrote that Hisban had a caravansary and a mosque. From the information they had, they assumed that they found the caravansary.

Later, an archaeologist who was also familiar with Islamic history worked at the site. That brought new knowledge to

## LESSON 7: THE ISLAMIC PERIOD

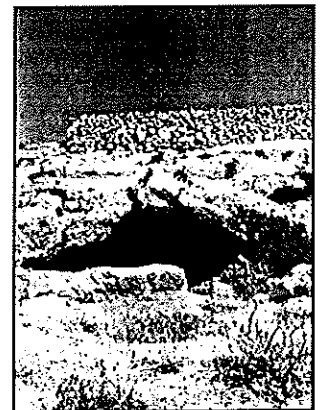
the archaeological team. They discovered that, for one thing, the complex was not the right size for a caravansary. Also, they learned that Hisban had housed a governor. The Islamic complex was not a caravansary, but a governor's residence.

At the summit of the tall is the governor's residence, the structure that covers the probable site of the Roman temple. This complex housed a bath, courtyard, small mosque, and several other rooms. A garrison accompanied the governor, so the tall did have fortifications (such as the square towers mentioned before) at this time.



Courtyard structure

Like all dynasties and empires, after a few centuries the Mamluk dynasty began to lose power. Finally, in AD 1517, the Ottoman empire took control of the region. Most of the residents of Hisban left the tall. Unlike the Mamluks, the Ottomans were not interested in managing or maintaining the areas under its control. They were interested in collecting taxes and the natural resources of the region. Many people lived as nomads or in caves, making it easier to avoid the tax collectors.



Wadi cave

During World War I the Arabs united and fought against the Ottoman Empire. In the Tall Hisban region, the Bedouins were fighting against the taxation. At the end of the war, the Ottoman Empire had been defeated. Remains of the confrontation have been excavated at the Tall.

LESSON 7:  
THE ISLAMIC PERIOD

**Review Lesson 7**

1. Why did the Mamluks want to develop the Hisban region?
2. What is the Islamic structure on the acropolis at Tall Hisban?
3. Who ruled the area after the Mamluks?

## LESSON 8: A HARDY PEOPLE

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Many scientists today study evolution. They look at the ways that animals have adapted to changes in their environments. Other scientists study ecology. They focus on the ways that the environment has adapted to changes caused by droughts, floods, and human forces.

Not much study has been done on the ways that humans cope with changes in their environments. One reason is that it is not easy to study this. For one thing, people move. If one place is too dry or too wet or too something else, they'll go to a place more suited to them. They don't usually write down that history. "It rained too much on the mountain, so we moved to the fields, but that was too dry. Now we live by the river, and that's just right." It is difficult for archaeologists to follow those moves, because the remains will be spread out all over a region. Archaeologists tend to study one place. Even if they do find evidence of people living in an area for awhile, how do they know where to go next to continue studying the history of that people?

Sometimes the environments don't change, and the people do stay in one place for generations. But often when that happens, they are not having to cope with changes. Things are staying pretty much the same. Archaeologists may be able to find out a lot about the people, but it won't tell them much about how humans cope with change.

You have already learned that Tall Hisban is a unique site. Many empires throughout the past wanted to control this region. Because the tall has a good view of the Jordan Valley, people often chose to live there. It gave them a strategic advantage in this region, and people wanted an



## LESSON 8: A HARDY PEOPLE

advantage here, at the crossroads and meeting points of many empires. Tall Hisban has been inhabited for thousands of years, in spite of drastic changes in both the empires and the environment. It is a perfect place for archaeologists to be able to study the ways humans cope with changes.

So what have they discovered? Most importantly, they have discovered that to be able to cope with such changes, the region must have a hardy people. They must be able to undergo difficulties, and their culture must be flexible.



Cave entrance

There are eight key characteristics of a hardy people. First, they usually have very strong kin ties. Family is important, and the members remain loyal. This provides a local government when the central government is not strong enough to enforce laws.

They must have a diverse and resilient economy. Cultures that can cope with change have varied sources of income. They might keep sheep, raise wheat, and make pottery. They can deal with a drought that wipes out the wheat crop, or an epidemic that kills all the sheep, or lack of access to a source for clay. No one factor keeps them going, so no one factor can destroy them.

They also have fluid boundaries. They do not belong to a particular valley or mountain, they belong to their tribe or family. If the Ammonites live at Tall Hisban for awhile, then Tall Hisban is part of the "nation" of Ammon. But if the Ammonites move south, then the next area they settle will be the "nation" of Ammon.

## LESSON 8: A HARDY PEOPLE

They have a flexible residential pattern. They don't have to live in houses inside stone walls. They can live in tents or, as many people did at Hisban, in caves.

Their water sources do not require much care. Some people, such as the Romans, built huge aqueducts and reservoirs. Those are effective sources of water, but they can be hard to care for, especially in times of political conflict.



Interior of Hisban cave

They are hospitable people. When someone else is in need, they will take that person in. Conversely, when they are in need, others will care for them.

They have a hardy diet. They are familiar with the natural plants of the region, and use basic staple foods as the main part of what they eat.

Finally, they have honor. In times of political instability, a government rarely has the resources to care for the day-to-day lives of the people within its sphere of influence. The honor of a people, both in its individuals and in the group as a whole, preserves order at the local level.

These and related cultural features have allowed the local population to survive centuries of upheaval in political domination and environmental change.