#### Hornbill-Ch. 3. Discovering Tut: The Saga Continues (Summary)

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Discovering Tut: the Saga Continues is a chapter which gives us an in-depth insight of Tutankhamun, the last ruler of the powerful Pharaoh Dynasty in Egypt. He was a teenager when he died and his death was a mystery. Some speculated that he was murdered. He ruled in Egypt and its empire for centuries. In 1922, his tomb was discovered by Howard Carter, a British Archaeologist. After 80 years, he was taken from his resting place for CT scan which offers to solve the mystery of his life and death by creating a forensic reconstruction.

Tut's father or grandfather, Amenhotep III, was a very powerful Pharaoh who ruled over a period of forty years. His son, Amenhotep IV, thrived him and began the strangest period in the history of Egypt. He promoted the worship of Aten (the sun disk). He changed his name to Akhenaten meaning servant of the Atens. He also moved the religious capital from Thebes to the new city of Akhenaten, called Amarna. Further, he attacked Amun, a god, smashed his images and closed his temples. Another mysterious ruler succeeded him who died soon. Next, Tutankhamun, also known as Tut, sat on the throne and ruled for nine years. He worshipped god Amun in the old ways. However, he died mysteriously.

When Tut's mummified body was discovered, he was laid with lots of gold, wealth and everyday items like a bronze razor, games, clothes, cases of food and wine. Carter discovered him after searching for many years. After researching on the treasures, he decided to investigate his three nested coffins. Some parts of the Tut's treasures in the tomb were already looted.

His tomb was rock-cut, 26 feet underground, which had wall paintings. On the outer coffin, Tut's face was gilded. In the first coffin, he found the garlands of olives, lotus petals, and cornflowers. It showed that he was buried in the months of March or April. The third and final coffin put Carter into trouble. The resins used to cement Tut to the bottom of the solid gold coffin was hardened enough making it impossible to move. He put the coffin in the sun for several hours in hope for the resins to loosen up but it didn't work. Finally, he removed the resins with the help of chisel and hammer. Carter felt he didn't have any other choice as to if he hadn't cut the mummy from limb to limb, thieves would have looted the gold. His men first removed his head, then they cut off every joint. After removing the body parts, they placed it on the layer of sand in a wooden box and put it at the original place.

In 1968, the mummy was X-rayed by an anatomy professor, revealed few facts – his breast bone and front ribs were missing.

Later, on January 05 2009, Tut was taken for CT (Computed Tomography) scan which takes hundreds of X-Rays and creates a three-dimensional image. The night of the scan, the workmen carried his body from the tomb in a box. They climbed ramp and stairs and lifted it on a hydraulic trailer that held the scanner. The scanner stopped working which paused the procedure. After using a pair of spare fans, the scan was finally done. After three-hours, his body was taken back to his tomb where his body is resting in peace.

# Explanation Of chapter in detail :-

He was just a teenager when he died. The last heir of a powerful family that had ruled Egypt and its empire for centuries, he was laid to rest laden with gold and eventually forgotten. Since the discovery of his tomb in 1922, the modern world has speculated about what happened to him, with murder being the most extreme possibility. Now, leaving his tomb for the first time in almost 80 years, Tut has undergone a CT scan that offers new clues about his

life and death — and provides precise data for an accurate forensic reconstruction of the boyish pharaoh.

Heir – Inheritor, successor
Laden – loaded
Speculated- form a theory without evidence
Tomb- an enclosure to bury the dead
Forensic Reconstruction – the process of recreating the face of an individual Pharaoh- a ruler in ancient Egypt

Tutankhamun, also known as Tut, was a teenager when he died. He was the last successor of his powerful Pharaoh Dynasty which ruled Egypt and its empire for centuries. He was laid on rest, heavily loaded with gold. His tomb was discovered in 1922 which made the world raise a question about what had happened to him and whether he had been murdered? After almost 80 years, his body was about to undergo a CT scan which would give new information and clues about his life and death. His face would be recreated with the help of a procedure called forensic reconstruction.

AN angry wind stirred up ghostly dust devils as King Tut was taken from his resting place in the ancient Egyptian cemetery known as the Valley of the Kings\*. Dark-bellied clouds had scudded across the desert sky all day and now were veiling the stars in casket grey. It was 6 p.m. on 5 January 2005. The world's most famous mummy glided head first into a CT scanner brought here to probe the lingering medical mysteries of this little understood young ruler who died more than 3,300 years ago.

Stirred – move or cause to move slightly Ghostly – eerie and unnatural; unreal Resting place- here, the grave Cemetery- a large burial ground Dark-bellied – dark in colour

Scudded across – moving quickly; it refers to the movement of the dark-bellied clouds Veiling – to cover something

Casket- a small ornamental box or chest for holding jewels, letters, or other valued objects. Casket grey – It means that the grey clouds were like a grey coloured casket which contained the stars. The stars are like jewels which are kept in a casket.

Glided – quite, continuous motion Probe – to investigate, find out Lingering – long-lasting

A fast, strange and unnatural wind was blowing as King Tut's body was taken from his grave called 'Valleys of the Kings', an ancient Egyptian cemetery (The location of the Valley of the Kings is given in the image). Dark clouds moved quickly across the desert all day long and later, they covered the stars. On January 5, 2005, at 6 pm, King Tut's mummy which is the world's most famous mummy was placed in the CT scanner to investigate the mystery behind his death which had occurred more than 3300 years ago.

All afternoon the usual line of tourists from around the world had descended into the cramped, rock-cut tomb some 26 feet underground to pay their respects. They gazed at the murals on the walls of the burial chamber and peered at Tut's gilded face, the most striking feature of his mummy-shaped outer coffin lid. Some visitors read from guidebooks in a whisper. Others stood silently, perhaps pondering Tut's untimely death in his late teens, or wondering with a shiver if the pharaoh's curse — death or misfortune falling upon those who disturbed him — was really true.

Descended – moved or gathered Cramped – very small to fit into Rock-cut - made in a rock by cutting it Gazed – to look in surprise or in admiration Murals – a painting or other artwork executed directly on the wall Gilded – covered with a thin sheet or coating of gold Striking- prominent Whisper- to speak in a low voice Pondering – think about something carefully

All afternoon, tourists visited the 26 feet deep, underground rock-cut tomb to pay respect to the king. Mnay people stuffed into the small tomb and looked in admiration at the murals on the walls of the chamber and took a look at the face of Tut that had been painted with gold. While visitors read the guidebooks in a hushed tone, some stood silently, wondering about his untimely death in his teen years. They might also be wondering if the curse of the pharaoh which leads to the descend of misfortune upon the person who disturbs him is true.

"The mummy is in very bad condition because of what Carter did in the 1920s," said Zahi Hawass, Secretary General of Egypt's Supreme Council of Antiquities, as he leaned over the body for a long first look. Carter—Howard Carter, that is — was the British archaeologist who in 1922 discovered Tut's tomb after years of futile searching. Its contents, though hastily ransacked in antiquity, were surprisingly complete. They remain the richest royal collection ever found and have become part of the pharaoh's legend. Stunning artefacts in gold, their eternal brilliance meant to guarantee resurrection, caused a sensation at the time of the discovery — and still get the most attention. But Tut was also buried with everyday things he'd want in the afterlife: board games, a bronze razor, linen undergarments, cases of food and wine.

Futile – pointless; incapable of producing the result of something Hastily – fast; swiftly Ransacked – raid; go through a place to steal or damage something

Australia and a labora

Antiquity - age, oldness

Resurrection - restoration to life

Afterlife- life after death, based on the belief that the essential part of an individual's identity continues to the next life after the death of the physical body

As Zahi Hawass, Secretary General of Egypt, leaned over the body to have a look, he said that the mummy was in a very bad condition because of what the British archaeologist Howard Carter did to it in the 1920s. He discovered King Tut's tomb in 1922 after a long search. The valuable treasures of Tut had been explored earlier too but surprisingly, they were complete. The treasure found at Tut's grave is the richest till date and has come to be known as the Pharaoh's legend. It has artefacts in gold which are eternally beautiful and as good as new. Such artefacts still get attention. Tut was buried with things of daily use like a razor made of bronze, games, linen undergarments and boxes of food and wine which he could use in the next life.

After months of carefully recording the pharaoh's funerary treasures, Carter began investigating his three nested coffins. Opening the first, he found a shroud adorned with garlands of willow and olive leaves, wild celery, lotus petals, and cornflowers, the faded evidence of a burial in March or April. When he finally reached the mummy, though, he ran into trouble. The ritual resins had hardened, cementing Tut to the bottom of his solid gold coffin. "No amount of legitimate force could move them," Carter wrote later. "What was to be done?"

Funerary Treasures – the valuable things with which the king was buried three nested coffin- three cofins placed one in another in order of decreasing size. The innermost coffin houses the body of the deceased.

Shroud – a length of cloth in which a dead person is wrapped

Adorned – decorated

Garlands of willow – a wreath of flowers and leaves

Mummy- a body of a human being or animal that has been ceremonially preserved by removal of the internal organs, treatment with natron and resin, and wrapping in bandages.

Ritual - here, the resins used in the ceremony of mummification Resins – a sticky flammable substance that is insoluble in water Legitimate - reasonable

Carter took a few months to record the treasures found in Tut's grave. Then he began investigating his three coffins which were nested one in another. In the first coffin, he found a piece of cloth with garlands of willow, olive leaves, wild celery, lotus petals and cornflower, which suggested that he had been buried in the months of March or April. When he reached the third coffin, he was in trouble. The body had hardened due to the resins which had cemented the body and it had stuck to the bottom of the coffin which was made of gold. Carter wondered what to do next because no amount of force could separate the two.

The sun can beat down like a hammer this far south in Egypt, and Carter tried to use it to loosen the resins. For several hours he set the mummy outside in blazing sunshine that heated it to 149 degrees Fahrenheit. Nothing budged. He reported with scientific detachment that "the consolidated material had to be chiselled away from beneath the limbs and trunk before it was possible to raise the king's remains."

Blazing – very hot Budged – moved or shifted; a slight movement Chiselled away – to cut something with a chisel

Carter tried to loosen the resins by keeping the body in the hot sun. He kept the mummy in 149 degrees Fahrenheit heat for several hours but still, it remained stuck. He reported that a chisel could be used to cut down the mummy from the limbs and the trunk so that Tut's body could be taken out of the coffin.

In his defence, Carter really had little choice. If he hadn't cut the mummy free, thieves most certainly would have circumvented the guards and ripped it apart to remove the gold. In Tut's time the royals were fabulously wealthy, and they thought — or hoped — they could take their riches with them. For his journey to the great beyond, King Tut was lavished with glittering goods: precious collars, inlaid necklaces and bracelets, rings, amulets, a ceremonial apron, sandals, sheaths for his fingers and toes, and the now iconic inner coffin and mask — all of pure gold. To separate Tut from his adornments, Carter's men removed the mummy's head and severed nearly every major joint. Once they had finished, they reassembled the remains on a layer of sand in a wooden box with padding that concealed the damage, the bed where Tut now rests.

Circumvented – find a way around; thieves would have found a way to tackle the guards and remove the gold from the tomb

Inlaid - a decorative pattern on a surface

Amulet - an ornament or small piece of jewellery thought to give protection against evil, danger, or disease.

Apron - a protective garment worn over the front of one's clothes and tied at the back. Sheaths – a close-fitting cover

Iconic - something or someone who is a symbol or it represents some other thing Adornments – ornaments

Concealed-hid

According to Carter, he had no choice other than to cut the mummy. He believed that if he hadn't done that, thieves would have removed the gold from the tomb and would have looted it. During Tut's time, the royal people were very wealthy and they had a belief that after death, they could take the wealth along with them. For his life after death, he was given precious collars, necklaces with decorative patterns, bracelets, rings, amulets, ceremonial aprons, sandals, sheaths for fingers and toes and now, an iconic inner coffin and a mask. His men removed his head and every joint of his body. After they finished, they reassembled the remains in a wooden box with padding filled with a layer of sand to conceal the damage. It was his new resting place.

Archaeology has changed substantially in the intervening decades, focusing less on treasure and more on the fascinating details of life and intriguing mysteries of death. It also uses more sophisticated tools, including medical technology. In 1968, more than 40 years after Carter's discovery, an anatomy professor X-rayed the mummy and revealed a startling fact: beneath the resin that cakes his chest, his breast-bone and front ribs are missing.

Intervening – occur in the time between events Intriguing – to arouse one's curiosity Startling – unexpected or surprising

In the past few decades, archaeology has changed as it now focuses on the details of life and the mysteries of death. Earlier, it was about focusing on the treasure. Now, it uses more advanced medical technologies and tools for research. In 1968, an anatomy professor X-rayed King Tut's mummy and revealed that the front limbs and breast bone were missing.

Today diagnostic imaging can be done with computed tomography, or CT, by which hundreds of X-rays in cross section are put together like slices of bread to create a three-dimensional virtual body. What more would a CT scan reveal of Tut than the X-ray? And could it answer two of the biggest questions still lingering about him — how did he die, and how old was he at the time of his death?

King Tut's demise was a big event, even by royal standards. He was the last of his family's line, and his funeral was the death rattle of a dynasty. But the particulars of his passing away and its aftermath are unclear.

Computed Tomography – Also called a CT scan, it is a three-dimensional scan of a body with the help of hundreds of X-Rays in cross-section together

Demise - death

death rattle - the gurgling sound produced in the throat of a person who is about to die Aftermath – after-effects of an unpleasant event

Now with the advancement of technology, CT scan or Computed Tomography can give a virtual image of the whole body. With the help of this technology, King Tut's body would be scanned to find answers to two questions – How he died and how old was he at the time of his death.

His death was a shock to the royals also as he was the last person of his family and his funeral indicated the diminishment of his dynasty. However, what happened after his death is still not clear.

Amenhotep III — Tut's father or grandfather — was a powerful pharaoh who ruled for almost four decades at the height of the eighteenth dynasty's golden age. His son Amenhotep IV succeeded him and initiated one of the strangest periods in the history of ancient Egypt. The new pharaoh promoted the worship of the Aten, the sun disk, changed his name to Akhenaten, or 'servant of the Aten,' and moved the religious capital from the old city of Thebes to the new city of Akhetaten, known now as Amarna. He further shocked the country by attacking Amun, a major god, smashing his images and closing his temples. "It must have been a horrific time," said Ray Johnson, director of the University of Chicago's research centre in Luxor, the site of ancient Thebes. "The family that had ruled for centuries was coming to an end, and then Akhenaten went a little wacky."

### Wacky -amusing in a slightly odd way

Tut's father or grandfather, Amenhotep III, was a very powerful Pharaoh who ruled over a period of forty years. His son, Amenhotep IV, succeeded him and began the strangest period in the history of Egypt. He promoted the worship of Aten (the sun disk). He changed his name to Akhenaten meaning servant of the Atens. He also shifted the religious capital from Thebes to the new city of Akhenaten, called Amarna. Further, he attacked Amun, a god, smashed his images and closed his temples. Ray Johnson, director of the University of Chicago said it

must have been a bad time for the empire as the family who ruled for centuries came to an end and Akhenaten moved in an odd direction.

After Akhenaten's death, a mysterious ruler named Smenkhkare appeared briefly and exited with hardly a trace. And then a very young Tutankhaten took the throne — King Tut as he's widely known today. The boy king soon changed his name to Tutankhamun, 'living image of Amun,' and oversaw a restoration of the old ways. He reigned for about nine years — and then died unexpectedly.

Regardless of his fame and the speculations about his fate, Tut is one mummy among many in Egypt. How many? No one knows. The Egyptian Mummy Project, which began an inventory in late 2003, has recorded almost 600 so far and is still counting. The next phase: scanning the mummies with a portable CT machine donated by the National Geographic Society and Siemens, its manufacturer. King Tut is one of the first mummies to be scanned — in death, as in life, moving regally ahead of his countrymen.

Another mysterious ruler, Smenkhhare, succeeded him and died soon. Next, Tutankhamun, also known as Tut, sat on the throne and ruled for nine years. He worshipped god Amun in the old ways. However, he died mysteriously.

Tut is one of the mummies in Egypt. Whereas, until now with the help of the Egyptian Mummy Project which started in 2003, almost 600 mummies have been recorded so far. King Tut's mummy was the first one to be scanned by CT under the next phase of scanning the mummies with the machine donated by the National Geographic Society and Siemens.

A CT machine scanned the mummy head to toe, creating 1,700 digital X-ray images in crosssection. Tut's head, scanned in 0.62-millimetre slices to register its intricate structures, takes on eerie detail in the resulting image. With Tut's entire body similarly recorded, a team of specialists in radiology, forensics, and anatomy began to probe the secrets that the winged goddesses of a gilded burial shrine protected for so long.

Eerie detail – strange image of Tut's head as visible with the help of CT scan
Forensics – the application of the scientific method to investigate a crime
Anatomy – the branch of science which deals with the bodily structure of humans, animals or other living beings
Burial – burying the dead
Shrine – holy place

The CT scan machine scanned the body by creating 1700 digital X-rays in cross-sections. Tut's head was scanned in 0.62 mm slices to record the tiny details. The resulting image was very strange. A team of Radiology, Forensics and Anatomy experts started examining the secrets of the grave that had been protected by flying goddesses for a long time.

The night of the scan, workmen carried Tut from the tomb in his box. Like pallbearers they climbed a ramp and a flight of stairs into the swirling sand outside, then rose on a hydraulic lift into the trailer that held the scanner. Twenty minutes later two men emerged, sprinted for an office nearby, and returned with a pair of white plastic fans. The million-dollar scanner had quit because of sand in a cooler fan. "Curse of the pharaoh," joked a guard nervously.

Eventually the substitute fans worked well enough to finish the procedure. After checking that no data had been lost, the technicians turned Tut over to the workmen, who carried him back to his tomb. Less than three hours after he was removed from his coffin, the pharaoh again rested in peace where the funerary priests had laid him so long ago.

Pallbearers – a person who helps to escort a coffin at a funeral Swirling – to spin or twist Hydraulic lift – a lift that uses a machine to lift or move heavy objects with a pressure Sprinted – ran at a high speed During the night, workmen climbed up on the ramp and the flight of stairs to carry the body from the tomb into the spinning sand outside. They rose the body onto a hydraulic lift, then into a trailer where the scanner was kept. After twenty minutes, two men ran towards the office nearby to bring two fans. The scanner was not working as the sand had entered a cooler fan. The guard joked that it was because of the curse of the pharaoh because they had removed his body.

Once the fans worked, the procedure was finished. The data was checked in case of any losses and then technicians returned the body to the pallbearers who carried him back to his tomb. In less than three hours, he was resting at the same place where the priests had laid him many years ago.

Back in the trailer a technician pulled up astonishing images of Tut on a computer screen. A grey head took shape from a scattering of pixels, and the technician spun and tilted it in every direction. Neck vertebrae appeared as clearly as in an anatomy class. Other images revealed a hand, several views of the rib cage, and a transection of the skull. But for now the pressure was off. Sitting back in his chair, Zahi Hawass smiled, visibly relieved that nothing had gone seriously wrong. "I didn't sleep last night, not for a second," he said. "I was so worried. But now I think I will go and sleep."

By the time we left the trailer, descending metal stairs to the sandy ground, the wind had stopped. The winter air lay cold and still, like death itself, in this valley of the departed. Just above the entrance to Tut's tomb

stood Orion — the constellation that the ancient Egyptians knew as the soul of Osiris, the god of the afterlife — watching over the boy king.

Astonishing - amazing

Pixels - a pixel is a single point in a graphic image

Spun – to turn around

Vertebrae – series of small bones which form a backbone

In the trailer, the technician showed a beautiful image of Tut on a computer screen. He showed the grey head which was scattered in pixels and he spun it around. Next, the vertebrae, hand, rib cage, and transection of his skull were shown. As the work was done, the pressure was finally off from the shoulders of Zahi Hawass. While sitting in his chair, he smiled and said that he was relieved that nothing went wrong. He had not slept the previous night and now, as the work was done, he would go and sleep.

By the time they left the trailer, the wind had stopped and the winter air was like death itself. Just above the tomb the Orion constellation shone in the night sky, watching over the boy king.

# **Question and Answers**

Understanding the Text

- 1. Give reasons for the following.
- (i) King Tut's body has been subjected to repeated scrutiny.

**Ans:** King Tut's body has been subjected to repeated scrutiny because of his history, his treasures which he was buried with and to know the reason behind his death.

## (ii) Howard Carter's investigation was resented.

**Ans:** Howard Carter's investigation was resented because of his unscientific methods to cut off his body from the tomb. He also focused more on Tut's wealth and less on to solve the

mystery of Tut's life and death.

#### (iii) Carter had to chisel away the solidified resins to raise the king's remains.

**Ans:** Carter had to chisel away the solidified resins to raise the king's remains because the body was cemented to the bottom of the solid gold coffin as the resins had hardened. No force could move the body away and keeping the body in the sun, under 149 degrees Fahrenheit also did not help.

#### (iv) Tut's body was buried along with gilded treasures.

**Ans:** Tut's body was buried along with gilded treasures as the ancient Egyptian royals were extremely wealthy. They also believed that the royalty would take all the treasures with them in their afterlife.

#### (v) The boy king changed his name from Tutankhaten to Tutankhamun.

**Ans:** Tutankhamun means 'Living image of Amun'. Amun was a major god of ancient Egypt. Amenhotep III smashed and closed his temples, later Tut restored his temples and beliefs back in his empire. That is why he changed his name from Tutankhaten to Tutankhamun to choose his belief in the god.

#### 2. (i) List the deeds that led Ray Johnson to describe Akhenaten as "wacky".

Ans: According to Ray Johnson, the Akhenaten was wacky because of the following reasons:

- i. He smashed and closed Amun's images.
- ii. He worshipped Aten, sun's disk
- iii. He moved the religious capital from the city of Thebes to the new city of Akhenaten, now called Amarna.
- iv. He changed his name to Akhenaten

## (ii) What were the results of the CT scan?

**Ans:** The results of the CT scan were astonishing which was 1700 digital X-rays cross-sectioning each other to make a three-dimensional image. A grey head appeared and his vertebrae were shown. The images of the hand, ribcage, and skull were shown which were so clear.

## (iii) List the advances in technology that have improved forensic analysis.

**Ans:** With the advancement in technology, it has been made possible for many scientific tests to be carried out in a more accurate way to determine the cause of a crime. X-Ray, CT scan, Post mortem, biopsy, and autopsy are now possible.

# (iv) Explain the statement, "King Tut is one of the first mummies to be scanned — in death, as in life..."

**Ans:** Tut's mummy was the first one to be X-rayed in 1968 and later, in 2005, the first to be scanned through Computing Tomography (CT). CT scan revealed new three dimensional images of his body which answered many questions.

Note:- Read the summary and detailed explanation of the chapter .Go through the meanings of difficult words given and complete question answers.