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THE ROMANCE OF EXCAVATION

SOME OF THE ROMANCE OF EXCAVATION IS BROUGHT OUT BY THIS BUSY SCENE AT THEBES SHOWING A SMALL ARMY OF NATIVES DIGGING AMID THE RUINS OF A TEMPLE

THE ROMANCE OF EXCAVATION

A RECORD OF THE AMAZING DISCOVERIES IN EGYPT, ASSYRIA, TROY, CRETE, ETC.
WITH TWENTY-NINE ILLUSTRATIONS

BY DAVID MASTERS

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TO

A. A.

WHO SAVED MY LIFE

FOREWORD

NOW and again the world is stirred by a discovery such as that of the Tomb of Tutankhamen by Mr. Howard Carter and Lord Carnarvon. In the following pages I have sought to reveal some of the romance of excavation, to tell the fascinating story of the men who have gone out into the desert places and dug up long-lost cities and the fabled treasure of ancient kings. Brilliant men, who have played their part in unearthing the glories of the past, have written many volumes on the subject which is nearest their hearts, and if, after closing this book, the reader and student feel a desire to seek them out, I shall be content. In conclusion, I wish to thank Major Kenneth Mason, M.C., R.E., The British School at Athens, and The Trustees of the British Museum, for their kindness in allowing me to use various illustrations in this volume.

DAVID MASTERS.

1923.

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CHAPTER I

A SCIENTIST stood in the British Museum gazing at a piece of rock. Many people passed to and fro, but never one halted to see what held his attention, never one save a little boy, who wondered what the grown-up was looking at. Those who glanced in that direction merely saw a shattered stone, and passed on unheeding.

Had the fragment of stone been the Cullinan diamond or a glowing ruby, everybody would have clustered round to gaze at it. As it was neither one nor the other, everybody walked on. Yet that fragment of stone was, and is, much more wonderful than the finest diamond or ruby ever dug out of the earth.

The fragment over which the scientist dreamed was the Rosetta Stone. It is merely a piece of black basalt 28½ inches wide and 45 inches in length.

The top left corner has disappeared in the dust of centuries, and both corners on the right side have been smashed off. The remainder is one of the world's greatest treasures, for it has given us the clue to the past, unfolded for us the romance of ancient Egypt, and enabled us to glimpse the Pharaohs in all their glory.

The Rosetta Stone is divided into three sections, each of which is covered with writing cut into the surface. The top section is composed of hieroglyphics, the curious picture-writing of ancient Egypt, the middle section is in the everyday writing of the ordinary people of ancient Egypt, known as demotic characters, and the bottom section is in Greek.

This famous stone has travelled far from its original resting-place in the Nile delta, where it may have lain for close on two thousand years. Had Napoleon not made up his mind to conquer Egypt it might never have been recovered. By chance, Napoleon managed to escape Nelson, who was searching the Mediterranean for him, and landed his expedition at Alexandria. Sweeping everything before him, Bonaparte soon dominated the country and despoiled the conquered people of the relics of the past.

Then Nelson, coming back to look for his foe, found the French fleet in Aboukir Bay, and swept it for ever from the seas. Napoleon was shaken,

but hid his mortification, and in due course set off to invade Syria. Gazah, of Biblical history, fell before him, Jaffa was captured, but at Acre another British Admiral, Sir Sydney Smith, intervened. The French ships sailing along the coast with stores for Napoleon's troops were captured, and the British sailor then threw himself heart and soul into the defence of the city. Napoleon fought desperately for weeks to capture Acre, but the Admiral was his match, and the French forces were at last compelled to retreat.

About this time a sapper was digging away in the ruins of Fort St. Julian when his pick struck against a rock. He drove the tool into the soil to see if the rock were large or small, and whether it would be difficult to remove. He quickly discovered that the rock was of no great size, and in a few minutes it was lying clear at the bottom of the trench.

Glancing idly at the stone, the Frenchman noticed it was covered with strange characters. The soldier was quite interested in his find, so interested that he cleaned the whole surface of the strange stone he had unearthed. That the characters were some sort of writing was obvious, but what it was all about was much more than he could tell. Other men might have thrown the stone aside and covered it up again, but fortunately the finder possessed intelligence and the curious

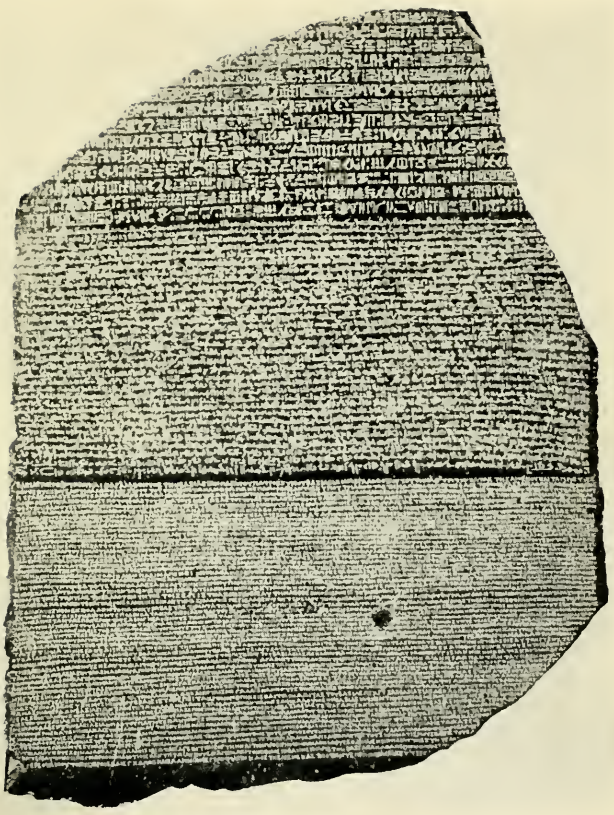
stone was added to the rest of the booty collected by the French.

That stone, unearthed in 1798, was the piece of black basalt which is now to be seen at the British Museum in London. It became known as the Rosetta Stone because it was found near Rosetta, the seaport whence Napoleon eventually fled from Egypt, and when the French were defeated it passed into our possession as one of the spoils of war.

It seems strange that two of the greatest figures in history, Nelson and Napoleon, should be connected with the discovery of the Rosetta Stone. Stranger still to think what might have happened had the soldier who found the stone smashed it to pieces or tossed it out of the way. These things might easily have occurred, as they have no doubt occurred to many valuable relics in bygone times.

Had the Rosetta Stone not come to light, one of the vital links with Egypt's past would have been missing. We might still be groping in the dark, wondering what all the quaint picture-writing of the Egyptians meant, seeking for the clue that would tell us. Luckily the man who found the stone saw that it was something more than a broken piece of rock, and so preserved it for posterity.

Many people wondered what all the strange



By courtesy of the British Museum

THE SHATTERED ROSETTA STONE WHICH PROVIDED THE CLUE TO THE PICTURE WRITING OF THE EGYPTIANS

signs meant when they first saw the stone. Men of science pored over it and racked their brains in their efforts to solve the mystery. The Greek script was soon translated, and proved to be a decree of Ptolemy V, dating about 196 B.C.

The fact that there were three inscriptions seemed to indicate that it was one decree engraved in three different forms of writing in order to appeal to as many people as possible. But this was by no means certain. It might easily have been three different decrees, though in such a case no purpose could have been served by inscribing them all on one stone. It was, therefore, more than probable that the three inscriptions were one decree, and that the known writing would give a clue to the weird pictures to be found in the tombs and on the monuments scattered about Egypt.

The hieroglyphics were a mystery of the past. No one could read them. The strange pictures of men and birds and beasts might have been merely decorative. They might have had no meaning at all, or no more meaning than the pictures we place on our walls to decorate our houses.

Other signs, however, in combination with the pictures, indicated that the hieroglyphics were a form of writing. Some people think that this picture-writing of the Egyptians is actually the

oldest writing in the world, and that all writings must have sprung from it. This idea, however, is not quite accurate. A child of three years old cannot draw wonderful portraits. Childish drawings of a house with four straight lines for the house, a door in the centre, and a window on each side of the door are well known.

Man in the beginning may be likened to the child, and his earliest drawings must have been cruder than the childish drawings of our own age, far cruder than anything that is preserved for us. The first man to scratch a rough line or two on a rock was the forefather of Raphael and Michael Angelo and Rembrandt, but untold ages elapsed before the art of the first primitive artist developed into that of these masters.

The Egyptian pictures in the picture-writing are cleverly drawn, and indicate true artistic perceptions. It must have taken a long time to reach the pitch of perfection that is shown. So it seems logical to assume that the hieroglyphics were the outcome of another form of writing. For years there were no proofs that this was the case, but it is now definitely established by Professor Flinders Petrie that crude signs were used in Egypt at a much earlier date than the picture-writing, and the extraordinary thing is that some of these signs may be traced in the alphabets of other countries.

An English medical man, Dr. Young, was the first to furnish a clue to the mystery of the Rosetta Stone. Happening to take a keen interest in dead languages as well as in living people, he saw among the hieroglyphics two sets of signs with a line drawn round them, and as the name of Ptolemy was twice mentioned in the Greek text he reasoned that these signs stood for the name of the ruler who made the decree. He reasoned correctly, and we learned in time that a king's name was always enclosed in a panel, which is now generally known as a cartouche.

The deciphering of the king's name was a happy discovery which pointed to the general significance of the cartouche in connection with royal names. But the deciphering of the rest of the hieroglyphics bristled with difficulties. No one knew whether the signs stood for sounds, letters, words or things.

Egyptians had painted these puzzling pictures, but there was not a single man in all Egypt who knew what they meant. The oldest Egyptian peasant was ignorant on the subject, the most learned Egyptian scholar had not the faintest idea of their meaning. The Egyptians had forgotten how to read the writing of their forefathers. It was the writing of a dead age, of a vanished civilization.

Dr. Young threw himself enthusiastically into

the task of deciphering the signs. The difficulty seemed to add a zest to his search. He pored over the copy of the writing on the Rosetta Stone day after day. There was absolutely nothing to guide him. Everything was sheer deduction at first, and then his deductions had to be tested and verified.

So difficult was his task that the discovery of a single letter was an event. Perhaps by great good fortune he would succeed in deciphering two signs in a week, then for a month he might study the copy until his brain reeled, and decipher nothing at all. It was a heart-breaking undertaking. On one occasion he announced that he had succeeded in translating a certain set of hieroglyphics into a word of seven or eight letters. It was afterwards proved that he was right in only one letter, and that the rest were hopelessly wrong.

He began on his project in 1814 and, after struggling with it for four years, the sum total of his labours amounted to the deciphering of just over ninety characters. His discovery thus averaged fewer than twenty-five signs a year. It meant that he had to concentrate all the power of his exceptional brain, and all his knowledge of languages, for a whole month to decipher two characters. In doing what he did, he accomplished an astounding feat. It is impossible to praise

Young too highly for his early work on the Rosetta Stone.

At the same time that Young was wrestling with hieroglyphics in England, François Champollion was trying to solve the puzzle in France. Champollion's interest in hieroglyphics did not spring up in a night ; it was of slow growth, starting in his childhood when Egypt bulked large in the imaginations of most French boys owing to the stirring deeds of Napoleon against the Mamelukes. By the time Champollion was eleven years old, he was already taking more than an ordinary boyish interest in things Egyptian, and, as the years passed, he slowly gathered books and material bearing on the subject which he was to make peculiarly his own.

He was eager, anxious, to decipher hieroglyphics. It was the ambition of his life, the thing for which he lived, of which he dreamed. He collected every copy of the strange picture-writing that he could find in order to study it, in the hope of deciphering one more character. He was terribly handicapped by the small quantity of material on which he could work, and while his brilliant contemporary Young lay dying in England, in 1829, Champollion was leading an expedition in Egypt, gathering material for France.

Champollion found the picture-writing even more complex than any one anticipated. A single

letter might be represented by seven or eight quite different signs, and a sign might represent a whole word or part of a word. A circle with lines radiating from it might represent the sun god, or it might stand for the word " day." A sign which ordinarily stood for a letter might represent a god if a dot or some other sign came after it.

The Egyptian hieroglyphics were indeed one of the greatest puzzles of the ages. The discovery of other inscriptions helped to verify Champollion's work, and provide proof that he was deciphering the signs accurately. It is, nevertheless, incredible that any human being could read even a sign of this dead writing correctly. That any one could do what Champollion ultimately did is almost a miracle. He laboured at his self-appointed task with so much courage and determination that he eventually succeeded in building up a hieroglyphic dictionary—a marvellous feat.

Champollion himself did not long survive Young, for he so sapped his strength over his Egyptian expedition that he fell ill and died in 1832. He was comparatively a young man, only forty-two, yet he crowded an enormous amount of work into these few years, and it may truly be said that his love of Egyptology cost him his life.

By the aid of his dictionary, which grew directly out of the finding of the Rosetta Stone, our scholars are now able to read without much

trouble the sacred writings of the ancient Egyptians. Thus that fragment of black basalt in the British Museum, which is passed unnoticed by so many people, is really one of the most interesting stones in the world.

CHAPTER II

A LITTLE over a century ago the past of Egypt was concealed from living eyes. The Pyramids still stood four-square to the sandstorms of the desert as they had stood for ages, the Sphinx regarded the Nile with the same inscrutable gaze that had puzzled the ancients. Throughout Egypt were mighty ruins, but little was known about them.

People used to sit astride their asses and jog along into the stony places to see the relics. They saw merely heaps of stones, buildings grown so old that they had toppled to pieces. There were broken statues and shattered columns lying in the utmost confusion. There were mountains of sand, with fragments of masonry protruding. Occasionally, amid the shifting sands, a few columns stood upright, some so strangely shaped that their like was not to be seen elsewhere on earth.

They added to the general mystery of Egypt. The natives were poor, utterly incapable of building on such a gigantic scale. How, then, did the original buildings get there? By whom were they erected, and for what purpose?

THIS PILE OF MIGHTY BLOCKS OF STONE, THROWN DOWN AS IF BY GIANTS IN PLAY, GIVES AN IDEA OF THE MAGNIFICENCE AND HUGE SIZE OF SOME OF THE ANCIENT EGYPTIAN BUILDINGS. THE PEOPLE GAZING IN WONDER ON THE GLORIES OF THE TEMPLE OF KARNAK ARE ALMOST LOST TO SIGHT AMONG THE MASSIVE RUINS

Most people asked many questions, and received different answers. The myths of the natives are as numerous as the broken monuments, but, whereas the broken stones are facts, the myths woven round them were often otherwise. Any fanciful story that served to win money from the traveller was repeated in a variety of ways, and any little truth there may have been originally was lost in continued repetition.

The ruins, however, could not lie. They said, as plainly as stones can speak : " We were fashioned by Man in the long ago, and the sun shone on us in our glory just as it shines on us in our decay."

Fortunately, all men did not merely look at the ruins and pass on their way voicing their amazement. Some were so fascinated by what they saw that they could not leave it, and these are gradually unfolding to us one of the most romantic stories in the world, a romance beside which the Decline and Fall of the Roman Empire is but a single chapter.

The spoils collected in Egypt during the time of Napoleon turned the attention of scientists to the Nile. Men began to work to see if they could unravel the past from the evidence afforded by the remains. They began to dig. And, to-day, in the arid places of the earth are many men toiling like navvies, suffering untold discomforts, living in huts and delving in ruins to add to our knowledge of

the past. These are the men who are writing history. They are doing it not with a pen, but with spade and pick.

People have eyes, yet they see so little. They are not trained to see. To most men a rose is only a flower, but to the exceptional man it is a miracle, for as he gazes at the glorious bloom with its many-tinted petals he visualizes the tiny single rose—the common dog-rose—from which all roses in their wondrous diversity of colour and shape and size and perfume have sprung. Many people regard the earthworm as an annoyance which disfigures the lawn, but Darwin saw in it the lowly creature that is helping to keep the earth sweet and clean by removing the decaying leaves, a blind thing that is continually providing the earth with a layer of new soil in which man may plant his seeds and harvest his crops. Countless earthworms are the servants of men.

The diggers toiling in the heat of the sun in Egypt and Mesopotamia and Crete and other places are blessed with this keen vision. Without it they would be useless. If the Rosetta Stone to them were just a broken piece of rock, the romance of the past would not appeal to them. They would not possess the imagination which drives them into the lonely places to find traces of many lost civilizations.

When they glimpse a ruin they can close their

eyes and see the men quarrying the stones and the masons squaring them and the sculptors carving them ; they can see kings consulting their architects, and architects giving orders to the masons ; they can see the stone blocks being hauled in place and set one upon another. These and many other things they can see. They are using their eyes to benefit the majority of people, who cannot see these things for themselves.

Unfortunately the men who were early interested in the past of Egypt had little to guide them, and they sought for written records. They were all papyri mad. So long as they could find papyri and carry them off to their museums they were content.

In the light of our later knowledge we are wont to blame them, but there may be some excuse for them. The Egyptian papyri are wonderful, quite apart from what is written upon them. They are the gift of the Nile and of Egypt to the world. Almost they might be called the first sheets of paper ever made.

Papyrus nearly six thousand years old has already been found, and it appears doubtful whether we shall ever be able to trace the name of the first man who thought of using the stem of the papyrus plant in so useful a manner.

It seems likely that the discovery may have been due to Egyptian children. If you walk about the English country-side when the bulrushes are flourish-

ing, it is a common sight to see children plucking the rushes and skinning them to make flowers out of the pith. The papyrus plant flourishes in the Nile water, where it roots in the mud just as the bulrush roots in the mud of English ponds. It often attains a height of 15 feet or more, and the green stem of the plant grows straight up without any joints from top to bottom.

What children do in one country in one age they are likely to do in all countries in all ages. Human nature is fairly constant, and rushes growing in a river will always attract children. Probably some dark-skinned Egyptian children in the misty ages picked the skin off the papyrus reeds in order to play with the pith, which differs materially from that of the English bulrush. In the course of their childish games they may have cut the fibrous pith into layers and spread them on a rock, just as children spread out things to play at shops, whereupon the hot sun of Egypt would quickly dry the fragments.

Perhaps the father, interested in the games of his children, seized on this curious substance and was struck by its fine texture and smooth surface. Experimenting for himself out of sheer curiosity, he may have cut some strips of pith and joined them in a simple manner by pressing the edges with his finger while they were still moist with sap, thus making the first sheet of papyrus. What-

ever its origin, papyrus in time was made by cutting the pith into thin strips, placing the strips so that one edge overlapped another, and pressing them all together. When they dried, the overlapped edges adhered, and the result was a continuous sheet of white material on which it was possible to work with a brush and a reed pen.

The papyrus reed still flourishes in the Upper Nile as it did in ancient days. Indeed it has become rather a curse to the country, and a few years ago it threatened to choke the river completely. It was such a menace, owing to its interfering with the flow of water on which the whole life of Egypt depends, that drastic steps, costing a huge sum of money, had to be taken to clear the upper reaches. Steamers slowly ate their way into it for hundreds of miles, clearing channels and destroying the sudd, as it is called, the sudd which is largely composed of the papyrus on which the ancients relied for their writing materials! Nowadays, the sudd is being compressed into blocks and used as fuel, so the papyrus is still serving humanity.

As has been said, the early workers who sought for knowledge of old Egypt hunted mainly for papyri. Manuscripts were of undoubted value in throwing light on the past, and while the seekers were prepared to recover statues, jewels and similar objects, they placed the recovery of manuscripts before everything else. The fact that they could

not read the papyri, in those early days when a glimmer of interest in Egypt was beginning to filter through to the outside world, was no drawback to the hunters. The rows of quaint pictures, with bird-headed men, the natives with mops of black hair, and other queer things, were attractive in themselves. They had a value to the collector for their strange writing alone. And those early collectors realized that, given the manuscripts, some brilliant men would manage to read them some day, as Young and Champollion actually did.

So those early enthusiasts spent their time hunting tombs, digging here, there and everywhere in their endeavours to locate something that was worth carrying away. When they were successful they seized on the mummy cases and eagerly opened them to see if any manuscripts were inside with the mummy. In their eagerness they overlooked much. They searched haphazard. Their knowledge was small, and they undoubtedly cast aside many things which they looked upon as so much rubbish, trifles which to the scientist of to-day would light up the past as with a searchlight.

A square inch of broken pottery is not particularly noticeable in a mound of rock and sand, and even if the eye does light on it the hand is seldom prompted to pick it up. But there are men so skilled in their knowledge of the pottery of past ages that a fragment may serve to link places thousands of miles

apart, and thrust the history of mankind backward into the mists of time for several thousands of years.

A brilliant scientist like Professor Flinders Petrie is able to deduce the most amazing things from a piece of pottery, even if it be but a fragment. To him the fragment serves the purpose of a calendar. It is as though he were picking up a modern calendar on which the year stood boldly out. Of course the fragment of pottery does not date quite so exactly as that, but it easily falls within a well-defined period.

A glance would enable the famous scientist to say: "This is seven thousand years old." And, seeing a different fragment, he would know that it was a great deal older—perhaps ten thousand years old.

How much valuable evidence of this sort has been ignorantly destroyed in the past will never be known. In the early days of last century, and even to within measurable distance of this, men were too intent on the big things to pay attention to the little things that slipped through their fingers. It is the common things that tell us the history of a period, the things that people use and wear. If we recover these fragments of common things, they serve to indicate how the people lived.

Thieves, too, have been responsible for the loss of most valuable evidence. The Egyptian natives

are born pilferers. They have a natural aptitude for causing things to vanish, and when a discovery has been made the discoverer has seldom been able to preserve his find in its entirety. There have been cases where the greater part of a find has disappeared in a night, and once it is gone you might as well seek to find a particular grain of sand in the desert. Statues, vases, jewels, furniture—all have been carried off, and the finders have wakened to discover that their labour has been wasted, and that instead of enriching our knowledge of the world they have merely enriched a few native thieves.

The natives, too, often seize the opportunity of digging in places where they know they will not be disturbed. They do not go to the trouble of obtaining a permit to dig. The last thing they desire to do is to call the attention of the authorities to their work, so they run the risk and dig surreptitiously. While it is obvious they must waste a lot of energy in conducting these illegal searches, it is also obvious that they are often rewarded by finding objects of value.

The things they find, they smuggle to their huts, and in due course sell to some traveller, who places them in his private collection, where they are as completely lost to sight as if they had never existed. Then there are things that the natives stumble on accidentally. If their find is not portable, they

may inform the authorities, but if it is easy to handle, there is little prospect of their discovery becoming known.

No one has the faintest idea how much material has been lost in these ways. Its scientific value must be incalculable.

CHAPTER III

WHEN Professor Flinders Petrie first set foot in Egypt he was a young man, only twenty-seven years of age. The older men of other nations who had spent their lives delving in the past smiled at the idea of the new-comer bringing about a revolution in the work they knew so well. They had done so much themselves that there seemed little more for him to do. They had found tombs and statues and papyri that took them back some five thousand years to what they thought was the beginning of Egyptian history.

What else was there to discover ?

Nobody knew then. Nobody knows now. When men start digging up the earth in search of relics of the past, it is beyond human foresight to foretell what will come to light. Men may dig 50 feet and find nothing. They may say there is nothing to be found in that particular spot. Another man may come along, set up his tent a few yards away, just scratch the surface of the soil, and find a buried city. This is what lures men to the work ; it is

one of the fascinations and provides much of the romance.

The wonderful discovery of the tomb of King Tutankhamen by Lord Carnarvon and Mr. Howard Carter is a notable instance of this sort of thing. For years they dug, poured money into the sands of the desert, shifting mountains of sand and rock in their endeavours to discover something worth while. Lord Carnarvon himself stated that they had moved about 70,000 tons of rubble during their search. They were lucky to be rewarded in the end, for millions of tons of rock and sand have been dug up in Egypt without yielding to the diggers a single article of value.

Mr. Howard Carter was hopeful that something might be found in the neighbourhood of the great discovery, and the work of excavation was started. The diggers wielded their picks week after week and shovelled the rubble into the baskets of the men who carried it away from the hole that was growing in the ground. Daily the hole grew bigger, the mound of sand and rock grew larger.

Not a sign of a tomb was discovered. Work was continued in the hope that something would turn up. They were always hopeful, but the end of the day brought nothing to light and it proved so much wasted labour.

The quest in the old place was thrown up, and the picks of the diggers were directed to a spot

only a few yards away. There was the same monotonous, back-aching work, the same running to and fro of the natives with their little baskets of rubble. In such circumstances only a born optimist could carry on. The pessimist would throw up the task in despair at the end of two or three days.

Even Mr. Howard Carter began to think that he had again drawn a blank ; he began to consider whether it was time to shut down operations and have another try elsewhere. For a day or two his thoughts ran in this groove, until he decided to dig just one more day, and if nothing turned up then to stop it.

Truly a momentous decision. But for it the tomb of Tutankhamen would still be undiscovered, and the world would yet be in ignorance of the marvels that it contained. Before the day's digging was over, the shape of a step gladdened Mr. Carter's eyes, and fully justified his selection of that particular spot for his operations. A yard or two more to the right or left, and he might have missed the tomb. It was a much nearer thing than the world imagines.

The accuracy of Mr. Howard Carter in selecting his second site is rather amazing. Digging was not started there haphazard. The ground had been thoroughly gone over and studied, and the possibilities summed up before the pick was driven

THIS PHOTOGRAPH INDICATES THE UTTER DESOLATION OF THE ARID VALLEY OF THE TOMBS OF THE KINGS, WHERE EVEN A BLADE OF GRASS CANNOT LIVE. THE TOMB OF TUTANKHAMEN, GUARDED BY SOLDIERS, IS SHOWN IN THE FOREGROUND

into the sand. It was a happy combination of expert knowledge and good luck.

It at once became obvious why the tomb had remained for so long undiscovered, for just above it the last resting-place of Thothmes III was cut into the rock, and all the debris from this later tomb had been shot by the builders on top of the earlier tomb. This rubbish had completely covered in the site of the tomb of Tutankhamen and buried it for centuries.

Few men would think of looking immediately under one tomb for the site of another. Such a place is so unexpected that Mr. Howard Carter deserved every credit for selecting so unlikely a spot in which to carry on his search.

Every man digging in Egypt has learned something from Professor Flinders Petrie. He has a keen, analytical brain, and for years before going to the Nile valley he brought his acute mind to the study of the prehistoric remains to be found in Great Britain. Many a day he might have been seen within the magic circle of Stonehenge, pondering on the origin of the most massive ancient monument in England. His work on the prehistoric remains in Great Britain was but a preliminary to his greater work in the land of the Pharaohs.

With the coming of Flinders Petrie, all the old, haphazard methods went by the board. What he

sought was evidence, something that would throw light on the past, that would help to fix dates. The actual intrinsic value of an object was of no concern to him. A bead, in his eyes, found in a certain place, would be of greater value than a nugget of gold. The bead might prove that glass was made centuries earlier than men thought, whereas the golden nugget might prove nothing at all.

Many things slipped through the fingers of the earlier seekers. Nothing slipped through his. He directed the attention of all to the value of every trifling thing that could claim to have been fashioned by the hand of man. He introduced scientific methods. He noted where everything was found; how it was found; the depth at which it was found; what was found with it.

He was not out for an easy life. He lived hard, pitched his tent on the edge of the eternal desert, and at dusk washed the dust out of his eyes and nostrils, took his meal by his camp fire, and wrote up the notes of his day's work. He snatched what sleep he could, and was up early to get to work before the heat of the day became insufferable. He wasted no time going to and from the site. He slept near by, with the scene of his labours only a few yards from his tent pegs.

Flinders Petrie is one of the outstanding explorers of the ruins of Egypt. He started with an innate

THE RUINS OF THE TEMPLE WHICH AMENHOTEP BUILT AT LUXOR ABOUT 1,450 B.C. THE COLUMNS IN THE DISTANCE ARE UNIQUE, BEING FASHIONED IN THE SHAPE OF LOTUS BUDS. THEY INDICATE HOW THE ANCIENT EGYPTIANS DERIVED MANY OF THEIR ARCHITECTURAL FEATURES FROM NATURAL FORMS

genius for the work, and to this genius he added a sound scientific knowledge and an all-round mastery of his subject. He used his muscles as well as his brain, and he preferred to trust his own trained eyes to those of his native diggers.

He went to Egypt with hands that were soft, unused to manual labour. He knew how often careless workmen have ruined things by striking them with their picks, and the first thing he did was to make a rule that directly anything peeped out of the sand, he would himself uncover the object to prevent it being injured.

He began tracing the contours of the things in the soil, digging away with his fingers and scratching away with his nails, his hands perhaps buried up to the wrist in sand. Thus he would clear an object a little at a time, so carefully that it could not possibly suffer damage.

But his hands were not made for such work. Finger-nails of steel and a skin of tanned leather were needed to grub about in the sands of the desert. No wonder that his fingers became frightfully sore and tender, that his nails were almost worn away by continual contact with the sand. That was one of the minor hardships of such work, a discomfort that he treated lightly.

The soreness of his hands did not prevent him from using them as digging implements, and in a week or two he was having a personal lesson in

evolution. Soft hands were useless to him in such a task. So nature quickly readjusted itself to the different circumstances and evolved hard hands for him, toughened the skin of the palms and back and tempered the finger-nails until he could rummage about all day in the sand with absolute impunity, running no more risk of injuring his fingers than if he were actually wearing thick leather gloves.

When he turned his attention to Abydos in Southern Egypt, he found a Frenchman had been granted the privilege of exploring the spot. Amelineau was installed at Abydos. He had dug away for four years, finding tombs and exploring them, and adding a little to the sum total of the knowledge of Egypt.

The Egyptian Government gave Amelineau a five years' concession, and at the end of the fourth year's work he surveyed the site. He went over it, looked at the mountains of rubbish his diggers had shifted, summed up his discoveries, and at last concluded that it was useless digging there any longer. He decided that he had explored the place thoroughly, and had found all that existed there.

Not one man in a thousand would have thought it worth while to look for anything at Abydos after that. Apparently the field had been thoroughly explored and worked out. But Flinders Petrie

happened to be the one man who thought otherwise. While he respected the opinion of the Frenchman, he yet felt that here was a field for further investigation, that Abydos had not yielded up all its secrets to the previous seekers.

So he set his diggers to work. He went over the ground systematically, digging away, picking over and casting aside the debris. His sharp eyes detected things to which previous eyes had been blind. He found pots that were not turned on the potter's wheel, pots made before the potter's wheel had been invented. These pots were shaped solely by hand, fashioned from the bottom upward, and they were almost as true in form as if they had been turned on a wheel.

He was hot on the scent, turning back the wheels of time. He found the hitherto unknown names of four of the ancient kings of Egypt, the first men who could lay claim to rule the tribes, the men who figure before the first Dynasty. He was pushing civilization back, and yet farther back. Whereas others set the limit of the civilization of Egypt as five thousand years, he added another fifty centuries to it, doubled the life of the civilization that flourished and decayed and flourished and decayed many times in the valley of the Nile.

Came a day when his eyes lit up at the unusual in a piece of pottery, not that it was so

wondrously beautiful, but because the markings on it linked it up with Crete far away to the north in the middle of the Mediterranean, proving that intercourse existed between the two peoples in those dim ages.

The native diggers cast casual glances at the jar. They were not particularly interested. To them it was merely an ordinary piece of pottery.

If that same piece of earthenware were placed in a china shop in London to-day with the rest of the oddments of china, and marked at five shillings, no one would trouble to buy it, unless by chance he possessed expert knowledge.

It seems remarkable that this piece of pottery, so fragile that a moderate blow would shatter it, should have survived for all these thousands of years. The ancient potter who shaped the soft clay and baked it until it was hard was indeed working for posterity. He little knew, as the jar grew under his nimble fingers, how many centuries would elapse and find it still as perfect as when he took it from the fire; nor could he guess how much his little jar, which he moulded so cunningly, would tell to the brilliant man who found it.

Fate ordained that his handiwork should be buried in a grave, and there remain in absolute security until the centuries brought the right man along to unearth it.

It was but a Cretan pot in an Egyptian grave, but that little pot for a time made scholars wonder whether the civilization of Egypt was founded on a far older civilization which came from Crete, the little island in the Mediterranean.

CHAPTER IV

THE men who are digging history out of the earth with pick and shovel rely upon something more than chance to obtain their results. The general idea of a man casually strolling out into the desert, and uncovering a city which has never been heard of, has little relation to the facts. It would be just as reasonable to start fishing for Japanese pearls in the middle of the Atlantic Ocean, as to start blindly digging through the sands of Egypt in the hope that something would turn up.

Ancient monuments, papyri and wall-paintings, even the legends of the country, are carefully considered with a view to finding a clue to the past. The sites of the ancient tombs and palaces and cities have gradually been located, and the explorers naturally select a spot which holds out some prospect of success. They generally have a definite object in view when they start their search. For instance, Lord Carnarvon and Mr. Howard Carter were hoping to find another tomb when they came across that of Tutankhamen. When

Maspero made his discovery of so many of the Pharaohs about forty years ago, the mummy of Tutankhamen was missing, and there was accordingly the possibility that some diligent man might eventually unearth it.

For forty years the search went on. Other tombs were found, but that of Tutankhamen still eluded discovery, until the autumn of 1922. The digger always has hopes of finding a certain thing, but as often as not he comes across something else.

Before a pick is stuck into the ground, the digger will spend several days on the spot, going over it carefully, and noting any irregularities. Long experience teaches him many things. What the ordinary man cannot see, even when it is pointed out to him, may be quite plain to the trained eye. A slight depression may indicate to the expert the site of a buried building, a tiny bank may tell him where the sand of the desert has blown against a wall and gradually accumulated until the wall is covered beneath the drift. It is invisible, but there is the slight slope to prove that the sand has been heaped against something, to show that its path has been stayed by some object. These are some of the things which help the experts to select the spot on which to dig. The man who prospects for gold knows what signs to look for, and the scientist prospecting for relics of past

ages is equally proficient in reading the signs. The gold prospector digs a hole, and washes the contents to find a colour of gold; the seeker for relics prospects by digging a trench to see if he can find a bit of brick or stone showing traces of man's handiwork.

Egypt happens to be a particularly happy hunting-ground, inasmuch as it not only possessed an extremely ancient civilization, but also enjoys a wonderful climate, which preserves the relics of the past. The sun is always shining, and rain falls so seldom that things are preserved almost indefinitely from damp and mildew where in other countries they are destroyed in a few years.

The ancient cities of Egypt were founded on the banks of the Nile, just as are the modern cities. Away from the river, life is insupportable. It has often been said that the Nile is Egypt, and Egypt is the Nile. This is true, for the cultivable land of Egypt above the Delta is just a green strip a mile or two wide on each side of the river all along its course. On the margin is the encroaching desert, which only the waters of the Nile prevent from overwhelming the land. Where the waters of the Nile flow into the little irrigation canals and feed the fields, there abundant crops of cotton, sugar-cane, and other things are raised. Beyond, are the arid hills, and the cruel sands where the rock in

summer becomes so hot that it is possible to bake bread by the heat of the sun.

The people living in lands that are blessed with an adequate rainfall can have no conception of what the Nile means to Egypt. The drought which occasionally affects our own country brings home to us the importance of rain to the land. Our whole country-side soon begins to complain about lack of water. Wells begin to run dry. Water has even to be carried to some villages by train.

A traveller spent a night at an old inn on the Sussex downs, and found an inch of chalk sediment at the bottom of his small jug of shaving water in the morning. Crops which should have been 4 feet high had struggled up only a few inches. There was no moisture to help them to develop. Fields of heavy land were all ploughed up, but before the farmer could harrow them and prepare a fine tilth for the seeds, the clods were baked as hard as iron, so hard that it was impossible to do anything with them, and the fields carried no crops at all. A succession of such seasons would have a profound effect on the life of this country, and compel our people to live where water could be obtained.

That is why the Egyptians were—and are—chained to the Nile. The floods fed the land. When the river failed to rise, and the water was confined within the banks, there was famine. No

wonder those ancient Egyptians worshipped the Nile. Their lives depended on it.

They watched the river anxiously to see what it was going to do, scanning the chocolate-coloured waters as they went flowing by. They wondered whether the river was going to condemn them to starvation, or whether it was about to scatter plenty over the land. Far away from Cairo, up at Khartoum, the rise began about the end of April, but so great is the distance that no perceptible increase was to be noticed at Cairo until the end of June.

As the water rose, so did the spirits of the natives. We can imagine with what joy they saw the flood break over the banks and sweep into the fields on either side. Stone pillars were put up to measure the rise. They were marked off in cubits, and the officials would watch the water stealing up and up. If it only reached 12 cubits there would be wailing throughout the land, for the people knew that famine would overtake them, that the life-giving water would not reach their fields. Another 3 cubits would suffice to feed them until the next harvest came round, if they exercised care and were not unduly wasteful, while 16 cubits, or 28 feet, would fill their granaries to overflowing, and every one would have enough and to spare.

They prayed long and earnestly to the Nile god, and held great festivals in his honour in a temple

ALL THAT REMAINS OF THE GRAND AVENUE OF SPHINXES AT KARNAK, ORIGINALLY A MILE LONG, TO REMIND US OF THE GLORIES OF EGYPT LONG AGO (*see page 71*)

built in the vanished city of Nilopolis. Here they performed their rituals and made their offerings, and gave thanks to the god in years of plenty, expressing their joy and gratitude for the bounty they had received. They worshipped the Nile as the source of their blessings, just as they worshipped the sun.

The sun worshippers built a magnificent temple to their god, whom they called Ra, at Heliopolis, and Cleopatra's Needle, now standing on the Thames Embankment, is one of the two monuments which Thothmes III set up before the Temple of the Sun on the banks of the Nile. Here they remained until the legions of Augustus Cæsar defeated Cleopatra just before the dawn of the Christian era. Eight years after the dramatic death of the beautiful Egyptian queen, whom Julius Cæsar loved and Mark Antony worshipped, Augustus set his engineers and slaves to work transporting the obelisks down the Nile, to set them in front of the wonderful palace of the Cæsars built in Alexandria. The new palace of the Roman invaders grew old, decayed, and fell in ruins, but the ancient obelisks of Heliopolis still reared their pinnacles to the skies. For fifteen hundred years Cleopatra's Needle stood firm before crashing to the ground, to lie half buried in the drifting sands for three centuries, leaving the twin obelisk standing alone.

Then British soldiers, flushed with their victory over the French in Egypt in 1801, craved a memento of their triumph. Seizing on the fallen obelisk, they subscribed their hard-earned money, and sought to remove the stone to England. That weight was too much for them; it defied their efforts, so, fixing a commemorative brass plate, they left the stone lying in the sands.

Mehemet Ali, knowing the British were interested in the obelisk, presented it to George IV. That monarch made no effort to remove the unwieldy present. Once more, in 1831, Mehemet Ali approached the British Government, and this time offered to ship the monument free to Great Britain. The offer was politely declined. By the time the British Government decided to remove the stone, in 1849, there was such opposition to spending £7000 on its removal, that the matter was dropped.

Eighteen years later, the land on which the monolith lay was sold, and the new owner quickly requested the British Government to remove their property. The Government were so loath to do anything at all that the Khedive informed them they must either remove it, or forfeit the title to it. The threat had no effect. The Government seemed to look upon the present much as a suburban dweller would look upon the present of an elephant.

The owner of the land began to plan to break up the obelisk, and use it for building purposes. For ten years all the efforts of General Alexander were needed to induce the landowner to refrain from such an act of vandalism, and at last, when it was seen that the Government would do nothing, Sir Erasmus Wilson came forward and offered to remove the obelisk to England.

Accordingly a mighty iron cylinder 100 feet long was made. The obelisk, which measures 86½ feet high, and weighs 186 tons, was dug out of the sand, and after tremendous trouble safely housed in the cylinder, which, upon being completely sealed, was quite buoyant. Eventually it was floated, and taken in tow for England. All went well until the Bay of Biscay was reached, when a terrific gale sprang up, so terrific that Cleopatra's Needle threatened to drag the tug to the bottom. At midnight the situation became so desperate that the captain ordered the obelisk to be cut adrift, feeling certain it was sinking, and when he arrived in England Cleopatra's Needle was given up for lost.

But the monument, which had survived the accidents of Time for so long, was fated to survive the storm. Instead of plunging to the bottom of the Bay of Biscay, it tossed about on the heaving waters for nearly three days. Then it was sighted

by a steamer, and taken in tow, to be brought at last to England.

It is remarkable that this same monolith, which a Pharaoh erected on the banks of the Nile to tell the sun-worshippers of his glorious deeds in war, should now be reposing on the banks of the river Thames, and that it has survived the age of bows and arrows to be damaged by bombs from aeroplanes. What a story Cleopatra's Needle would tell if it could only speak.

Kings were more than kings to the common people of Egypt. They were looked upon as gods, the possessors of divine power. They were called the sons of Ra, and Ra often figures in their titles. From being called the son of Ra, the ruler in the eyes of the people acquired the mythical power of the god himself, and was worshipped by his subjects, who shielded their faces from the glory which the monarch spread around him.

The Egyptians have worshipped many gods in many ages. Gods have risen, grown powerful, and been superseded, but always the kings have shared the powers of the various gods, and the people looked upon the king as the living image of the god they worshipped.

Their religions, after the lapse of ages, seem very strange to peoples in other lands. Yet they had much to commend them, and many of the teachings

of the Christian religion were anticipated in the religions of the ancient Egyptians.

We look upon the Nile dwellers as pagans, but we cannot deny the logic of the religion which taught them to worship the sun and the Nile, on which they depended for light and life.

CHAPTER V

GRADUALLY the romance of ancient Egypt is being revealed by the graves of those who died in remote times, yet to read the romance at first hand requires exceptional ability that is possessed by only a few men. Little bits of evidence of no importance to the casual onlooker are fraught with immense importance to the scientific seeker.

The most wonderful tombs in the world are to be found in Egypt in the shape of the Pyramids, and as the centuries recede the tombs gradually become simpler until they arrive back at the simplest of all —just a shallow hole scooped out of the ground, in which the dead man rests on a skin.

Consequently the graves of Egypt reveal the rise of Egypt's civilizations; they indicate how man's ideas have changed, how primitive customs have slowly passed away and given rise to the most remarkable practices connected with the dead of which we have any trace. The later stone tombs needed no seeking; they were plain to every traveller who journeyed up the Nile. Earlier

tombs built of brick were found, revealing a more ancient state of civilization, when men were ignorant of the ways of working stone, or found it too difficult to devote their energies to shaping stone to be built into a tomb. Going back and back, the brick tombs get smaller and smaller, until they disappear, and only the grave remains in which the dead lie doubled up. These were the things that years of work taught, but the earliest graves of all long eluded the eyes of modern workers.

One day Professor Flinders Petrie came across remains. The greatest care was exercised in digging, so that every shred of evidence could be collected, and as the sand and soil were drawn aside he saw it was a very ancient grave, older than anything ever dreamed of in connection with Egypt. No one had any idea that Egypt was inhabited so long ago, but here was proof that men lived in the Nile valley in the dark ages of Time.

The evidence goes to show that a crude civilization existed there ten thousand years ago, and that men may have lived in the Nile valley over twenty thousand years ago. Whether any relics will ever be found to throw any light on this epoch of Egyptian history remains to be seen, but it would not be astonishing if something did eventually appear, for the country has powers of preservation which even to-day are only faintly recognized, and the earth can hide things so cunningly that human

beings may search for centuries and never find them again. The fact that they are not found is no proof that they never existed.

When this ancient man hunted on the banks of the Nile, he gazed upon a very different land from that which exists to-day. The river was wider and shallower. It overflowed its banks for greater distances. The banks of gravel which show where the waters of the river lapped in bygone centuries still exist, but they are far removed from the river, and a hundred feet or so higher.

In all the thousands of years that have elapsed since then, the Nile has been cutting a deeper and deeper channel for itself. In all the years that it has been bringing down the mud in solution, flowing over the land, some of the mud has sunk to the bottom and remained ; much of it has been carried from the Delta to the sea. The mud that sank has got deeper and deeper. The river has added to the deposit inch by inch, until there is now a wonderful layer of alluvial soil : just the mud of the Nile, between 30 and 40 feet thick on each side of the stream.

This deposit itself has helped to give scientists an idea of the age of the earliest human remains that have been found. The rate at which the river leaves the mud behind has been carefully measured, and men have learned that in a century the Nile will add 4 inches of soil to the fields by flooding.

Test holes have revealed the present depth of the alluvial, and if roughly about a yard of deposition is allowed for one thousand years, and about 10 or 12 yards are allowed for the depth, then the age of the deposit is fixed at ten or twelve thousand years.

In some quarters this time is considered as absolutely accurate and definitely fixed, but there are so many factors to be taken into account that we should hesitate to regard them as unalterable. The Nile, it is true, has been depositing mud at the rate of 4 inches to the century in modern times, but this is no proof that it has always deposited mud at this rate, and there may have been considerable changes in the rate at which the mud banks have grown on each side of the stream. We know the floods vary considerably, and the rate of deposition must vary similarly. There seems at least the possibility that it took twice as long as the accepted estimate to deposit the mud on each side of the river, that is twenty thousand years. For aught we know, it may have taken two hundred thousand years.

It will be seen how difficult it is in dealing with the lapse of such ages to mention any definite dates. This is why the men who are digging up the past in Egypt refer to Dynasties, starting with the First Dynasty, and working up to the last or Thirtieth Dynasty.

A great deal has been done towards discovering the names of the various kings in the different Dynasties, but there are still many gaps to fill in. Most of our information in this respect has been given us by a list of names compiled by a priest named Manetho, who lived about two thousand one hundred years ago. Manetho undoubtedly based his names of kings on more ancient lists which have totally disappeared, but that he was fairly accurate is borne out by the Turin papyrus so far as it has been translated. The difficulty with this papyrus is that it was discovered in a number of fragments, and some parts of it are missing. However, the parts that remain have been most carefully pieced together, and seem to verify Manetho's list, which starts with Menes, who is looked upon as the first king of the First Dynasty, and is thought to have reigned about seven thousand years ago.

Throughout the ages that followed the reign of Menes, there grew up those religious beliefs and quaint burial customs which have done so much to unfold to us the life of the past. At first sight there seems to be no reason for all the statues, the tiny figures, and wonderful wall inscriptions to be found in the ancient tombs of Egypt. It seems incomprehensible that the dead should be buried with food and flowers beside them, that all this artistic talent should be wasted in this manner.

Yet some such customs exist in all lands, and survive to this day, for we still place wreaths of flowers on the graves of our departed in memory of them, but actually the giving of a wreath is based on a custom that recedes so far back that all trace of it has been lost.

The Egyptians believed that there was another world, to which the soul journeyed after death. But the journey was long and hazardous, and the soul faced many perils on the way. In order to protect the soul from danger, the Egyptians used to paint an image of the Sun God within the tomb, thus placing the soul directly under the protection of the god, and the soul would wander over the heavens in the company of the god, immune from all harm, so long as the daylight lasted.

Directly darkness fell, all the evil spirits would come forth from their retreats, and try to trap the soul as it stumbled blindly through the labyrinths of the lower regions. All night the soul would fight against these perils, struggling continually towards the dawn. Then, as the sun came up, the soul would escape from the evil demons, and wander free of danger through the heavens once more until darkness fell.

Every human being was also considered to possess a perfect duplicate, a double, and the Egyptians were taught that the life of this double depended on the survival of the body, and if the double had

no body to return to, the double would become extinct and die for good. Such a thing was too terrible to contemplate, and had it happened it would have signified eternal disgrace to the living, as well as obliteration to the dead. Consequently the body was embalmed, so that it would be preserved for all time as a place of refuge for the double.

There was the risk, however, that despite all precautions, something might happen to the embalmed body, that it might be destroyed by some accident quite unforeseen and unforeseeable. The Egyptians must have considered this danger long and earnestly before they arrived at a method of averting it.

The method was simplicity itself. What could serve the purpose better than a statue of the deceased? If the mummy became damaged, there was always the likeness in stone for the double to inhabit. Then somebody decided that two statues would provide two chances for the double to survive in case of accident to the mummy, and once the idea was fully established the number of statues multiplied until there was a dozen or more, all the same, carved in stone, to represent the dead man. To avoid the possibility of the double making any mistake, the likeness of the dead man was portrayed. This accounts for the finding of so many statues of kings; each statue gave the king a chance in the afterlife.

To provide sustenance for the double before it reached the Egyptian equivalent of Paradise, jars of water, meat and bread were buried with the mummy. It would not do for the dead to go hungry. Theoretically the foodstuffs should have been replenished from time to time, and no doubt for long this was done, but the Egyptians finally found that it was difficult enough to provide for the living, without toiling to feed the dead.

There is no doubt that the offerings to the dead became somewhat of a drain on the resources of these ancient Nile dwellers, so again they solved the problem in quite a simple way. If they painted all the offerings on the walls of the tombs, and prayed to the gods to provide the departed with the things needed in the afterworld, such painted offerings would last for ever, and relieve the living of the demands on their foodstuffs. Consequently, all over the tombs, these pictures of offerings may be found, to serve the deceased if he should need food during his wanderings to the Egyptian Paradise.

The little images known as Ushabti were placed in the tomb, in case the deceased were called upon to work in the next world. They were his servants, who would labour for him and save their master from performing menial tasks. The boats or barges that are found were to ferry the dead man over the sacred waters to the Fields of the Blessed.

The Egyptians, indeed, considered that every-

thing required in this life would be needed in the next. It is well for us that they had these ideas, for they have resulted in many remarkable relics being found in the tombs, relics which help the scientists to reconstruct the life of these wonderful ancients, to revive the romance of their lost civilization.

In order that the dead man might not lose his identity, his name was graven within the tomb, and in time the outstanding features of his life were also mentioned, so that the gods should be conversant with all he had done. Some of these notes are short, others long, but all of them are of importance as showing us what happened while the dead man was alive. We have our own National Biography printed on paper, and carefully bound to place on our shelves, but the National Biography of Ancient Egypt is carved upon mountains of stones in the tombs of the land. They are the books of the distant past, but there is the possibility that they will survive when many of our modern books have perished utterly from the earth.

The commonest of all the ancient manuscripts that have survived to our day is the well-known Book of the Dead. It is another relic which serves to indicate the thought devoted by the Egyptians to life in the next world. The Book of the Dead is a sacred book, which tells the dead man what to

By courtesy of the British Museum

A SCENE FROM THE FAMOUS BOOK OF THE DEAD, PAINTED 3,000 YEARS AGO ON PAPYRUS, SHOWING KING HER-HERU AND QUEEN NETCHEMET PRAYING TO OSIRIS WHILE THE HEART OF THE QUEEN IS BEING WEIGHED IN THE BALANCE

say to the gods when he meets them, how to answer their questions. Osiris is the Judge who weighs the man's heart, and considers if he be worthy to enter the Realms of Bliss. And the departed is instructed what to say. "I have not played the hypocrite," he avers. "I have not stolen," is another answer he must make. "I have not lied. I have not committed adultery. I am no slayer of men."

There are forty-two of these Confessions in the Book of the Dead, and it is astounding how they resemble the Ten Commandments upon which are based the Christian religion. In the replies just quoted may be traced three commandments: "Thou shalt not steal. Thou shalt not commit adultery. Thou shalt do no murder."

Who can say after this whence the wisdom of the Bible sprang? The religion of the ancient Egyptians seems false to our eyes, but underlying it are many fine principles, and much of the truth that is eternal.

Even in those remote times, however, there were people who were ever ready to take advantage of the grief of the relatives of the departed. A Book of the Dead was essential to the well-being of the departed, once he came into the presence of the gods, and the living would go to the scribe and acquire the finest copy of the Book that lay within their means. The wonderfully painted Books were

only for the wealthy and the nobles. The poor people had to be satisfied with something that was much inferior, from which a great deal of the text was missing.

The poorer classes were, of course, unable to read the sacred script, and would therefore be unaware that much of the text was missing; that the Book was, in fact, so much abridged, that they were acquiring a garbled version, bearing little resemblance to the full Book. They would have the body embalmed, and see the sacred Book placed within reach of the mummy's hand, so that it could be consulted directly it was required, little knowing that the Book upon which they relied was but an imitation of the genuine sacred Book.

In fact, in those days, it was more or less the same as it is to-day. The scribe scamped the work of the Book that he was poorly paid for, and took more pains with the Book for which he received a better price.

Discoveries seem to indicate that although the people had faith in the Book of the Dead, the scribes themselves were inclined to be unbelievers. It is fairly evident that they had no compunction in defrauding the relatives, for when the scribe had sold a beautiful copy to place with one of the departed, he would very often slip in a blank papyrus along with the mummy, and abstract the fine Book, knowing full well that his fraud would

never be found out. Probably he reasoned that it was rather a waste to place such a fine specimen of his work where it would be lost for ever. It is quite likely that some of the scribes devoted a vast amount of time and skill to making a wonderful copy of the Book of the Dead that they could show to relatives to get their order, with the intention of substituting an inferior work, or even a blank. Thus their one fine copy would be a source of income to them, and they would never part with it if they could possibly avoid it.

Judging from the blanks and poor copies that have been recovered, there is little doubt that the Egyptians of old were quite as guilty of sharp practices as are some of the people of to-day.

CHAPTER VI

SINCE the dawn of history the Pyramids have been considered one of the wonders of the earth. They are unique. There is nothing to compare with them in any other land. Strangers have gazed upon them in amazement, and pondered what they were and how and why they were built.

Myths that they were the work of the gods became numerous, for the structures were so gigantic that it seemed impossible that puny man could have built them. About their human origin there was no doubt to discerning travellers, but the object in building them was not always so plain.

Long and learned books have been written to show that the Pyramids bore some special astronomical significance; that one of the main passages in the Great Pyramid was built at a certain angle to enable the astronomers of earlier days to watch a certain star pass in its course across the opening in the face of the Pyramid; that the height of the Great Pyramid bore a definite relation to the distance of the earth from the sun; that the base of the

Pyramid meant something else. In fact, the Pyramid has been measured in all directions, in all sorts of manners, and these measurements have been made to fit in with pet theories which have been the basis of many books.

There is not the slightest mystery as to what the Pyramids actually are. They are merely tombs. But people have not been content to accept this explanation, perhaps because it is too simple, so they have endowed the Pyramids with all sorts of wonderful meanings which would astound the builders were they to come back from the Fields of the Blessed. Astrologers who puzzled on the meanings of the stars in the heavens claimed the Great Pyramid as peculiarly their own, and pointed out certain coincidences in measurements to support their claim; the astronomers adduced their own reasons for claiming that the Pyramid had some astronomical meaning; Biblical students, on the other hand, who sought the hidden meanings of the Bible, concluded that the Pyramid was definite proof of certain of their own theories.

The Pyramids have indeed been so enwrapped in mystery, by the writings and theories of successive generations, that thousands of people to-day regard them with a sort of religious belief.

Notwithstanding all that has been written on the subject, and the undoubted cleverness with which these theories have been propounded, the Pyramids

are only tombs. But they are the most wonderful tombs in the world. They are simple and grand, with the desert sands surging round their bases, while a short distance away the Nile flows along to the blue sea. There is one other tomb without peer, the Taj Mahal, in India, that beautiful dream in marble which Shah Jehan erected in Delhi to the memory of the lady he loved so well. But the Taj is very different—graceful, glorious. Yet the Pyramids, in their simple grandeur, are not without a beauty of their own.

Kings have come and gone, civilizations have bloomed and vanished, the very earth itself has altered since the Pyramids were first built. Whirlwinds have caught up the sands of the desert and used them as a giant sandblast in their attempts to wear away the stone, earthquakes have shattered temples, but on the monuments the forces of Nature have had little effect. The hand of man has wrought more destruction in a few centuries than Nature herself wrought in two or three thousands of years. What man built, man has partly destroyed ; yet man, with all his ingenuity for destruction, has done little but touch the outer surface of the Great Pyramid.

There are nearly eighty Pyramids of different sizes scattered throughout the Nile valley. The greatest and most renowned is that of King Khufu or Cheops, at Gizeh, which originally measured

THE PYRAMIDS OF GIZEH, ONE OF THE WONDERS OF THE WORLD, WITH THE GREAT SPHINX IN THE FOREGROUND, LAPPED BY THE ETERNAL SANDS OF THE DESERT

355 feet 8 inches at the base, and 481 feet 4 inches in height. The base of the Great Pyramid covers well over 12 acres, and an idea of the size of the monument may be gained when it is known that to walk round it means trudging through the sands for more than half a mile.

Over nineteen centuries ago, Julius Cæsar sent from Egypt one of the most famous letters ever written. It was short, but three words: "Veni, Vedi, Veci." These three words carried a wealth of meaning. They told of a safe journey, of an emperor gazing on the land he was going to conquer, of a successful invasion. "I came, I saw, I conquered," wrote Cæsar, who in turn was conquered by the beauty of Cleopatra

Who can say what were the thoughts of the Roman emperor as he stood within the shadow of the age-old Pyramids? He was a powerful potentate, but the same thoughts must have flitted through his mind as have surged through the brains of countless unknown men when they first caught sight of the Wonders of the Desert. He must have meditated on their origin, and how they were built.

In modern times Napoleon, the greatest soldier the world has ever seen, paced in the shadow of these same Pyramids, and reflected on the eternal questions regarding them. Lord Kitchener, before he attained to fame, gazed on them hundreds of

times. The great ones go to their eternal rest, but the Pyramids remain.

They were built to endure for all time. The Egyptians looked upon the tomb as their permanent home, which was to last for all eternity. This is the reason for the erection of these mountains of stone, for their solidity of construction, for their gigantic size. They have grown out of Egypt's religious beliefs. They were built solid and big and strong, so that nothing should overturn them, so that they should defy the hand of Time and Man, and forever provide a resting-place, a home for the shadow-self of the King.

Directly a Pharaoh came to the throne, he began preparing for his last long sleep. His life-work was to prepare a tomb for himself befitting his rank and power, and he spared no pains nor means to accomplish his desire. He called his chief architects and his high priests around him, and demanded that plans be made and a site selected. Then he saw the foundation stone laid, and year by year watched the pile of masonry grow.

Judging by the number of Pyramids in existence and their size, it has been reckoned that the total man-power of Egypt was devoted for over a thousand years to building tombs for the rulers, that tomb-building, in fact, was the main industry of the country for centuries.

To build another pyramid the size of the Great

Pyramid of Khufu or Cheops would be a brilliant engineering feat even in our time, with all the engineering means we have at our disposal. The more we consider the Great Pyramid, the more amazing it seems that the Egyptians should have succeeded in erecting such an enormous monument some six thousand years ago. To this day it is not fully understood how it was done, but gradually evidence is accumulating which serves to indicate the principal methods that were adopted.

A few miles away, on the other side of the Nile, the limestone was quarried from the hillside at Turah. Thousands of men laboured at cutting out the mighty blocks. These were probably squared up roughly in the quarries, and then either transported to the barges on rollers made from the trunks of palm trees, or else mounted on wooden sledges that were dragged over the ground by the united efforts of hundreds of slaves. Great skill must have been required to get them safely aboard, and to unload them from the barges when they arrived on the other side of the river. There is little doubt that the site of the Pyramid was chosen close to the river and to the Turah quarries to make transport as simple as possible.

The Pyramid is built in a series of steps, the lower courses of blocks being 4 feet 11 inches high, the size diminishing as the Pyramid gets higher.

Before a stone was cut or laid the Pyramid must have been carefully planned on papyri ; for aught we know models may have been built to ensure its accuracy. It is plain that the builder must have calculated the sizes of all the stones course by course and the number required, for their regularity in size is not only amazing, but is also proof that the building of the Pyramid was most carefully worked out.

So extraordinary was the degree of accuracy attained by the ancient architects, that it is doubtful if a single building in all London is so correctly and accurately built as was the Great Pyramid sixty centuries ago. The Egyptians were clever enough to fix their site so that the sides of the Pyramid faced exactly north, south, east and west, without any deviation whatsoever. They had some means of measuring whereby they were able to build the lengths of the sides so truly, that there was not half an inch of difference in any one of them. The builder who is able to build four such walls over 750 feet long, without varying them half an inch in all that length, is a king of his profession. Probably there is not a house put up to-day that does not vary considerably more in the length of its small walls. For sheer accuracy in its measurements, the Great Pyramid is one of the most marvellous structures on earth, and the Egyptians were apparently able to do six

thousand years ago what we find it difficult to accomplish to-day.

The Great Wall of China was built at the sacrifice of hundreds of thousands of lives, and probably thousands of men perished in the building of the Pyramids. Accidents must have been happening all day long. The huge blocks were handled by men who dragged and pushed them to their positions. The labourers were kept hard at it by their taskmasters, whose one thought was to keep up the supply of stone. Mighty blocks weighing many tons must have often slipped and crushed the workers to death. Many of the labourers must have been maimed for life ; legs were broken, arms smashed, heads and bodies crushed, as the blocks rolled and swerved in their progress.

From inferences from papyri, the great Pyramids were looked upon by the Egyptians as one of their plagues, as a scourge to the land. Men were pressed into the work, were compelled to go on with it. What mattered it to Khufu if his subjects and slaves died, so long as he built a home that would last his shadow-self for ever ? We are wont to marvel at the building of the Pyramids, but under it all there must have been great cruelty as well as an incredible skill. Those monuments which to-day are the glory of Egypt, were in the past one of the afflictions of the land.

The building of the Great Pyramid entailed the

creation of a mighty sloping road, which Herodotus says took 100,000 men ten years to construct. Men swarmed over the desert like ants over a disturbed ant-hill, making this enormous slope up which to drag and push these gigantic blocks. The centre of the slope was paved with polished stone, so that the blocks would slide easily along, but in spite of this attempt to ease the burden, the moving of the stones must have been a heart-breaking task. As the Pyramid rose, so the road grew higher.

The blocks would be heaved out of the barges by dozens of men. Great wooden levers would be inserted under the stones to prise them up to allow the rollers to be slipped under ; then hundreds of men would take hold of the long ropes, harnessing themselves like beasts of burden, and drag the stones along. Men with levers would help by thrusting behind ; others would walk at the sides to attend to the rollers, and run to the front with new ones directly the last had passed underneath the stone at the back. We can imagine ropes breaking, and mighty stones plunging down the causeway, sweeping scores of poor victims to destruction. Blood and tears as well as labour went to the building of the Pyramids.

From first to last, so far as we are able to gather, about 100,000 men slaved for thirty years to build the tomb of Khufu. The site chosen was not exactly

level. A little hillock of rock rose on one part of it, and this was cleverly squared off and incorporated into the Pyramid, saving the transport of so many hundreds of tons of rock.

The great aim of Khufu, or Cheops, as that of all the other Pharaohs, was to protect his mummy, and prevent thieves getting into his burial chamber. To this end were devised numerous secret passages, all of which show an extraordinary ingenuity in planning, and great engineering skill in execution. The entrance to the Great Pyramid is about 45 feet up on the north face. One of the blocks of stone was made to swing inward on a pivot, and when closed it was quite impossible to locate the entrance. The Pyramid looked quite solid, without a single breach in any one of its sides. So cleverly was the entrance contrived that it baffled men for thousands of years, although countless thieves went over the Pyramid seeking eagerly for a way in. Only a lucky accident could have led the discoverer to touch that particular stone in the right way to make it swing back and disclose the opening.

Even when he found the opening, he was not much nearer the burial chamber. An underground passage was driven for over 350 feet through the solid rock at an angle below the foundations of the Pyramid, until it opened out in a chamber immediately beneath the point of the Pyramid. The chamber is really a fine hall about 46 feet long by

27 feet wide, with a roof 11½ feet above the level of the floor. On the other side of the chamber the underground passage continues for over 50 feet, but we are quite at a loss to divine the reason for this extension. Maybe the engineers drove this gallery with the definite intention of misleading any one who should eventually break a way into this underground retreat. At any rate, it is, like the rest of the passage, driven through the solid rock, and finishes up against the rock wall. No other outlet from this passage has ever been discovered, so its object is a mystery. Perhaps the engineers' plans were altered, or perhaps it was designed to baffle thieves, and compel them to waste time by searching for an opening where none exists.

Khufu did not underrate the skill of the plunderers of the tombs. He realized to the full their patience and cleverness, and did all in his power to outwit them. The passage is lined throughout with blocks of stone, and we can imagine the robbers searching anxiously up and down the dark passage, casting back and fore, tapping the stones to try to find the outlet leading to the King's Chamber. All the blocks look exactly alike, and they may have sought for months before they found that block in the roof which pivoted in a similar manner to the stone covering the entrance. This passage branched upward to the Queen's Chamber, and opened out to the Grand Gallery, which is very narrow and

high, at the end of which comes another passage leading to the Chamber of King Khufu.

Before the robbers were able to reach these chambers, they had many difficulties to surmount and problems to solve. At various intervals the passage was sealed by four mighty blocks of very hard granite. These blocks must have been supported until after the funeral ceremonies were completed ; then the priests withdrew, the supports were knocked away, and the blocks crashed down into position in the deep grooves that were cut for them in the passage.

When the intruders surmounted one block, they were confronted by another. Their labours on the second brought them to a full stop against the face of the third. No one knows how long it took for the thieves to break into the Pyramid, but it must have taken years from the time the first secret opening was discovered. So hard was the granite with which the passage leading to the King's and Queen's Chambers was closed, that in one case the thieves despaired of ever getting through it, so they laboriously cut a way through the roof of the passage and clambered over the top of the granite block. They must have reaped a very rich booty, of which every trace has long since vanished.

All that remains to-day is the red granite sarcophagus in the King's Chamber. It is an enormous stone coffin, so big that its removal is an impossi-

bility. It is too big to be taken through the passages. The size of it indicates that it must have been placed in position when the Pyramid was being built. It shows how carefully everything was planned.

The King's Chamber is 34 feet 3 inches long, by 17 feet 1 inch wide, with a height of 19 feet 1 inch. It is one of the wonders of the Pyramid, lined with enormous slabs of highly polished granite which reach from floor to ceiling, slabs 19 feet 1 inch high. The ceiling itself is composed of the same granite, in giant slabs nearly 4 feet wide and 17 feet 1 inch long. There are nine of these mighty slabs of polished stone, reaching from wall to wall. Their weight must be enormous, and the difficulty of getting them into position must have been prodigious. So skilfully and accurately fitted were many of the stones in the passages, that even now the point of a needle cannot be inserted between the slabs where they join.

It seems incomprehensible at first sight why this King's Chamber has not been crushed out of existence thousands of years ago by the weight of the masonry over it. It must be remembered that what amounts to a mountain of stone rears its peak 200 feet or more above. Investigation reveals that the builders were fully alive to this danger, and the steps they took to avoid it were not only very clever, but they have worked perfectly for thousands of years. Earthquakes have occurred

from time to time and displaced some of the stones, but the King's Chamber is still intact and uncrushed.

The methods adopted by these clever old builders to preserve the Chamber are very simple, yet anything more brilliantly successful it would be difficult to devise. Above the King's Chamber four other chambers were built to take the weight off the roof, and over these chambers two mighty slabs of hard stone were placed astride, leaning together at the top edges, which were so accurately cut that they could not possibly become displaced. These two stones, with their tops resting against each other, just as children lean two cards together on a table, take the weight of all the masonry above them, and deflect the thrust of the weight outwards instead of downwards, so that the King's Chamber is amply protected.

The Pyramid of Khafra or Chephren, slightly smaller than the Great Pyramid, is still a mighty monument of the past, and although the Egyptians were free from foreign wars when it was built, they groaned under the necessity of doing this work for the king at home. The building of the Pyramids was one of the hardships of the Egyptian nation.

When the Great Pyramid was finished, a pinnacle of hard limestone was set on the top, and all the steps were filled in from the peak downwards with the same stone, to make the surface of the Pyramid quite smooth from apex to foundation. But the

facing blocks of stone have now all disappeared. Many of them have been carried off to put into new buildings, others lie shattered all about the base, where the debris rises for 40 feet or so. The point of the Great Pyramid has also gone, and there is now a platform about 36 feet square, on which visitors may stand and gaze on the wonders of the desert.

Only 500 yards away the head of the Great Sphinx emerges from the sands. Nobody knows what the Sphinx represents. The most learned investigators are uncertain of its origin and age. Some think it may have been carved by the sculptors of one of the great pyramid builders, but others regard it as very much older. Probably it represents the sun god Ra, but for centuries the Arabs have known it as the Father of Terrors.

From the tip of its paws to the end of its back it measures 190 feet. It is 65 feet high, and its neck is 69 feet round, while the tallest man could roll in between the lips, were they open, for they are 7 feet wide. The Sphinx is still joined to the mother rock which forms the floor of the desert hereabouts. It was carved out of the outcropping stone, which the sculptors chipped and fashioned with infinite labour into the shape of the Father of Terrors. The astounding thing is that in spite of the gigantic size of the figure, the proportions are faultless.

Between its paws was a temple, that gave up a

THE COLOSSI OF MEMNON, SET UP BY AMENHOTEP III., IN FRONT OF HIS TEMPLE AT THEBES. THE TEMPLE HAS DISAPPEARED, BUT THESE GIGANTIC FIGURES, WHICH ARE ABOUT 50 FEET HIGH, ARE AMONG THE MARVELS OF THE NILE

statue of Khafra, the builder of the Second Pyramid, but temple and paws are now covered with sand. Indeed the Sphinx has spent the greater part of its existence under the sands of the desert. One of the first things Thothmes IV did when he came to the throne over three thousand years ago, was to set men to uncover the Sphinx, and dig the sand away from its 140-foot-long body. From time to time others have removed the sand, but always the sand comes back and quickly steals over the body and covers it, leaving the head emerging like some monster of the desert.

In the past the Sphinx has been badly treated by the ignorant Arabs, who have smashed its face about and given it that strange expression which is a half-wry smile. Probably thousands of years hence, when our present civilization has disappeared and been forgotten, the Sphinx will still be regarding the Nile and the world with the same half-sad, half-mocking expression.

The Sphinx is as lasting as the mountains, as eternal as the rock out of which it is carved. The riddle of the origin of this masterpiece of an ancient civilization may yet be solved by a man digging with a spade in the desert sands.

The famous Colossi of Memnon, set up by Amenhotep III in front of his chapel on the bank of the Nile at Thebes, almost rival the Sphinx in their gigantic stature. The great figures, 50 feet

high, are carved out of solid blocks of limestone, and there they sit on guard as they have sat for thousands of years. The floods of the Nile swirl about them, laving their injured feet, but the temple they guarded has long since vanished from the face of the earth.

CHAPTER VII

THEBES at its zenith was one of the glories of the old world, with some of the most marvellous temples ever imagined by the mind of man or executed by human hand. The ancient capital of Egypt was unequalled in magnificence. King after king increased the wonders of the temple of Ammon ; their sculptors carved great sphinxes out of stone, which were set up in an avenue over a mile long. Building after building was added to the original one. Mighty gateways, or pylons, 142 feet high, were built, and from these projected flagstaffs on which gaily coloured banners fluttered in the breeze.

The great hall of Ammon was composed of pillars 78 feet high and 33 feet round, all carved and painted in vivid colours. Lesser halls and temples were added, and here, amid a blaze of colour and sunshine, the festivals were held, the high priests performed their sacred rites, the Pharaoh drove up in his gorgeous chariots with the harness of his horses ablaze with gold, while his subjects shielded their faces from the monarch who shared the glory of

Ammon. At intervals the high priests brought out the sacred boat of the god, raised it aloft on their shoulders, and carried it around the temple, while the populace stood silent with awe. For a brief instant the curtains were drawn aside, and the god was disclosed to the multitude before returning to the silence and sanctity of the temple, from which the common people were rigidly excluded.

About the king gathered all the wit and wisdom of the Egyptian empire. Magnificent banquets were held, at which were served to the guests fine dishes of venison, roast ducks and other fowl, and fish. Wine flowed, maidens danced. There was talk and laughter and love.

To-day Thebes has vanished. The one-time capital of Egypt is a desert ruin. Near by are the villages of Karnak and Luxor, with a few natives living in their humble dwellings, and just a big hotel for the use of travellers, who come here to gaze on the ruins of the past.

It is strange that thousands of years ago, when these islands were inhabited by a few savages who painted their bodies, threw a skin about them for warmth, and lived in the rudest of huts for shelter, far away to the south on the Nile a mighty civilization was flourishing, that would compare very favourably with the civilization of to-day.

While the barbarians of Britain were building their rude huts, the Egyptians were carving colossal

A PARTLY-HEWN OBELISK STILL ATTACHED TO THE ROCK IN ONE OF THE ANCIENT QUARRIES

pillars for the Hall of the Temple of Ammon, pillars over 30 feet round, and painting them with colours which are still fresh after all this lapse of time. Even then they had been building with brick for thousands of years. The tomb paintings show the brickmakers puddling the alluvial soil with their feet, shaping the mud into bricks, and baking them hard in the fierce heat of the sun. Moreover these bricks endured for centuries, and still endure; whereas many of the red bricks made in England thirty or forty years ago are perishing fast.

Speculation is still going on as to how the Egyptians used to handle the enormous stones found in the ruins, and how they managed to place in position monuments like Cleopatra's Needle. There is mention of certain engines having been used to lift the stones of the Pyramids, but what these engines were, nobody to-day can say with certainty.

Cleopatra's Needle was roughly shaped on three sides in the quarry, before it was detached from the mother rock. The methods of detaching a monument from the rock show that the Egyptians were quite conversant with natural laws, that they possessed the ability to harness these laws in order to save human labour. How many modern craftsmen would succeed in separating one of these huge stones from the mountain-side, by using such simple

things as a drill, some wooden pegs, and water? With these crude implements the task would be looked upon nowadays as impossible. Yet from obelisks still attached to the rock, it is obvious that such primitive appliances were sufficient to enable the Egyptians to perform their ancient miracles.

On the exact line where they desired to sever the stone, they cut a deep groove, and at frequent intervals along this groove they drilled holes, into which they hammered wooden pegs very tightly, until the tops were a little below the surface of the stone. Then water was poured on the pegs, and as it soaked into the wood they swelled, until the expansion of them all together was so irresistible that the rock was split along the groove.

Many huge pillars and statues were also sculptured in the living rock before being detached, for areas of rock have been found all marked off in squares with figures drawn on them ready to be carved by the sculptor. Like the stones of the Pyramids, many of these figures and monoliths were transported on sleds, others were dragged over rollers. It was a common practice to send thousands of men to some distant place, to cut out a giant block of stone, and bring it back for the use of the king. Ancient drawings showing gigantic statues being dragged along on sledges by armies of slaves, reveal to us how the transport was effected.

But there was the difficulty of erecting an obelisk when it had reached the spot for which it was intended. A weight of 186 tons, like that of Cleopatra's Needle, is a tremendous problem to handle, yet the Egyptian engineers accomplished it successfully. Such a weight was actually small compared with some of the weights they tackled, for they moved and erected single stones weighing twice and thrice as much, that is weights up to nearly 600 tons.

If our engineers to-day were given the same problem, they would still have to puzzle over it, in spite of the giant cranes that could be brought to the spot to help them. The mammoth lifting machines designed by modern engineers were unknown in the days of the Pharaohs, yet the ancients were able to do work without them which we would find it rather difficult to do with them.

Ever so many theories have been propounded as to how they set up these huge blocks of stone. One suggestion is that the stones were dragged to the site and their bases placed in position; then in some way, perhaps by the use of giant beams over which the ropes attached to the top ends of the stones were passed, they were pulled upright, a little at a time. As they were hauled up, blocks of stone may have been slipped under them to carry the weight.

Other theories abound, but the likeliest theory of

all is that the Egyptians built a big sloping embankment like that used in the construction of the Pyramids. Up this the obelisk was hauled, base first, until it reached the very top, and projected on to a bed of sand. Labourers shovelled the sand away from under the obelisk, just as ants dig the earth from beneath a mouse they want to bury, and as the sand was removed, so the base of the obelisk sank down, until it gradually tilted upright exactly in the position designed for it. No simpler, or more brilliant, way could be found of solving this difficult problem.

One of the monoliths erected by Queen Hatshepsut, at Karnak, is 109 feet high, and she records that at her bidding this mighty stone, weighing hundreds of tons, was hewn out of the quarry, the sides were properly shaped, and the stone conveyed to the site, all within seven months. The Queen gave her orders, and the people obeyed.

Such methods, if they were followed to-day, would be so expensive as to be prohibitive. In those days there were no unions, and no union rates of wages. The overseer of the works could have all the labour he needed. If he could not manage with a thousand labourers, then he could have ten thousand. The king was the lord and master of his people, as well as of his slaves. The overseer had only to say that he wanted more men, and the king would give orders for the men to be procured.

THE BEAUTIFUL TEMPLE KNOWN AS PHARAOH'S BED, CRADLED IN THE WATERS OF THE NILE, WHICH HAVE COVERED THE ISLAND OF PHILÆ AND PARTLY SUBMERGED THE NOBLE RUINS SINCE THE BUILDING OF THE ASSOUAN DAM

If they did not come willingly, they would be seized and pressed into the service of the king. So long as they were doing the king's work they would be fed, but wages in the present sense were unknown.

Those noble ruins on the island of Philæ higher up the Nile above Assouan may no more be seen in all their glory. They have been sacrificed to the Nile god and to modern necessities. Realizing that the building of the great dam at Assouan would raise the level of the river and submerge the island, the builders went to enormous trouble to underpin the ruins and make them secure against the flood. This work was carried out with great difficulty, and in a masterly manner. The completion of the Assouan dam saw the waters of the Nile slowly creep over the ruined temples, and there may now be seen peeping above the surface of the water the tops of a few columns which, owing to their peculiar resemblance to a fourpost bed, are generally known as Pharaoh's Bed.

A wonderful work in a land of wonders is the barrage of Assouan, but the benefits that would accrue to the land by holding up and deflecting the waters of the Nile were not unrealized by the ancients. Thousands of years ago the problems of controlling the Nile were studied as carefully as they have been studied in our own time. One

Pharaoh, known as Amenhotep III, ordered his engineers to work out a scheme for controlling the inundation. He desired to store up some of the Nile water when there was an excess, and draw on these surplus supplies when the river was low.

The work he undertook was in its way as wonderful as that at Assouan, but when we consider that it was started nearly four thousand years ago it appears even more marvellous. Labourers swarmed over the land, cutting channels in the rock, and driving canals connected with the great expanse of water near Fayoum known as Lake Moeris, a natural reservoir which served to store the water just as the barrage at Assouan stores the water to-day. The Pharaoh had the foresight to tap this huge supply of water to irrigate the surrounding country, and the land, no longer at the mercy of the Nile floods, prospered accordingly.

Amenhotep, like all the other Pharaohs, was anxious to protect his treasure from thieves, and he commanded his cleverest architects to design a palace in which people who went inside without permission might wander for ever without finding their way out again. The whole of the interior of the palace was composed of small rooms, in number three thousand, leading by narrow passages one into the other. The way in and out was a strict secret, and those who broke in might wander

round and in and out of the chambers until they died of starvation. This palace was the famous Labyrinth, a maze in stone to defeat thieves and robbers. No trace of it now remains.

The kings of Egypt and the chief men were obsessed with the idea that their tombs would be plundered, and that the robbers would deprive their doubles of all chance of future life. It must be admitted that they had good cause for their obsession. They knew that the same subjects who had buried previous kings and lamented their deaths, had seized the first opportunity of rifling the tombs of their treasures, and the Pharaohs were well aware that their own subjects would not be above doing the same thing.

To rifle a tomb was one of the greatest crimes that could be committed, but the thieves were quite prepared to sacrifice their chances in the next life for the prospect of gaining something in this.

The tombs indicate that for thousands of years a continual battle of wits was being fought between the kings, who wished to preserve their tombs from desecration, and the thieves who wished to plunder them. The kings built temples for themselves, and had a strong burial chamber placed at one end. The thieves broke in easily and abstracted the treasure. Then the kings made secret burial chambers in their temples for the safeguarding of

their mummies, but the thieves located them, and robbed them just the same.

At last a queen hit on the idea of building a fine temple for herself at Thebes, with a special sanctuary for her mummy. But not for a moment did she intend her mummy to rest within the shade of the temple. She sent her priests and tried servants into the desolate valley, to seek a secret hiding-place for her mummy high up in the cliff. They cut a chamber in the rock, and made the tomb in that valley known to-day as the Valley of the Tombs of the Kings.

Other kings came to the valley. They erected temples, and their engineers cut into the heart of the mountains, to make chambers in which to hide their bodies. They built up the places as strongly as they could. They devised obstructions to stop any one from entering. They hid the entrances to the tombs so carefully, that it was impossible to tell whether the places had ever been disturbed.

All their labour, all their secrecy, was in vain. Not a single tomb in all Egypt has yet been found intact. Every tomb discovered has been rifled of its treasure. Even the tomb of Tutankhamen is no exception. The actual holes which the robbers made to enter the tomb were discovered, and, judging by the wealth of the furniture and other things remaining, the haul of gold and silver must have been enormous.

The high priests, horrified at the desecration of the tombs, feared so much for the royal mummies in their charge, that they went out stealthily into the deserted hills and sought a secret hiding-place. Then they brought many royal mummies to it, one by one, probably under cover of darkness, and hid them away from thievish eyes and hands.

For centuries, for thousands of years, the robbers were defeated; the ancient kings and queens of Egypt slept on undisturbed in their secret sepulchre. Yet in the end the tomb robbers triumphed. Somehow, sometime, they managed to find the tomb. They did not blazon their discovery to the world. The booty was too rich for that, so they began systematically robbing the tomb and disposing of the relics to travellers who passed that way.

The ultimate discovery of the tomb by Sir Gaston Maspero is one of the greatest romances of Egyptology. One day in 1881, a visitor showed Maspero some wonderfully illuminated pages of a royal ritual. Maspero, gazing on them in amazement, inquired whence they came, and learned that they had been bought at Thebes.

Instantly all Maspero's suspicions crystallized into action. He had long suspected that the Arabs had found a royal tomb, and here was definite evidence. Without delay he journeyed to Thebes, and discussed the matter with the authorities.

Secret inquiries pointed to four brothers, who lived in some deserted tombs, as having knowledge of the find. A decision to arrest one of them, in the hopes that he would speak, was at once carried into effect. The Arab was thrown into prison, but he said nothing, denied all knowledge of the matter for seven or eight weeks. Maspero could not wait. Offering a big reward for information of the discovery, he returned down the Nile, and ultimately his reward tempted one of the brothers to come forward and agree to lead the authorities to the tomb.

Maspero, back in Cairo, sent an Egyptologist with an assistant hot-foot to Thebes. A rendezvous was fixed at Deir-el-Bahari. Picking their way over the rocks, the Arabs led the two strangers along the foot of the escarpment which frowned bare and sinister above their heads. In a short while they came to a boulder which had fallen from the cliffs above. Screened in the most remarkable manner by this mighty rock, the entrance had escaped human eyes for three thousand years. Arabs and strangers lit their candles, a rope was uncoiled and shaken down the black shaft, and one after another they slid down 40 feet to the bottom.

The strangers groped their way along a tunnel, following the flickering candles just ahead, stooping to escape the rocky ceiling, at times almost having to go down on their hands and knees. They turned

a corner, still groping and climbing along the rocky passage, down a flight of rock-cut stairs, deeper and deeper into the recesses of the mountain, kicking against bits of mummy cases, fragments of bandages. On they went, their excitement rising with every step.

At last they came to a chamber in the rock. It was like an Aladdin's cave. Mummy cases were everywhere, standing up against the wall, lying down and piled on top of each other. Great piles of boxes, alabaster vases, statuettes—it was incredible, absolutely amazing.

Without giving the newcomers time to take in the wonderful sight, the Arabs led the way through this chamber down and down through another passage. After traversing 60 yards they came to a chamber that was even more amazing, more wonderful than the last. The strangers could hardly believe their eyes. All around the burial chamber were royal mummies, the glitter of gold and colour showing up under the flickering candles. The cases were exquisitely carved and decorated, so well preserved that it was as though they were made but yesterday.

So intensely excited was the Egyptologist, that it required an effort of will to make him realize this was not a dream, but reality, that he was the first white man in the history of the world to gaze on such a glorious sight; to see the ancient kings

and queens as they had slumbered through the centuries.

He looked around him, examined the royal names and titles. Here were Seti I, Thothmes II, Thothmes III, Rameses II. Wherever he looked the mummy of a king or queen greeted his astonished gaze. He was literally astounded, hardly able to take it all in. The magnitude of the find overwhelmed him. He counted the mummies one by one—eleven kings, nine queens, a prince and a princess! It was unbelievable.

In a little while, when the first excitement had passed away, he became the man of action once more. Realizing to the full that only the promptest measures could save the tomb from being looted, he quickly collected three hundred Arabs, and he and his assistant began to remove the treasures. They never halted, never rested, labouring on all through that day and the next without a moment's sleep, removing the kings and queens from their resting-place, sewing them up in sailcloth, and getting them into the open. In forty-eight hours they cleared the tomb of everything it contained, and in another three days they had conveyed the mummies over the plain of Thebes to the Nile.

The natives were ugly, threatening, angry that their kings should be disturbed—still more angry that there was no chance for them to plunder the

tomb any more. Not for a moment dared the Egyptologist and his assistant leave their precious charge, not until the steamer arrived that was to take the royal mummies down to Cairo.

The news of the discovery spread like wildfire through the villages, and as the steamer passed slowly down the Nile, the Egyptian women hailed the passing with the death wail, running along the banks, tearing their hair and uttering their awful cries. Men wailed and fired their guns. It was one of the most remarkable sights ever witnessed, the natives of our own time mourning the Pharaohs who reigned thousands of years ago.

It was the triumph of a man whose whole life was wrapped up in the past life of Egypt, whose own life was as romantic as that of any man who was destined to throw a little light upon the dead civilizations of the Pharaohs. Maspero was but a boy of fourteen when he was attracted by some of the ancient picture-writing of the Egyptians. The queer little figures exercised a strange spell over him. He was quite fascinated by them, so much so, that he made up his boyish mind to learn to read them.

Probably hundreds of thousands of boys have seen pictures of the hieroglyphics and thought them very funny, but who has heard of another boy who was so anxious to read them that he studied them at any and every opportunity, as Gaston Maspero did?

He who seeks knowledge will always find some way of acquiring it. Gaston Maspero studied the picture-writing to such good purpose that he learned to read it quite easily and translate it with considerable skill. He used to read the pictures to his school friends, and they were considerably impressed by this ability.

One night in 1867, some of Maspero's fellow-students were having dinner with their tutor, and Mariette, the famous Egyptologist, was present. Naturally the talk turned on Egypt, and the students tried to impress Mariette by mentioning that Maspero could read hieroglyphics, and that he had taught himself.

Mariette was amused at the idea. "Ask him to read this for me," he said, and gave them an inscription he had just discovered and which had not been translated.

Maspero's companions took the inscription, and Maspero sat down and translated it. When Mariette received the translation he was far more amazed at finding this young man of twenty-one in Paris who could read hieroglyphics, than he would have been at finding some new temple on the Nile. It seemed to him simply incredible, so he gave Maspero something else to translate—lines that were all mutilated and from which a great deal was missing.

Maspero sat down to the problem, and after a few

days managed to translate the fragments and supply the missing parts. Then Mariette realized that he had indeed found a born Egyptologist, and it is not surprising that the boy who was so interested that he taught himself to read the picture-writing should succeed Mariette in Egypt.

Who knows what Mariette thought when the translations of Maspero were brought to him? Perhaps his mind flashed back over the years to the rather unhappy time when he, a lad of eighteen, was professor of French at a school in Stratford-on-Avon, to the days when his talent for drawing was confined to designing ribbons for a Coventry manufacturer. Maybe he remembered how happily he returned to France to take his degree at Douai, those articles he wrote to add to his income, the cousin who had been dealing with Champollion's material, and whose death brought all the material of that great man under Mariette's own fingers.

From that period dates Mariette's own romantic career. He was under thirty when he went to Egypt in search of manuscripts, and found instead the ruins of the Serapeum at Memphis. His diggers fought the desert, and rescued the Sphinx from the grasping sands, tore the drift of centuries from the ruins of the temples of Edfu, uncovered the glories of Karnak. The years brought more discoveries, his work was acclaimed, honours were heaped upon him. The call of Egypt to Mariette was irresistible,

as it had been to Champollion, as it was to Maspero. Fate linked these three Frenchmen together to add to our knowledge of the past. They loved France, but the deserts and the debris of Egypt became part of their lives.

Often they went in the burning sun to the Valley of the Tombs of the Kings—one of the most desolate places on earth. Not a tree to be seen, not a flower, not even a blade of grass. Vegetation cannot live there. It is a veritable valley of the dead, an inferno of desolation. Birds avoid it, animals shun it, only the bats haunt the tombs. There at the base of the hills is the wonderful temple of Queen Hatshepsut, with its rows of pillars standing like sentinels before the blackness which is beyond. Years ago no trace of it could be seen, but a man with a spade came along and found it, and after prodigious labours it was dug out of the overlying rubble and rock in which it was buried.

Everywhere is the eternal rubble and sand. Huge piles of debris mark the sites where the diggers have been working; broken steps leading downwards into the mountains indicate where tombs have been found.

Rain hardly ever falls there. . . . If you sat and waited for a shower of rain, you would have to wait on an average for five years! Perhaps twenty times in a century the clouds break over the Valley of the Tombs of the Kings, but the ground is so parched

THE WONDERFUL TEMPLE OF QUEEN HATSHEPSUT AT THE BASE OF THE CLIFFS IN THE VALLEY OF THE TOMBS OF THE KINGS. THE TINY FIGURE OF A MAN, NO BIGGER THAN A PIN-HEAD, ON THE CENTRAL ROAD, SERVES TO INDICATE THE SIZE OF THE TEMPLE

and rocky that a deluge is almost swallowed up as it falls. In an hour the valley is again as dry as a bone.

The valley leads nowhere, except into the desert. There was nothing to call the natives in that direction. It was like a lonely valley in another world, and this loneliness no doubt was one of the factors which decided the Pharaohs to seek their last resting-places here. Another factor was that the limestone of the hills was an excellent stone in which to cut the chambers which were to be the eternal homes of the kings.

All their thought, all their secrecy to keep their tombs inviolate, was in vain. The most trusted men were chosen to carve out these underground chambers, but where many men are engaged on a secret mission, the secret is bound to leak out.

Some of the workers may have told their wives, who in turn may have dropped a remark in all innocence which led the robbers to the exact spot. The workers themselves, despite the faith of their masters, were not always to be trusted, and there is little doubt that some of them led the thieves to the tombs and told them exactly where and how to break in, that in some cases the very men who had built the tombs came back afterwards by night and plundered them.

It may easily have been the builders who

robbed the tomb of Tutankhamen, for Mr. Carter discovered that the thieves entered within a few years of the King's burial, and that the tomb was then resealed by the keepers of the royal burial-places.

CHAPTER VIII

THE romance of ancient Egypt is not nearly told. Hundreds of volumes have been written about it; hundreds more are still to write. Day by day something is being turned up under the spade to increase our knowledge of those far-off times, and though we know more than the people of a century ago, our present knowledge will probably prove trifling compared with the knowledge of a century hence.

For years the French, favoured by important digging concessions, made many fine discoveries, among them those of Mariette who, going up to Thebes, saw a few columns sticking out of the sand at Karnak and began to excavate the site. Most men would have quailed before the gigantic task, but Mariette set his diggers to work, and slowly but surely rescued from the clutches of the desert all that remained of one of the most remarkable temples in the world. Mountains of sand and broken rock were shifted, not by mammoth machines that dug out a truck-load of sand at once, but by natives who

shovelled it into baskets and ran off with it, seven pounds at a time !

When Mariette returned to Egypt with Louis Napoleon some years later, the Egyptologist was as keen on the work as ever. He again began to excavate, and among other things found a statue representing the god Ammon, in whose honour the temple at Karnak was originally built. Standing by the knee of the god was a headless figure, said to be that of Tutankhamen in his boyhood.

Mariette, well knowing the value of the group, showed his regard for Prince Napoleon by making him a present of the statue, and the Prince, fired by what he saw in Egypt, and no doubt by Mariette's enthusiasm, started to collect things Egyptian.

The time came when Prince Napoleon made up his mind to sell his Egyptian treasures. He sold many things, but no one would look at the statue, so it was bought in at the sale for £20. For long it remained in the Prince's château, until a dealer eventually acquired it for a trifling sum. Quickly assuring himself of the antiquity of the statue, the dealer went to the Louvre to offer the piece to the nation.

The authorities inquired the price.

"I have been offered 300,000 francs by an American, but I would rather let France have it for 250,000 francs," was the reply.

It was true. An American had offered £12,000 for the despised statue, which no one would buy at the original sale, the same statue which the Louvre gladly acquired for £10,000.

Museums will pay almost anything for fine specimens that throw some light on past ages. They will willingly fit out special expeditions to various parts of the world. Often museums co-operate in working a site, as in the case of the Temple of the Moon God at Ur, in Mesopotamia, which has been worked by the University Museum of Philadelphia and the British Museum. The Americans are indeed taking an increasing interest in digging up the past, and they have many fine discoveries to their credit, not least among them being the finding of the famous Nippur tablets in Mesopotamia, tablets which now grace the museum at Philadelphia. Theodore Davis, too, has done splendid work in the Nile Valley, and found several important tombs, among them that of Thothmes IV.

Yet, since men began to dig in Egypt, no tomb has revealed so many treasures as that of Tutankhamen. The value of the contents of the tomb, with its lion-couches and chariots and alabaster statues and vases, is computed at £3,000,000. It is indeed impossible to fix the monetary worth of such things. All that can be said is that their value to science is incalculable.

This is by no means the first big find to be made by Mr. Howard Carter, for years ago he revealed the tomb of Queen Hatshepsut, whose temple is one of the sights of the Valley of the Kings. The entrance to her tomb, high up on the face of the rocky hillside, led to a gallery winding round and round like a corkscrew. The builders of the tomb must have had a terrible time, for they unluckily selected a very bad spot, where the rock was soft, and so they were driven to go down and down, until they hit on a place where the rock was hard enough to serve for the burial chamber. Here the chamber was hewn out of the rock, and here it was found by Mr. Howard Carter several thousand years later, after the usual thieves had plundered it. The stench and heat were almost overpowering.

Mr. Howard Carter is more familiar with Thebes than most Londoners are with London. At one time he was Inspector-General of Antiquities there, so it will be realized that his knowledge of the Valley of the Tombs of the Kings is quite exceptional, and that it was something more than good luck which led him to his greatest find of all.

It is astonishing how trifles sometimes lead to big discoveries. For instance, when Professor Flinders Petrie was at Gizeh in the 'eighties, an Arab offered to sell him part of an alabaster

statuette. Instantly Petrie recognized it as a very early Greek work.

" Where did you get it ? " he asked.

The Arab told him, and at the first opportunity the Egyptologist took the train to the nearest point. For 20 miles he trudged over the country, often going astray, but coming in the end to many mounds in the desert. Countless fragments of early Greek pottery furnished Petrie with all the evidence he needed. Quickly filling his pockets, he started on his long walk back to the train.

The following year he returned to the mounds. His first task was to find a shelter. He had barely done this when he noticed two stones lying just outside. He stooped and turned one over, to find it was a proclamation of the long-lost city of Naukratis carved in Greek characters, a city which men had eagerly sought, a city the very existence of which some men doubted. It was a sudden revelation, a mighty discovery to spring from a little alabaster statue, and it provides one more indication of the genius of its discoverer.

Perhaps the weirdest experience in all Egyptology was Petrie's discovery of the noble Horuta at Hawara down a well 40 feet deep. Here in a flooded chamber, amid impenetrable blackness, he and his labourers wrestled continually with mighty blocks, in order to get to the stone sarcophagus which he

suspected was there. They found it at last, with the lid barely peeping above the surface of the icy water.

For days they strove to shift it, but it was immovable, so he decided to cut the sarcophagus in halves in order to get at the inner coffin. Weeks of fatiguing labour saw this gigantic task accomplished, and there was another desperate fight, with men working up to their chests in water, to get it out.

Instead of the coveted head-end of the sarcophagus, the foot-end came to light. It was a terrible disappointment. The coffin still remained in the other half, and was apparently as far off as ever. The Egyptologist, groping in the murky water, fought with it, strove to shift it with his hands, with his feet. It was firmly fixed.

Still he was not beaten. After a sustained effort lasting several days, he and his workers managed to raise the lid of the other half of the sarcophagus with wedges, until the inside of it was a few inches above water-level. Then he wriggled inside, and for hours in the darkness he sat astride the coffin and struggled to loosen it. The top of his head touched the lid of the sarcophagus, he had hardly room to move at all, the water came up to his mouth and compelled him to breathe through his nose. More than once in the course of his tremendous

exertions he took in a mouthful of the nauseous water. The sand clung to the coffin as though it were set in a bed of cement. He tried scraping away the sand with his feet, he prised at the coffin with crowbars. All his efforts failed to shift it a fraction of an inch.

Few men would have continued under such hopeless conditions ; most would have acknowledged defeat and betaken themselves to an easier task. But Flinders Petrie was possessed of a determination that would not be denied. He set to work drilling holes in the coffin—a most difficult feat. When this was done bolts were inserted, strong ropes were attached, and the men went along the passage and hauled away with all their strength. For a time it was like heaving at a mountain, then the coffin stirred slightly, moved more and more. Backs were bending under the strain, arms almost cracking as the men taking part in that fantastic tug-of-war with a dead man finally triumphed and dragged the water-blackened coffin out of the depths.

Breathlessly they opened it, found the mummy of Horuta, " wrapped in a network of lapis lazuli, beryl, and silver. . . . Bit by bit the layers of pitch and cloth were loosened, and row after row of magnificent amulets were disclosed, just as they were laid on in the distant past. The gold ring on his finger which bore his name and titles, the ex-

quisitely inlaid gold birds, the chased gold figures, the lazuli statuettes, the polished lazuli and beryl and carnelian amulets finely engraved."

Forgotten were the herculean labours of the past months, forgotten the icy water that froze their bodies, the blackness that blinded them, swept away by the sight of the treasures disclosed to their delighted eyes, the treasures for which they had endured so much and fought so long. The recovery of the mummy of Horuta is one of the epics of the Nile.

The world-famous tablets of Tell el Amarna were accidentally discovered by an Arab woman, who happened on them while searching the ruins for trifles to sell to tourists. The tablets were letters sent by the King of Babylon to the King of Egypt, written in the usual cuneiform characters on slabs of clay, and they disclose much concerning the life of that time. A remarkable thing is that in one of the letters, the King of Babylon mentions that he is sending a present of some couches to the King of Egypt, and the discovery of the tomb of Tutankhamen has brought to light what appear to be the very couches which were presented to the King of Egypt nearly four thousand years ago.

Professor Petrie has little doubt that the strange lion-couches are of Babylonian origin, and that these are the couches referred to in the Tell el

Amarna letters. The couches found in Tutankhamen's tomb are secured with bronze clasps. The Babylonians secured their furniture in this way, but the Egyptians never did, for in the Nile valley the furniture was held together with wooden pegs; so the evidence distinctly favours the view that these are indeed the Babylonian couches mentioned.

Lord Carnarvon, in a lecture at the Central Hall, Westminster, gave a vivid account of the opening of the tomb, telling how they cleared the passage leading to the first chamber, how they broke a hole through the sealed wall just large enough to see through, how Mr. Howard Carter held up his candle and peered into the tomb, uttering no word. All the time Lord Carnarvon was on tenterhooks, wondering what was behind the wall. A moment later he peered through, and saw one of the most wonderful sights that has ever greeted an excavator.

To come on such a wealth of treasure is actually a grave responsibility. Before now men have seen statues suddenly collapse into dust before their amazed eyes, have watched brilliantly decorated mummy cases crumble without warning into heaps of powder.

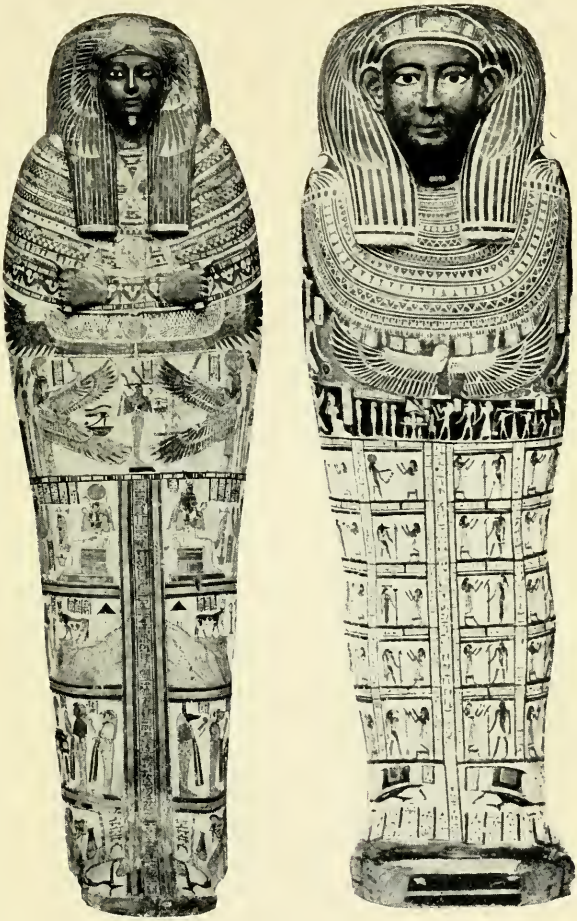
A most dramatic incident occurred after the unique discovery of all the royal mummies in 1881. Exercising the utmost care, Maspero slowly un-

wrapped one of the mummies in order to gaze on the actual features of the dead monarch. A camera was focused, the plate exposed, and even as the photograph was taken the face vanished into nothingness. Maspero was terribly upset at the loss of the mummy, so upset that he refused to allow the mummy of Rameses the Great to be unwrapped, for fear it, too, should vanish.

For things cannot last for ever, even in the dry air of Egypt. They cannot spend thousands of years in tombs without becoming fragile. Their preservation is therefore imperative. Everything must be photographed from many angles, in order to provide a complete record in pictures. In the case of the treasures of Tutankhamen, electric lamps of 2000 candle-power were installed in the tomb, for the use of the photographer. Paraffin wax, dissolved celluloid, sheets of glass, various acids, are used to prevent decay.

Even when all precautions are taken, things have to be very carefully handled. They literally need wrapping in cotton wool, and one of Lord Carnarvon's first purchases, when he saw the extent of his discovery, was a mile and a half of cotton wool to wrap round the treasures.

As far back as 1888, Flinders Petrie was confronted by the problem of preserving a coffin from which the stucco was peeling. After much consideration, he dropped melted paraffin wax



By courtesy of the British Museum

THESE MARVELLOUS COFFINS, FOUND AT THEBES, ARE DECORATED WITH SCENES FROM THE BOOK OF THE DEAD. THE REPRODUCTIONS GIVE ONLY A FAINT IDEA OF THE WONDERFUL BEAUTY OF THE ORIGINALS, WHICH ARE ALL PAINTED IN THE MOST GORGEOUS COLOURS AND IN SOME CASES HEAVILY OVERLAID WITH GOLD. THEY ARE FINE EXAMPLES OF THE REMARKABLE SKILL OF THE EGYPTIAN ARTISTS. THAT OF HU-EN-AMEN ON THE LEFT IS ABOUT 2,700 YEARS OLD, AND THE OTHER OF ATHA-NEB IS ABOUT 2,400 YEARS OLD

on the weak spots, and thought he had solved the difficulty. To his dismay the wax made matters worse. The outer margins of the wax contracted in cooling, and formed saucer-like depressions which pulled the stucco away from the wood.

He was so gravely concerned that for days he racked his brains to find a remedy. At last, he took a brazier full of glowing charcoal, and held it near the waxen saucers. To his joy he saw the wax melting into the cracks and under the stucco, cementing it firmly to the wood again.

Nowhere else on this earth are the past and present so intermixed as at Thebes. Here extreme antiquity may be seen side by side with modern science, motor-cars passing asses, and electricity illuminating the ancient tombs. The mummy of Seti II lies with an electric light above his head, so that visitors may have no difficulty in gazing on his features!

The remarkable paintings in the tombs are executed so skilfully, the outlines are drawn and coloured so correctly, that the possibility of doing such work in the darkness of an underground chamber has often been questioned. More than once it has been said that the light of torches or candles would be quite inadequate, and it has been suggested that the Egyptians may have

anticipated modern science by using electric light thousands of years ago.

That the Egyptians were clever is beyond all doubt, that they may have known things of which we to-day are ignorant is more than possible, but the decorations of the tombs are no evidence that they were conversant with the use of electricity. The ancient methods of lighting the tombs so that the artists could see to work were after all quite simple. The artists worked by the light of the sun. The sun might be perhaps a hundred feet or more away along a passage, yet a white garment would serve excellently for reflecting the light into the tomb.

Professor Flinders Petrie has worked wonders with the lid of a biscuit box, and in bygone days a man might often have been seen holding a tin lid at the mouth of a tunnel leading into a tomb, deflecting the ray of light right into the tomb, to enable the Egyptologist to take photographs. If the lid of a biscuit box happened to be missing, then a turkish towel was made to serve the same purpose. The actinic qualities of the sun in the Nile valley are indeed remarkable.

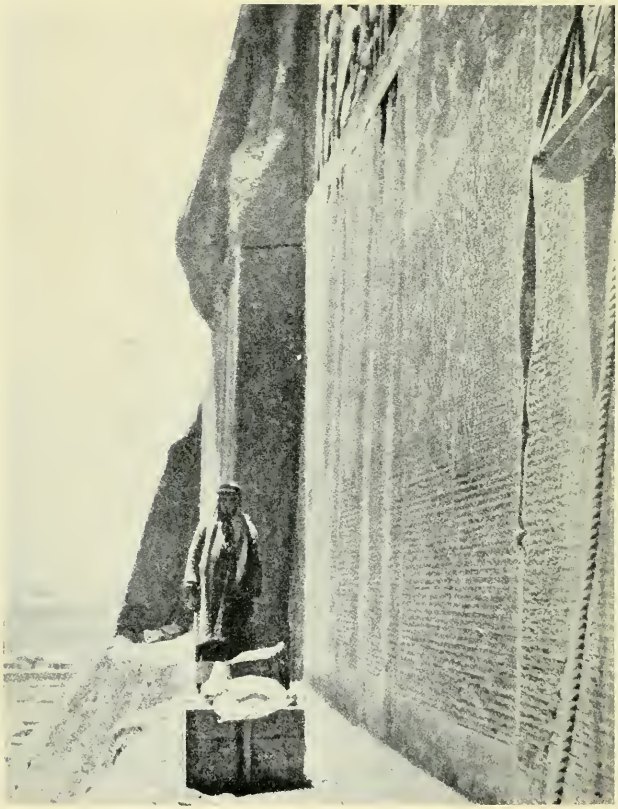
Many things have turned up under the spade in Egypt, wonderful stone vases, jars with faint traces of perfume still pervading them, slate palettes on which the people mixed the paints with which they touched up their eyes and faces. While the

Ancient Britons were painting themselves with woad, the Egyptian ladies were sitting at their dressing-tables making up their eyes in quite the modern fashion, the Egyptian children were playing with toys such as the children play with to-day. The Egyptian forerunner of Pepys carved his diary on a piece of ebony, one page to a whole year !

Glass was in use in Egypt thousands of years before it was heard of in Europe ; Egypt taught the world the use of bronze ; and the flint implements found on the banks of the Nile are finer than any others so far discovered in the world. Some of the knives of the best period are simply marvellous and disclose extraordinary skill on the part of the Egyptian flint workers. There are stone knives in the British Museum with teeth as regular and as fine as those of a modern, machine-cut fret saw, teeth so minute as to be almost invisible to the naked eye. One masterpiece of a flint knife, cleverly flaked in the most remarkable manner, has about fifty tiny teeth to the inch, and it is astounding to think that such amazing hand work was performed by the Egyptians of the Stone Age. Probably there is not a living man who could duplicate such work.

Now the treasures of Tutankhamen grip the imagination and dazzle the eye. Tutankhamen made a priceless, a magnificent gift to posterity, yet it is to Ptolemy v. that we owe the greatest

gift of all. The gift is merely that broken stone in the British Museum, the stone which was dug out of the ruins of Fort St. Julian in 1798. In causing that stone to be carved, Ptolemy presented us with the key to the knowledge of ancient Egypt.



By courtesy of the British Museum

THE FAMOUS INSCRIPTION OF KING DARIUS AT BEHISTUN, IN PERSIA, FROM WHICH SIR HENRY RAWLINSON WRESTED THE LONG-LOST SECRET OF CUNEIFORM WRITING. AT THE EDGE OF THE NARROW LEDGE ON WHICH THE ARAB STANDS, THE ROCK DROPS SHEER FOR 300 FEET TO THE BOULDER-STREWN FOOT OF THE CLIFFS

CHAPTER IX

COUNTLESS caravans wended their way from the parched plains of Mesopotamia eastwards over the Persian border, past Kermanshah, winding along the road that skirts the range of hills rising to the left, and so through Behistun, a mere collection of huts with a name that is famous throughout all the seats of learning in the world. Here the caravans halted while men and beasts slaked their thirst in the pool, but few of the travellers troubled to look a second time at the great stone of Behistun rising above the plain. Users of the road were ever more interested in the spring than in the figures sculptured in the rock.

The carvings were old—as old as the hills—and like the hills they became part of the landscape. They were legendary, carved, so people said, by the gods in the dim past. Age-old myths concerning them were poured into the ear of the stranger who passed that way, but those who used the road regularly, and those who dwelt in the neighbourhood, took no more notice of the rock carvings of

Behistun than they took of the other features of the scenery. The most aged man was as ignorant of the origin of the carvings as was the youngest stripling.

There the figures stood for centuries, for thousands of years. The traders drove their animals along the road to the sound of jingling bells, quaffed the waters of the spring, and passed onward, much more concerned about their merchandise than about the carvings on the bluff.

Had the figures been more accessible, they would have vanished long ago. Senseless wanderers would have taken pleasure in smashing them, and rain and frost and sun would have completed the destruction. But the figures were carved too high, and the rock below had been cut away by the masons of old, leaving a perpendicular wall which could only be scaled at considerable risk. Above them was the sheer cliff. There was no way down to them, no easy way up to them. The escarpment on which they were carved rose for 1700 feet, and they were graved out of the living rock 300 feet above the ground.

Except for a few travellers' tales, the carvings at Behistun were unknown to the teeming multitudes dwelling in the great cities. Few men would have thought of looking in this lonely spot in Persia for the lost key to Babylon and Assyria. Yet here was the key for the man who had the courage and

determination to wrest it from the mountains. Such a man came in the end, over two thousand four hundred years after the ancient sculptors had carved the last figure and removed the last scaffolding.

The discovery of the key to Egyptian hieroglyphics, and the discovery of the key to cuneiform writing, resemble each other in more ways than one. It will be remembered that a soldier found the Rosetta Stone, and that an Englishman was the first man to indicate the manner of reading it. Rawlinson, whose genius solved the puzzle of Persian cuneiform, was also a soldier and an Englishman. It seems strange that science should be indebted to a doctor and a soldier for lifting the curtains of the past, that scholars who had spent their lives studying foreign languages should have to rely upon two men to whom these things were just an absorbing hobby.

When Henry Rawlinson sailed for Bombay to enter the service of the East India Company in 1827, he was only seventeen years old. Blessed with an uncanny knack for learning languages, he found this ability stood him in good stead upon his arrival in India. Where other men were beaten by native dialects, he took to them as a duck takes to water. Before he was twenty, he was one of the interpreters for the army of the East India

Company, and long before he was thirty he could speak Persian like a native.

His remarkable abilities stamped him as a man who would go far, as one destined to play many parts in the ever-changing East. For a time he concentrated his energies on reorganizing the Persian army; at other periods he was frequenting the courts of the Shah and the Amir of Afghanistan, filling the intervals with hard fighting, a good deal of administration, and the pleasure that lay nearest his heart—the study of dialects.

The Orient cast a spell over him, and the legends of Persia particularly appealed to his imagination. He was in the land where history began. The past called to him. Little bits of burnt brick with strange marks on them intrigued him. It was as though a robin had hopped all over them while they were wet, and had left behind impressions something like a bird leaves in the snow. He knew these fragments were the old writings, though they were like no known writings on earth, and at last he made up his mind to see if he could find the key to the cuneiform characters.

In 1835 Rawlinson, then a young man of twenty-five, took up his residence at Kermanshah, as commander of all the troops in the province. Behistun was no more than 20 miles away, and something must have told the soldier that

here was the key to the riddle he sought. So, when opportunity served, he jogged along the old road to the rock of Behistun, and began to copy the inscription. He had no rope, no ladder to assist him. All he had to rely upon were his own sure feet and strong hands. A slip meant certain death, yet the risk sat so lightly on his shoulders that he made his dangerous way up and down the precipice three and four times a day.

There came a time when ladders were absolutely essential to secure the copies he needed. So narrow was the ledge at the foot of the sculptures that Rawlinson was forced to place his ladder almost perpendicularly against the face of the rock. For long periods he perched in a most precarious position at the top of the ladder and glued himself to the rock. The least little movement outwards on his part and the ladder would have overbalanced and plunged with him to destruction. He knew it, yet he continued his work as calmly as though he were at a desk instead of standing on a crazy ladder at the edge of a precipice.

On one never-to-be-forgotten occasion he escaped death by a miracle. He sought with his ladder to bridge a chasm in order to copy other inscriptions, but the formation of the rock made it impossible to place the ladder flat. Eventually,

after some trouble, he arranged the ladder with one side resting firmly on each opposing rocky ledge, while the other side hung free immediately below.

Standing on the lower side, he took hold of the upper side of the ladder with his hands and started to walk across. Suddenly, without warning, the lower side of the ladder with all the rungs broke away from the upper side and dropped into the dizzy chasm. Rawlinson, as he fell, clung desperately to the top side of the ruined ladder. For a brief moment he swung on the verge of a terrible death, then, hand over hand, he made his way back to safety. In the end he managed to copy the Persian and Median inscriptions, but the other inscription in Babylonian on the outjutting rock defeated all his efforts to reach it.

For three years he studied his inscriptions, and began to lay their secrets bare. The first draft of his great work was written. Then duty called him elsewhere, and the Afghan War put an end to his studies, compelling him to lay his book aside.

It was 1844 before he was able to resume the work he was so anxious to do. That year saw him appointed British Consul at Baghdad, and he took up his residence in the city on the Tigris and his studies at the same time. He was once more in

the neighbourhood of Behistun, and eventually he made his plans for procuring a copy of the Babylonian inscription which had defeated him years before.

Riding along the old highway to Behistun, he carried with him this time much rope and many sheets of thick paper. He studied the well-known rock from below. There was the long line of figures carved in the limestone, to their left the series of inscriptions cut in column. A little above, on the slanting rock, was the inscription he desired. Through a telescope he could make out the inscriptions he had already copied, but he needed the wings of an eagle to lift him to the other rock. He made his way round the top of the bluff, studying it from all angles, and concluded that it was impossible for him to obtain a copy of the last inscription.

He inquired among the Kurdish peasants for one who would climb up to the rock and make a copy in the way he directed. He offered a good reward, but the peasants shook their heads. They considered the feat impossible. Rawlinson, paying no heed, pushed his inquiries further afield, and at last came on a Kurdish boy who willingly undertook the task.

The lad was lithe, agile, sure-footed as a chamois, and he climbed up to the platform in front of the sculptures with little trouble. Equipping himself

with some ropes and pegs and a hammer, he gazed up at his objective. The rock jutted outwards over the sheer precipice; it seemed impossible for anything but a fly to crawl over its face. For a little while the keen eyes of the lad sought for handholds and footholds; then he squeezed himself into a crevice at the side of the big rock and began to worm his way upward.

Rawlinson gazed on while the lad mounted a foot at a time. Often the climber stopped while his fingers sought another hold, then he progressed a little higher. But at last even he came to a stop; he was unable to go on.

Reaching above his head, he drove one of the wooden pegs deep down into the soil covering the rock. Attaching a rope to it, he tested it, pulling this way and that, to make sure that the peg held firmly.

The onlookers watched with bated breath as the lad attached himself to the end of the rope, as he tried to swing himself across to the other side of the rock, clinging with hands and feet to the rocky surface, with death yawning for him below. Failure met his gallant attempt. Once more he tried, swinging over the rock face, with only a rope between himself and Eternity. Ten, fifteen, twenty feet he traversed, to find that further progress was impossible. Quickly reaching out, he drove another

peg deep down into the soil above his head, as quickly attached a rope. The fixing of a seat to the ends of the two ropes to form a cradle was not very difficult, and sitting in this cradle the lad was able to go all over the rock, taking impressions of the inscription under Rawlinson's direction on sheets of damp paper. In ten days the task was finished, and Rawlinson possessed the first complete copy of the cuneiform inscriptions at Behistun ever held in the hands of man.

The supreme task of deciphering these inscriptions occupied Rawlinson on and off for many years. As already mentioned, the first draft of his book on the inscriptions was finished before he left Kermanshah ; and when he came to the consulate at Baghdad he threw himself heart and soul into making a complete revision of his draft to embody his later studies and knowledge. Often in the intense heat he worked in a summer-house at the bottom of the garden, a pet lion lying at his feet, and a water-wheel from the river Tigris pouring water over the roof of the summer-house to keep it cool.

There was the Greek script to assist Young and Champollion to decipher the hieroglyphics of the Rosetta Stone, but there was no known writing at all in the inscriptions at Behistun. There were three inscriptions carved on the rock face, Persian, Babylonian and Median cuneiform. The clue to

them was lost. No living race wrote in such a manner, and not a single man knew how to read the curious wedge-shaped writing of the ancients.

Rawlinson therefore laboured under a much bigger handicap than that imposed on Young and Champollion. But Rawlinson was one of those men to whom a handicap means something to be surmounted. The bigger the handicap, the greater the satisfaction in overcoming it. The inscriptions at Behistun seemed to challenge him, to defy him to read them, as from their lofty pinnacle they had challenged men for ages past.

Rawlinson was the man in a million. The lure of the past and the fascination of the East spurred him on to do the impossible. His courage was as great as his knowledge of dialects was profound. It was no hope of reward, of glory, that urged him to wrest the secret from his sheets of paper impressions. It was the desire to pit his brain against the baffling writing, to master it.

Grotefend years before had pointed the way, but Rawlinson was ignorant of this fact. All the years that Rawlinson was writing and studying at Baghdad, an Irish clergyman, Dr. Hincks, was engaged on the same mighty task in a quiet rectory in Ireland, solving the puzzle which Rawlinson had already solved. Other men were wrestling with

the same difficulties, but Rawlinson knew absolutely nothing of them or their endeavours. He worked away incessantly, relying upon himself alone. He studied the queer, wedge-shaped impressions for months, noted their resemblances, found the characters that were repeated, and little by little, a character at a time, he built up that dead language, succeeded in reading the writing of the peoples who inhabited Persia and the plains of Mesopotamia long before the birth of Christ.

In 1846 his great book, giving his reading of the inscriptions at Behistun, was published in London by the Royal Asiatic Society. The scientific world was astounded. People thought such a thing impossible. Many imagined that Rawlinson had invented some sort of reading of his own for the cuneiform characters. They reasoned that as there was no guide whatsoever, no man could ever read them.

They reasoned wrongly, as time was to prove. The unearthing in Mesopotamia of a romantic cylinder of clay, all covered with arrow-headed characters, brought the longed-for opportunity of testing whether Rawlinson was right or wrong, whether he had indeed solved the mystery.

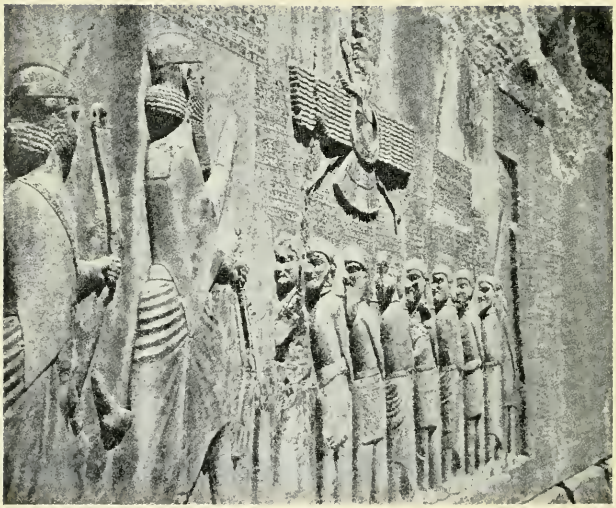
Copies of the cylinder were given to four men who had learned to read cuneiform writing, among them Rawlinson. Each was asked to make a

translation, and to submit it to the authorities of the British Museum. The four translations were made, and the authorities sat down and compared them.

Each translation told the same story of Tiglath-pileser, gave the same names and dates! It was a wonderful triumph for Rawlinson, for it proved beyond all doubt that he had indeed solved the mystery of the dead writing of Persia and Babylon.

Rawlinson himself attributed his triumph to his familiarity with the local Persian dialects; it was his intimate knowledge of the languages spoken by the peasants and tribes of Persia that enabled him to get to the root of many of the words which so sorely puzzled him. By the time he managed to obtain his copy of the Babylonian inscription through the aid of the little Kurdish boy, he had already wrested the secret from the Persian inscription, and his book had been published a year.

He found the clue to cuneiform in the name of two kings, just as Young found his first clue in the name of Ptolemy. Before he bent his energies on deciphering the Behistun inscriptions, he had closely studied two other inscriptions which were identical but for two words. Rawlinson, puzzling over these words, at length concluded they were the names of two kings, that one king was the



By courtesy of the British Museum

A RARE PHOTOGRAPH OF THE ROCK SCULPTURES AT BEHISTUN, SHOWING DARIUS THE GREAT RECEIVING CAPTIVES OF WAR

father and the other the son. He reasoned correctly, and thus obtained a clue to the inscriptions at Behistun, the deciphering of which ranks as one of the greatest achievements of the human brain.

Over five hundred years before the birth of Christ, Darius, King of Persia, caused an account of his campaigns to be engraved on the rock in Persian, Babylonian and Median, so that all men who passed that way might read of the deeds of the great king. A full-length portrait of the monarch was carved in stone for posterity to gaze on his features, and to add to his glory he was shown receiving some of the prisoners captured in his campaigns.

The remarkable skill shown by the Persian king in selecting the site is proved by the fact that the figures still exist, in spite of the storms beating on them for two thousand four hundred years. Darius was not ignorant of human nature. He knew full well the tendency of man to destroy. To defeat this tendency he had the rock cut away sheer to the foot of the cliff, while to preserve his inscription from the ravages of time he caused it all to be brushed with a sort of yellow varnish, a varnish of such unique quality that some of it protects the stone to this very day.

We know much, can do many things. We fly in the air, tunnel the mountains, travel beneath

the sea. Yet there is still a little that is hidden from us ; and one thing of which we remain ignorant is the secret of that old Persian varnish, which will endure frost and hail and rain and shine for twenty-four centuries.

CHAPTER X

TO within a few years of the middle of the nineteenth century, Babylon and Assyria were only names. People read about them in the Bible, but no visible trace remained. They had vanished utterly from the face of the earth. Some thinkers, who knew how stories become distorted by the passage of time, questioned if such places ever existed, whether they were not just myths, the figments of the imaginations of some ancient scribes.

The rivers Tigris and Euphrates flowed through deserts. It seemed impossible that such lands could once have been flowing with milk and honey, that they could have supported a big population and a high civilization.

Wandering Arabs roved the plains, encamping where they listed, warring against the Sultan and each other. They drove their sheep wherever the scanty herbage offered them fodder. The spring saw the desert blossom like the rose, the summer sun changed it of a sudden to desolation, burn-

ing up everything, sometimes leaving the tribes struggling in the grip of famine.

Great mounds of sand stood up from the deserts on each side of the rivers, hills on which the Arabs used to set their black tents of goat hair, while their flocks fed on the scanty grass that clothed the mounds in spring. No sign was apparent of a previous civilization; just the great mounds humping out of the desert and the black tents of the Arabs.

Those who saw the mounds did not trouble their heads about them. They took them for natural hills. There was no reason for them to think otherwise.

No one questioned why such hills should crop suddenly out of the flat desert. The Arabs who set up a village or two of mud huts on some of the mounds did not ask themselves why they should occasionally turn up bricks among the rubbish on the hills. When things have been in existence as long as the mounds on the Tigris, and when bricks have been turned up as often as the Arabs have unearthed them, these things are accepted without question as a matter of course. Neither Turks nor Arabs troubled about the mounds. It was left to foreigners to prove that these lofty eminences were the handiwork of man, and that the mounds on the banks of the Tigris and the Euphrates covered all that was left of Assyria and Babylonia.

In deciphering the stone of Behistun, Rawlinson did wonderful work. He was but thirty-five when he made the announcement that astounded the scientific world. The credit of uncovering the remains of ancient Assyria rests with Austin Henry Layard, who started life by studying law, and finished by making one of the greatest discoveries of the nineteenth century.

Layard's whole life was one long romance. He was endowed with a vivid imagination, which probably came from his mixed descent, for his mother was a Spanish lady and his father an Englishman. As a young man, Layard was set to studying law, but instead of attaining great legal honours, he was made a baronet for wielding pick and spade to such good purpose out in Mesopotamia, that he dug up more knowledge of the past than any one man before or since.

Layard in his teens read the *Arabian Nights* with avidity. All the colour, the romance of the East appealed to his mind. He dreamed dreams of bazaars and eastern palaces, with veiled ladies and their lovers. While he dreamed these dreams he was compelled to study musty legal documents, in which he took not the slightest interest. Being confined in an office he hated, his great desire was to see the scenes he had read and dreamed about. Yet there was no escape for him. His father had chosen the law for him as a profession, and

he continued his studies against his own inclinations.

Working in his uncle's office, Layard was not much impressed by the imagination or the generosity of his relative. Often when the lawyer thought his nephew was studying in his room, Layard was chatting with refugees, listening eagerly to their tales, and filling his rooms with the smell of fried sprats.

His eagerness to travel and see the world was not wholly unsatisfied. He visited the Continent once or twice with a wealthy friend and saw much. There came a day when he made up his mind to see the land of the Tsars. He counted up his money. It was little enough, but by exercising strict economy he decided he might just manage to obtain another glimpse of the world. So he set out practically on the spur of the moment, and made his first acquaintance with Russia and Scandinavia.

This adventurous young fellow was born with the desire to wander and see new lands and peoples. To a youth of his temperament, an office was a prison. While he was poring over his law-books, the figures of the *Arabian Nights* were flitting through his brain. His whole life was practically influenced by these tales of the East. "To them," he wrote, "I attribute that love of travel and adventure which took me to the East, and led me to the discovery of the ruins of Nineveh. They give the truest, most lively and most interesting pictures of manners and

customs which still existed amongst Turks, Persians and Arabs when I first mixed freely with them."

Despite this overwhelming desire to travel, he grappled with his legal studies, and managed to pass his final examination. At that time his uncle arrived home from Ceylon, and it may be imagined how delightedly the young man listened to accounts of life in that far-off island. With his usual impetuosity he determined to go to Ceylon, to take up the profession he had studied.

"I will travel overland," he said. De Lesseps had still to carve the Suez Canal out of the desert sands. Why should Layard coop himself up in a ship and make his slow way all round Africa to India? It was then the usual way, but the usual way was not Layard's way. He studied his maps and traced his route. Travelling overland would give him a splendid opportunity of seeing the world, and he hugged the secret thought in his heart that he would be able to wander in the lands of his dreams, to see Constantinople and Baghdad.

He received £600 from his mother, to set him on the road to fame and fortune. Half this sum was sent to a bank in Ceylon so that he might collect it on his arrival, the other half he carried with him to pay his expenses on the long journey half across the world. He was only twenty-two years old when he said good-bye to his mother, and set out with a friend in 1839 to make his way to Ceylon. By the

autumn they were adventuring in Syria. They had no one to guide them, no servants to wait on them. They tended their own horses, and for the rest relied on their youth and their weapons.

Layard's thoughts turned in the direction of Nineveh and Babylon, and his horse's head was turned in the same direction. He realized that the opportunity of seeing the land might never recur. So in the spring of 1840 the two friends jogged along from Aleppo to Mosul. They were lucky to get through unscathed, for the Arabs were warring with each other on all sides. The dwellers of the deserts were raiding right and left, and Layard often happened on encampments that were picked clean by the marauders. Once or twice the young Englishmen came upon bands of the raiders, but their luck stood them in good stead and they passed on their way unmolested. The two friends made light of these adventures, yet there was always the chance that a bullet might stretch them dead on the desert sands and that they would for ever disappear in the East.

The great mounds of Nimroud, opposite Mosul, wielded a potent spell over Layard. He climbed about them, dreamed over them, picked up bits of brick with arrow-headed writing on them. Often he asked himself what lay under his feet. He saw bits of alabaster sticking out of the soil where the rains had washed them bare. The remains of a dam

By courtesy of the British School at Athens

EXCAVATING THE THRONE ROOM AT KNOSSOS. THE STONE THRONE MAY BE SEEN IN THE BACKGROUND (*see page 185*)

By courtesy of R. Campbell Thomson

THE DESOLATION OF NINEVEH. THIS HILL WAS ONCE ONE OF THE WALLS OF THE CAPITAL OF ASSYRIA

peeped out of the river Tigris. He asked an Arab who built it.

"Nimrod," said the Arab, referring to the great mythical god of the past.

The stones of the dam were locked securely together. The waters poured over it in a cataract. Layard visioned the men in past ages building that dam, saw the waters held back and flowing into the canals to make the desert into a fertile plain. He galloped over the desert and saw traces of the silted-up canals, and he knew that the fertile land of the past and the desolate land through which he rode were one and the same. The neglect of man, the passage of time, and the absence of water were responsible for the change.

He left Mosul on a raft of goatskins, floating down the Tigris to Baghdad as men had floated down for thousands of years. As he glided by on the slow-moving river the hillocks on the banks were beckoning to him, and he vowed to lay bare the past with a spade at the very first opportunity.

It was two years before that opportunity arrived. When he got back to Mosul he found a Frenchman, M. Botta, was digging. For a long time Botta found little to encourage him to proceed with the work. A few fragments of brick and other trifles were all that turned up under the pick.

Then one day an Arab gazed down on the trenches that Botta's workmen were digging, wondering

what on earth his compatriots from Mosul were searching for, and why they were going to all the trouble.

" What are you looking for ? " he asked at last.

The labourer who was digging straightened his back, and glancing round among the rubbish he had turned up, picked up a piece of brick with a few cuneiform characters on it. " This," he said.

The Arab laughed. It seemed to him a huge joke that men should be wasting their time digging in the earth for bits of broken brick. " Why, where I live there are thousands of them," he said. " We find them when we are digging the foundations of our houses."

Botta was told what the peasant had said. The Frenchman was very dubious. He had heard such things before, and the rumours always proved false. The diggers, however, were so insistent, that at last he sent one or two off to the village of Khorsabad, where the peasant lived, to see what they could find.

It was some little time before the diggers could persuade the villagers to allow them to sink a test hole. Eventually, the inhabitants were won over, and the excavators sank a shaft—which quickly ended at the top of a mighty wall !

Hastening at once to the spot, Botta set his men furiously to work. They unearthed an ancient Assyrian palace. Great slabs of stone were covered

with sculptured scenes of war. Botta was astounded. He, nor any other modern man, had never seen the like.

They proved to be the ruins of a king's palace, but unfortunately as soon as they were laid bare the slabs began to crumble. A huge fire had destroyed the palace. In the heat the slabs were reduced to lime, and directly they were uncovered they fell in little pieces. Nothing could be done to preserve them. They had remained hidden for thousands of years. The kindly earth had kept them intact, but directly the air played about them they decayed.

Layard was for long in close touch with Botta. More than once the Frenchman wrote to Layard about his non-success, and Layard displayed his fine character by urging the Frenchman to continue.

The Briton had studied the spot with a view to working there. All thoughts of reaching Ceylon had passed from his mind. He wrote to friends, and tried to interest them in his proposed work. He received no encouragement. Despite all this disappointment, he was great enough to encourage his rival. It throws considerable light on the character of the man who eventually accomplished so much on the banks of the Tigris.

If Layard did not make the first discovery there, he had much to do with it. But for his encourage-

ment, Botta might have ceased digging long before the peasant stood looking down into his trenches, to tell him that there were heaps of the funny old bricks in his village of Khorsabad.

The influence of the Englishman, and the laughing words of a peasant, led to the Frenchman taking the first step back into the Assyria of the past.

CHAPTER XI

LAYARD, disappointed that his own countrymen were so little interested in his proposals, was impelled by the success of Botta to make a strong effort to begin the work he was longing to do. Hastening to Constantinople, he saw Sir Stratford Canning, the British Ambassador, told him his plans, and succeeded in interesting him to such an extent that the Ambassador advanced the amount of £60.

It was a trivial sum with which to start excavating the mounds of the Tigris, and not many men would have undertaken the work with so little money behind them. Layard did not hesitate for a moment. He left Constantinople without breathing a word about his intentions, and in less than a fortnight was back in Mosul.

The country, through misrule, was very unsettled, and the authorities were so antagonistic that Layard dared not tell them of his project. He knew that if he let fall the slightest word as to what he was about, he would immediately be stopped. Keeping his plans to himself, he collected one or

two men and announced that he was going on an expedition to shoot wild boars.

A raft was built, the goatskins were blown up to support it, and Layard made a brave show of the guns and spears he put aboard. The other hunting weapons were so strange that he thought it prudent to smuggle them on to the raft. They were, in fact, picks and shovels !

It needed a man of resource to beat the wiles of the Turks. Layard was certainly resourceful, and anything more amusing than the way he set out to hunt wild boar with picks and shovels would be difficult to imagine. The raft was pushed out into the stream, and for a few hours the hunters floated slowly along, landing some distance from the mound and spending the night with a party of Arabs.

Early next morning Layard set off with six Arabs for the mound, and began collecting the fragments of brick he saw lying about. The collecting of these trifles was soon discarded for a more important task which centred round a piece of alabaster sticking out of the soil. The Arabs tugged at it, Layard tried to drag it out, and as it remained immovable, he set his men to dig it up. In a few hours, many plain slabs of alabaster were laid bare, and Layard knew he was on the track of the lost civilization of Assyria.

He possessed a peculiar genius for the task he had undertaken, while his insight in selecting spots

for his operations was almost uncanny. Where Botta dug and found nothing, Layard dug later and laid bare the most remarkable sculptures. As he looked at the hills of desolation, he imagined the palaces as they must have been in their glory, and reasoned where the walls must have stood. Sometimes he was wrong, but more often he was right.

The Governor of Mosul, thinking the Englishman was digging for gold and silver treasure, tried to stop his work. Sinister rumours spread through the bazaars that the stranger was interfering with the graves of their forefathers, and trying to release all the evil spirits that were chained up in the mounds. The temper of the population grew very ugly. Superstition was everywhere rife.

Layard told the Pasha the truth, and that gentleman, sympathizing with him to his face, put all sorts of obstacles in his way behind his back. The worst of the matter was that Layard had no permission to dig. Until he obtained authority he knew he would meet with opposition from the local officials. So he sent an urgent letter to Sir Stratford Canning, urging the Ambassador to obtain an order that would smooth away the opposition of the people in power in Mosul. Luckily the Ambassador eventually succeeded in getting an order from the Porte, giving permission to excavate and to ship any sculptures discovered.

To that order, and to Layard's own indomitable will, we owe our wonderful gallery of Assyrian sculptures now in the British Museum.

The sullen murmurs of the mob reached Layard's ears, and he rode into Mosul. "You are disturbing their dead," he was told. "It will be wiser for you to stop before they get out of hand."

Crossing the rickety bridge of boats, Layard rode along the bank back to Nimroud. With him were some irregular soldiers, to see that he did not dig any more. He dared not deliberately run counter to the wishes of the Pasha, and was not anxious to risk an outbreak of the mob.

He talked to the Arab in charge of the soldiers to such good purpose that the man's tongue wagged a little more than the Pasha imagined was possible. It revealed an amusing conspiracy which the Pasha had hatched to stop further excavations. It was a trick worthy of the East. The Turkish soldiers actually dug graves in the dark, in order to point them out by day as having been violated. "We have destroyed more real tombs of true Believers in making sham ones, than you could have defiled between the Zab and Selamiyah. We have killed our horses and ourselves carrying those accursed stones," the leader confessed to Layard.

Layard quickly hit on a simple plan of winning the soldiers over. He employed a few to guard the sculptures he had already uncovered, and the

rest turned a blind eye to him if he happened to be digging instead of copying inscriptions, as he was supposed to do! The trifling sums he gave the soldiers for their nominal services were indeed well spent.

All the time Layard was digging he ran continual risk of being raided by the Arabs. He was compelled to organize defences, and more than one pitched battle took place between the hostile Arabs and those who guarded the mound of Nimroud. Often the excavator had to call his diggers out of the trenches to beat off marauders who coveted the belongings of the stranger within their gates.

It was extraordinary the way Layard followed the workings of the Oriental mind. In this direction he had a unique gift, and with such tact and judgment did he treat those with whom he came into contact, that his reputation soon spread abroad among the Arab tribes. Many of the chiefs held him in high esteem, and were dominated by his personality. In those days Layard exercised as much power among the Arabs, and went among them as freely, as did Colonel Lawrence during the Great War. He possessed a determination and intuition that carried him through everything. He lived with the Arabs, and like them.

At his behest great slabs all carved with sculptures and inscribed with cuneiform characters saw the light of day once more, after lying beneath the

soil for three thousand years. There were quaint figures, beautifully carved with the bodies of men and the heads of birds, while wings were attached to the shoulders. These were the ancient gods of the Assyrians. Winged lions were found partly destroyed by the fire which had raged over the palace. Great carvings of campaigns were found in a similar state.

One day, as he was riding towards the mound on his return from Mosul, some Arabs galloped up to him like madmen.

"Hasten, O Bey! hasten to the diggers, for they have found Nimrod himself. Wallah, it is wonderful, but it is true. We have seen him with our eyes. There is no God but God!" they cried, and turning their horses they pounded away to the black tents of their tribe.

When Layard got to the trench he saw something concealed by Arab cloaks and baskets. The diggers tore the coverings off as he approached, and Layard beheld the giant head of a sculptured figure buried up to the neck in the soil. It was a human head, nearly as tall as a man, and belonging to one of those fine human-headed winged bulls now in the British Museum.

One Arab was so terrified of the monster that he dropped his basket and ran madly to Mosul. He babbled the most alarming tales of the terror that the stranger was releasing from the earth, and the

By courtesy of the British Museum

ONE OF THE COLOSSAL, HUMAN-HEADED, WINGED FIGURES, TWICE AS TALL AS A MAN, WHICH SIR A. H. LAYARD DUG OUT OF THE MOUNDS ON THE TIGRIS, AND WHICH REVEAL THE HIGH CIVILIZATION TO WHICH THE ANCIENT ASSYRIANS ATTAINED. IT IS COVERED WITH AN INSCRIPTION IN CUNEIFORM CHARACTERS, AND A NOTABLE FEATURE IS THE FIVE LEGS

rumours quickly spread through the bazaars. People for miles around rushed to the scene to gaze on the idol of the infidels.

The diggers were delighted at the discovery, and under Layard's direction they managed to uncover the top of another head a dozen feet away. The men worked in a half frenzy, digging away and running to and fro with the baskets of rubbish like mad creatures.

To celebrate the find, Layard gave a great feast. Sheep were killed, musicians made music. Figures whirled hither and thither in the flicker of the camp-fires, dancing wildly over the desert in front of the goat-hair tents, shouting and leaping until far into the night.

If by a miracle the clock could have been put back twenty-five centuries, the simple tents would have changed to noble palaces and the feasting Arabs into Assyrian courtiers, with King Sennacherib drinking out of a golden goblet! As it was, the Arabs were stamping the past under their feet.

Wonder after wonder was laid bare by the picks of Layard's diggers. He found three palaces, all of different ages, some of which had been built with slabs of alabaster taken from earlier edifices. It was plain that the latest had been destroyed by fire, the vengeful fire which led to the final obliteration of Assyrian civilization.

In the days of their glory the palaces were magni-

ficent, standing on massive platforms about 20 feet high, built of sun-dried bricks, with fine wide terraces and sculptured halls. The Tigris flowed by the walls, and mighty winged lions and bulls guarded the entrances. The ancient sculptors who carved these figures were no mean artists. Their art was highly developed, and their skill in carrying out the details and ornamentation quite remarkable. They had arrived at a better idea of perspective than the Egyptians, and their figures were more lifelike, especially the animals, the muscles of which were carved very faithfully.

The irrigation works engineered by the ancient Babylonians and Assyrians were more wonderful than those carried out in Egypt. The deserts of Mesopotamia were intersected with an intricate network of canals. The rivers Tigris and Euphrates were dammed at intervals, to hold back the waters and direct them into the canals, feeding the fertile lands of the country round about. The banks of the rivers and canals were tended with scrupulous care, and heavy fines were inflicted on those who were responsible if the banks gave way.

Mesopotamia in those days was the finest granary in the world. Here was the Garden of Eden, the fairest, most fruitful land under the sun, where, according to the Bible, the story of Man began, the land of the rivers of which the Bible says: "And the fourth river is the Euphrates." Here Adam

and Eve wandered in the Land of Plenty, until they were cast out for eating of the Tree of Knowledge.

Now the smiling land is a waste. When Layard found these relics of a glorious past, the descendants of those who builded and carved were wanderers over the face of the desert, nomads, barely civilized, living in mud huts and tents. The difference between the past and present of Mesopotamia is stupendous, almost incredible.

Before Layard started digging at Nimroud, relics of Assyria practically did not exist. All that were known might have been carried about comfortably in a kit-bag. In a short two years he crowded discovery on discovery. The past was revealed at his touch as if by magic.

Even the Arabs realized the wonder of it. "God is great! God is great!" exclaimed an aged sheik to Layard. "Here are stones which have been buried ever since the time of the holy Noah—peace be with him. Perhaps they were underground before the Deluge. I have lived on these lands for years. My father, and the father of my father, pitched their tents here before me; but they never heard of these figures. For twelve hundred years have the true believers been settled in this country, and none of them ever heard of a palace underground. Neither did they who went before them. But lo! here comes a Frank, from many days'

journey off, and he walks up to the very place and he takes a stick, and makes a line here, and makes a line there. 'Here,' says he, 'is the palace; there,' says he, 'is the gate;' and he shows us what has been all our lives beneath our feet, without our having known anything about it. Wonderful! Wonderful! Is it by books? Is it by magic? Is it by your prophets that you have learnt these things? Speak, O Bey! Tell us the Secret of Wisdom."

The passing of the years has not diminished the wonder. All the time Layard carried his life in his hand. He took risks no native of the country would face. Once he was hunting a wolf, when his horse slipped and threw him right on top of the animal he was hunting. Layard picked himself up, by which time the startled wolf had made off. Often he rode boldly into the tents of unfriendly Arabs, and came out unharmed. With his imperious words he brought insolent chiefs to heel, made them feel the strength of his personality, and sometimes the strength of his arm.

He lived a strenuous life, slaving on far into the dreadful heat of summer, erecting a bower of branches beside the river to sleep in. The ruins were infested with scorpions, yet he escaped their sting. He was not so lucky with the mosquitoes. Nothing alive could escape these winged pests. He had attack after attack of malaria. Often he was so stricken with fever that he found it impos-

sible to work at all. In spite of all these drawbacks and difficulties, he triumphed.

Once when he was investigating the ruins of Babylon, a Turkish governor presented him with an unruly lion! Another time he was travelling over the desert under the escort of an Arab chief, when a thief stole two of his horses. Taking the blame on himself, the chief vowed solemnly to recover the animals, no matter how long it took, even if it meant going to the ends of the earth. Layard parted from the chief at the end of his journey, and gave no further thought to the incident. For six weeks the chief relentlessly tracked the stolen horses from place to place, and one day he quietly rode into Layard's encampment and left the two horses for their owner. Without waiting for thanks, he rode swiftly away.

Extraordinary results were achieved by Layard with the little money at his command. Certainly his scale of wages would not now be considered very extravagant. He paid his diggers sixpence a day; those who filled the baskets fourpence a day, the labourers threepence, and the boys twopence. It seems little enough, but the tent-dwellers had no rent, rates or taxes to pay, and in those days they could buy 240 lb. of corn for two shillings. To many of them, living on the border line of starvation, a settled wage of two or three shillings a week meant affluence.

Layard himself had a host of duties to perform, not least of which were sketching the sculptures as they were revealed and making immediate copies of all inscriptions found. Such work had to be done at once for fear the stone crumbled to pieces, for much of it only lasted a short time after being uncovered.

At Kouyunjik he found the palace of Sennacherib, buried 30 feet deep under an accumulation of debris and soil, so deep, in fact, that it was quite impossible to open trenches from the top, owing to the prodigious quantities of soil to be removed. Layard met this difficulty by driving tunnels, and the whole mound was in time honeycombed with his gloomy passages. Occasionally a shaft was opened to the top to let in light, and the faint glimmer that filtered down lit up the most astounding sculptures ever seen by human eyes. Thus was Nineveh found lying in its grave, so overwhelmed that Layard had to mine a way into it.

Once Layard gained enormous prestige among the Arabs, by telling them that the sun would be eclipsed, and the day grow dark. Sure enough the sun began to grow dim, and the Arabs, who thought that devils had caught hold of the planet, took up all the pots and pans they possessed, and nearly knocked the bottoms out of them in their endeavours to frighten the evil spirits away !

The removal of the sculptures from the ruins

and their safe transport to England, was not the least of the many problems that Layard had to solve. The river Tigris was the only highway to the sea, and as it was too shallow to allow steamers to steam up to Mosul, it was necessary to build rafts to float the sculptures down to Basra, where they could be transhipped to the vessels that were to take them to England. It needed a deal of persuasion to induce a native to build a raft big enough to support the weighty lion and the bull. The raft was eventually constructed and supported by six hundred sheep and goat skins, every one of which had to be blown up by the mouth of the raftsman and tied securely. It was a task which must have severely tested the lungs and temper of the blower.

Layard made his plans carefully. As no timber was available, a man was sent high up the river to cut down mulberry trees to make a rude cart for transporting the bull and lion to the river edge. The trees were floated down the Tigris, and four solid wooden wheels a foot thick were cut out of the trunks and bound with iron. Big beams formed the body of the cart, and when it was ready half the population of Mosul crowded to see the buffaloes drag it over the bridge of boats spanning the river.

The bull was buried 20 feet deep in the earth. Layard had no tackle for lifting a weight of fifty

tons, so his diggers cut a sloping road from the statue to the edge of the mound, paving it with planks of wood. The bull, which stood upright, was to be lowered on its side to a frame of strong planks. The ropes were placed round the bull, and over a mighty rock some distance away. Scores of men slowly paid out the ropes, while the bull canted over on its side. The statue was about 5 feet from the ground, when all the ropes broke, the men fell backwards in a heap, and the bull descended with a crash.

Layard rushed down from his post expecting to find it shattered, but it proved to be quite uninjured by its fall. Then the men began to haul the bull over rollers to the edge of the mound. The noise made by the onlookers was deafening. They danced and shouted and behaved like mad people. Gradually the bull was pulled up the incline until it stood just above the cart, which had been placed in an excavation to bring it on a level with the end of the road. The earth was dug away from under the bull, and it slowly settled in the cart.

That was the beginning of a few strenuous days full of troubles. The buffaloes, upon being harnessed up, refused to pull. Cracking whips and the shouts of Arabs alike failed to have any effect, so at last they were taken out, and three hundred natives caught hold of the ropes and began to drag the cart to the river. The road had been carefully

surveyed to make sure that there were no secret holes in which the villagers were wont to store their corn, but unluckily one was overlooked. A perverse fate directed the cart straight to it, and before any one realized what was happening a wheel suddenly sank into the covered hole, nearly capsizing the rough cart.

Spades and timbers were brought to the spot, and the natives dug and hauled with all their might, but it was night before the cart was extricated. The next day saw the long lines of Arabs straining at the cart once more, and this time progress was stopped by a bed of soft sand in which the wheels sank. Not until the third day was the great bull brought down to the water's edge.

Here it remained until the melting snows on the Kurdish mountains made the river rise, and when there was a sufficient depth of water to float the bull down to Basra, the final task was undertaken. A slipway of poplar beams was first of all built from the bull to the top of the raft. This was thoroughly greased, just as the slipways are greased when a battleship is launched, and down this slipway Layard began to lower the bull. For a moment he thought all his carefully laid plans were to end in disaster. The natives hung on to the ropes in their attempt to check the descent of the bull. It was too much for them. Getting out of hand, the bull dropped with a thud on to the raft. The raft gave

a terrific lurch, but luckily it withstood the impact, and all was well.

Before the bull was embarked, Layard was faced with the prospect of being defeated by the marauding Arabs. He ordered all the felts and ropes and other materials to be brought down to Nimroud on a raft, but the raft, owing to its late start from Mosul, was unable to reach the mound before dark, so the Arabs in charge tied up to the bank to pass the night. In the middle of the night a raiding party swarmed down on them and stripped the raft of everything.

Layard was quickly stirred to action. Directly he discovered who the culprits were he galloped off to their camp, and in the very face of the hostile tribe seized the sheik and carried him off. Under the lash of Layard's tongue that worthy soon repented, and ordered all the missing articles to be returned.

On another occasion a sudden flood swept away many Arabs, and sent one of his rafts of sculptures swirling through a break in the bank into the swamps, from which they were rescued with the utmost difficulty. Even in those days lightning strikes were not unknown, for Layard contended with one on the part of his Arabs. His sculptures were all waiting to be placed aboard the raft, when the Arabs, who knew he dare not miss the spring floods, told him they were moving camp, thinking

to induce him to give them more money for the work. Layard bade them good-bye, and galloped off into the desert to get helpers from another tribe. When the strikers came back, finding their bluff of no avail, they were already superseded.

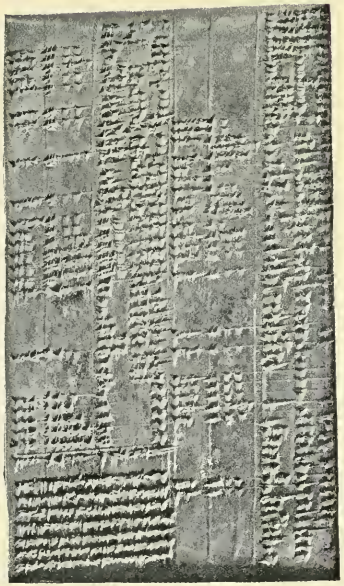
It is rather a striking commentary on the progress that has been made in three thousand years, to know that Layard's methods in removing the bulls were almost identical with those of the ancient Assyrians who placed them in position. One of the sculptured slabs uncovered by Layard at Kouyunjik, furnished full particulars of how the ancients tackled the difficulty of moving such masses.

The original huge block was brought from the quarry in the hills on rafts supported by skins, just as the bull was sent down to Basra. It was dragged ashore by bands of slaves, and the sculptor carved the block into the form of the man-headed winged bull, giving the statue five legs, as was the general practice in Assyria, so that four might be seen from the side and two from the front. The bull was then placed on a sledge, something like that used by the Egyptians for moving similar masses, and dragged and levered along, the lever used being a great pole to which ropes were attached for men to throw their weight upon. A sloping road was built up to the place where the bulls were to stand, and up this the statues were gradually hauled and pushed. The man directing the opera-

tions of the army of workmen is clearly shown, though whether he is signalling by blowing on a trumpet, or shouting through the first megaphone ever invented, is an open question. He appears to be using a trumpet, but for aught we know it might have been something to magnify the voice.

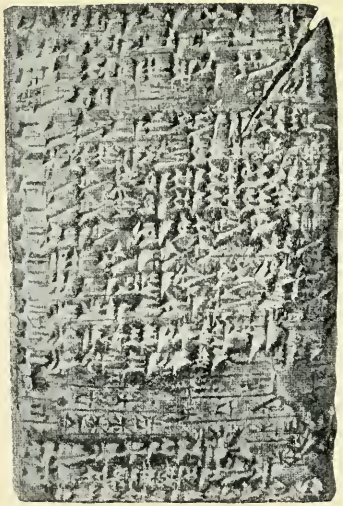
There were carved ivories, Egyptian cartouches, sculptured sphinxes, to link Babylon and Assyria with ancient Egypt, to show that intercourse existed between the two peoples, just as the monuments of Egypt indicated. Three thousand years ago letters written in cuneiform characters on clay tablets were regularly passing to and fro between the two countries. Apparently at that time the cuneiform characters could be read equally well by Egyptians and Babylonians and Assyrians, as is proved by the Tell el Amarna tablets discovered in Egypt. Some of the clay letters of those days are very similar to puppy biscuits in colour, shape and size; others might easily be mistaken for oblong tablets of toilet soap.

Whether the civilization of Egypt and that of Mesopotamia developed simultaneously independent of each other is a question that is still unsettled. The general opinion is that the beginnings of all civilization are to be found in Mesopotamia, but men who have spent their lives studying ancient Egypt give precedence to the civilization of the Nile. These are things which may never be solved.

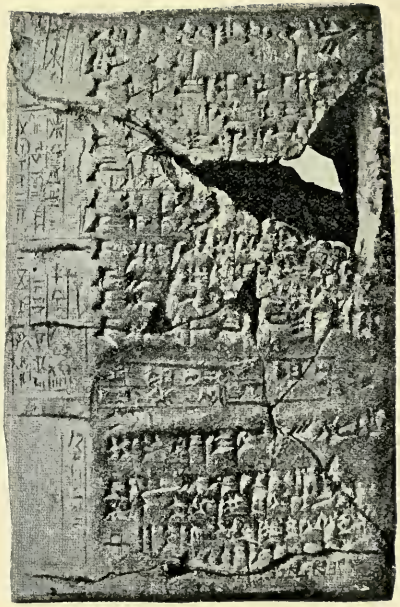


By courtesy of the British Museum

THIS CLAY SPELLING BOOK OF BABYLON WAS THE FORERUNNER OF THE MODERN SPELLING BOOK



IN OLDEN DAYS LEGAL DOCUMENTS WERE GRAVED IN STONE AND WRITTEN IN CLAY. THIS CLAY TABLET WITH ITS QUAINT CUNEIFORM CHARACTERS IS A DEED RECORDING THE SALE OF A PIECE OF LAND



MODERN ENVELOPES FOR LETTERS WERE ANTICIPATED BY THIS RARE BABYLONIAN ENVELOPE OF CLAY WHICH ENCLOSED THE DEED

The evidence seems to indicate that the original inhabitants of Babylonia were the Sumerians, who were already possessed of a fair culture. They were able to read and write, and their writing, in archaic cuneiform characters, was the writing out of which the Babylonian cuneiform characters in the course of time developed. Later variants of it were the Persian and the Median cuneiform, which were carved by order of Darius on the rock at Behistun.

A peaceful, pastoral people, the Sumerians lived by agriculture and not by war, and they were swamped by invading Semites, who adopted the culture of the Sumerians they had conquered. The conquerors made Babylon the first city of the world. The same people left their impress on Egypt, and their characteristics—dark eyes, big lips and hook noses—are well preserved for us in the sculptures of Assyria.

The power of Babylon waxed and waned. The Assyrians, seizing their opportunity, threw off their bondage, and, sweeping across country, conquered the walled city of mighty Babylon itself. Sennacherib razed the city to the ground. For a time Nineveh blossomed as the first city of the East. Then came the Babylonians with fire and sword, and utterly destroyed Assyria and its civilization.

There are few more remarkable romances than

that of the young lawyer, who went out to the East to practise law, and dug up Babylon and Assyria instead; or of the young English soldier, who wrested the secret of an unknown writing from the rock at Behistun.

CHAPTER XII

SINCE Layard dug up the vanished cities of Nineveh and Calah on the banks of the Tigris three-quarters of a century ago, many gifted men have followed in his footsteps, and wielded pick and shovel among the mounds dotting Mesopotamia. No one coming upon the utter desolation of Abu Shahrein could imagine that this great mound of sand, with the ruined brick tower peeping out at the top, was some six thousand years ago the flourishing port of Eridu.

Eridu to-day is a dead city, buried under a sea of sand, yet this desolation marks, so far as we know, the very beginnings of civilization in Mesopotamia. Here it was that the Sumerians rose out of the dim past, with a culture that was far higher than that of many nations still peopling the world. They wrote on clay tablets, and had their code of laws, and traded by ship with distant places.

For long it was thought that Eridu in that far-off time must have stood upon the seashore. The evidence that it was a port, and that ships discharged their cargoes at the quays of the city, is

beyond all dispute. Yet to-day Eridu stands inland over a hundred miles—the seashore is a long journey from the one-time seaport.

Men of science strove to solve the seeming contradiction of a seaport so far inland. They studied the question very carefully. Measurements were taken as to the amount of silt deposited by the Euphrates and the Tigris at their deltas, and it was proved that in the last six thousand years the area of land at the mouths of the rivers has been very considerably extended, indicating that the ancient seashore has receded inland. The only uncertainty was whether the rivers had created a new belt of land over 90 miles wide since the Sumerians lived their peaceful lives at Eridu of old. It was thought that the rivers must have accomplished this feat, and it came to be accepted as the explanation of why Eridu is now so far away from the coast.

But there is another explanation, and the correct one. The Sumerians were the people who taught the Babylonians the art of making canals. In the days of the Sumerians a system of canals spread over the country to irrigate the land, and we now know that the Babylonians and Assyrians obtained their knowledge of irrigation from the Sumerians, for the latter were highly capable engineers.

The site of Eridu, about 20 miles from the Euphrates, stands on the edge of a big depression in the desert. The skill of the Sumerians in build-

ing canals is beyond question, and herein lies the answer to the puzzle of an inland seaport. The big sandy depression sixty centuries ago was a lake, and the outlet from the lake was by canal to the Euphrates, and so to the sea. Eridu of old was merely the forerunner of Manchester of to-day, and the ancient people solved the problem of bringing the galleys to their very doors, in the same way that the people of Manchester solved the problem of bringing the steamers into the heart of their city six thousand years later. Solomon spoke truly when he said that under the sun there is nothing new.

Mr. Campbell Thomson, who has done fine work in Mesopotamia during the past few years on behalf of the British Museum, was the man who solved the mystery of ancient Eridu, and definitely proved that it never stood on the seashore. His Arabs were digging there, to throw some light on the vexed question of the past, when they came across quantities of shells, just as the kitchen middens of Denmark are marked by the shells of the fish the ancient peoples ate. The shells at Eridu were similarly the sole remains of repasts eaten seventy or eighty centuries ago, perhaps longer.

The average man would shovel such debris aside, and take no further notice of it, but Campbell Thomson knew only too well the importance of trifles in reconstituting the past. He put specimens

of the shells aside, and brought them to England with his other finds.

These shells were submitted to an expert, who was asked to identify them. The expert found that the shells were those of fresh-water mussels.

Instantly all the theories of those who asserted that the city once stood on the seashore were refuted. If Eridu actually stood on the seashore, the mussels eaten by these primitive inhabitants would have been salt-water fish. As the shells found were those of fresh-water fish, they revealed that Eridu stood on a lake, which the Sumerians undoubtedly connected up by canal with the Euphrates. In this way did a simple thing like a mussel shell reveal another long-lost secret.

About four thousand years ago Eridu was deserted by man, and the encroaching sands have gradually silted up the canal and lake. The fact that human beings ceased to live there so long ago might be considered a disadvantage to those exploring the spot, but actually it has proved a tremendous advantage. Human beings have a habit of destroying the remains of those who go before them. They knock down former habitations and rebuild, using previous materials, until all traces of former peoples are lost.

At Eridu, Campbell Thomson set his diggers to cut through the layers of the mound, until they came to the bottom layer of sand, which had never been

disturbed by human hands. He found that men of the Stone Age lived here, men who used flints to cultivate the soil in the days when the use of metal was unknown. They cut their corn with sickles made of clay baked hard, and they were intelligent and clever enough to make pottery, although the use of the potter's wheel was not then known. It was a pottery of a fine texture, painted with taste in a number of designs. The hands that made it were skilled, and the eyes of the potters were true enough to guide their hands aright.

Only a dozen miles across the desert is Ur of the Chaldees, where Mr. Taylor, who was British vice-consul at Basra in the days when Layard was making a stir, managed to find the remains of the temple of the Moon God. Seas of sand have been shifted since on behalf of the British Museum, and the mighty walls of the temple are now laid bare, while in the background rises the huge mound covering the city.

The luck of digging was never better exemplified than at Ur. A Persian and a Babylonian pavement adjoined, and Mr. Woolley, who was in charge of the digging operations, states that he was anxious to know whether there were any traces of a Babylonian pavement below the Persian pavement. He describes how he set his diggers to take up a portion of the Persian pavement, and left them wielding their picks while he betook himself to another part of the diggings.

In a little while a small Arab boy came rushing up, his black eyes aglow with astonishment, words coming breathlessly from his mouth. " Come quick, Sahib ! Come quick and see what the diggers have found ! " he cried.

Mr. Woolley wasted no time in returning. Directly he entered the ruins he saw an old cloak spread on the floor, and lying upon it were gold and silver ornaments, which had lain undiscovered under the pavement for twenty-five centuries or more. Giving a few sharp orders, he cleared the room of the diggers. Then he undertook further operations with his own hands, and brought up beads and bits of gold necklaces, with lapis lazuli and other semi-precious stones. But the gem of the find was a beautiful gold statuette of a woman.

Quickly he sent out for boxes and packing materials, and he was placing the treasure trove in the boxes, when he was still further astonished. The Arab in charge of the diggers came up.

" Here, Sahib ! " he exclaimed, and began to take more jewels from his capacious pockets. " I was afraid to let the men see them, in case they murdered me for the treasure," he added simply.

This discovery of ancient treasure follows another important Mesopotamian find, by Dr. Hall, of the British Museum, at Tell el Obeid in 1919. Wonderful life-size heads of lions, most cunningly modelled in bitumen, were uncovered. The Sumerian artists,

striving after realism, simulated the fiery eyes and red tongues of the animals by imitating them in red jasper. Originally the heads were covered with fine copper masks, but the metal became corroded and only the grey-green fragments of the masks remain. The heads, now among the treasures of the British Museum, are undoubtedly some of the finest examples of early Sumerian art in existence.

Richer treasures still may await the spade of the excavator, for the deserts of Mesopotamia hide the relics of many nations; traces of many a hard-fought battle are swallowed up in the sands. Bits of the mighty past peep out of Babylon, great gateways and walls that have been uncovered by the hands of strangers, men who speak in divers tongues, even as the slaves who toiled to build the Tower of Babel.

No longer is there any uncertainty as to the site of the Tower of Babel. Here in Babylon itself was the Tower erected that was to reach to Heaven. The power of Babylon went to the building of the enormous square tower which, rising terrace on terrace, dominated the plains for many miles, a landmark for the whole countryside, and a symbol of the Strength of Babylon. Thousands of slaves toiled at making the bricks, thousands more expended their energies in the building of the gigantic square platforms which gradually rose above the

city like a series of boxes, each smaller than that below.

A flick of the Finger of Time and the mighty tower toppled, changed into a mountain of broken brick and debris. Amid the debris, the lower platform of the tower stood firm, to prove to us that Babel existed in the days of old.

Here in Babylon Nebuchadnezzar reigned, the city echoed to the tramp of his armies as he led them forth to triumph ; out on the plains he caused the golden image to be set up for his subjects to worship ; here followed the ordeal by fire of Shadrach, Meshach and Abednego, the madness which drove the monarch to eat grass as the beasts of the field. Daniel once paced the palaces that stood here in their glory, found favour with the king, saw the writing on the wall and prophesied the downfall of the city when Belshazzar came to the throne. "God has numbered thy kingdom and finished it. Thou art weighed in the balance and found wanting. Thy kingdom is divided and given to the Medes and Persians," says the prophet in the Book of Daniel. The pages of the Bible whisper to us the history of the world.

Gone is the glory. Only thousands of bricks stamped with the name of Nebuchadnezzar remain to call up visions of the pleasure-loving Babylonians who were swept away by fire and sword.

By courtesy of Major Kenneth Mason, M.C., R.E.

THE REMAINS OF MIGHTY BABYLON, WHICH WERE BURIED UNDER THE DRIFT OF CENTURIES UNTIL OUR OWN TIME. THE ISHTAR TOWER SEEN TO THE LEFT WAS COMPLETELY COVERED WITH DEBRIS BEFORE PROFESSOR KOLDEWEY EXCAVATED IT

By courtesy of Major Kenneth Mason, M.C., R.E.

THE RUINS OF NEBUCHADNEZZAR'S PALACE IN BABYLON. THE SEEMING CLIFFS HERE AND IN THE TOP PHOTOGRAPH SHOW THE MODERN GROUND LEVEL AND INDICATE THE ENORMOUS QUANTITIES OF SOIL WHICH THE DIGGERS HAVE REMOVED IN ORDER TO UNCOVER THE RUINS

The clay tablets of Mesopotamia have told us many things since Rawlinson stripped them of their secret; they are pages from the Book of Mankind. Not the least remarkable discovery we owe to George Smith, who, going out to the East on an expedition for the *Daily Telegraph*, found among hundreds of the clay books of the ancients an account of the Flood. He crowded some fine work into his short life, before succumbing at Aleppo in 1876 at the age of thirty-six.

Just across the borders in Persia the French have explored many an ancient site in the quest for knowledge. De Morgan, in the remaining years of last century, dug down and down at Susa for 80 feet, until he came to the virgin soil. Throughout this huge deposit were scattered the relics of many civilizations, among them a stone which has provided us with a unique record of the time when the Sumerians held sway over the land. Inscribed on this stone is the code of laws made by Hammurabi, the Sumerian king who reigned about four thousand years ago.

Throughout the ages history has been repeating itself. Just as we carried off the Rosetta Stone from Egypt as one of the spoils of war, so the people of Susa, setting their heel on Babylon, conveyed the stone of Hammurabi back in triumph to Susa. Then the sword of the Assyrians swept through Susa, and the code of Hammurabi was

engulfed in the ruins, to await the spade of de Morgan.

The laws of Hammurabi set forth on his stone are good laws, and they indicate a people governed justly. The sun god himself is shown taking the stylus from the king in order to set down the laws, implying that the laws were derived from the god himself.

Instinctively the mind reverts to the vision of Moses coming down from the mountain, with the Ten Commandments graven on two tablets of stone. It may be that some such stone as that of Hammurabi was itself the foundation of the Ten Commandments, that the very code of laws on which all Christian morality is based may one day reward some ardent excavator. It is impossible to say. What was unknown to us yesterday may be revealed to us to-day.

England has cause to be proud of the part played by Britons in reading the story of mankind. Young in deciphering hieroglyphics, Rawlinson in reading cuneiform, and Professor Sayce in mastering the mysterious Armenian writing of Van—now known as Vannic—provide a glowing tribute to the intelligence and determination of the British race.

Mesopotamia, despite the many things to be found there, has no tombs like those of Egypt to yield up the secrets of its lost civilizations. The bodies of the dead were mostly burned. Sometimes

they were buried in two huge jars placed mouth to mouth, at other times in a pottery coffin shaped something like a foot-bath, on which a stone cover was placed ; sites of ancient cemeteries have been found, revealing strangely shaped pottery coffins, highly glazed in blue.

These things have told the diggers much, but the records written on clay bricks and barrel-shaped cylinders found in the temples and palaces have yielded more information than has yet been deciphered or translated. The ancient peoples used to place baked clay records in a special niche in the foundations of their buildings, and these have proved invaluable. The same custom persists to this day in our own land, for it is a common practice to place coins and other records under the foundation stones of modern large buildings of public importance.

It may truly be said that Layard gave the impetus to digging in the East, that all the men working in those parched lands are the disciples of the Englishman who gave up his best years to the science he loved. He suffered untold hardships, his life was often in dire danger, illness afflicted him, but through it all he went on digging. He was subjected to bitter attacks and intrigues, but he countered them to perform his lifework. The hardships did not weigh with him, the lack of money for carrying on the work was not an

insuperable handicap, but he was terribly disappointed at the lack of interest shown by his countrymen in his discoveries, and by the way his priceless relics were damaged during transit. Apparently people thought they were so much rubbish, hardly worth the taking away.

He entered politics and gained honours as a diplomat, but his name and his fame will ever rest on his wonderful work in digging up ancient Assyria out of the deserts of Mesopotamia.

CHAPTER XIII

ROMANTIC as are the Egyptian discoveries, amazing as the work of Layard remains, the discovery of Troy ranks as the most amazing and romantic of all. The excavation of Troy is, indeed, an epic, interwoven with boyish dreams, the pictures in a book, dire poverty, and a gallant struggle for fortune. While Layard's life-work was largely inspired by the *Tales of the Arabian Nights*, Heinrich Schliemann, who excavated Troy, found his inspiration in Homer.

When the pastor of the hamlet of Neu Buckow in Mecklenburg Schwerin gazed for the first time on his new-born son in 1822, he little knew what strange experiences confronted the boy. A year or two passed, and the boy grew to love the stories of the Greek heroes of old that his father used to pour into his eager ear. Heinrich Schliemann was enraptured, transported with delight. To him the stories were real, the deeds which Homer sang were true. The gift of a book showing the burning of Troy set all doubts at rest in the boy's mind. He

saw Troy itself being devoured by flames, the people fleeing for their lives.

" I'm going to find Troy," he said to his little playfellows.

They laughed at him, and he drew aside, rather hurt, unable to understand why they did not share his enthusiasm. Then a little girl joined him, listened to his tales of Troy and of how he was going to set out one day to find it.

" I'll help you," she said.

The little boy remembered. Years afterwards he returned to her, but she had forgotten and married another.

Desolation came on the home, and the boy was driven to face life in a grocer's shop. For eighteen hours a day he expended his boyish strength in the services of the grocer, sweeping out the shop, cleaning the windows, doing menial tasks for which he had not the slightest inclination. While customers were demanding salt herrings of him at the counter, he was dreaming of Helen of Troy, and as he patted the butter his thoughts followed the adventures of Ulysses, saw him sailing 'twixt Scylla and Charybdis, heard the sirens calling to his hero.

It was a desperately hard life for the boy. His spirit rebelled, but he could do nothing to escape. He was the creature of circumstance, a grocer's boy who dreamed of Homer while serving a litre

of milk. Continual contact with customers who were rough, crude, uneducated, gradually drove from his mind the little Latin and learning of earlier days. Loving knowledge, he yet had no time to acquire it. What opportunity was there for a boy to learn while working eighteen hours a day ?

Schliemann was one of the shop slaves of last century. His life was sheer drudgery all the time, just drudgery and a few hours of sleep for the exhausted frame ; no pleasure, no holidays, only work.

Through all his misery sometimes flashed the memories of the happy days when his father used to delight him with the tales of Greek heroes. Somehow, in spite of everything, he retained a glimmer of hope, although he could see no way out of his environment. From dawn to long after dark he was selling food for the body and craving food for the mind. That childish picture of the burning of Troy was as a beacon to him, often nearly overwhelmed, but always flickering up again in his imagination. Buried deep down in him was still the determination to find Troy.

It was growing dusk one day when a drunken miller lurched into the shop, and suddenly began to recite in Greek some passages from Homer. Schliemann was transfixed with amazement. The meaning of the words was lost to him, but the beauty of the lines, their music, entered his soul.

" Say it again," he said eagerly to the miller.

The miller repeated the passages, and Schliemann, feeling in his pocket for coppers, bought a glass of spirits to reward the drunkard.

" Again," said Schliemann, and gave the man another glass of spirits to induce him to repeat the lines.

Even then the grocer's boy was not satisfied. He fumbled in his pocket and produced his last coppers, the only wealth he owned in the world, and with them bought a third glass of spirits so that he might hear the lines from Homer once more. Imagine the tragedy of it, a grocer's boy giving everything he possessed just to hear a drunken miller — the son of a clergyman—recite Homer to him in Greek. One clergyman's son a grocer, weeping because he loved Homer and could not speak Greek, the other clergyman's son drinking to drown his misery because he knew Greek and Homer, and was condemned to be a miller.

Bitter tears flowed down the boy's face. He hungered for learning, but his intellect was starved. Every night, utterly wearied with the day's work, he went down on his knees beside his bed, and prayed to God that he might live to learn Greek. To the poor grocer's boy, life could hold no greater boon.

What at the time seemed his crowning misfortune proved in the end to be his way of escape.

Straining one day to lift a big cask, a sharp fit of coughing brought his exertions to a sudden end. There was blood on his lips and despair in his heart. Work in the shop was no longer possible.

The lad knew not what to do. Ill, without money, he drifted to Hamburg. No one would employ him in his weak state, and at last in desperation he shipped as a cabin boy in a vessel bound for Venezuela. A storm brought the ship to disaster, and for hours the crew faced death in an open boat before being cast on the Dutch coast.

The darkest days in Schliemann's life followed, days when he was compelled to beg to keep body and soul together. A poorly paid situation in an office revived hope in the breast of the shipwrecked lad. Renting a garret at eighteenpence a week, he nearly starved himself in order to buy books for study. Less than a shilling a day sufficed to pay his rent and keep him alive.

No longer could his hunger for education be denied. Always he had a book with him, every minute found him studying. If he waited in a shop, out would come his book from his pocket; had he to walk on an errand down the street, then he walked with an open book in his hand. In six months he learned English; during the next six months he mastered French.

He was mad to learn. His whole soul craved for knowledge. All the unknown powers of his un-

developed brain began to awaken. He possessed a genius for learning languages which was almost unparalleled. With every language he learned, the next came easier. In the following six months he mastered Dutch, Portuguese, Spanish and Italian. His memory, which previously was bad, became remarkably retentive, as is proved by this wonderful feat.

He did not stop to rest. His thoughts turned to Russian, and his method of learning it was not without a touch of humour. A better-paid post provided money to pay a teacher, so he scoured the city on his quest. He hunted here, there and everywhere. In all Amsterdam was not a single teacher of Russian, not a soul who understood a word of the language.

Schliemann, thrown back on himself, unearthed an old Russian grammar and dictionary and began to study the language alone. In less than a week he learned the alphabet, and soon he was writing simple exercises in Russian. Somehow his progress did not please him, he felt the monotony of working alone. To lessen this monotony he hit on the plan of hiring some one to listen to his Russian recitations for the sum of sixpence a night. Every evening he declaimed in Russian to the listener. The listener, understanding not a word, sat and was shouted at by Schliemann.

As the listener was paid to listen, he could not

object. It was otherwise, however, with Schliemann's landlords. They were not paid to listen, and they objected strongly to the noise their lodger made, so strongly that he was asked to find other lodgings because of the annoyance he created. If the landlords thought to stop his studies in this way, they were mistaken. Twice Schliemann was driven to new lodgings, but he calmly continued his studies, and in six weeks was writing letters in Russian.

By the time he was twenty-four, this amazing young man was sent on business to Russia, and within a year he was starting in business there for himself, fully determined to make a fortune so that he could travel and realize the dreams of his childhood.

The remarkable thing is that the man who revered Greece and everything Greek should spend his energies in learning so many other tongues to the exclusion of the language of his beloved Homer. The truth is that he, who had the gift of languages, was afraid to learn Greek. He dared not trust himself to begin. The desire implanted by the befuddled miller had grown stronger with the years, and Schliemann, knowing the potent spell the language cast over him, feared that once he began to study Greek, he would neglect his business altogether, and never make the fortune which was to set him free to wander in the land of Homer.

He threw himself into his business just as he had

thrown himself into his studies, and for years all his energies were concentrated to one end, that of making money. Once, when Memel was burned down, he gave himself up as ruined. His fortune was locked up in a cargo of indigo at the docks, and all the dock warehouses were a smoking mass. Hours later he learned that as the stone warehouses were choked so full of goods, his indigo had been stored in a wooden shed some distance away, and the direction of the wind had saved the shed. It was an ill wind for Memel, but it trebled Schliemann's fortune.

In ten short years his industry and exceptional ability, coupled with the Crimean War, brought him the fortune he had planned. He, a young man of thirty-five, was free to order his life as he chose. He gave himself up wholeheartedly to learning the tongue of his Greek heroes, and in six weeks Greek was no longer an unknown language to him. Within three months he was reading his beloved Homer in the original tongue.

Schliemann, who had the phenomenal ability to learn a language in six weeks, wandered far over the world, acquiring languages as souvenirs of the lands he visited, just as modern travellers pick up souvenirs in shops. But in the end his travels brought him to Greece.

Where other people regarded the songs of Homer as mere legends, Schliemann never doubted their

basic truth. While many wondered whether Troy ever existed at all, Schliemann in his innermost heart knew that Troy had been a real city. The wonderful work of Layard fired his imagination, and gradually the idea formed in his mind that if Layard had succeeded in digging up the lost city of Nineveh he himself might find Troy with a spade.

In 1870, filled with the knowledge of years of study, he came to the desolate Hill of Hissarlik standing on the Plain of Troy, a short distance from the Dardanelles. He climbed the hill, feeling sure that beneath his feet were buried the remains of the city of his heroes. Scholars laughed at his enthusiasm, ridiculed the idea that Hissarlik could possibly have been Troy. If Troy ever existed, the one thing certain, they averred, was that it could not possibly have been at Hissarlik. To most people Troy was merely a myth, a city of the gods created by Homer himself.

Countering the ridicule with cold logic, Schliemann decided to set all doubts at rest by the test of excavation. For £300 he bought the greater part of the site from the Turkish owners and, after many vexatious delays, began digging into the side of the mighty hill in 1871. He was desperately keen to clear up the mystery of Troy. He set his labourers to work, cutting the secret out of the heart of the hill. Men, at Schliemann's bidding,

began to run away with the hill of Hissarlik in wheelbarrows.

Schliemann's energy was remarkable, his driving force irresistible. From dawn till dark he was on the site. His wife, a Greek lady, was as enthusiastic as her husband, so enthusiastic, indeed, that she and her maid took picks and spades and dug trenches and made discoveries for themselves.

So long as Schliemann was eating into the hill, he was happy. His greatest enemies were feast days and rainy days, for in wet weather it was impossible to work, and on feast days the Greeks positively refused to work—a cart-load of money would not win a day's labour from them. So on these days Schliemann sat down and wrote up his discoveries.

He laid bare great walls, and as his diggers burrowed into the hill they found others immediately below the first, the lower walls buried in soil and rubbish. Schliemann was amazed. The Hill of Hissarlik was the most wonderful hill in the world. All the history of thousands of years was concentrated on this one spot, heaped up there by the hands of men long dead.

The deeper he dug, the more he marvelled. Here was city heaped on city, civilization on civilization. The city of one people had been overwhelmed and covered with debris, then on top of the buried city another people had erected their

By courtesy of the British School at Athens

A GENERAL VIEW OF THE RUINS OF TROY, SHOWING THE REMARKABLE EXTENT OF SCHLIEMANN'S EXCAVATIONS AND DISCOVERIES. THESE ANCIENT TROJAN WALLS WERE COMPLETELY COVERED UNTIL SCHLIEMANN DUG THEM OUT AND LAID BARE THE LONG-LOST SITE OF THE FAMOUS CITY

own dwellings, probably not knowing nor caring what lay under their feet. So it went on here for centuries, for thousands of years, back into the past to the Greeks, to the Trojans, to an earlier race linked with Crete.

The original hill increased in size with the centuries. As the cities were overwhelmed, so the hill grew until in places it was 50 feet higher than the virgin soil on which the first dwellings were founded. As the height increased, so did the length and breadth. Foot by foot the debris of vanished peoples accumulated on the hill, foot by foot the rubbish fell, until in one direction Schliemann found the hill 250 feet longer than it had originally been, while in another place he found that 150 feet had been added !

And in all this mountain of debris Schliemann came across relics, hundreds of them, thousands of them, walls and pieces of pottery and stone battleaxes, with copper nails used by ladies as hair-pins. His industry was astounding. He marked the depth at which everything was found, paid rewards to the finders. If a piece of pottery with an inscription turned up, the man who turned it up received additional pay. The diggers, anxious to make all they could, were more interested in the money than in the work. Some tried to deceive him by scratching inscriptions on bits of pottery. A magnifying glass soon laid the frauds

bare, and the finders, instead of getting extra pay, were fined for their deceit. The old diggers soon realized that it was useless to attempt to deceive Schliemann in this way, and new diggers were not long in learning the same lesson.

The hill was like an anthill, men scurrying about with wheelbarrows, men digging away. At times Schliemann had one hundred and fifty labourers at work, with horses and carts. Once his men were striving to lever down a mighty wall of earth which long resisted their utmost efforts. No sooner was it down than another wall collapsed without warning on some of the diggers. Schliemann saw the catastrophe with horror. He rushed down and began to dig with all his strength, while the cries and groans of the buried men fell on his ears. Fortunately the timbers shoring up the work slipped in such a way that they kept the weight off the imprisoned men, who were eventually dug out little the worse for their premature burial.

Not without reason did Homer call Ilium the "windy place," as Schliemann realized when he experienced to the full the awful blasts that swept over the plain. Sometimes the temperature dropped suddenly and the wind came through their wooden houses and nearly froze them to death. The only way it was possible to keep warm on these occasions was to go into a sheltered trench and work at the face of the hill.

Hundreds of thousands of tons of debris were shifted in driving a great road like a railway cutting with huge sloping embankments through the hill. In one trench Schliemann fought his way through two walls 10 feet thick, and in a little while came to two more walls 6 and 8 feet thick. Mighty blocks of stone had to be wrenched out and broken up before they could be carted away. The Greeks, coveting this stone for building purposes, quickly carted it away, but they were too indolent to assist Schliemann in breaking it up.

Just as a lady cuts into a cake of many layers, so he cut into the Hill of Hissarlik, and instead of finding one city he found seven, built one on top of another, with layers of burned ashes and debris between to mark the calamities which had wiped them out. In some places the ashes were from 5 to 10 feet thick, irrefutable proof of the way fire and sword had played about this desolate hill throughout the ages. He found his city of Troy at a depth of about 30 feet, the city which flourished three thousand years ago before the Greeks took it by subterfuge. He laid bare the ancient gate, and while cutting a trench through a wall near the gate, his delighted eyes caught their first glimpse of the great Trojan treasure, golden cups and jugs and silver goblets, some of the gold cups weighing a pound, with silver cups twice as heavy. Here were necklaces and other jewels all hurriedly

thrust into a hole in the town wall as if some one were fleeing with the treasure when he was overwhelmed.

Quickly Schliemann sent his men to breakfast before they knew of the discovery, and very carefully he cut out the treasure from the debris with his knife, giving it to his wife, who, concealing it beneath her cloak, hurried with it to their little wooden house on the hill. At any moment the great wall above him might have collapsed and killed him, but he was too excited to heed the risk.

For three years Schliemann dug into the Hill of Hissarlik, finding ruined temples, laying bare castles and towers and city walls. When he published his discoveries, a storm of criticism arose among men of science. They laughed him to scorn, refused to believe him, to accept his evidence. They considered that he was utterly wrong, that his enthusiasm for Homer had led him astray and betrayed him into error.

The storm of controversy raged on while Schliemann went to Mycenæ and dug up an even more wonderful treasure than that of Troy, finding the bodies of ancient kings buried in golden masks and with golden armour about them. It was a dazzling discovery of the wealth of the Mycenæan age, and Schliemann proved that his interests were purely scientific by presenting it all to the museum at Athens.

By courtesy of the British School at Athens

THE CIRCLE OF GRAVES AT MYCENÆ, WHERE SCHLIEMANN FOUND THE ANCIENT KINGS ALL BURIED IN GOLDEN ARMOUR AND MASKS. IT WAS THE MOST WONDERFUL TREASURE TROVE EVER DISCOVERED

Not until the great English statesman, William Ewart Gladstone, arose and championed Schliemann, did men of science begin to realize that they were wrong and Schliemann was right. Thus the poor German grocer boy, who had listened with tears in his eyes to a drunken miller reciting passages from Homer, lived to lay bare the city of his dreams with a spade. Working in direct opposition to the opinions of science, he dug up the city of Troy in the very place where he knew it must be, and where scientists said it could not possibly have stood.

The discovery of Troy was the triumph of Schliemann's faith and genius.

CHAPTER XIV

SCIENCE, which began by doubting, finished by honouring Schliemann for his remarkable discoveries. Multitudes had gazed on the desolate Hill of Hissarlik, the Turks had long quarried it for stones for new buildings, but none except Schliemann suspected the wonders that lay concealed beneath the great mound. Even he was puzzled at first to read all the records aright, but gradually the evidence was sifted out and the story was made plainer. In all, Schliemann recovered from the site a hundred thousand relics, every one of which was photographed, drawn and catalogued with the depth at which it was found.

The peculiar thing was that Schliemann learned, as those who have worked in Egypt have also discovered, that the deeper he dug and the farther he went back, the more artistic did the pottery become ; that the potter's art decayed through the later ages until it was quite crude. Some of the wonderful golden cups he found, weighing upwards of a pound, were beaten into shape by the goldsmith, others were actually cast gold. He was pleasantly

surprised one day when, knocking down a great thick piece of what he imagined to be fused copper wire, the wire broke apart and the silver and golden bracelets of which it was composed fell on the floor, some of them melted together by the heat of a mighty fire.

He found weights made of burnt clay, with seals of similar material, and quaint objects of pottery on which were inscriptions in an unknown writing. There were Egyptian and Assyrian relics, with relics of Crete, and a fine sculpture of Apollo driving the horses of the Sun, which pointed to the remarkable uprising of art in Greece, when Greek sculptors produced the most beautiful statues the world has ever seen, works which modern sculptors acknowledge as the masterpieces of all time. The building of the Parthenon at Athens in the time of Phidias, two thousand four hundred years ago, saw Greek art at the height of its glory, with artists doing finer work than has ever been done before or since.

The glory of Greece faded, but the Parthenon still lifted its noble columns to the skies and withstood the ravages of time. Loving hands designed it, skilled fingers shaped the stones, modelled the exquisite statues that decorated it. That which man had builded so wonderfully, those who were blind to beauty wantonly destroyed. Time and weather caressed the marbles, but the hand of man sought their destruction.

About the time that the Rosetta Stone was brought to light at Fort St. Julian to reveal the mystery of hieroglyphics, Lord Elgin, the British Ambassador to Constantinople, made up his mind to try to save a few of the priceless fragments scattering the Acropolis at Athens. For years the Turks had been using the Parthenon as a quarry, carting off the stones and building them into their houses. The vandalism of the Turks was almost incredible. They ripped out the stones of the most glorious building the world has ever seen and built them into their forts; they fired their guns at the sculptures in a fury of sheer destruction. They broke off arms and legs and gave them to passing travellers. Anything and everything they could do to obliterate the glory of ancient Greece was done.

Lord Elgin, knowing how much had vanished within living memory, knew that in a few years little would be left, for the Turks delighted in destroying those things which the Christian infidels came so far to see. He treated with the Turkish authorities, he even went so far as to gain the ear of the Sultan's mother, and in the end he was granted an order to dig and remove any stones and sculptures which he desired.

A staff of artists went to Athens on behalf of Lord Elgin to sketch the ruins on the Acropolis. Athens, however, was a long way from Constantinople,

and the power of the Porte diminished as the distance from the capital increased. The local officials, reading the order in their own way, would only let the artists enter the Acropolis upon payment of £5 a day. For the greater part of a year Lord Elgin paid this exaction without demur. Money was nothing to him so long as he saved these beautiful relics of the past.

Over four hundred men were employed in collecting what was to be saved of the fragments which, shattered and smashed, were still of unique beauty. They dug among the gigantic heaps of ruins for remains of marbles. Scaffolding was erected to take down some of the matchless figures in the frieze. Stones were taken out of the forts and replaced with less valuable stones.

A rumour that some marbles had been built into a Turkish house reached Lord Elgin's ears, and at once he sent to Constantinople for special permission to pull down the house. After much delay and a great deal of trouble, coupled with the expenditure of a considerable sum in bribes, the permission was granted. Lord Elgin set his men to work, and stone by stone the house was pulled down. No trace of marbles could be found.

Not until the house was entirely destroyed did the one-time owner calmly stroll up to the ruins and announce that all the marbles had been ground down to make mortar for his dwelling. It seems

incredible, yet it is literally true that the greatest works of art ever created by man were pulverized to make cement for a workman's house. The incident was but one of a series of such acts of vandalism. On another occasion a Turk, getting at some of the statues, smilingly knocked the head off one of the figures and deliberately smashed it to bits because the people, whom he called Christian dogs, admired it.

The fragments of sculptures that remained were gathered up by loving hands and packed into cases. But there was much delay before they reached England. Lord Elgin, owing to our war with France, became a prisoner in Paris, and the cases containing the sculptures lay neglected in Malta and other places.

Some of the Elgin marbles which now grace the British Museum were for a period at the bottom of the sea. The *Mentor*, on which they were shipped, was wrecked at Cerigo in the Grecian Archipelago, and went down in 60 feet of water. For three years a fight was waged to rescue these treasures from the sea-bed, and only after considerable difficulty were all the cases eventually recovered by divers.

While the art world acclaimed Lord Elgin for having saved some of the most beautiful statues in the world, the Government looked upon him askance. He spent a fortune of about £80,000

in acquiring the wonderful collection, and it was questioned whether the sculptures were really his private property. Directly he gave the State the opportunity of acquiring them on behalf of the public, the Government began to haggle about the price as though the sculptures were an everyday article of commerce such as tea or sugar. A Commission was appointed to go into the matter and many people were examined, giving the impression that Lord Elgin, in expending his private fortune to rescue the priceless sculptures of Phidias from the destroying hands of the Turks, had committed some grave crime. Famous sculptors like John Flaxman, R.A., and Joseph Nollekins, R.A., went before the Commission and spoke enthusiastically about the beauty of the ancient marbles that had once graced the Parthenon ; artists like Sir Thomas Lawrence sang their praises ; the President of the Royal Academy said the marbles were incomparable.

All the time the question of value kept cropping up. " How much do you think they are worth ? " the artists were asked. The artists did not know. How could they say ? It was impossible for them to fix a price on beautiful things they considered priceless.

But it was not impossible for the Government. The value of the Elgin Marbles was set down at £35,000. The wonderful sculptures which many American millionaires to-day would pay anything

to obtain were valued then at £35,000. The nation owes much to Lord Elgin for acquiring from the ruins of Athens these matchless relics of the time when Athens was the first city of the world and Greek art was blooming in all its beauty.

Lord Elgin rescued the glories of Greece that were still visible, but Schliemann nearly three quarters of a century later had the extraordinary insight and genius to delve into the dim past before Greece was, before Troy was a nation, back to the misty beginnings of that ancient race whose writings even now we are unable to read.

The puzzling characters inscribed on the pottery dug up by Schliemann gave him the clue where to look for the earliest traces of that race. With rare judgment, amounting to genius, he pointed to Knossos, in Crete, as the seat from which the Mediterranean civilization sprang.

By courtesy of the British School at Athens

THE PICTURESQUE CAMP OF A DIGGER IN THE ISLAND OF CRETE

CHAPTER XV

ON the map of the world, Great Britain is small. That men should go forth from this little island and win their way in so many distant lands, that this island people should wield such power over the earth, that they should venture into the unknown places and bring vast areas under the dominion of England, seems incredible. If we were not aware that this is the literal truth, we should find it hard to believe, we might even feel inclined to doubt it. The fact that the mighty British Empire has all sprung from this little island in the North Sea is one of the most astounding things in the world.

In olden times it was thought that all the world centred round the Mediterranean Sea, that the earth consisted only of those lands bordering the Mediterranean. In bygone days, long before the dawn of history, it is possible that Crete dominated the known world of that day just as the Island of Great Britain dominates the world of our own day.

The British Empire is tangible proof of what

one little island can do. There is no reason why Crete should not have done the same in the past, why that little island set in the vivid blue of the Mediterranean should not have influenced all the lands on the Mediterranean shore. We do not know. We cannot say. We have learned much, but more remains to be unravelled from the tangled skein that Time has woven in Crete.

As already mentioned, Schliemann, bringing all the knowledge he had gained in his amazing excavations at Troy, at Mycenæ and other places, to bear on the subject of the origin of the Mediterranean civilization, placed his finger on Knossos as the centre whence it sprang. His uncanny instinct was once more right. He wandered about the lonely places of Crete, still with faith in the Homer who led him to discover Troy, feeling sure that at Knossos he would find the fabled palace of King Minos, but death prevented him from making the biggest discovery of all.

The work that the German excavator left undone was taken up by Sir Arthur Evans. Unfolding his tent on the barren site of Knossos, Sir Arthur Evans set his diggers to work. They dug diligently, scanning every spadeful of earth for traces of man. They excavated a yard of soil, 6 feet, 10 feet, wielding pick and shovel, carrying the debris away in baskets. They found many things, broken jars,

By courtesy of the British School at Athens

A GENERAL VIEW OF THE RUINS OF THE PALACE OF KNOSSOS IN CRETE, WHERE SIR ARTHUR EVANS HAS DISCOVERED A NEW AND HIGHLY DEVELOPED CIVILIZATION, WITH A WRITING WHICH CANNOT YET BE READ

decorated pottery, but most important of all were the clay tablets inscribed with the puzzling writing of the Minoans.

Still they went on, getting deeper and deeper, until the pick of a digger struck a paving stone. They shovelled the rubbish away and disclosed another stone, then another. At last Sir Arthur Evans had reached the stone pavement of a palace.

Excavations were continued, and gradually the throne-room of the Palace of Knossos was bared once more to human eyes, after lying under the debris for countless generations. Here were the stone seats arranged round the walls for the councillors, here was the throne on which sat the king who laid tributary on all the lands about the Mediterranean, a stone throne, hollowed in the seat to give comfort, with a stone back carved in a series of six curves rising to a half-circle at the top, the solid block comprising the seat carved at the front to indicate legs. Here in this ancient palace he held audiences, sent his messengers forth in their galleys to claim tribute at Athens, issued his decrees.

"Go," he said, and they went.

And when after feasting he desired amusement and relaxation, he would beckon his henchman. "Fetch me maidens to dance and sing," he would say, and there would be the sound of twanging strings and the pitter-patter of little naked feet on the stone

floor, feet with toes pink as rosebuds, lithe limbs, flowing draperies.

And the king, feasting his eyes on the beauty of his dancers, would dream of the youths and maidens even then aboard his galleys on their way from Athens to Crete, the youths and maidens who were the yearly tribute.

The hot sun, beating down on the well-tended vineyards, drew the nectar of the earth to the grapes, brushed them with a delicate bloom ere they fell beneath the feet of the winepressers to yield the juice that made the feasters merry. The blossom of the olive groves was succeeded by tiny green olives which swelled in the heat until they were ready to yield their rich oil which was so welcome to the people of other lands. Artists worked happily on the plaster walls, laying on their colours to delight the eye, potters kneaded their clay until it was as butter under the ball of the thumb. The people spun and sewed and draped their bodies in comely garments. But most of all they valued health, realized the necessity for adequate drainage.

Did they become too civilized, these ancient people? Did they grow lazy in their luxury, disinclined to work? Who knows! Perhaps it was so. At any rate, desolation swept over them and blotted them out, just as the cities on the site of Troy were blotted out again and again.

We can imagine the galleys of the invaders

approaching the rocky coasts, the cries of alarm running through the palaces and over the island, the invaders springing ashore, fierce, strong, hard, not softened by too much civilization, relying on their own strength and weapons for sustenance, not upon the tribute exacted from other lands. Muscular arms that had thrust the galleys through the Mediterranean, dropped the sweeps and caught up weapons as the keels grounded. The sea curled about the legs of the invaders as they dropped over the prow and swarmed ashore. Fighters, every one, asking no quarter, giving none, seeking plunder with the sword, valuing other lives not at all and their own but little.

See the women shrinking into the corners of the palaces, eyes full of fear, sensing approaching doom; men shouting and gasping, the invaders sweeping forward and cutting them down. A semi-barbarous people conquering a civilized people, cold iron superseding bronze, uncultured men with superior weapons triumphing over culture with inferior weapons.

Long, long ago something like this happened in Crete; the palaces of the ancient people were toppled about their ears and palaces and people vanished into oblivion.

Gaze on another scene thousands of years later. Absolute desolation on the hill of Kephala. No sound of music nor pitter-patter of pink feet on

naked stones, only the song of the breeze ; no sign of palaces, conquered and conquerors alike swept into the gulf of Time ; only the same blue sea a mile or two away singing its eternal song on the same rocky coast.

Men are swinging picks into the bosom of the earth, making great gashes and gaps in the hill, picking over the loosened rubbish, throwing it into baskets and carrying it away. An easy movement of the arm sends the contents of the basket sliding down the face of the dump, and the black-haired labourer turns back for another load.

Suddenly a digger glimpses something amid the heap of rubbish loosened by the point of the pick. He stoops like a hawk to its prey and brushes aside the soil with his fingers, scrapes carefully about the object, and in a minute has it free.

It is merely a piece of yellow pottery with red decorations. Almost before the finder has had time to look at the fragment, a man scrambles down to him and, taking the fragment, carefully removes all traces of soil.

Keen eyes scrutinize the little piece of pottery, and thoughts go crowding through the brain. Visions of Egypt leap up, of a similar fragment found in a tomb far over the blue sea to the south, past the age-old Pyramids and the modern wonder of Assouan. Back and back thoughts fly through the ages, back to the earliest kings who swayed

By courtesy of the British School at Athens

ONE OF THE MAGAZINES UNCOVERED BY SIR ARTHUR EVANS AT KNOSSOS IN CRETE. THE MIGHTY STORE JARS, BIG ENOUGH TO CONTAIN A MAN, ARE SEEN IN THEIR ORIGINAL POSITIONS AND THE SIDE OF THE TRENCH INDICATES HOW DEBRIS COMPLETELY COVERED THEM IN THE COURSE OF THOUSANDS OF YEARS

the earliest communities in the Nile Valley, all because of a fragment of burnt earth, bits of pottery, links in the Eternal Chain of Time, binding together in some unknown way Egypt and Crete. Most of the links are missing, but who knows how and when the pick and shovel of the seeker after truth may come across them ?

Once more let us glimpse that hill in Crete. The diggers are gesticulating, running about. Carefully they dig and loosen the soil about another object. A band of carved stone comes to light ; it is a curved band, and as they work about it ever so carefully, they find it is part of a cylinder buried deep in the earth. They work excitedly, removing the earth, digging down until they reveal a mighty stone jar, a jar big enough for a man to stand upright in, a jar which the ancients used as a store. It is the giant forerunner of those tiny canisters to be found in the modern pantry, canisters for storing tea and coffee and sugar and rice.

Deeper yet dug Sir Arthur Evans, until he had penetrated to nearly twice the depth of the floor of the Palace of Knossos, until he was nearly 40 feet below the surface. Here were stone implements, the scrapers and knives of the unknown people who first dwelt in this island in the Mediterranean. And through all the different strata he found relics of man, relics by which it was possible to trace the rise of civilization in Crete,

from stone to copper, and copper to bronze and bronze to iron.

But the biggest find of all are the stones and clay tablets and seals with their hieroglyphic and script writing. For years Sir Arthur Evans has puzzled over them, tried to solve the mystery of this strange writing. The finest scholars of the world have racked their brains for the clue to the mystery writing. There is the writing, but we cannot read it. The key is lost.

Still the search for it goes on, and some day Sir Arthur Evans will surely achieve his crowning triumph and solve the riddle of the pictographs and script of Crete. What we may learn then about the origins of our own civilization, nobody can foretell. The inscribed stones and clay tablets of Crete have yet to yield up their secret.

For years Sir Arthur Evans has laboured in Crete, finding the money to move mountains of soil so that light may be thrown on the past. Discoveries of the highest importance have followed his excavations, for he has proved with pick and spade that here in this little island flourished a civilization almost undreamed of till the present century, a civilization maybe as old as that of Egypt and Mesopotamia, a civilization that flourished at least five thousand years ago, that endured for ages before the Phœnicians launched their galleys on the Mediterranean.

Perhaps in the years to come the researches of those who are working in the desert places will make the origin of these early civilizations clearer, and we may be able to assign to each its proper place in the Story of Mankind.

THE END