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Is this evidence of a secret tomb in Egypt's Great Pyramid? Heat scans reveal mysterious 'anomalies' that scientists say could lead to an unknown chamber

- Experts have found 'thermal anomalies' in the Great Pyramid of Giza
- They used thermal cameras to reveal higher temperatures in three stones
- It follows the discovery of a similar anomaly in Tutankhamun's tomb which experts believe may house the remains of Queen Nefertiti
- Heat changes could be caused by a secret chamber or different rock types

By [SARAH GRIFFITHS FOR MAILONLINE](#)

PUBLISHED: 09:07 EST, 10 November 2015 | UPDATED: 01:08 EST, 11 November 2015

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Experts scanning the ancient pyramids of Giza may have discovered a tomb concealed behind the stones of the Great Pyramid of Khufu.

Thermal cameras recently detected higher than expected temperatures in three adjacent stones at the bottom of the structure - just weeks after a similar anomaly was found in the tomb of King Tut.

Describing them as 'impressive', officials said the temperature changes could be caused by the presence of a secret chamber, internal air currents or may simply be just a different type of stone.



Thermal 'anomalies' have been found in the pyramids of Giza. Egyptian Minister of Antiquities Mamdouh el-Damaty (left) spoke in front of the great pyramid of Khufu in Giza. A screen behind him showed an infrared thermography experiment to map out the temperature of the walls

'Operation Scan Pyramids' began on 25 October and involves a team of scientists from Egypt, France, Canada and Japan.

The experts carried out thermal scanning at all times of the day, including during sunrise as the sun heats the structures from the outside and then during sunset as the pyramids are cooling down.

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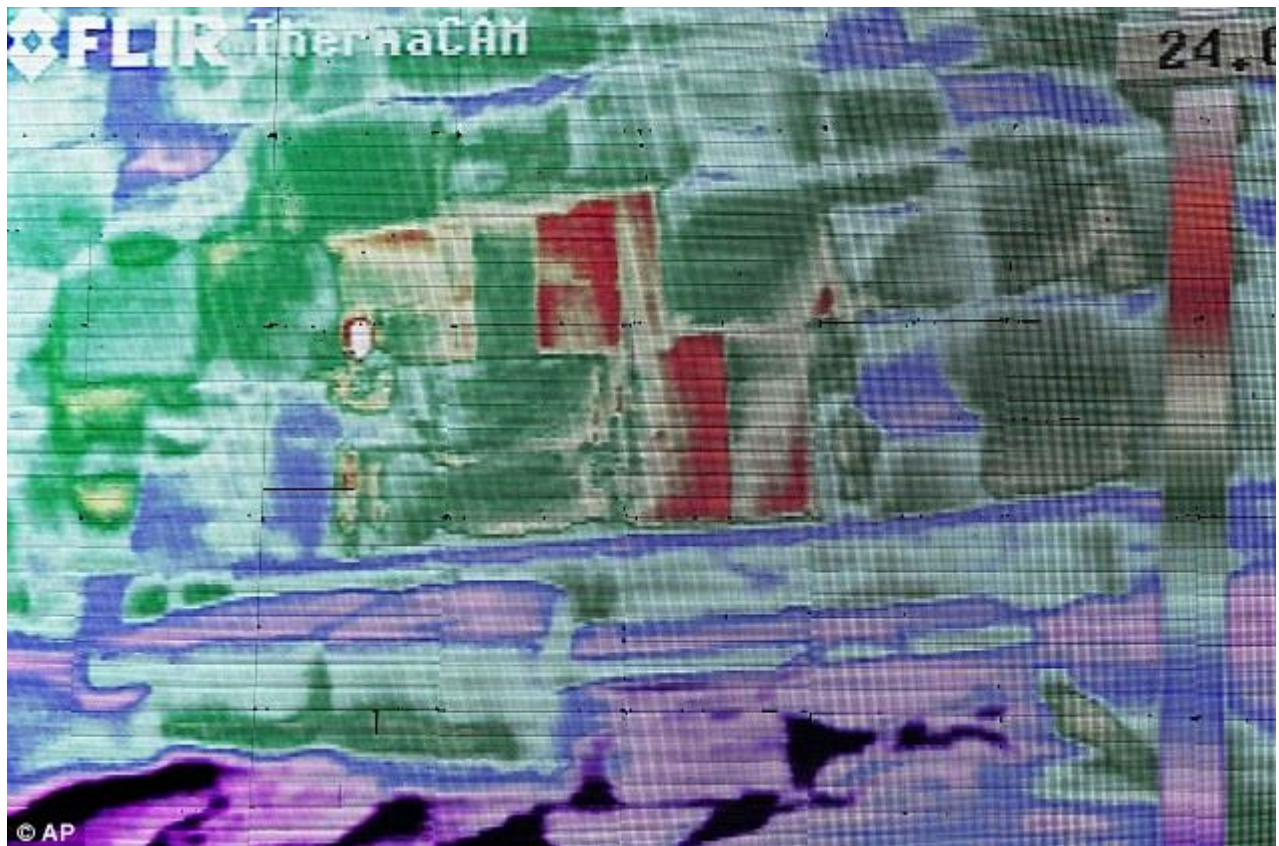
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The scientists said in a joint statement they have observed 'thermal anomalies' on the monuments, including on the Khufu pyramid where some of the limestone blocks were hotter than others.



Experts are scanning the Khufu pyramid of Giza (stock image pictured with a Sphinx in the foreground) and the Khafre pyramid as well as two pyramids in Dahshur, all of which are south of Cairo. Khufu was built by the son of Snefru, founder of the fourth dynasty, who lived between 2,575 and 2,465 BC



The experts said in a joint statement they had observed thermal 'anomalies' on the monuments, including on the Khufu pyramid. They detected higher temperatures in three adjacent stones at the bottom of the Great Pyramid (shown in red in this image) raising hopes they may signify a hidden chamber

NOT A GRAIN OF TRUTH? EGYPTIAN OFFICIAL SCOFFS AT CLAIMS

Egyptian antiquities officials on Monday scoffed at claims by Republican presidential candidate Ben Carson that Egypt's ancient pyramids were not built as pharaonic tombs but used to store grain.

'Does he even deserve a response? He doesn't,' Antiquities Minister Mamdouh el-Damaty said.

Carson's comments have received little attention in Egypt, where people are accustomed to accept expert views about the 4,500-year-old structures.

They have drawn interest in the US, though, where the retired neurosurgeon has jumped to the top of the Republican presidential field.

Last week, Carson stood by his belief that Egypt's great pyramids were built by the Biblical figure Joseph to store grain, an assertion dismissed by experts who said its accepted science that they were tombs.

He said at a book signing: 'Some people believe in the Bible like I do and don't find that to be silly at all, and believe that God created the Earth and don't find that to be silly at all.'

But Mahmoud Afifi, the head of the Ancient Egyptian Antiquities Sector at the Antiquities Ministry said Carson's comments are similar to other inaccurate theories about the pyramids, including that those that say they were built by Atlanteans from a mythical lost continent.

'The teams have concluded the existence of several thermal anomalies that were observed on all monuments during the heating up or the cooling down phases,' the statement said.

'To explain such anomalies, a lot of hypotheses and possibilities could be drawn up: presence of voids behind the surface, internal air currents.'

In particular, it said, an 'impressive' anomaly was found 'on the eastern side of the Khufu pyramid at ground level,' raising the tantalising possibility there may be an unknown chamber.

Antiquities Minister Mamdouh el-Damaty and technical experts working on the project showed the higher temperature being detected in three specific adjacent stones at the bottom of the pyramid in a live thermal camera presentation to journalists.

'The first row of the pyramid's stones are all uniform, then we come here and find that there's a difference in the formation,' he said.

While inspecting the area, el-Damaty said they found 'that there is something like a small passage in the ground that you can see, leading up to the pyramids ground, reaching an area with a different temperature. What will be behind it?'

Other heat anomalies were detected in the upper half of the pyramid that the experts said need to be investigated further.

'Khufu will offer us today one of its secrets,' el-Damaty said.

Experts are scanning the Khafre pyramid of Giza as well as two pyramids in Dahshur, all of which are south of Cairo.

Khufu was built by the son of Snefru, founder of the fourth dynasty, who lived between 2,575 and 2,465 BC), while Khafre was built by the son of Khufu. The two pyramids at Dahshur were built by Snefru.



The hi-tech technique could mark a new era of discoveries. Here, an engineer sets up the infrared thermography equipment which is being used to map the temperature of the walls of the Giza pyramids



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The most famous Egyptian pyramids are those found at Giza (stock image) on the outskirts of Cairo. Several of the Giza pyramids are counted among the largest structures ever built, with the Pyramid of Khufu being the largest in Egypt. It is the only one of the Seven Wonders of the Ancient World still in existence



The Great Pyramid contains the most elaborate system of passages and chambers within any pyramid. Two chambers have been found, including the King's Chamber (pictured) but no body was found in the sarcophagus. Here, researchers use infrared thermography to map the walls of the chamber

WHO WAS KHUFU?

Khufu was the Fourth Dynasty pharaoh who built the Great Pyramid of Giza.

He reigned for 24 years during which time the enormous structure was constructed - the only one of its kind to contain passages and chambers above ground.

Incredibly, despite leaving such a large architectural legacy, little is known about the ruler who lived between 2,589 and 2,566BC.

A small ivory statue measuring three inches tall (9cm) is the only depiction of Khufu.

It wasn't found at the pyramid, but south of the Temple of Osiris at Abydos.

According to ancient manuscripts written after his death, Khufu led military campaigns into Sinai, Nuba and Libya.

He's thought to have been a ruthless and cruel despot, according to ancient historians Diodorus and Herodotus.

But he's also thought to have been fascinated by tales of magic and left a rich cultural legacy.

Nevertheless, he must have been able to organise and control hoards of workers to build his pyramid, which is thought to have been funded by taxes.

Not a single body has been found in any of the three pyramids at Giza, leading to hopes that the bodies of the pharaohs and their queens may remain undisturbed in the vast necropolises.

But there's a change their remains and any treasures they were buried with may have been robbed in antiquity.

Two chambers have been found in the Pyramid of Khufu, which is the largest built in ancient Egypt and measures 756 feet on each side, [Unexplainedstuff](#) reported.

In 820, a caliph named Abdullah Al Mamun broke into the pyramid to discover the King and Queen's Chamber at the heart of the structure.

He reportedly found a red sarcophagus in the granite-lined King's Chamber, but nothing inside it.

It's possible the tombs were looted, they were decoys with the bodies buried elsewhere in the huge structure, or the bodies were never placed in the pyramid at all.

Some accounts suggest the Khufu was never interred in the tomb, with the pyramid instead designed as a storehouse for wisdom, [Smithsonian](#) reported.

It's estimated that just a fraction - a 7,400th - of the pyramid's volume consists of known passages and vaults, meaning there's a lot of it that is still shrouded in mystery.

The Great Pyramid contains the most elaborate system of passages and chambers within any pyramid.



The statement said: 'The teams have concluded the existence of several thermal anomalies that were observed on all monuments during the heating up or the cooling down phases. To explain such anomalies, a lot of hypothesis and possibilities could be drawn up: presence of voids behind the surface, internal air currents'



Evidence that the Great Pyramid was plundered is contradictory, suggesting that the upper part of the pyramid remained sealed until the ninth century, but the sarcophagus was open and empty. It's hoped the new technique (shown) could help solve the mystery and reveal new passages and chambers

It's the only one of 35 tombs constructed between 2,630 and 1,750BC that contain tunnels and vaults above ground level.



The only surviving statue of Khufu (pictured) is on display in the Museum of Cairo

Evidence that the Great Pyramid was plundered is contradictory, suggesting that the upper part of the pyramid remained sealed until the ninth century, but the sarcophagus was open and empty.

The upper ascending passage was blocked with granite plugs to prevent robbing, meaning the only exit was a crude 'well shaft' thought to be too narrow to carry a body and any treasures through.

Earlier this month, infrared thermography was used to measure the temperature of each of the walls of King Tutankhamun's famous tomb.

The researchers were particularly interested in one area of the northern wall that's a different temperature to the others, potentially suggesting the presence of a hidden chamber.

It's 93 years since King Tutankhamun's tomb was found.

The search follows claims by British Egyptologist Nicholas Reeves, of the University of Arizona, that high-resolution images of the tomb show 'distinct linear traces' on the walls, pointing to two unexplored chambers.

Dr Reeves said the plastered walls could conceal two unexplored doorways, one of which perhaps leads to Nefertiti's tomb.

He also argues that the design of the tomb suggests it was built for a queen, rather than a king.

He believes these chambers are behind the northern and western walls of tomb and that one contains the remains of queen Nefertiti, the chief wife of Pharaoh Akhenaten and mother to six of his children, who is Tutankhamun's mother.

Famed for her exquisite beauty, the grave of Nefertiti or the 'Lady of the Two Lands' has been lost for centuries since her sudden death in 1340 BC



Earlier this month, infrared thermography was similarly used to measure the temperature of each of the walls of Tutankhamun's famous tomb. The researchers were particularly interested in one area of the northern wall that's a different temperature to the others (marked), potentially suggesting the presence of a hidden chamber

HEAT DETECTORS COULD REVEAL QUEEN NEFERTITI'S TOMB

Infrared thermography has been used to measure the temperature of each of the walls of king Tutankhamun's famous tomb.

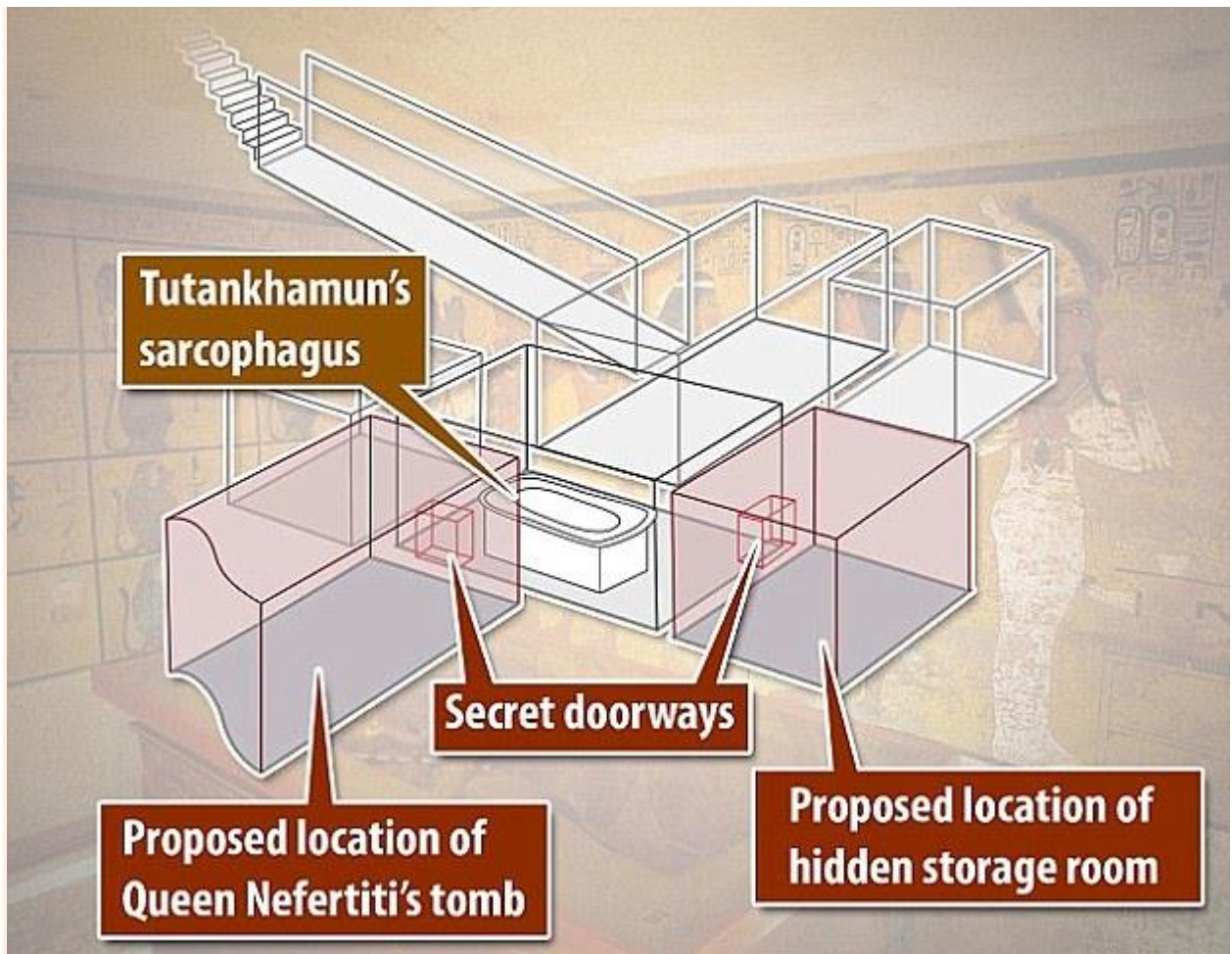
And there's one area of the northern wall that's a different temperature to the others, potentially suggesting the presence of a hidden chamber.

It's 93 years since king Tutankhamun's tomb was found.

Egypt's Antiquities minister Mamdouh el-Damaty said several more experiments will be carried out in hopes of more accurately determining the area showing a different temperature.

He claims scratching and markings on the northern and western walls are strikingly similar to those found by Howard Carter on the entrance of King Tut's tomb

The search follows claims by British Egyptologist Nicholas Reeves, of the University of Arizona, that high-resolution images of the tomb show 'distinct linear traces' on the walls, pointing to two unexplored chambers.



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Dr Nicholas Reeves claims to have found evidence for the bricked up entrances to two additional chambers to Tutankhamun's tomb. These include the burial chamber for Queen Nefertiti, who Dr Reeves claims was the boy-kings co-regent and may even have been his mother, and new hidden storage room, as shown above

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Famed for her exquisite beauty, the grave of Nefertiti or the 'Lady of the Two Lands' has been lost for centuries since her sudden death in 1340 BC.



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3D look at statue bust of Queen Nefertiti of Egypt

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