

NOTE that the answers on the ARCHAEO-PRO MASTER TEACHER'S CHEAT SHEET sometimes give more detail than available from the showcases. This is supplementary material for teachers

ARCHAEO-PRO MASTER TEACHER'S CHEAT SHEET

Case 3- *The Development of the Lamp in Palestine*

Observation/

Factual recall:

- The Canaanite four-spouted lamp #1 comes from the *famous city* of **HAZOR** mentioned in the Bible (See Joshua 11 etc.) and Egyptian inscriptions.
- The first lamps were *handmade* like #1. The lamps after it were made on a **WHEEL** or made by pouring slip clay into moulds.
- List the numbers of the *moulded* lamps displayed in case #3:
- King David would have used a lamp like #3. How *old* is this lamp? **3000 YEARS OLD**
- Little lamp #5 comes from the tomb of a man *named* **JASON (a Greek name)**
- The *oldest* lamp in Case 3 dates to C. **1500 BC**. The *most recent* dates to c.**600 AD** .
- Lamp #7 would have been well known to Jesus and his brothers and sisters. What is *unusual* about how this sort of lamp was made? **THE BASE IS WHEEL MADE. THE SPOUT HANDMADE AND ATTACHED BY SLIP CLAY BEFORE FIRING.**

Interpretation:

- Most of the lamps show *signs of being used*. Explain. **SOOT DEPOSITS AROUND SPOUT**
- The style of lamps *changed fashion very quickly* in the ancient world. This means lamps make a good dating tool for the archaeologist to use. Why? **IF THE STYLE DID NOT CHANGE LAMPS FROM VARIOUS PERIODS WOULD LOOK THE SAME. THE FASTER THE CHANGE THE SMALLER THE TIME PERIOD IN WHICH A SPECIFIC LAMP STYLE WAS USED & THE MORE PRECISE THE DATING POSSIBLE**
- What is the *sign* on the top of lamp #10 and what does it mean?
- What other *signs & symbols* were used on Christian lamps (Hint: lamp #12)? **CHI-RHO. THE FIRST TWO LETTERS OF THE GREEK TITLE "CHRISTOS" - CHRIST**

Extension &

Research:

- Jewish lamps like #11 do not have *people* on them like the Roman one #9. Instead they have images of palm branches, grapes, figs, pomegranates and sacred temple implements. Why? (Hint: see Exodus 20:4). **EXODUS PROHIBITED MAKING IMAGES OF PEOPLE OR ANIMALS, IN CASE THIS LET TO RELIGIOUS CULTS WORSHIPPING THE IMAGES. PLANTS WERE NOT PROHIBITED.**
- Lamp #11 has the seven-branched candlestick or *menorah* on the top. This was long after the Romans had destroyed King Herod's Temple. Why do you think the *menorah* is on the lamp? **THE JEWISH PEOPLE MOURNED THE LOSS OF THE TEMPLE**

What did ancient people use for wicks and fuel in their lamps? **OLIVE OIL**

Case 4 – Seals and Sealing

Observation/

Factual recall:

- Cylinder seals were invented around **3500BC**
- Impression #7 shows the monster **HUWAWA** who was killed by the hero **GILGAMESH** in the famous Epic.
- Impression #6 shows the sun god **SHAMASH** cutting his way with a saw through mountains on the horizon.
- Impression #9 shows at a banquet (feast). What are they doing? **DRINKING** Probably beer)

Interpretation:

- Inspect the tablet and envelope (#22). Note the traces of cylinder seal impressions around the edges of the envelope. How is this process similar to the practice of using seals of wax on parchment documents of much later times in the medieval world?
- In so far as I know there are no examples of where a seal has become stuck to a tablet marring the impression. What does that tell us about the wetness/dryness of the clay used?
- What might lead you to conclude that it was the wealthier classes who possessed cylinder seals?
- Examine seal impression #15. Why would the seal owner Hash-Hamer (?) want to say he is “the servant” of Ur-Nammu the king of the city of Ur?
- Examine the winged disk above the people and winged figures in seals #16, 17 and 21. Some writers have claimed this represents a flying saucer. Comment.

Extension &

Research:

- Make a cylinder seal of your own using a small piece of dowel or a cylinder of dry clay. Draw your figures first and use a **SAFE METHOD** to engrave some of them. Try your seal out on a piece of dryish clay Show your results to your teacher.
- Make a clay tablet (no need to write on it). Dry in the sun and then enclose it in clay to form an envelope. When thoroughly dry in the sun take it to school and carefully crack it open in front of you class. What do you observe? Has the envelope stuck to the tablet? Comment.
- Cylinder and stamp seals are mentioned several times in the Bible. List some references using a concordance.
- Hundreds of *clay bullae* (impressions of stamp seals) have been excavated in the rubble of 6th century BC Jerusalem. List the dozen or so of the persons whose names appear who are named in the Bible.

Case 6 – Coinage of the Ancient World

Observation/

Factual recall:

- The earliest *money* consisted of lumps of **ELECTRUM** a naturally occurring alloy of gold and silver.
- The earliest *coins* (ie. stamped money) were made in the mid 7th century (700-600) BC in the state of **LYDIA** (see **RED PIN**) in Asia Minor.
- List the *names of three Roman emperors* appearing on coins in Case #6. **AUGUSTUS, TIBERIUS, CLAUDIUS, NERO, VESPASIAN, TITUS, DOMITIAN, DIOCLETIAN**
- The Greek *tetradrachm* (pronounced “tet-rar-dramm” even though the singular word is *drachma* pronounced “drak-mar”) has the **OWL** of the goddess Athena on the obverse side.
- Coins 1 to 4 are made of **SILVER**.
- One Roman *denarius* was equivalent in value to one Greek **DRACHMA** (see chart at bottom of case).

Interpretation:

- Why were Jewish coins stamped with images of fruit, plants and non-living objects rather than people or faces of people? **JEWS INTERPRETED EXODUS 20:4 AS APPLYING TO COINS AS WELL AS IDOLS**
- Why would the Jews over-stamp Roman coins? (see coin #25). **TO SIGNIFY THEIR REBELLION AGAINST ROME**
- Why would *merchants (traders) like the Phoenicians* whose ships traded with the many nations and states around the Mediterranean, prefer to use *coins* in their business transactions rather than bartering? **COINS MUCH MORE CONVENIENT TO CARRY & HAD STANDARD VALUES**

Extension &

Research:

- The Perutah (#11) was minted in Judaea by the same Pontius Pilate who surrendered Jesus to be crucified. The coin features an **AUGER’S WAND**. What is this and how does it throw some light on Matthew 27:19? **PILATE VERY SUPERSTITIOUS – THE AUGER USED THE WAND TO TRY TO FORETELL (DIVINE) THE FUTURE**
- The bronze coins stamped “Judea Capta” (#s 20,21, 23) are examples of Roman propaganda. Explain.”**JUDEA CAPTA” MEANS “JUDAEA HAS BEEN CAPTURED”. THIS HUMILIATED THE JEWS WHO HAD TO USE THESE OFFENSIVE COINS**
- Coin #23 is stamped **SC** at the bottom. What does this mean? **“SENATUS CONSULATO” - WITH THE AUTHORITY OF THE ROMAN SENATE. MEANS THE COIN IS LEGAL TENDER**

Case 7 - Cuneiform Tablets from Sumer and Akkad

Observation/

Factual recall:

- The term cuneiform refers to the writing on the tablets. What does the word *cuneiform* mean? **“WEDGE-SHAPED”. REFERS TO THE SHAPES OF THE SIGNS IMPRESSED INTO CLAY TABLETS FROM MESOPOTAMIA**
- The clay tablets in case 7 are from *two ancient civilisations*, both of which were discovered in Mesopotamia. What were they? (Hint: both civilisations are shaded *yellow* on the maps). **SUMER and AKKAD**
- List the *types of animals* that were part of the temple flocks of tablet # 4. **LAMBS AND SHEEP**
- What two types of dyed Sumerian *footwear* did Lugula (pro. Loo-goo-la) make for the temple at Drehem in about 2030 BC? (See label #7) **SHOES AND SANDALS**
- Sometimes the *burning down* of an ancient city helps archaeologists looking for cuneiform tablets in the present. Explain. **THE FIRE MAY BAKE CUNEIFORM TABLETS MAKING THEM IMPERMIABLE TO WATER**
- Do clay tablets ‘turn’ L-R or ‘flip’ Top-Bottom to the second side (reverse)? Compare to our coins and banknotes. **CUNEIFORM TABLETS FLIP TOP-TO-BOTTOM (SOMETIMES THE BOOTOM EDGE MAY BE INSCRIBED)**. Compare to our coins and banknotes. **AUSTRALIAN COINS & NOTES TURN LEFT-TO-RIGHT**

Interpretation:

- According to tablet # 5, *what* does Mr La La have to do ‘without an argument’? **PAY HIS DEBT**
- What do these tablets tell us about the *specialisation of arts/crafts and labour* around 2000 BC? **SPECIALIZATION WAS WELL ADVANCED. IT IS ONE OF THE FEATURES OF A SEDENTARY CIVILIZATION**
- The Sumerians and later the Akkadians centred their civilisations on the *valleys* of the Tigris and Euphrates rivers. Why? **THE RIVERS IRRIGATED THE RICH ALLUVIAL SILTED SOIL NEXT TO THEIR BANKS FOR FARMING AND PROVIDED BOAT TRANSPORTATION**
- What was the primary use of the cereal *barley* in Akkad? See tablet #3. **BREWING BEER**
- What is a *colophon* (eg. tablet #8) and why would it be needed? **A FOOTNOTE. SOME COLOPHONS GIVE THE DATE A TABLET WAS WRITTEN, NAME OF THE SCRIBE AND CONTRACTS SUCH AS DEEDS OF PURCHASE AND SALE NAME WITNESSES TO THE TRANSACTION**

Extension &

Research:

- Research the *Epic of Gilgamesh* referred to on tablet 10. Summarise the story in your own words.
- Tablet 3 refers to *emmer, barley and legumes*. Research the beginnings of agriculture.
- Why would the Sumerians need a *catalogue* (tablet #10) of the tablets in their library?
- Compare the use of *catalogues* with the story of the stolen tablet in the side bar. What does this tell us about care of records in ancient Mesopotamia?
- *Bible critics* once said that the early books of the Bible could not have been put into written form until about 600 BC because, they argued, writing was unknown until this time. Comment in the light of the excavated evidence.

Case 10 – ANCIENT SUMER 1

Observation/

Factual recall:

- **Both** the Sumerian and Akkadian civilizations wrote on clay tablets using different types of **CUNEIFORM** script for their differing languages.
- Name **two** Sumerian rulers who stamped inscriptions naming themselves on mud bricks **UR-NAMMU** and his son **SHULGI**.
- The stone lamp is (# 2) carved in the form of a bull with **HORNS AND BEARD**
- Name *four* Sumerian cities **UR, LAGASH, KISH, URUK, NIPPUR**(see right-hand side-bar)

Interpretation:

- **Both** the Sumerian and Akkadian civilizations wrote on clay tablets using **CUNEIFORM** script.
- What is the Sumerian man (# 5) wearing? **WOOLEN KILT OR SKIRT** And what was one type of **animal** the Sumerians raised? **SHEEP or GOATS**
- The Sumerian man (#5) is a *votive figurine*. What does this mean? **OFFERED IN A TEMPLE TO WIN A DEITIE’S FAVOUR**
- The Sumerian **duck weight** has a mass of 5 minas. How heavy is this in grams? **2478**
- Shulgi, king of Ur “standardised” the mass of 5 mina weights. What does this mean and why did he do this? **HE REGULATED WEIGHTS TO ENSURE FAIRNESS IN BUYING & SELLING**

Extension &

Research:

- Research the Sumerians and what they contributed to the technology used in Mesopotamia.
- Research the gods of the Sumerians. Explain the relationships between the deities.
- Name a god or goddess mentioned in the cuneiform inscriptions in this case (10)? **ENLIL and NANNAR note CRESCENT MOON OF NANNAR ON LOWER SIDE OF DUCK WEIGHT**

Case 11 – *The Royal Graves of Ur*

Observation/

Factual recall:

- What is the *metal* used to make most of these objects? **GOLD**
- In which ancient *city* were these objects found? **UR**
- How *old* are the gold vessels and objects? **4,500 YEARS**
- What *animal* is mounted on the top of the reign ring? **AN ONAGER - “WILD ASS OF THE EAST”**
- Which famous English *archaeologist* excavated the burials? **SIR LEONARD WOOLLEY**

Interpretation:

- Pu-abu had a *sledge* (rather than a wheeled vehicle) placed in her grave. What might be the reason for this? **SLEDGES WERE USEFUL ON BOGGY GROUND**
- Why do you think the excavator believed these graves to be those of *royalty*? (This interpretation is now back in favour). **AMOUNT OF GOLD**
- These objects were made in 2500 BC What can they tell us about the *levels of skill* of the ancient Sumerians? **HIGHLY SKILLED METAL WORKERS**
- The birthplace of *Abraham* was ancient Ur about 1950 BC Some critics of the Bible claimed the gold nose ring and two gold bracelets (110g each) of Genesis 24:22 would not have been possible in 2000-1800 BC (about Abraham's time). Comment. **GOLD EARRINGS WEIGHING WERE FOUND IN THE DEATH PITS. THE EARRINGS OF GENESIS ARE CONSISTENT WITH THE TIMES.**

Extension & Research:

- The animal on the reign ring is an *onager*. Explain what an *onager* is. **AN ONAGER - "WILD ASS OF THE EAST"**
- The onager on the reign ring is made of *electrum*. What is electrum? **ALLOY OF GOLD AND SILVER APPEARING GREY IN COLOUR**
- The weapons in the 'Royal Graves' are composed of gold, silver and electrum (an alloy of gold and silver). Why would they be *useless in a real battle*? **GOLD OR ELECTRUM IS TOO SOFT AND TOO VALUABLE TO USE IN A REAL BATTLE**
- The intricate gold work on the scabbard is known as *filigree*. Research this term. **REFERS TO CREATING DETAIL BY SOLDERING TINY PIECES OF GOLD ONTO THE SURFACE TO CREATE THE DETAIL**
- The sword has a *lapis lazuli* handle. Find out more about this stone. **LAPIS LAZULI IS A BLUE COMPOUND (SODIUM ALUMINIUM SILICATE-SULPHATE) MINED IN AFGANISTAN**

Case 13 – The Great Flood & the Epic of Gilgamesh

Observation/

Factual recall:

- The cuneiform tablet K3375, part of Gilgamesh Tablet 11, was found in the Assyrian city of **NINEVEH** (label #1)
- The hero of the great flood in the Epic of Gilgamesh was **UTNAPISHTIM**
- The writing on the two flood tablets is **CUNEIFORM** This script was used for writing various ancient languages on clay.
- The hero *Ziusudra* (pro. Zee-oos-ood-rar) called his ship "**PRESERVER** of the **SEED** of humankind" (see label of column vi, Tablet 11, *Sumerian Flood Story*).
- Gilgamesh was a real king of the city of **URUK**
- After surviving the great flood the hero was granted **IMMORTALITY** by the gods.
- According to the Epic of Gilgamesh after the flood the hero went to live in the land of **DILMUN** where there was no death or suffering (possibly modern Bahrain).
- The hero of the *Sumerian* story of the flood is named as **ZIUSUDRA** (see label #2)
- The *Sumerian* Flood lasted **SEVEN** days and **SEVEN** nights
- **GEORGE** Smith rediscovered tablet K3375 in the British Museum in **1872**

- Noah's ark grounded on the mountains of Urartu or **ARARAT**
- The ship of Utnapishtim grounded on Mt **NISIR** (see label of column ii line 140 of tablet K3375)

Interpretation:

- At the end of *Epic of Gilgamesh* the gods are very angry with the god Enlil (pro. En-leel), Why? **HE SENT THE FLOOD WITHOUT TELLING THE OTHER GODS**
- In the *Epic of Gilgamesh* the goddess *Ishtar* (Venus) flings her lapis lazuli necklace into the sky as the sign that she will never forget the great flood. Compare and contrast this with the sign of the rainbow shown to Noah at the end of the Biblical flood.
- In the another ancient flood story, the *Epic of Atrakhasis* (not in Case #13), it is the noise of human kind on the earth upsetting the sleep of the gods in heaven which causes Enlil to send the flood. Compare and contrast this with the reason for the flood given in the book of Genesis 6:13.

Extension & Research:

- Research the ratios of *height* to *width* required for a ship to be *stable*. Analyse and compare the stabilities of the ship of *Gilgamesh* (cube of side 55m) 2/3 submerged according to the epic with that of *Noah* in the book of Genesis ("beginnings") in the Bible. Noah's ark was 300 cubits (137m) long, 50 cubits (23m) wide and (30 cubits) 14m high. *Suggestion*: look up shipbuilding in the *Encyclopedia Britannica*.
- Research stories of the *Great Flood* from *around the world*. Virtually *every* culture has one – Yes! even the Australian Aboriginals which they claim is their *own story* and did *not* come from missionaries! *Compare and Contrast* them.
- Read and summarise the *Epic of Gilgamesh* (see *The Epic of Gilgamesh*, edited by Betty Radice, Penguin Books 1972).
- *Build* models of the ark of Noah and the ship of Gilgamesh and compare their stabilities in water. *Suggestion*: use a scale of 1/1000 for the models.

Case 14 – Egyptian Pharaohs

Observation/

Factual recall:

- The bust of Amenhotep (=Amenophis) III (#1) is *made from* **QUARTZITE**
- The *khepresh* is also known as the **WAR** crown and was worn in battle.
- All of the pharaohs depicted have the **URAEUS** or *sacred snake* on their foreheads (see label #4 or label #1)
- Which bust is the *oldest* in Case 14? **#3 Old Kingdom c. 2680-2180 BC.**
- Student sculptors first *sketched their figures* in **RED** paint and then the master sculptor corrected their work in **BLACK** paint before the figures were carved (#2).
- The bust (#4) dates from the **PTOLEMAIC** period when the Greeks had taken control of Egypt.

Interpretation:

- What *evidence* is there that the small white limestone bust (#3) was broken off a statue with a *back pillar*? **TRACES OF THE BACK PILLAR CAN BE SEEN ON THE RIGHT-HAND SIDE OF THE HEADDRESS**
- Busts #4 and #1 are carved from *very hard* stone. Yet the sculptor has been able to show the dimples behind the sides of the nose above the lips. Comment on the *skills* of the Egyptian sculptor. **VERY HARD STONE WAS NO PROBLEM TO SUCH SKILLFUL SCULPTOR'S FIDELITY TO HUMAN ANATOMY**

Extension &

Research:

- Some scholars believe that *Pharaoh Smenkare* was actually the name *Nefertiti* adopted as pharaoh after the death of Akhenaten? Research the evidence for and against.
- The *elongated faces and pouting lips* of the pharaohs on the sculptor's model (#2) are characteristic of the art of the Amarna period. Find some other examples of statues in this style from the Amarna period.

Case 16 - Deciphering the Rosetta Stone

Observation/

Factual recall:

- The Rosetta Stone was *discovered* in the year **1799**.
- The stone has *three types of writing* used in Egypt around 196 BC. What are they? (see labels at *left*)
- The word *hieroglyphs* means **SACRED ENGRAVINGS**.
- How much does the real Rosetta Stone *weigh*? **762 KG**
- The first person to recognise that the writing in the top part of the Rosetta Stone was a mixture of phonetic (ie. sound) signs and signs for whole words and titles was a *French scholar* named **CHAMPOLLION**
- Champollion's knowledge of the **COPTIC** language (the descendent of the ancient Egyptian language passed down by Christianised native Egyptians) enabled him to work out possible meanings of hieroglyphic words he was beginning to decipher.
- The stone has several *ring or oval shapes* on it, which enclose *royal names*. The shape is named after the French word for a gun cartridge: **CARTOUCHE (PRO. CAR-TOOSH)**
- The *name* of the Greek king inside these rings on the Rosetta Stone is **PTOLEMY**

Interpretation:

- Compare the *hieroglyphic* section with the *demotic script* in the middle. Which do you think would be the more difficult to *learn*? Which would be *faster* to write with on papyrus with *pen and ink*?
- What is the meaning of the Greek word *Demotic*? (Compare some other words derived from the Greek word demos meaning "the people" eg. *democracy*, *demonstration*). What has this to do with *demotic* script?
- Hieroglyphs can be written *backwards*. How do you know which in *direction* to read it?

Extension &

Research:

- The *obelisk from the island of Philae* assisted in the decipherment of Egyptian hieroglyphs. How? **THE PHILAE OBELISK HAD A CLEOPATRA CARTOUCHE AS WELL AS THAT OF ANOTHER KING PTOLEMY (ROSETTA STONE HAS ONLY PTOLEMY)**
- What other ancient cultures used *hieroglyphic scripts*? **THE MAYA OF CENTRAL SOUTH AMERICA, HITTITES OF TURKEY, THE MINOANS (ON THE PHAISTOS DISK)**
- Research *codes & code breaking*. How was the Rosetta Stone like finding a coded message and its decoded “translation” and how would this assist in cracking the code?
- The *French* discovered the Rosetta Stone. How did it come to be in the *British Museum*? **THE BRITISH CONFISCATED IT FROM THE FRENCH AFTER NAPOLEON’S DEFEAT AT THE BATTLE OF THE NILE**
- There are three basic forms of script used in writing a language.

The *pictographic* scripts require signs for whole words so there have to be hundreds of signs. The script is clumsy and sometimes the meaning is ambiguous (eg. Chinese). The *phonetic* scripts which mean that there are signs for each sound (called a *phoneme*) or syllable in a language; eg. gud, ka, na, sha *etc.* This means you can use fewer signs but in many different combinations to make words.

Alphabetic scripts use single signs for consonants (hard sounds) and vowels (open mouth sounds). So with 20 or 30 signs (letters) you can make up thousands of words with different sounds.

Egyptian hieroglyphs is a mixture of all three!

- Research the *origins* of writing.

Case 17 – Egyptian Hieroglyphs

Observation/

Factual recall:

- **True or False.** Ability to read and write was considered a sign of high status in Ancient Egypt. **TRUE**
- Scribes were **not** required to do **MANUAL LABOUR** in ancient Egypt (label #2).
- **Hieratic** writing was a **CURSIVE** (or flowing/running) form of hieroglyphs (side bar).
- How many **colours** (other than red & black) have been found on scribe’s writing palettes? (label #4) **EIGHT**
- Draw the **Hieratic** sign for “scribe”.
- Scribe **Hesi-ra** was buried at the city of **SAQQARA**

Interpretation:

- Draw the sign for “**hairdresser**” on the tomb inscription. What do you think this shape **represents**? **A COMB** According to the inscription what other more important **posts** did this man hold?
- What does the **sign** #10 (Egyptian “per”) represent? **HOUSE**

Extension &

Research:

- Research the meaning of the word “Pharaoh”. **GREAT HOUSE** How is it written in hieroglyphs?

Case 20 – Death & Burial in Ancient Egypt

Observation/

Factual recall:

- The ancient Egyptians developed a *writing material* made from reeds that grew in the river Nile. It is called **PAPYRUS** (see top label).
- The river Nile flows from the South to the North. Northern Egypt was called **LOWER** Egypt; Southern Egypt was called **UPPER** Egypt.
- The *Judgement Papyrus* shows a scene from the set of Egyptian beliefs known as The Book of the **DEAD**.
- The god weighing the heart of the lady has a *jackal* head. His name is **ANUBIS**.
- The *dark brown* ushabti (worker for the afterlife) on the right of the four carries a **HOE** for working in the *garden*
- The *name* of the Egyptian scribe god and god of wisdom is **THOTH**
- The *heart* of the lady being weighed against the *goddess* (or more usually the *feather*) of truth named **MAAT (PRO. MA-ART). HERE THE FEATHER IS ON THE HEAD OF THE GODDESS MAAT**
- The *god* of the Egyptian underworld was named **OSIRIS**. He was the father of Horus.
- The god *Horus* (on the papyrus he is called *Haren-dotes* the later Greek form of his name) has the head of *which bird?* **HAWK OR FALCON**
- About how *long* did Egyptians take to mummify and wrap a dead body? **ABOUT 70 DAYS**
- What is the *type of ancient Egyptian writing* called which is on the papyrus and the heart scarab? **HIEROGLYPHS**
- Give the Egyptian *word* for mummy cloth? **SHENS**

Interpretation:

- The judgement of the lady U-nen-nefer shows the scales *balancing*. Why did the Egyptians show this to be the case when the dead person had yet to be judged? **THE EGYPTIANS BELIEVED THEIR GODS COULD BE BOUGHT**
- How is the Egyptian idea of judgement similar to and different from that of the Bible writers? (see Daniel 5:27 and Galatians 6:7). **THE MOTIVE OF WEIGHING THE CENTRE OF MOTIVATION OF DEEDS (THE ‘HEART’) IS COMMON. THE EGYPTIAN IS CRUDE & LITERAL. THE BIBLICAL IS NOBLE. THE INCORRUPTABILITY OF THE GOD OF ISRAEL IS STRESSED NUMEROUS TIMES IN THE BIBLE.**
- Why did the Egyptians sometimes place a *scarab* (a model of the dung beetle Kheper – the god of resurrection) inscribed with a prayer from chapter XXXB of the Book of the Dead, in the wrappings near the heart of the mummy? **THE SCARAB & ITS PRAYER WERE TO FOOL THE GODS AND TO ENSURE THE RESSURRECTION OF THE DECEASED**

- The term *hieroglyphs* is a Greek word meaning “sacred writing.” Why might writing be considered sacred? **WRITING WAS MYSTERIOUS TO THE UNINITIATED. WRITING WAS THE GIFT OF THE GODS. THOT(H) WAS THE GOD OF WISDOM/WRITING IN EGYPT**

Extension & Research:

- The book of Genesis in the Bible describes the mummification and mourning of Jacob as lasting 70 days (Gen. 50:3). How is this important to arguing that the Biblical writers were accurate in their knowledge of Egyptian practices?
- The Bible tells us the name the pharaoh gave Joseph the Egyptian name *Zaph-enath-Paneah*. At his death Joseph was mummified and placed in a coffin in a tomb (Gen. 50:26). When the Israelites left Egypt they took Joseph’s body and carried it to Canaan and re-buried it at Shechem (Joshua 24:32). Do you think the original tomb of Joseph in Egypt might be discovered some day? What might be the *name* of the tomb owner painted on the walls?
- The human-shaped mummy cases which came into use about 2000 BC in the Middle Kingdom were frequently painted with the goddesses Isis, Nephthys and the vulture Nekh-bet stretching their *wings* around the body. Why? Look up the word *wings* and *feathers* in a concordance to the Bible. How many references are there to the protecting “wings” of God?

Case 22 – Weapons and Warfare

Observation/

Factual recall:

- Name the *metal* alloy produced by melting tin and copper together. **BRONZE**
- The *smelting of iron* was discovered sometime between 2000 and _____ BC.
- The bronze sword #1 comes from between the 13th and 10th centuries BC. How many *thousands of years ago* is the 13th century BC? **3200 TO 3300 YEARS OLD (1200-1300 BC)**
- An ancient people who once lived in the mountains of Turkey made axe #5. Who were they? (Hint: there were two soldiers of this nationality in King David’s army – 1 Sam. 26:6; 2 Sam. 11). **THE HITTITES (HATTI)**
- How many *cutting edges* do all of the swords and daggers in Case 22 have? **TWO**
- The three arrowheads (#7) are made of which *metal alloy*? **BRONZE**
- How much do the sling bullets (#8) *weigh* each? What are they made of? **35 GRAMS AND 45 GRAMS. LEAD**

Interpretation:

- Why was bronze a better metal for making weapons than copper? **BRONZE IS HARDER AND STRONGER THAN COPPER. IT RETAINS AN EDGE BETTER. IT DOES NOT EMBRITTLE WHEN WORKED. IT POURS MORE EASILY INTO MOULDS**
- What was the problem caused by using spearheads with a *tang* (long prong) that fitted into the wooden spear pole? **IF THE SPEAR STRUCK SOMETHING HARD THE TANG COULD BE FORCED BACK INTO THE SHAFT SPLITTING IT**

- Why was *iron* superior to *bronze* for making weapons? **IRON IS STRONGER AND HARDER THAN BRONZE**
- The copper dagger blade #2 was held to the handle with a *single rivet*. Give a reason why such a dagger might be risky to use in battle (Hint: compare it with later dagger #3). **ONE RIVET IS INSUFFICIENT TO HOLD THE BLADE RIGID IN USE**
- The soldiers of Abraham's bodyguard (Genesis 14:14) would probably have possessed axes like #4 and have been dressed like the soldier to the right. These axes could cut through **SCALE** armour.
- Look closely at the *swords* used by the Israelites against the Canaanite charioteers in the painting of the Battle of the Kishon River (Judges 4-5). The *sickle* swords have a *single* cutting edge. These were used in the time of the Judges of Israel. How are they different to a real sickle? (Think and look at the painting carefully!). **SICKLES ARE SHARPENED ON THE INSIDE OF THE CURVE; THE "SICKLE" SWORD OR KHEPESH IS SHARPENED ON THE OUTSIDE EDGE.**

Extension &

Research:

- The *Hittites* mentioned in the Bible were once considered to be mythological according to the Encyclopedia Britannica (!). Then Professor Rev. A. H. Sayce discovered the ruins of their cities. What does this teach us about interpreting the Bible using current archaeological evidence?
- Research the famous *left-handed swordsman* of the Bible who probably used a sword like #1 (Judges 3:15 ff.).
- During the Second World War British airmen frequently painted messages like "Happy Birthday Adolf!" and "Greetings Goering" on the bombs to be dropped on Germany. Compare with the messages on sling bullets like #8A (on the left). **MESSAGE ON BULLET IS "ANTIPHILOU" - "INSTEAD OF LOVE"**

Case 32 – Ancient Greek Sculpture

Observation/

Factual recall:

- **ZEUS** was the **king of the gods** and the son of Chronos.
- **POSEIDON** was the **god of the sea**.
- H_____ was the **ruler** of the **UNDER** world.
- The **temple** of the goddess Artemis at the city of **Ephesus** was on of the **SEVEN** wonders of the ancient world.
- Name one of the **symbols** of the god Poseidon **TRIDENT**
- The **mother** of Poseidon was? **RHEA**
- Who was Alexander the Great's **teacher**? **ARISTOTLE**
- How **old** was Alexander when he died? **32**
- What is the **horse** from Argos made of? **BRONZE**
- Alexander was **buried** in the city of **ALEXANDRIA** in Egypt.
- Who was **Apollo's** twin sister?
- **APOLLO** was the Greek god of the **sun**.
- The Greek god of travellers was H_____

Interpretation:

- Which science did Plato consider **perfect**? **MATHEMATICS**
- **Plato's** teacher was **SOCRATES**
- Plato despised anyone who did not have knowledge of **MATHEMATICS**
- **Why** did Plato believe that the Heavenly bodies (planets) moved in **circles**? **BECAUSE THE CIRCLE WAS CONSIDERED THE PERFECT FORM AND THE HEAVENS WERE PERFECT THEREFORE PLANETS TRAVELLED IN CIRCLES**
- Why do some of Alexander's **coins** show **Herakles** (= the Roman **Hercules**) on the reverse side?
- Why do many people consider the **Argos horse** a beautiful piece of art?

Extension & Research:

- How would **Plato** NOT be considered a **scientific observer** in the modern sense.
- Research how the views of Plato and Aristotle **mised scientists and scholars for centuries**. Consider how the Christian church by adopting the false ideas of these two philosophers led it to wrongly consider the views of Copernicus and Galileo in contradiction of the Bible.
- What do you think of Plato's view that **philosophers** should govern societies?
- Research **how Alexander the Great died**. What is your theory?
- Research the incident at Lystra recorded in *Acts 14:12* where the two travellers, the apostle Paul and associate Barnabas, were thought by locals to be Hermes and Zeus. What made the locals attempt to worship them?

Case 33 – Life and Times of Jesus

Observation/

Factual recall:

- What would have been carried in the **pilgrim flask #1**? **WATER FROM THE RIVER JORDAN or FAMOUS SPRINGS OR WELLS AS A SAMARIA**
- The **Roman nails** (#9) are made of **IRON**
- Who drowned his brother in his own swimming pool? (#7) **KING HEROD ANTIPAS**
- The famous fragment of the **Gospel of John** in the John Rylands library (#11) in the University of Manchester was discovered in **EGYPT**
- The smallest **Jewish coin** in the first century AD was the **LEPTON**

Interpretation:

- Why is the flask #1 called a *pilgrim* flask?
- What is a *mosaic* floor?
- What *archaeological evidence* demonstrates that in crucifixion nails were driven through the wrist/forearm area rather than the palms of the hands (#5)
- Why did the Romans mint coins inscribed *Judea Capta* and with the imagery of #6 after the capture and destruction of Jerusalem in AD 70?
- Why are pieces of papyrus like #11 rarely found except in very *dry* countries like Egypt?

Extension &

Research:

- Research the life and career of the Roman procurator **Pontius Pilate**. Explain the link between the *symbols on his coins and his beliefs* as revealed in the gospel of Matthew 27:19.
- The fragment of John's gospel (#11) known as the **John Rylands papyrus** was discovered in Egypt. It dates to between AD 100 and 110, not long after the crucifixion of Jesus. Explain the significance of such finds to the *early spread of Christianity*.

There were five king Herods named in the New Testament. Name each and briefly describe who they were and their historical significance.

Case 38 - The Tools & Art of the Stone Age

Observation/

Factual recall:

- The term *Acheulian* refers to one type of style of stone tool made by the **HOMO ERECTUS** people.
- *Lady of Brassempuoy* (#7) is carved from **MAMMOTH IVORY**
- About how *old* is the carving of the *chamois deer* (#8) thought to be?
- When did the *bow* begin to be used? (#11).
- The *Stone Age* is divided into three sections. They are the **PALAEOLITHIC** the **MESOLITHIC** and the **NEOLITHIC**
- The Cro-Magnon people used *mammoth ivory* to make numerous items. List *three*. (Label #10) **NEEDLES, SPEARHEADS, PIECES OF ART**

Interpretation:

- Would stone tools be easy to manufacture? How *durable* would they be? **NO. THE PROCESS REQUIRES GREAT SKILL. NOT DURABLE – CHIP AND BREAK EASILY**
- Why do you think some stone tools (eg. the laurel leaf-shaped spear heads of #6) look attractive and stylish? Would they need to be to kill an animal? Why do you think they were made to look *beautiful*? **LIKE US ANCIENT PEOPLE APPRECIATED BEAUTY. THE SPEAR HEADS COULD HAVE BEEN MADE LESS BEAUTIFUL AND STILL FUNCTIONAL**
- Compare the *decoration* on the heads of the *Lady of Brassempuoy* (#7) and the *Venus of Willendorf* (#5). What conclusions can you possibly draw about *headgear for women*? **WEAVING, KNOTTING, PLAINTING WERE USED TO CREATE VARIOUS FASHIONS OF HEADWEAR. ANCIENT WOMEN WERE FOLLOWERS OF FASHION!**
- The *horse head* carved on the bone appears to be wearing a *rope halter*. Compare this to the horse head from St-Michel 'Arudy pictured on page 194 of The Making of Mankind by Richard Leakey, (Michael Joseph, London, 1981). Discuss this evidence for the theory that the horse was *domesticated* long before was previously thought. **SOME RECENT SCHOLARS BELIEVE THAT THE HORSE WAS USED AS A BEAST OF BURDEN BY THE CRO-MAGNON PEOPLE (C. 30, 000 YEARS AGO). MORE RECENT ANALYSIS OF FOSSIL HORSES TEETH INDICATES USE OF ROPE BITS, SO THE HORSE WAS PROBABLY RIDDEN AS WELL.**

- Inspect the various types of arrowheads (#s 12, 13, 14, 16, 17). Compare the made-for-tourists American Indian arrowheads with those of early people to the left. What do you notice? **THE ANCIENT ONES ARE MORE BEAUTIFUL**
- The “Kimberley Points” made by aboriginals, are *not* arrowheads. How do we know this? **AUSTRALIAN ABORIGINALS DID NOT USE THE BOW**
- The beautiful Kimberley Points have tiny *serrated* edges. Why? Compare with some modern knives. **SERRATED EDGES CUT MUCH MORE EFFICIENTLY THAN STRAIGHT BLADES**
- Why do some of these heads have *barbs*? **TO PREVENT THE ARROW FALLING OUT OF THE VICTIM**

Extension & Research:

- Some stone tools are found in places where the type of stone they are manufactured from does not occur. How did the people obtain the stone they desired? **STONE FOR TOOLS WAS TRADED OVER LONG DISTANCES**
- Archaeologists are able to identify the types of stone and where it came from by its “chemical fingerprint” using *neutron activation analysis*. How does this work? **EXPOSING THE STONE TO NEUTRONS IN A NUCLEAR REACTOR MAKES SOME OF THE ELEMENTS IN THE STONE RADIOACTIVE. THE GAMMA RADIATION GIVEN OFF BY THESE NEW UNSTABLE ISOTOPES IS USED AS A FINGERPRINT OF THE ELEMENTS IN THE STONE**
- The female figurines (#s4 &5) are thought to be images of an earth mother by some scholars. Can you think of any contemporary examples of the pagan myth that the earth is a living mother? **THE GAIA MYTH.** Eg. Tim Flannery: “*I think that within this century the concept of the strong Gaia will actually become physically manifest. I do think that the Gaia of the Ancient Greeks, where they believed the earth was effectively one whole and perfect living creature, that doesn’t exist yet, but it will exist in future. the Gaia of the Ancient Greeks really will exist. This planet, this Gaia, will have acquired a brain and a nervous system (my emphasis GRS). That will make it act as a living animal, as a living organism...* (ABC Science Show, December 29, 2010)
- The tiny *serrated edges* on the Kimberley Points are known as *secondary working*. What does this mean and how did the aboriginal people produce such serrations? **THE SERRATIONS ARE PRODUCED AFTER THE MAIN EDGE HAS BEEN CREATED BY FLAKING. SHARP ANIMAL BONE (OR HUMAN TEETH) ARE PRESSED TOWARDS THE CENTRE OF THE BLADE. TINY FLAKES ARE REMOVED BY THIS PROCESS**
- Inspect label #10. Flutes made of ivory have been found in many excavations of the Cro-Magnon people and the earlier Neanderthal people. This has helped correct the old evolutionary view of the Neanderthal as dim-witted, brutish people. Research the evidence for the early Neanderthal use of musical instruments. **NEANDERTHALS - c. 130,000 –30,000 YEARS BP; CRO-MAGNONS – c. 30,000**
- What are some of the *practices* of man that distinguish him from the apes? Discuss in the context of *artistic* practices (cave art) or the use of *music* (flutes and whistles), or burial of the dead.


Case 43 – Egyptian Ushabtis – Servants for the Afterlife

Observation/

Factual recall:

- For what *purpose* were ushabti figures placed in Egyptian tombs? **TO SERVE THE TOMB OWNER IN THE AFTERLIFE**
- List *three materials* the Egyptians used to make ushabtis. **STONE, WOOD, CLAY**
- *How many* figures were in a full set of ushabti workers? **401**
- List *two jobs* the ushabti is supposed to perform in the afterlife (see orange label). **CULTIVATING FIELDS, GRAVE DIGGING, CARRYING SAND, IRRIGATION**
- Ushabti number 4 is carrying a *rope basket* over his left shoulder (look carefully at the right-hand figure showing the back of ushabtis #4). What might this be used for? **CARRYING SOIL OR VEGETABLES**
- **SHENTYT** was the mother of Nes-per-neb-djed (ushabti #9).
- Compare the *style* of the *beards* of ushabtis 3,4,5,6,7,8,9. What do you notice? **THEY ARE ALL PLAITED. THIS IS A CHARACTERISTIC OF 26-27TH DYNASTY USHABTIS.**

Interpretation:

- Ushabti #8 was manufactured for Amasis, (pro: Ar-may-sees) “overseer of the royal ships.” *Draw the sign* you might expect to mean “ship.”  **THREE SIGNS DENOTE “MANY”**
- The name of the admiral on ushabti #8 is Psamtek. Why do you think his name is enclosed in a *cartouche*? **HIS NAME IS PSAMTEK (PRO. SAM-TECK). HIS NAME IS IN A CARTOUCHE BECAUSE HE WAS OF VERY HIGH RANK AND AUTHORITY**
- What is the meaning of the Egyptian word *mes-es*. How does this relate to the name Moses? **“MES –ES” LITERALLY MEANS “TO BE DRAWN OUT” – TO BE BORN. IT COMMONLY FORMS PART OF EGYPTIAN NAMES. EG. THUT-MESES (THUTMOSE) “THE ONE WHOM THE GOD THOTH DREW OUT”. SIMILARLY RA-MOSE (RAMESSES) – “BORN OF RA” ETC. MOSES PROBABLY STRIPPED HIS FULL NAME OF THE EGYPTIAN GOD COMPONENT AS A GESTURE OF RELIGIOUS, ETHNIC AND POLITICAL DEFIANCE**
- What *tools* do the ushabtis carry? Why? **HOES AND BASKETS FOR WORK IN THE GARDENS AND CLEARING IRRIGATION DITCHES**
- Explain the connection between Walt Disney’s *Fantasia*, the story of the “Sorcerer’s Apprentice”, and Egyptian ushabti figures.

Extension &

Research:

- Several of the ushabtis in Case 43 are glazed with *faience*. Research what *faience* is, what it was made from, and how the ancient Egyptians used it.
- The ushabtis use the term “Osiris (of) so-and-so” where so-and-so is the person’s name. Why is this so?
- *Draw the sign* for a soldier which means “Commander of the Army” which is used in lines 1 & 2 of ushabti #4. What *weapon* is he using? **THE BOW**

The Late Period around 1000 BC was when Egypt was *weak*. However it was at this time that Israel was *strong* under King David and King Solomon. Explain. **EGYPT DOMINATED ISRAEL WHEN SHE WAS STRONG. WHEN EGYPT WAS WEAK ISRAEL COULD EXERT MORE CONTROL ON HER NEIGHBOURS - "WHEN THE CAT IS AWAY, THE MICE CAN PLAY."**

Case 44 – Tutankhamun

Observation/

Factual recall:

- How *old* was Tut-ankh-amun at his *death*? **18 OR 19**
- The gold death mask is made in the shape of the **NEMES** headdress.
- The collar of the death mask is inlaid with various types of precious stones including **LAPIS LAZULI**, a dark bluestone from Afghanistan.
- The *cobra goddess* **WADJET** sits on the right of the king's forehead. She represents the land of **LOWER** or northern Egypt.
- The *vulture goddess* **NEKHBET** sits on the left side of the king's forehead. She represents the land of **UPPER** or southern Egypt.
- The *hieroglyphic inscription* on the rear of the mask is spell #151B from the **BOOK** of the **DEAD** (see #1b).
- The *golden throne* (#2a) was found underneath the **HIPPOPOTAMUS** bed in the first chamber of the tomb.
- The *legs and feet* of the throne are **LION** paw shaped.
- The *armrests of the throne* enclose a winged **SERPENTS OR SNAKES** wearing the double crown of united Egypt.
- The small gold figure of Tut-ankh-amun (#3) wears the **BLUE** (colour) crown or *war crown*.
- On the *backrest of the throne* above the king and queen is the god Aton represented as the **SOLAR DISC**.
- Name one of the nine gods of the *Ennead* (see #1b) **ANUBIS, HORUS & PTAH-SOKER (MENTIONED ON THE BACK OF THE DEATH MASK) NEKHBET, BUTO, NEITH, ISIS, NEPHTHYS, AND SETH ARE THE OTHERS. ENNEAD MEANS "NINE"**.
- Tut may have been a son of Pharaoh Akhenaton and a *minor wife* named **KIYA** (see family line chart at front of case 44).

Interpretation:

- Each part of the *death mask* was thought to be a part of the body of one of **NINE** gods of Egypt (the *Ennead*).
- Why would a king wish to have a throne with *lions' heads and paws*? **TO APPROPRIATE THE POWER OF THE LION & TO INTIMIDATE ENEMIES**

Give the *two names* of Tut on the cylinder seal impression (#4) and their *meanings*

1. **TUT-ANKH-AMUN MEANS "THE LIVING IMAGE OF AMUN" OR "LIVING IS THE IMAGE OF AMUN"**
2. **NEB-KHEPER-U-RE MEANS "LORD OF FORMS IS RE"**

- Why did the Egyptians depict *hands* on the ends of the sunrays emanating from the Aten (solar disc) on the backrest of Tut's throne? **TO DESCRIBE THE CARESSING, LIFE-GIVING APPROVAL OF THE SUN DISC TO TUT AND ANKH-ES-EN-AMUN.**

Extension &

Research:

- The small figure of Tut-ankh-amun (#3) holds the *Heqa* (crook-sceptre) and the *Nekh-akha* (flail). These are symbols of the god Osiris. Research these symbols.
- What was the purpose of the *Death Mask* in Egyptian beliefs? **TO ENABLE THE SOUL (BA) IN THE FORM OF THE HUMAN-HEADED BENNU BIRD TO RECOGNIZE THE FACE OF THE DECEASED WHEN RETURNING TO THE TOMB**

Case 45 – The Small Golden Shrine Panel of Tutankhamun

Observation/

Factual recall:

- The shrine panel from the *rear* of the *small* shrine of Tutankhamun was discovered in the ANTE-chamber of his tomb (#1).
- The panel is made of embossed sheet gold *attached* to the wooden panels of the shrine by **GESSO** (two layers of plaster-soaked linen #1).
- The *vulture goddess* who protects the land of Upper (southern) Egypt is in the top left-hand corner. Her name is **NEKHBET**
- In the top panel (#1) Tutankhamun wears the Blue or **WAR** *crown*.
- In the lower panel he wears the **RED** *crown* of Lower (northern) Egypt.
- In the lower panel (#2) the king holds the **CROOK** and the **FLAIL** in his right hand over his right shoulder.
- The panel is made of **GOLD** covered wood, but the sledge is wood covered with **SILVER**

Interpretation:

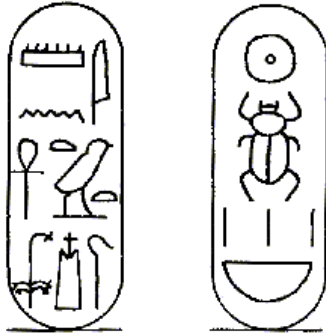
- What object *found in the shrine* led Howard Carter and Lord Carnarvon to conclude that a statue was *missing* from the shrine? **A STATUE BASE BUT NO STATUE**
- Below the vulture goddess *Nekhbet* in the top left-hand corner is the *ankh* or “life” sign as if the goddess is presenting it to Tutankhamun. What do you think this *means*? **GIVE LIFE TO THE KING**
- What is the meaning of the two *loop-shaped signs* (like a circle with a straight line under it) on the *bottom of the palm ribs* (*below the tadpoles*)? **INFINITY, FOREVER**

Extension &

Research:

- The scenes on both panels show a very relaxed, informal king and queen. Contrast this with the stiff, formal, severe poses, expressions, and attitudes of kings and queens in other periods. Hint: research *Amarna art*. **AMARNA ART IS CHARACTERISED BY AN INFORMALITY PREVIOUSLY UNKNOWN IN EGYPTIAN ART. PHARAOH AKHENATEN INTRODUCED IT.**

- Research the symbols of a pharaoh's power – the *crook and flail*. What do they symbolize? **THE POWER OF THE PHARAOH TO GUIDE AND TO DISCIPLINE THE PEOPLE**
- Find the *translations* of the two cartouches of Tutankhamun (reproduced below) which appear in both panels.



THEY READ: LEFT CARTOUCHE (RIGHT-TO-LEFT): *TUT-ANKH-AMUN*; RIGHT CARTOUCHE (RIGHT-TO-LEFT): *NEB-KHEPER-U-RE*. THEY ARE THE PERSONAL NAME AND THE *THRONE* NAME RESPECTIVELY.

Case 47 – Troy and the Trojan War

Observation/

Factual recall:

- The ancient city of Troy is in the country of **TURKEY**
- Who was the poet who composed the *Illiad* and the *Odessey*? **HOMER**
- How many *levels* (layers of occupation) do archaeologists usually say the ruins of Troy have today? (see yellow sidebar). **THIRTY**
- The archaeologist who believed that Troy was a real place and not imaginary was **HEINRICH Schliemann**
- Most scholars think that Homer lived in **IONIA** on the west coast of Turkey.
- What find (discovery) made by Heinrich Schliemann at Troy led him to believe that Level II was that of Homer's city? Hint: find the *red pin*. **THE “JEWELS OF HELEN“ (ALSO CALLED “PRIAM’S TREASURE”) FOUND NEAR THE RAMP ON THE SOUTHWEST SIDE OF LEVEL II BUT PROBABLY BURIED IN A HOLE DUG DOWN FROM LEVEL III ABOVE.**

Interpretation:

- Schliemann thought that layer or Level IIc was ruins of the Troy of the period of the Trojan War. Most scholars today believe that layer or Level **SIX** is the remains of Homer's Troy.
- Note that three of the soldiers descending from the wooden horse have “figure of eight” *shields* made of oxhide. How might this explain that the Greek soldiers suffered *wounds* to their *sides*? **THE SHIELDS FAILED TO PROTECT THEIR SIDES SUFFICIENTLY**
- How does the proverb “Beware of Greeks bearing gifts” relate to Homer's story of the Trojan War? **THE TROJAN CITIZENS ACCEPTED THE APPARENT GIFT OF THE WOODEN HORSE TO THEIR PERIL**

Extension &

Research:

- Research the *weapons and armour* of the Mycenaean soldier. Remember Homer probably lived in the *iron age* when iron weapons came into widespread use. However the weapons in the Illiad and the Odessey are *bronze*. **THE BRONZE WEAPONS REFLECT THE USE OF BRONZE IN THE EARLIER BRONZE AGE RATHER THAN THE PREDOMINANCE OF IRON IN HOMER'S TIME. SOME WEAPONS USED INCLUDE THE FIGURE OF EIGHT SHIELDS, SCALE ARMOUR AND THE BOAR'S TUSK HELMETS CONSTRUCTED OF BOAR'S TUSKS FITTED OVER A LEATHER CAP.**
- Archaeology is a destructive science – evidence is destroyed in the very process of discovering it. *Research the damage Schliemann's excavations did to the tell of Hissarlik and the difficulties this made for those who followed him.* **SCHLIEMANN'S WILD DIGGING DESTROYED MANY OF THE LAYERS ABOVE ALMOST COMPLETELY. THOSE FOLLOWING HAD GREAT DIFFICULTY SORTING OUT THE LAYERS THAT WERE LEFT.**

What happened to the hero Achilles? What part of the body and sports injury relates to his wound? HE WAS SHOT BY AN ARROW IN THE ONLY UNPROTECTED PART OF HIS BODY – HIS HEEL. THE TENDON THERE IS CALLED THE ACHILLE'S TENDON – DAMAGE TO IT RESULTS IN AN "ACHILLES HEEL."

Case 48 – The Roman Fort

Observation/

Factual recall:

- The fort is shaped like a playing **CARD** (see side label).
- Which English word for a fortress constructed of stone is derived from the Latin *Castellum* meaning fort? **CASTLE**
- The fort has **FOUR** gates.
- There are **SIX** barracks buildings for the soldiers in the fort.
- The Headquarters building is called the **PRINCIPIA**
- The road leading from the east gate to the headquarters building is named the **VIA PRAETORIA**
- What is the latrine? **TOILET BLOCK**
- The south gate was called the **PORTA PRINCIPALIS DEXTRA**
- Soldiers on **GUARD** duty stand on the ramparts and towers.

Interpretation:

- Each barracks building held **EIGHTY** soldiers and the centurion who commanded these men.
- Why would a granary be constructed with a raised wooden floor? **TO KEEP THE GRAIN DRY**
- Why is the latrine constructed as far as possible from the barracks blocks? **SMELL**
- What obvious characteristic of Roman forts (and towns) did the Western world inherit? Hint: consider the regular layout of the fort. **GEOMETRICAL LAYOUT BASED ON STRAIGHT LINES**

Extension &
Research:

- A *century* of soldiers should actually have been 100 men. Why were there usually only 80 or so in a century? **ROMAN CENTURIES WERE FREQUENTLY UNDER-STRENGTH**
- The *principia* housed the **battle standards** of the cohort. What were these? **SYMBOLS MOUNTED ON WOODEN POLES AND CARRIED INTO BATTLE. EACH COHORT HAD ITS OWN SIGNIA. THE LEGION HAD SIGNIA, THE AQUILA (EAGLE), AND LEGIONARY SYMBOLS INCLUDING IMAGES OF THE EMPEROR. BATTLE STANDARDS WERE CONSIDERED SACRED.**
- This size fort accommodated about 500 men (one cohort of a legion). How large was a legion and how many cohorts did it usually have? **APPROXIMATELY 5,500 INFANTRY, PLUS CAVALRY, AUXILIARIES AND CAMP FOLLOWERS. 9 COHORTS OF c. 500 MEN PLUS THE FIRST COHORT OF c. 800 MEN**
- Describe the **weapons and equipment** of a Roman legionary.
- How many **marches** were Roman soldiers expected to undertake each month? **THREE**
- What is the difference between a *legionnaire* and a *legionary*? **A LEGIONNAIRE IS A FRENCH SOLDIER. A LEGIONARY IS A ROMAN SOLDIER. BOOKS FREQUENTLY CONFUSE THE TWO.**
- Notice that some soldiers have *green* shields, some *red* (and other colours). What did the colour signify? **EACH COHORT HAD A DIFFERENT SHIELD COLOUR. HOWEVER THE DESIGN ON THE SHIELD WAS THE SAME FOR ALL COHORTS WITHIN A LEGION**

Case 49 – The Parthenon

Observation/

Factual recall:

- The Parthenon was completed in **432 BC** (label #1)
- The architects of the Parthenon were **IKTINOS** and **KALLIKRATES** (label #1)
- The Parthenon contained a wood and ivory statue of the goddess **ATHENA** that was **12 m** tall and covered in a gold dress which weighed **1 tonne**.
- Name the sculptor of the statue of Athena and the Parthenon frieze: **PHIDIAS** (label #1).
- How many columns has the Parthenon along its outer long sides? **17** How many on the outer short sides? **8**
- The main room of the Parthenon is called the **CELLA** or **NAOS**
- The East PEDIMENT showed scenes of the **BIRTH** of Athena.
- The rows of Doric columns along the sides of the Parthenon & other Greek temples were called the **PERISTYLE**
- The *metopes* of the *epistyle* are separated by **TRI-GLYPHS** painted blue.
- The small carved panels on the *epistyle* or outer lintel of the Parthenon are known as **METOPES**
- **TREASURE** such as pottery, weapons and furniture was stored in the **OPISTHODOMOS** or rear porch of the Parthenon.
- The eastern frieze shows the presentation of the **PEPLOS** or sacred robe to Athena.

- The four elders on the right of South Frieze block XXXVII (see label #5) possibly carry pinakes or **WRITING BOARDS LISTING TREASURES KEPT IN THE OPISTHODOMOS OF THE PARTHENON.**

Interpretation:

- The **north frieze** of the Parthenon is very famous for the beautiful sculpture composing it. Very few figures are alike and the scene is full of action and drama. Comment. **THE VARIETY AND LIFE OF THE FIGURES IS EMPHASISED BY THE OVERLAP AND SPACING OF THE FIGURES. DIFFERENCES IN ATTITUDES OF THE HORSES, TYPES OF MANES, VARIETIES IN CLOTHING, FACING OF THE FIGURES AND THE TRANSITION FROM STANDING FIGURES ON THE RIGHT TO HORSES AT THE FULL GALLOP AT LEFT. ALL THIS IS ACCOMPLISHED WITH A MAXIMUM RELIEF DEPTH OF 5CM!**
- Metope #32 on the northern side survived vandalism by the early Christians. Why? (see orange label) **METOPES 32 SHOWS ATHENA and HERA OR THEMIS. THE EARLY CHRISTIANS THOUGHT THIS SCENE SHOWED THE ANGEL GABRIEL ANNOUNCING THE FORTHCOMING BIRTH OF JESUS TO MARY**
- **Parthenon sculpture** is in the **British Museum**, the **Acropolis Museum** (near the Parthenon), the **Louvre in Paris**, and the **Palermo museum in Italy**, yet the **British Museum** is the only institution targeted by the media in its campaign to have the "Parthenon marbles" returned to Greece. Comment on **why** this might be. **THE ELGIN MARBLES IN THE BRITISH MUSEUM ARE THE LARGEST PORTION OF SCULPTURE FROM THE PARTHENON. ANTI-BRITISH FEELING HAS RISEN DURING THE IRAQ CAMPAIGN WHILE SUPPORT FOR FRANCE HAS INCREASED. THE MEDIA IS IGNORANT OF THE FULL FACTS.**
- "The Parthenon sculptures should be returned to Greece." Agree or disagree? Give reasons. **FACTS: 1. ELGIN PAID FOR THE MARBLES; 2. IF THE MARBLES HAD BEEN LEFT IN GREECE THEY WOULD PROBABLY HAVE SUFFERED THE SAME FATE OF THOSE IN THE ACROPOLIS MUSEUM; THE GREEKS ADMIT THEY HAVE FOUND NO SOLUTION TO THE POLLUTION PROBLEM WHICH IS RAPIDLY DESTROYING SCULPTURE CURRENTLY IN ATHENS. NEVERTHELESS THE MARBLES DO BELONG TO THE PARTHENON.**

Extension &

Research:

- Earlier Greek temples had **six** columns on the narrow side. The Parthenon has **eight**. Why did Iktinos and Kalikrates choose eight?
- The Greek statesman **Perikles** paid for the construction of the Parthenon out of his own pocket. What reasons could you propose for his doing this?
- Research the **significance of the peplos** of Athena polias, how it was produced and **where** on the acropolis it was presented to Athena polias. **PRESENTED TO ATHENA POLIAS AND PLACED ON HER WOODEN STATUE IN THE ERECTION**
- The Parthenon is designed to please the eye, both in its **proportions** and its **curves**. Explain.

- The **friezes** of the Parthenon are in the **Ionic** style (as are the columns in the *opisthodomos* or rear porch) while the **peristyle** and **metopes** are in the **Doric** style. Why?

Case 50 – The Great Sphinx of Giza

Observation/

Factual recall:

- Pharaoh **KHAFRE** probably constructed the Great Sphinx in about **2500 BC**.
- The Sphinx was supposed to represent the sun-god **HOR-EM-AKHET** ("Horus of the Horizon") in the form of the lions which guarded the gates to the **UNDERWORLD** on the horizons of Egypt.
- The face of the Sphinx was originally painted **RED**.
- The stone casing of the sphinx has been repaired by at least two Egyptian Pharaohs. They are **THUTMOSE IV** and **RAMESES II**.
- The sphinx is about **74m** long and **20m** high.
- Did soldiers in Napoleon's army destroy the nose of the sphinx? **NO TURKISH SOLDIERS DID**
- Three types of erosion that have damaged the Great Sphinx are: **RAIN**, blowing **SAND**, and **SALT** crystalization.

Interpretation:

- Why do archaeologists assume Pharaoh Khafre constructed the Great Sphinx? **a. THE FACE RESEMBLES THAT OF KHAFRE b. THE POSITION OF THE**
- Why is it mistaken to date human work on the rock of the Great Sphinx by attempting to date the age of the erosion of the Sphinx? **EVEN IF THE TIME TAKEN FOR THE SPHINX TO ERODE COULD BE PRECISELY DATED (WHICH IT CANNOT), DOES NOT MEAN THE EGYPTIANS (OR ATLANTEANS OR WHATEVER!) CARVED THE SPHINX BEFORE THE EROSION OR EVEN JUST AFTER. THE ANCIENT EGYPTIAN COULD HAVE USED AN ALREADY LONG-ERODED ROCK FOR THEIR SPHINX**
- The model shows three ancient Egyptians observing the sphinx. Why is this an error? *Hint: note the condition of the sphinx's nose and the cement reinforcing the headdress.* **THE MODEL SHOWS ANCIENT EGYPTIANS OBSERVING THE SPHINX WITH THE CEMENT HEAD SUPPORTS ADDED IN THE 1920S**

Extension &

Research:

- Research claims that the Sphinx contains hidden chambers and passages.
- Research the "Dream Stela." Who wrote it and why? What is its connection with the Great Sphinx?

Case 61 – New Kingdom Egyptian Temple Model

Observation/

Factual recall:

- Who is *bathing* in the sacred lake? **A PRIEST**

- The front faces of the pylons show the pharaoh in red and white crowns *clubbing* (or smiting) his **CAPTIVES** or prisoners (Hint: look behind the obelisks for a label).
- On the pylons the pharaoh wears the *double crown* made up of the **RED** Crown of Lower (North) Egypt and the **WHITE** Crown of Upper (Southern) Egypt.
- There are *two huge* **STATUES** of the pharaoh either side of the temple gate.
- How many *columns* are there in the colonnades surrounding the courtyard?

Interpretation:

- Why would a *scribe* set up office near the temple gate? **TO OFFER HIS/HER SERVICES TO THE WORSHIPPERS**
- Inside the courtyard a man & wife are presenting a *votive tablet* to the god. Look up the word *votive* and suggest a reason why they might be doing this. **A VOTIVE OFFERING IS A GIFT PRESENTED TO A GOD/GODDESS TO SECURE THE DEITY'S FAVOUR. PERHAPS THE COUPLE ARE REQUESTING A CHILD**
- Why might the temple complex need to be surrounded by *walls*? **TO SECURE THE TREASURES HELD FROM OFFERINGS**

Extension &

Research:

- Egyptians believed that the *fluttering pennants* on the pylons indicated the presence of the god inside the sanctuary of the temple. Research the association between *wind* and the presence of the God Israel as recorded in the Bible.
- The *obelisks* outside the temples were frequently very massive - 200-260 tonnes. Research the theories proposed to explain *how* the ancient Egyptians stood them up.
- Notice the *hundreds* of gods and goddesses painted on the walls of the temple. Approximately how many gods/goddesses were there (see an encyclopedia)? Comment in the light of Exodus 12:12.

Case 62 – Roman Villa of the Imperial Period

Observation/

Factual recall:

- What are the servants *pressing* in the courtyard? **OLIVES**
- Two types of *birds* are being raised at the rear of the house. They are **GEESE** and **CHICKENS**
- The slaves are carrying a wild **PIG** killed in a hunt.
- How many *horses* can you see in the stable area?
- One of the slaves in the garden has had an *unfortunate experience*. What is it? **HE IS BEING ATTACKED BY A SWARM OF BEES**
- At the *rear* of the house a **TRAVELLER** passes by.
- The house owner and his wife are standing at the *main gate*. Why? **THEY ARE RECEIVING A LETTER**
- What is *inside* the litter being carried on the street? **A FAMILY**

Interpretation:

- Why is there a *wall* around the house? **TO SECURE IT AGAINST THIEVES**
- Describe some of the *activities* going on in and around this villa.
- Why is the street outside *paved* with blocks of stone? **SO IT CAN BE USED IN WET WEATHER AND THE ALLOW FAST TRAVEL BY VEHICLES AND SOLDIERS**
- What is the *ornamental garden* being used for? What does this tell us about the wealth of the family that owns the villa? **ENTERTAINMENT OF GUESTS AND PERSONAL RECREATION**
- There is a long portico or colonnade at the rear of the house, as well as grapevines growing over the peristyles or pergolas. Give a modern Australian practice that parallels this (Hint: compare the *climates* of Italy and Australia). **LARGE SHADY VERANDAS AND PERGOLAS FOR SHADE IN SUMMER**

Extension & Research:

- *Olive oil* was a very important commodity in the ancient world. List several uses for it in ancient society. **COOKING, PERFUMES, AS AN ANTISEPTIC**
- *Slavery* was very common in the Roman period. However slaves were frequently treated very well and preferred to remain with their owners even after given their freedom. Give some reasons why. **SECURITY, EMPLOYMENT, HOUSING, STATUS, FRIENDSHIP**
- The horse being ridden out of the stabling yard has a *saddle*. Research when saddles were first used in the ancient world.
- The house has two *wells* for water supply. In cities the water was sometimes piped in via aqueducts and supplied to houses in lead pipes. Research Roman aqueducts. How much did they have to “fall” (ie. *slope*) in a Roman mile to ensure the water would flow? **AQUEDUCTS SLOPED OR FELL ABOUT**
- The Romans were able to make water flow *uphill*. How did they do this? **BY USING THE SIPHON PRINCIPLE**
- Why would you not wish to drink water supplied in *lead* pipes? **LEAD COMPOUNDS ARE POISONOUS**
- The ancient Romans are renowned for their *roads*. Research Roman road building. *Who* built the roads? **SLAVES, CRIMINALS, AND PRISONERS OF WAR**

Case 64 – A Roman Amphitheatre

Observation/

Factual recall:

- How many people could be seated in the Colosseum in Rome? c. **45,000 SEATS PLUS STANDING ROOM FOR ANOTHER 5,000**
- How many levels of arches did the Colosseum have on the outside? **THREE LEVELS OF ARCHES PLUS ONE LEVEL OF WINDOWS. THE MODEL AMPHITHEATRE HAS TWO LEVELS OF ARCHES AND A BALUSTRADE ON TOP.**
- Why was the “Colosseum” so called? **THE “COLOSSEUM” WAS BUILT DURING THE REIGN OF THE EMPORER VESPASIAN AND HIS SON TITUS OVER**

THE LOCATION OF A *COLOSSAL* STATUE OF THE EMPEROR NERO ERECTED BY HIMSELF NEAR THE LAKE AND HIS GOLDEN PALACE

- What was the floor of the Colosseum made of? **WOOD**
- Why did Romans sometimes *flood the arena* of amphitheatres? **TO FIGHT MOCK SEA BATTLES WITH SHIPS**
- What facilities were constructed at ground level under the arches & tunnels of the amphitheatre? **PUBLIC TOILETS, STORAGE ROOMS FOR WEAPONS AND EQUIPMENT, HOLDING ROOMS FOR GLADIATORS AND ANIMALS, CELLS FOR PRISONERS TO BE EXECUTED BY BEING FED TO WILD ANIMALS, BURNING ALIVE etc.**
- How were wild animals brought to the arena floor from their cages under the Colosseum? **LIFTS OPERATED BY PULLEYS RAISED THE ANIMALS TO THE COLOSSEUM FLOOR LEVEL**
- What *contemporary practice* in Spain is derived from the Roman practice of killing animals for sport? **BULL FIGHTING**

Interpretation:

- The Romans brought animals from the ends of the empire to be killed in their amphitheatres. Many were shipped from Africa. *How* did this effect the *numbers of animals* in these countries? **MANY SPECIES OF ANIMALS WERE HUNTED TO EXTINCTION BY THE ROMANS**
- Why do you think that the citizens of Rome *enjoyed watching slaughter* of animals and people in the amphitheatres?
- The Colosseum was equipped with an *adjustable canvas roof* (called a *velarium*). Why? **TO SHADE THE SPECTATORS. IT IS THOUGHT THE AWNING WAS RIGGED BY MARINES**

Extension &

Research:

- Research what the Roman writers said about *how they felt about the cruel killing of Christians* in the amphitheatres of Rome particularly during the reigns of the emperors Nero and Domitian.
- Research *three types of Roman gladiators* who fought in the arenas of amphitheatres. Describe their weapons and how they fought. You might view the film Gladiator for some illustration here. **THE MYRMILLO, RETARIUS, SECUTOR,**
- Write a *short story* of an incident in the life of a gladiator.
- *Build a small diorama of gladiators fighting*. You should be able to buy some inexpensive gladiator figures for your model in toy stores. Label the parts.
- Many films show the audiences in amphitheatres giving the “thumbs down” sign and shouting ‘iugula!’ (ie. Jugular - “cut his throat”) to indicate they wish a losing gladiator to die. Research whether or not the thumbs down sign was actually used. **EXACTLY WHAT SIGN THE ROMANS USED IS UNKNOWN. HOLLYWOOD MOVIE MAKERS HAD TO HAVE A SIGN SO THEY INVENTED THE THUMBS DOWN**
- How much canvas (in m²) would have been needed to completely roof the Colosseum. Consult your maths teacher for the formula for the *area of an ellipse*. **THE COLOSSEUM MEASURED 186M BY 156M AND WAS 48.5M HIGH. THE AREA**

OF AN ELLIPSE IS GIVEN BY THE FORMULA $AREA = \pi a.b$. WHERE a AND b ARE HALF THE LENGTHS OF THE AXES OF THE ELLIPSE. SO $a = 186/2 = 94m$; $b = 156/2 = 78m$; $AREA = \pi \times 94 \times 78m^2 = 23,034m^2$ LESS A SMALL AMOUNT FOR THE ELLIPTICAL HOLE AT THE CENTRE. SAY HOLE WAS THE SIZE OF THE ARENA FLOOR (ie. 88m BY 55.4m); $AREA \text{ FLOOR} = \pi \times 44 \times 27.7m^2 = 3829m^2$. $AREA \text{ OF CANVAS} = 23,034 - 3,829 = \underline{19,205 m^2}$

Case 67 – Map Model of the Ancient World

Observation/

Factual recall:

- The ancient Egyptians called the *Mediterranean Sea* the **GREAT SALT** Sea
- *Mesopotamia* means “the land **BETWEEN** the rivers”
- The *two most important rivers* of Mesopotamia are the **TIGRIS** and the **EUPHRATES**
- The **green arching region** is known as the **FERTILE CRESENT**
- Approximately *how far is it in a straight line* from **Thebes** (in southern or Upper Egypt) and **On** in Lower (Northern) Egypt. See **GREEN PINS. ABOUT 500 KM**
- Approximately *how far is it in a straight line* from **Babylon** (in Mesopotamia) to **Carchemish** (north-west in Syria). See **BLUE PINS. ABOUT 750 KM**

Interpretation:

- Ancient travellers preferred to take the longer arching route (painted green on the model) in travelling from Egypt to Mesopotamia and *vice versa*. Why? **IT WAS PREFERABLE TO CROSSING THE ARABIAN DESERT BECAUSE EVEN THOUGH IT WAS LONGER IT HAD PLENTIFUL WATER AND ACCOMODATION**

Extension &

Research:

- There are records of various Assyrian kings on military campaign in Palestine travelling directly across the Arabian desert back to Nimrud and Nineveh in northern Iraq. Suggest a possible reason. **THEY HEARD RUMOURS OF POLITICAL REVOLTS AT HOME AND WERE ANXIOUS TO RETURN TO MESOPOTAMIA AS FAST AS POSSIBLE.**
- The land of Canaan (now Israel/Palestine) lay between the great civilizations of Egypt and Mesopotamia. How did this geographical fact influence its history? **BEING AT THIS CROSSROADS OF THE ANCIENT WORLD STUCK BETWEEN THE GREAT POWERS MEANT THAT THIS AREA WAS HIGHLY STRATEGIC (AS IT STILL IS) AND SUFFERED THE CONQUESTS OF COUNTLESS ARMIES**