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OUR BEST-SELLING WONDERS OF CREATION SERIES IS GETTING EVEN BETTER!

With this title, the series is being developed in an enhanced educational format and integrated with a unique color-coded, multi-age level design to allow ease of teaching the content to three distinct grade levels.

Antique monument at the Roman forum
HOW TO USE THIS BOOK

*The Archaeology Book* has been developed with three educational levels in mind. These can be utilized for the classroom, independent study, or homeschool setting. For best possible comprehension, it is recommended that every reader examine the text on the yellow background. More skilled readers can then proceed to the gray/blue sections as well. Finally, the most advanced readers may read through all three sections. Look for the following icons and special features throughout the book:

**LEVEL ONE**
- Text on yellow background
- 5th to 6th grades
- The basic level is presented for younger readers and includes the DD’s Journal and Wonder Why segments.

These sections uncover the answers to intriguing questions relating to history, archaeology, and discovery.

**LEVEL TWO**
- Text on blue/gray background
- 7th to 8th grades
- This middle level delves deeper into archaeological discoveries and issues related to historical concerns, utilizing Words to Know and Reflections.

These words found throughout the upcoming chapter present a quick glimpse of important concepts coming up.

Utilizing information arising in the chapter, these segments offer questions that probe further into archaeological topics.

**LEVEL THREE**
- Text on white background
- 9th to 11th grades
- This upper level incorporates concepts and theories related to all subject matter included in the text, as well as unique information within the Dig Deeper sections.

This final level takes the reader into controversial and critical issues pertaining to historical accounts, chronologies, dating methods, and more.

**FIELD JOURNAL**

Author David Down provides unique insights into his over 40 years of archaeological discovery.
Archaeology: the study of history – the history of the daily life of people and families and countries from hundreds and thousands of years ago.

**WHAT Archaeology Is All About**

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<td><strong>WHO</strong></td>
<td>Who is an archaeologist?</td>
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<td><strong>WHAT</strong></td>
<td>What does the word “archaeology” mean?</td>
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<td><strong>WHY</strong></td>
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**WHY STUDY ARCHAEOLOGY?**

Through a method of study, archaeology can show us how people lived and died, and what it was like to live in their cities back then. Archaeology can find information about what they ate, what they wore, what money they used, what their weather was like, if and how they fought with other people, and what form of government they had. By using a method of discovery—excavation and research—archaeologists can answer these and many other questions.

**SYSTEM OF DATING**

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<tr>
<td><strong>BC</strong></td>
<td>Before Christ</td>
</tr>
<tr>
<td>Years before the Lord’s birth</td>
<td>Secular scientists often refer to this as BCE (Before Common Era)</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AD</strong></td>
<td>Anno Domini</td>
</tr>
<tr>
<td>The year of our Lord</td>
<td>Secular scientists often refer to this as CE (Common Era)</td>
</tr>
</tbody>
</table>

Archaeologists work around the globe in every country and continent discovering clues and details on ancient civilizations.
How do archaeologists know what life was like in the past? What clues can be found, and where do they look for these clues? Why can a tiny piece of broken pottery tell us more about history than gold or treasure can?

The usual view of archaeology is of an archaeologist down on hands and knees carefully brushing the dust from some fabulous treasure that has just emerged from the earth. Well, occasionally some gold or silver object does come to light, and it is rewarding if it does, but really, that is not what archaeology is all about.

The word archaeology is derived from two Greek words: arche, meaning “beginning,” and logos, meaning “word,” and that sums it up—words about beginnings. Archaeologists are digging up the past, reconstructing history, finding out what happened, when it happened, and how it happened, and a piece of broken pottery may tell us more than a golden death mask.

An archaeologist is a scientist or explorer who uses a methodical process to excavate and study ruins and artifacts from ancient cultures.
I excavate in Israel every year. The Israeli Antiquities Authority (a government body that oversees archaeological sites, conservation, and research) has allocated me a site at Mareshah, a very important city in the pre-Christian era. Second Chronicles 14 describes a great battle that was fought here. I take a group of tourists on a three-week tour of Egypt, Jordan, and Israel, and at the end of the tour, group members have the option of working with me as volunteers on the dig. We may have up to thirty volunteers in any one year, and we find lots of things every day.

When I return home I always meet some friend who eagerly asks me, “Did you find anything?” And I reply, “Yes, a very important piece of broken pottery.” They reply, “Big deal. You risked your neck in that dangerous part of the world and all you can tell me about is a piece of broken pottery.”

Yes, it does seem a bit absurd to some people, but pottery often holds the key to the past.

ANCIENT CITIES ON A HILL

In the pre-Christian era, most cities were built on low hills. In the course of time these hills rose in height. There were no garbage collectors in those days, and banana skins and broken pottery went out the front door onto the narrow lane outside. The road level began to rise until it was level with the resident’s floor. When the next downpour of rain occurred, the water poured down the lane and into the house. The remedy was to bring some earth from the surrounding fields and raise the floor level.

Sometimes there was a fierce storm, or an earthquake that brought the roof down, or maybe the whole house. There were no bulldozers to remove the wreckage. The man of the house would simply level the rubble and rebuild on top.

Occasionally an enemy would come and destroy the buildings or set the whole city on fire, as Joshua did at Jericho. In each case the debris was levelled and the new city built on top of it. All this left layers of rubbish on top of the original hill. When it was finally abandoned, this debris could be anywhere up to 98 feet (30
WHY WERE CITIES BUILT ON HILLS?

- It provided an advantage if the city was attacked by an enemy. If the attackers had to scramble up the side of a hill before they tried to breach the wall, it gave the defenders an advantage.
- Palestine can get rather hot in summer and a city on a hilltop would catch the summer breezes.
- There can be heavy rain in winter and a city on a hill was not likely to be washed away. This also was referred to by Jesus when He concluded His Sermon on the Mount by referring to the wise man who built his house on the rock, and the foolish man who built his house on the sand (Matt. 7: 24–27).

meters) above the original height of the hill. The final hill is then called a tell, which is simply a mound filled with ancient ruins.

And why was the city abandoned? As the sides of the hill did not rise vertically, the area on top was gradually reduced, yet the population kept growing. They ran out of living space. Also, as time progressed, the residents learned to trust more in their armies than in their walls, so by the Roman period most cities were built on the plains.

So when an archaeologist decides to do some excavating, he goes to one of these tells and starts digging down, exposing the successive layers of occupation. It is surprising how these layers, called strata, can be distinguished. It may be necessary to remove the surface accumulation of dirt and debris with a pick, or sometimes even a bulldozer, but when artifacts begin to appear, most of the digging is done with hoes. The debris is collected in buckets, placing any antiquities or broken pottery in labelled buckets. The labels will indicate where and when the contents of the bucket came from. Spades or shovels are never used, primarily because they are too destructive to the artifacts.

Jesus referred to cities on a hill in His Sermon on the Mount when He said, “A city that is set on an hill cannot be hid…. Let your light so shine before men, that they may see your good works, and glorify your Father which is in heaven.”

Matt. 5:14,16
POTTERY AND ITS SECRETS

Pottery is invaluable to the archaeologist for several reasons.

- First, it is plentiful. Everyone had to have pottery: pots, jars, jugs, plates, and other household items. It was just made out of clay so it was comparatively cheap, and there was no alternative. There was no plastic or stainless steel. It had to be pottery.

- Second, pottery was very fragile. A careless kid could easily knock a bowl off the table and break it.

- Third, it was just about immortal. Buried iron will rust, silver could turn to powder, but pottery could be buried 3,000 years and when unearthed is almost as good as when it was buried.

The secret to identification is in the style — the shape, size, and ornamentation. In most of the Middle East, similar styles were the same in most countries. Pottery styles changed from time to time. New fashions came on the market from the potter’s wheel, and everyone seemed intent on having the latest style oil lamp or ceramic jug. The old ones either got broken and the pieces thrown away for the archaeologist to find, or even the good old things got tossed on the rubbish dump. Whichever it was, these pottery pieces hold the clue to the past.

So on most digs the workers will find hundreds of pieces of pottery every day, and they all have to be carefully placed in the “finds buckets” and sent for pottery washing. Every piece has to be carefully scrubbed with water and a nail brush, and examined to see if there might be some telltale mark on it, or maybe an inscription.

INTERPRETING FINDINGS

Occasionally an archaeologist may challenge the identification or interpretation of the original excavators. He can go to the store rooms and examine the remains to either agree with the first archaeologists or differ from their views. This happened when Professor Kenneth Wood disagreed with the conclusions Kathleen Kenyon had come to about Jericho being uninhabited when Joshua and his army arrived there. He examined the pottery found by her in Jericho and concluded that Kenyon had made a mistake in her conclusions. That is a problem with archaeology. It is not only what you find; it is how you interpret what you find.
Lots of jar handles have been found with the letters LMLK imprinted on them. It means “belonging to the king” and indicates it was for some official use. It was used for only a limited period in Israelite history, so when such items are found, archaeologists know from which period they come.

Archaeologists can look at a variety of clues to help determine how old an artifact may be. From writing on the item to the level of excavation something is found, these and other hints like the shape and kind of pottery will tell archaeologists a lot about the people of that ancient site and their daily life.
### LATER LAYERS OF OCCUPATION

So, as the team working on the dig exposes layer after layer, the time period for each layer can be identified by the pottery styles present in each layer. These layers are allocated time periods, based on comparisons with similar items in Egypt whose dates were supposed to be reliable. These are examples of pottery dated to different time periods:

<table>
<thead>
<tr>
<th>Period</th>
<th>Time Period</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Early Bronze</strong> 3300 - 2000 BC</td>
<td>EB I 3300 - 3000 BC</td>
<td>The pottery from this period is rather coarse. Made by hand, it is thick and often not well fired. It sometimes has designs on the outside. This is rather a misnomer because adding tin to copper to make bronze was not invented until the next Middle Bronze period.</td>
</tr>
<tr>
<td></td>
<td>EB II 3000 - 2700 BC</td>
<td>In this period we find a noticeable improvement in the pottery. The Middle Bronze period ushered in the invention of the fast potter’s wheel. The telltale rings can be seen on the inside of the pottery piece, and the pottery is thinner.</td>
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<tr>
<td></td>
<td>EB III 2700 - 2200 BC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EB IV 2200 - 2000 BC</td>
<td></td>
</tr>
<tr>
<td><strong>Middle Bronze</strong> 2000 - 1550 BC</td>
<td>MB I 2000 - 1750 BC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MB II 1750 - 1650 BC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MB III 1650 - 1550 BC</td>
<td></td>
</tr>
<tr>
<td><strong>Late Bronze</strong> 1550 - 1200 BC</td>
<td>LB I 1550 - 1400 BC</td>
<td>This period had distinctive color designs on it, which were often simply geometric shapes early on. These developed into much more elaborate paintings of warriors or animals as their skills developed.</td>
</tr>
<tr>
<td></td>
<td>LB II A 1400 - 1300 BC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LB II B 1300 - 1200 BC</td>
<td></td>
</tr>
<tr>
<td><strong>Iron Bronze</strong> 1200 BC - 400 AD</td>
<td>Iron I 1200 - 1000 BC</td>
<td>The Iron Age is usually dated to 1200 BC onwards, not that iron was unknown before then. Even before the great worldwide flood in Noah’s day, Tubal-Cain was “an instructor of every artificer in [bronze] and iron” (Gen. 4:22). In the 15th century BC, Og, king of Bashan, had a “bedstead of iron” (Deut. 3:11).</td>
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<td></td>
<td>Iron II 1000 - 400 AD</td>
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PROBLEMS WITH THE IRON AGE

The following period, Iron Age I, is usually dated to 1200 BC, but here again is a problem for the traditionalists. This is what Finklestein wrote: “The Iron I period again witnessed a dramatic swing in the population of the hill country, this time in the opposite direction. ... MB II, Late Bronze and Iron I periods leave two critical questions for which satisfactory answers must be found. Why and to where did over half of the MB II population, i.e., virtually all the inhabitants of the hill country, ‘vanish’? From where did the people who settled the hundreds of sites in Iron I ‘materialize’?”

And they went. No need to ask where all the Iron Age people came from. The Bible has the obvious answer.

This also solves another archaeological problem. Archaeologists have been unable to find much trace of the Persian Period, which in their thinking would have followed the Iron Age. Seals, inscriptions, and artifacts have been found, but there was scant evidence from archaeological strata. The Persian Period should be recognized as the early Iron Age when the Israelites came back from exile.

Darius I of Persia
DIFFICULTY IN DATING METHODS

A vexing question in archaeology is chronology, or the dates assigned to the strata. The Bible provides very specific information about the past, though there are some minor problems in calculating dates. In the 17th century AD, Bishop Ussher compiled a chronology, based on biblical information, by which he calculated the creation of the world at 4004 BC, making it a neat 4,000 years of history to the birth of Jesus Christ. Not all Bible scholars agreed with his conclusions.

One problem is assigning a date to the beginning of the reign of King Solomon of Israel. The length of reigns of the kings of Israel from Solomon to 722 BC, when Israel was sent into exile, are defined in the books of First and Second Kings. They add up to 241 years, but the kings of Judah for the same period add up to 284 years.

Then there was the problem of co-regencies. Sometimes a king was crowned before his father died. This happened when Adonijah proclaimed himself king before his father King David died. David promptly crowned his son Solomon as king. It also happened when Hezekiah was given only another 15 years to live (2 Kings 20:6). Before his death, Hezekiah apparently crowned his son Manasseh to succeed him.

It was a bad choice. Manasseh became one of the worst kings Judah ever had, but that is irrelevant to the point in question. Was the length of the son’s reign to be calculated from the time he was crowned, or from the time his father died and he actually became king? All these factors have to be taken into consideration.

However, these are minor problems. The solution will make a difference of only tens of years. A more serious problem is the calculation of Egyptian history, which could be at fault by centuries, and this would be reflected in the archaeological layers in Israel, which are dated by synchronisms with the dynasties and kings of Egypt.

Dr. Edwin R. Thiele stated that during “the period under discussion, the years of the kings of Judah were reckoned according to the accession year method, while in Israel the nonaccession-year system was in use.” He claimed that the apparent discrepancies were due to slightly different methods of calculations adopted in the respective countries. Some passages calculated the time periods from the year of accession of a king, while others calculated them from the first complete year of his reign.

WHY DO SOME HIEROGLYPHS HAVE OVAL RINGS AROUND THE IMAGES?

Hieroglyphs are ancient writings using symbols as words, sounds, or letters. If you look at the hieroglyphic image above, you’ll notice that several characters are connected within the ring of an oval. Egyptian hieroglyphs began displaying this cartouche (Egyptians’ named it the shenu) during Pharaoh Sneferu’s reign, which lasted from approximately 2613 BC to 2589 BC. What is contained inside the oval that ends with a vertical line is the throne name of a royal Egyptian.
An Egyptian priest by the name of Manetho compiled a list of dynasties and kings with their lengths of reigns. He lived from 323 to 245 BC during the period of Greek rulers after Alexander occupied Egypt. Ptolemy II asked him to compile a record of Egyptian history. No doubt he had access to inscriptions on the walls of temples, and there would have been much traditional history to which he would have access, but how reliable are such sources?

He subdivided the kings of Egypt into dynasties and allocated lengths of reign to the kings and dynasties. A dynasty should be a list of kings who were followed by their family successors, usually sons, but whether from ignorance or some reason we are unaware of, Manetho did not always adhere to this rule.

A factor that renders Manetho’s records unreliable is that they have not survived to the present time. We only have quotations from later writers to draw on. Josephus in the first century AD quoted passages from Manetho, as did Africanus 3rd C AD, Eusebius 4th C AD, and George the monk.

—David Down

How do we know that they quoted him correctly? We don’t. There are more than a few cases where these writers quote the same passage from Manetho, but their quotations disagree for both the names of the kings and their lengths of reign. But in the absence of alternative information, early scholars accepted Manetho and built their chronology on his records. The result was an inaccurate chronology.

It is now recognized that some dynasties were contemporary with other dynasties. Egypt’s inhabited land is a long, narrow country, and sometimes one king was ruling in the south while another king was ruling in the north. That is not disputed. The only question is how many dynasties were ruling Egypt at the same time. Several scholars have maintained that most of the kings of the Third Intermediate Period, dynasties 21 to 24, were contemporary with other dynasties. The elimination of these dynasties from the sequence of rulers would drastically reduce the dates.

Gate of Ptolemy II, Philae