

ARCHAEOLOGY

# Pharaoh's Palaces Found

## Egyptian Palace Scenes in Stories of Moses and Joseph At Last Identified By Tiles From Walls

By EMILY C. DAVIS

**S**TART to name the most famous palaces of history—you won't go far without saying:

"Oh, and the palace of Pharaoh in the Bible! Why, that was where Joseph came from prison to interpret Pharaoh's dreams, and where Moses was brought up by the Egyptian princess who found him in the bullrushes. And where Moses stood before Pharaoh and warned him to let the enslaved Israelites go."

And perhaps you would add:

"Wonder what that old palace was like."

For in all the centuries that people have told and retold the stories of Joseph and Moses, they have never been able to describe the palace of Pharaoh, or point to it on the map of Egypt.

But now they can, for the palace—or rather palaces—have been found, there is good reason to believe.

The Metropolitan Museum of Art in New York has in its possession several hundred pieces of decorated tiles from Egyptian palaces at el Kantir. And the Museum announces that "in all probability el Kantir is the city Raamses of the tradition of the oppression."

"In fact," declares H. E. Winlock, director of the Museum, and well-known Egyptologist, "there is ample reason to believe that these tiles come from the walls of the very palaces which—traditionally at least—were the scenes of the stories in the latter part of Genesis and the first part of Exodus."

### Known By Bible Writers

Making this announcement in the Museum's official Bulletin, Mr. Winlock explains that he is not concerned with the historic accuracy of the Bible narratives. That is a different problem. He is saying that whoever wrote down the life stories of Joseph and Moses, long after they had died, knew of the palaces of el Kantir. And these palaces—there were several, it now appears—were chosen by the Bible narrator as the stage for Israelite dramas in Egypt.

"From this stage," says Mr. Winlock,

"we have retrieved a few bits of colorful scenery."

Bits of this rarely interesting scenery have been placed on exhibit in New York at the Museum. They consist of 40 tiles decorated with pictures and belonging to one palace. They show for the first time what the throne rooms of the Bible stories were like, and the sort of pictures on which the eyes of Moses and Aaron rested as they approached the throne to give Pharaoh their defiant messages. The art of the throne room was not calculated to encourage defiance—just the opposite. It was enough to make all subjects of Egypt tremble.

Mr. Winlock identifies certain tiles as belonging to the throne surroundings, and his description offers artists and story tellers new details for their representations of Bible Pharaohs:

"Some (tiles) incised the sides of the low platforms on which the

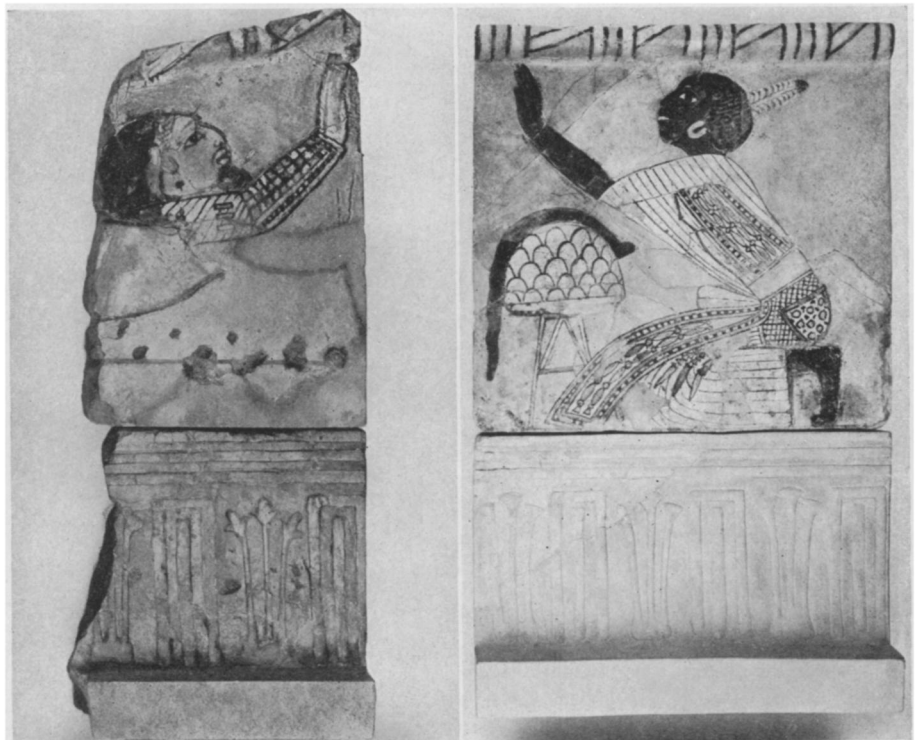
Pharaoh's throne was placed, and most appropriately they show foreigners kneeling or prostrate around him—the Negroes and Libyans of Africa, and the innumerable tribes of western Asia, clad in their richest garments.

"Up to each dais went tiled steps on which were portrayed Egypt's enemies, with pinioned arms, lying where the Pharaoh would tread upon their prone bodies whenever he ascended his throne.

"Each newel post at the foot of such a flight of steps would have, molded in green faience, a lion of Pharaoh rampant, grasping a bound captive whose head he gnaws."

The Museum has one of these hungry royal lions from the throne steps. The victim clutched in the paws has unfortunately lost his head by breakage, an accident suggesting vividly that the lion has already taken a large bite.

No palace has ever before been found in Egypt so extensively decorated in faience—glazed and painted clay tiles and ornaments—as this palace from which the Museum has pieced together



### ARROGANT ART FOR THE PUBLIC

*The Bible Pharaohs liked to have this type of art in their public rooms. A Hittite and a Negro are shown humbly kneeling in these tiles that decorated side steps to the dais of the throne. These and the other illustrations from the Pharaohs' Palace are official photographs of the Metropolitan Museum of Art.*



#### GRACEFUL DESIGN FOR HOME

*In private rooms of the palace, a Pharaoh could drop some of his arrogance and be himself. Tiles found in one of the Bible palaces suggest this, by the informal nature scenes that adorned private apartments. A canal filled with ducks, lotus blossoms and fish was a popular art theme, used several times.*

40 tiles. Decorated tiles formed wall borders in state apartments. Tiles were inlaid into door and window frames, and the railings of the royal balcony.

In the audience halls, says Mr. Winlock, the subject of the tiled decoration appears always to have been the same: defeated enemies supplicating Pharaoh or trussed up for execution.

These art scenes may have created a formidable atmosphere in their heyday, but they fail to awe modern Egyptologists, who know the weakness as well as the power of Egypt's monarchs.

Mr. Winlock comments: "It was a queer, complacent, ostrich-like attitude that prompted the Egyptian to surround himself with such arrogant decorations when he was only too glad to buy off the enemies he frequently could not defeat."

In the private rooms of the palace, the king and his household could drop some of the royal arrogance and be themselves. The tile pictures from private apartments suggest this by their attractive nature scenes. A canal full of ducks, fish and lotus flowers was a popular art motive, used several times in the informal rooms of the palace. Bits of tiles from one room picture young girls carrying pet gazelles. And probably from bedrooms are parts of frieze showing the grotesque god Bes, who seems to have had among other duties the task of guarding over sleepers.

#### Names a Clue

Names of kings who owned the palaces of el Kantir, and the geographic location of the city are the chief clues that link the new discoveries with Bible stories.

Bricks and tiles from the palaces bear the names of Sethy the First, Ramesses the Second, Mer-en-Ptah, and many oth-

er kings of the fourteenth to twelfth centuries B.C. who reigned during the period generally ascribed to the Bible record. The palaces were thus occupied throughout two centuries, during which time Mr. Winlock finds excellent reason to believe they were the northern residence of Egyptian kings.

Geographically, the palaces fit neatly with the Bible account. El Kantir is just beyond the confines of the "land of Goshen" where Joseph settled his brethren to have them near him while he dwelt at Pharaoh's court. The Israelites were still dwelling in the land of Goshen, in the fertile delta of the Nile, when a Pharaoh who "knew not Joseph" set them to labor for him under hard taskmasters. For this hard Pharaoh, the Israelites had to build treasure-cities—which sometimes are interpreted to mean garrisons or fortresses.

#### Treasure Cities

The Book of Exodus says that "they built for Pharaoh treasure cities, Pithom and Raamses. . . . And the Egyptians made the children of Israel to serve with rigour: and they made their lives bitter with hard bondage, in mortar, and in brick."

"Perhaps," comments Mr. Winlock, "it was actually while building the palaces at el Kantir that the command of Pharaoh went forth to his taskmasters to give no more straw to the children of Israel for the brickmaking required of them."

The store-city of Pithom was excavated in 1883, and discovery that Ramesses the Second's name was much in evidence there, and colossal statues of him were in the ruins, did much to link this ruler with the oppression of the Israelites. However, scholars have never agreed as to which king of Egypt figured in the stories of Joseph and

Moses, and the Israelite escape across the Red Sea.

Mr. Weigall associates el Kantir with the other treasure-city, Raamses.

How the Bible palaces were identified becomes the newest told detective story in Egyptian archaeology.

As in many another archaeology mystery, the solution of this one began miles away from the spot, and the solution has taken years to unfold.

It began fourteen years ago in Cairo. When the Metropolitan's Egyptian Expedition arrived in Cairo that autumn, they were soon being offered extraordinary fragments of faience tiles. A number of antiquity dealers around the city had these remarkable tiles for sale.

Where were the pieces unearthed? The archaeologists were, of course, eager to know. All from one place, the dealers admitted. But the place was described vaguely. East of the Delta, was one answer. Near Fikus, was another. El Kantir still another. That last name was a direct clue, the very place to look, but the tile buyers did not realize that then.

#### Few Clues

The archaeologists turned to a Sherlock Holmes examination of their prize purchases, but all they could find that seemed significant was the fibrous plant roots clinging to some tile pieces. That meant the missing ruins would be found in cultivated lands of Egypt, not barren desert.

"We purchased all we saw that winter," says Mr. Winlock, telling of the tile adventures, "and when more pieces were to be seen in Cairo during the winter of 1928 and 1929, we again purchased all the fragments on the market."

Meanwhile the Egyptian Antiquities Service trailed the tiles to the "gold mine" of the antiquity dealers, at el Kantir. There the Cairo Museum began digging, and many more broken tile pieces emerged from the sites of ancient palaces.

Some of the scraps fitted directly on to scraps that the Metropolitan had acquired. The jigsaw puzzle that was emerging was not only incomplete, but the pieces were divided three ways. Some were in Cairo, some in New York, and some in the Louvre, in Paris.

The Metropolitan had several hundred of the fragments ranging from "pieces as big as a saucer to chips scarcely as big as a dime." Not one tile that it had was complete, however.



#### WARNING

*From the newest post of Pharaoh's awesome throne: a hungry royal lion clutching a Negro captive. Breakage, not the lion's appetite, is responsible for the missing captive's head.*

"It was," writes Mr. Winlock, "as though we had taken a dozen pieces out of each of a hundred different jigsaw puzzles, had mixed them all in one box, and then were trying to make something out of them."

But by helpful exchanges with the Cairo Museum, and by inspecting the pieces in Cairo, the Metropolitan has finally got its display of 40 important tiles put together. The missing pieces of these pictures could be filled out without resorting to sheer imagination.

The tiles of el Kantir are not the first exhibits from Bible palaces to reach America. Twenty fragments of ivory, believed beyond doubt to come from the Palace of Queen Jezebel, were brought to this country last year, to the Fogg Art Museum of Harvard University.

Several thousand fragments of this ivory were unearthed by the Harvard Expedition at Samaria, the capital city of King Ahab and Queen Jezebel in Palestine. For the first time, Bible scholars could see for themselves the evidence of extravagance and luxury, for which the Bible record condemns this pagan queen. That Jezebel actually lived in a House of Ivory had been often questioned. But here were the carved ivory pieces that once adorned the throne, tables, couches, and cabinets of the palace.

It could be seen that some of the ivories were once ornamented with gold foil, inlays of lapis lazuli, and colored glass, making a brilliant background for one of the extravagant and spectacular queens of history. Blackened by fire as many of the scraps were, a number of designs and pictures could be plainly seen.

These ivories have not merely made Jezebel's Palace real, but also indirectly another Bible structure, the Temple of King Solomon. None of the art works of that Temple, so vividly described in the Bible, have ever been unearthed. The ivories of Jezebel's Palace, however, reveal designs that closely match the descriptions of temple designs. Here are lions, oxen, cherubim, wreaths of lily work, and chain work, and palms, all recalling the Biblical description of the Temple, which was

built at Jerusalem about a century before Ahab and Jezebel built their Palace.

As tile work was favored in the royal palaces of el Kantir, so ivory was esteemed not only by Jezebel but by King Solomon as befitting royalty. The Book of Kings in the Old Testament declares that Solomon "made a great throne of ivory, and overlaid it with the best of gold." Ivory is mentioned prominently among the cargoes that Solomon's navy brought in from foreign lands.

Like Solomon's Temple, Solomon's Palace in Jerusalem remains hidden somewhere under the ground at Jerusalem. Archaeologists have their views as to where it may be expected to lie. But excavations are forbidden in the city of Jerusalem, now, and that Biblical Palace of stone, cedar and ivory may be a long time coming to light.

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#### ASTRONOMY

## Cosmic Rays Suggested as Cause of Light of Night Sky

**D**O the still mysterious cosmic rays cause the light of the sky at night? Science is gradually accumulating evidence which rules out scattered sunlight as the source of this "night light."

Night light is the faint but distinguishable radiation which comes from the space between stars. It is separate and distinct from the aurora borealis, although its colors resemble the latter.

Dr. Joseph Kaplan, University of California physicist, told astronomers at the meeting of the Pacific section of the American Association for the Advancement of Science that new studies on the midnight maximum of "night light" removes the sun as a possible cause of this nocturnal glow.

It was formerly believed that the sun's radiation striking atoms high up in the region above the stratosphere excited them during the daytime, and that after sun-down they gradually released this stored up energy in the form of light.

Dr. Kaplan believes, however, that cosmic rays cause the "night light." Most of the cosmic ray energy, as is known by the extensive researches of Dr. Robert A. Millikan, Dr. A. H. Compton and other cosmic ray investigators, is absorbed high in the upper atmosphere where the light of the night sky originates.

In his laboratory, Dr. Kaplan has

been able to produce a glow discharge in evacuated tubes whose light is the duplicate of the aurora borealis and is now studying means of duplicating, on earth, the much weaker "night light."

If Dr. Kaplan's theory that cosmic rays cause the light of nocturnal sky is correct, a new means may be found for studying the very penetrating cosmic radiation.

But if "night light" may turn out to be an aid to the cosmic ray studies, it is and has ever been a nuisance to astronomers, for it limits the length of time that photographic plates can be exposed to study very faint stellar objects. The "night light" forms a continuous background which gradually fogs the astronomical plates.

*Science News Letter, July 13, 1935*

### ● RADIO ●

*Tuesday, July 16, 3:30 p. m., E.S.T.*  
**WASTE BY WIND AND WATER**, by H. H. Bennett, Director, Soil Conservation Service, U. S. Department of Agriculture.

*Tuesday, July 23, 3:30 p. m., E.S.T.*  
**THE SCIENCE OF STUDYING HUMAN BEINGS**, by Dr. Harvey N. Davis, President, Stevens Institute of Technology.

In the Science Service series of radio addresses given by eminent scientists over the Columbia Broadcasting System.