BBC

The Great Pyramid: Gateway to Eternity

By Dr Aidan Dodson

Of all the cultural mysteries passed down from the ancient world, none beguiles us more than that of the Great Pyramid of Ancient Egypt. Dr Aidan Dodson charts their golden age and illustrates the significance of these 'magical machines' to the ordinary Egyptian.



The Great Pyramid

Egyptian world of the dead

For ancient Egyptians, it was of key importance that when someone died their physical body should continue to exist on earth, so they could progress properly through the afterlife. Consequently, providing proper eternal accommodation for their body after they had died was very important to them. The afterlife they wanted to attain was thought of as a bigger and better version of the earthly Egypt - and in it they were to live close to their family and friends.



The Pyramid Texts

There was one exception to this rather homely vision of the next world. This was for the king, already a divine being on earth, who would complete his apotheosis on death. According to the earliest set of texts dealing with the next world, the Pyramid Texts, which were inscribed inside the royal tombs of 2500-2300 BC, the king would dwell with his fellow gods in the entourage of the sun-god, Re. He would spend eternity traversing the sky and underworld: one might be tempted to regard the fate of his subjects as more desirable.



The sun god Re on his nocturnal

journey, from the tomb of Ramesses I in the Valley of the Kings

The spiritual part of the dead person was believed to have a number of aspects, including the ba, the akh, the ka and the 'shadow'. Of these, the ba was depicted as a human-headed bird, in which form the spirit could travel around and beyond the tomb, able to sit before the grave, taking its repose in the 'cool sweet breeze'.

'The deceased, in whatever ethereal form, however, required sustenance for eternity...'

The concept of the akh was somewhat more esoteric, being the aspect of the dead in which he or she had ceased to be dead, having been transfigured into a living being: a light in contrast to the darkness of death, often associated with the stars.

The notion of the ka was even more complex, being an aspect of the person created at the same time as the body, and surviving as its companion. It was the part of the deceased that was the immediate recipient of offerings, but had other functions, some of which remain obscure. The deceased, in whatever ethereal form, however, required sustenance for eternity, and it was with this basic fact in mind that the Egyptians' tombs were built.

Golden age of the pyramids



King Djoser's Step Pyramid

Perhaps the greatest manifestation of the Egyptians' beliefs in the afterlife is the Great Pyramid, built at Giza by King Khufu around 2500 BC. Just over a century before this, the first ever pyramid, King Djoser's Step Pyramid, had been built, superseding the previous types of royal tomb. These early tombs were essentially made up of an underground burial complex in one location - with a large rectangular enclosure half a mile or so away, where ceremonies for the dead were carried out. Most of then had lain at Abydos, in the southern part of Egypt, but a few had been built at Saqqara, just south of modern Cairo.

It was at this northern site that Djoser built his Step Pyramid, which in many ways combined the old separate elements in one location - and placed a pyramid of stepped form, towering above them, to form a 'stairway to heaven'.

'...for sheer unique mass, Khufu trumped them all with the Great Pyramid at Giza...'

Pyramids became straight-sided under Khufu's father, Seneferu, the new form apparently representing the rays of the sun. Seneferu's accession marked the beginning of the golden age of the pyramids. The greatest builder of them all, he erected three examples, with bases ranging from 144 to 220m (472 to 721ft) square. His multiple pyramids seem to have resulted both from a rapid evolution of religious concepts during his long reign, and a structural failure that led to the abandonment of the 'Bent' pyramid at Dahshur. The 'Red' pyramid, at the same site, became his eventual resting place. However, for sheer unique mass, Khufu trumped them all with the Great Pyramid at Giza, 230m (754ft) square and 146m (479ft) high.

Into the magical machine



A reconstruction of Khufu's Valley Building

It is important to realise that the actual pyramid was only one part of the overall magical machine that transferred the dead king between the two worlds of the living and the dead. The pyramid complex began on the edge of the desert, where the Valley Building - now lost under a Cairo suburb - formed a monumental portal.

From here, the burial cortege, priests and visitors would pass through ceremonial halls onto a causeway that ascended the desert escarpment to the mortuary temple, built against the east face of the pyramid. Here, behind a great colonnaded courtyard, lay the sanctuary in which offerings were made to the king's spirit. Either side of the mortuary temple lay a buried boat - perhaps a souvenir of a funeral flotilla, or put there to allow the king to voyage in the heavens - and to the south was a miniature pyramid. Such so-called subsidiary pyramids are of uncertain purpose: they are generally classified as 'ritual' - archaeologists' code for 'obviously important to the ancient people, but we have absolutely no idea why'.

"...it was decided that a stone sarcophagus - not previously used for kings - should be installed."

An offering place was one of the two immutable parts of an Egyptian tomb. The other was the burial place. In the Great Pyramid - and in most other pyramids - this was reached from a narrow, low, opening in the north face. The interior of the Great Pyramid is complex, almost certainly resulting from a number of changes of plan.

At first, the burial chamber was to be placed deep underground, with a descending passage and an initial room being carved out of the living rock. It seems, however, that it was decided that a stone sarcophagus - not previously used for kings - should be installed. Such an item would not pass down the descending corridor, and since the pyramid had already risen some distance above its foundations, the only solution was to place a new burial chamber - uniquely - high up in the superstructure, where the sarcophagus could be installed before the chamber walls were built. The architects of later pyramids ensured that there was adequate access to underground chambers by using cut-and-cover techniques rather than tunnelling.

The eternal royal abode

Two successive intended burial chambers were constructed in the body of the pyramid, the final one lying at the end of an impressive corbel-roofed passage, which seems originally to have been intended simply as a storage-place for the plug-blocks of stone that were made to slide down to block access to the upper chambers after the burial. Corbel-roofing, where each course of the wall blocks are set a little further in than the previous one, allowed passages to be rather wider than would have been felt to be safe with flat ceilings, and are a distinctive feature of the earliest pyramids and tombs of the Fourth Dynasty, to which Khufu belonged.

'At the west end of the chamber lay the sarcophagus, now lidless and mutilated.'

The burial took place in that final burial chamber, nowadays dubbed the King's Chamber. An impressive piece of architecture, this granite room was surmounted by a series of 'relieving' chambers that were intended to reduce the weight of masonry pressing down on the ceiling of the burial chamber itself. At the west end of the chamber lay the sarcophagus, now lidless and mutilated.



The furniture of Hetepheres, from her tomb

It is unclear when the pyramid was first robbed, although some Arab accounts suggest that human remains were found in the sarcophagus early in the ninth century AD. As for what else may have been in the chamber when Khufu was laid to rest, there will have been a canopic chest for his embalmed internal organs, together with furniture and similar items. Examples of such simple, but exquisite, gold-encased items were found in the nearby tomb of Khufu's mother in 1925.



The canopic chest of Hetepheres

So-called airshafts, only 20cm (8in) square, leave the north and south walls of the chamber and emerge high up on the corresponding faces of the pyramid. These also were found in the original high-level burial chamber, and seem to have been aimed at particular stars, implying a stellar aspect to the king's afterlife - although as we have seen he was later more closely associated with the sun. Interestingly, the pyramid for Khufu's immediate successor, Djedefre, bore a name that described the king as a 'shining star'.

The passing of giants

The Great Pyramid was the hub of a huge complex of cemeteries intended for members of the royal court. To the east, three of the king's wives had their own small pyramids, with streets of mastaba - bench-shaped tombs - for his sons and daughters. West of Khufu's pyramid was an even larger cemetery for the great officials of state. All these tombs had been laid out to a single design, a unified architectural conception of the king surrounded by his court, in death as in life. It is a concept that has been without direct parallel before or since.

'...another son of Khufu, Khaefre, built the last of the truly gigantic pyramids...'

After Khufu's death, he was succeeded by his son, Djedefre, who built his own pyramid about four miles to the north, at Abu Rowash. He made no attempt to match his father's monument for size - its area is less than a quarter that of the Great Pyramid - but instead built it atop a towering cliff.

Djedefre's obscure probable successor, on the other hand, began another giant pyramid, 200m (650ft) square, south of Giza at Zawiyet el-Aryan. This never got as far as the foundations, but another son of Khufu, Khaefre, built the last of the truly gigantic pyramids, back at Giza. His 215m (705ft) square 'Second' pyramid was then followed by Menkaura's 'Third' pyramid, only half the size. Later generations settled for even smaller examples - although with much larger and more lavishly decorated temples: the era of the giants had

passed.

Find out more

Read on

The Complete Pyramids by M Lehner (Thames and Hudson, 1997)

The Mummy in Ancient Egypt: Equipment for Eternity by S Ikram and AM Dodson (Thames and Hudson; American University in Cairo Press; 1998)

The Pyramids by A Silotti (Weidenfield and Nicholson, 1997)

The Pyramids: The Mystery, Culture and Science of Egypt's Great Monuments by M Verner (Atlantic Books, London; Grove Press, New York; 2001)

A History of the Giza Necropolis, I, by GA Reisner (Harvard University Press, 1942)

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<u>The British Museum</u> [http://www.thebritishmuseum.ac.uk/visit/index.html] . Great Russell Street, London. Tel: 0207 323 8299. The British Museum is free to everybody and opens at 10am every day.

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- BBC News Country Profile of Egypt -<u>http://news.bbc.co.uk/1/hi/world/middle_east/country_profiles/737642.stm</u>
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- Museum of Science in Boston http://www.mos.org/quest/exploration.php
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