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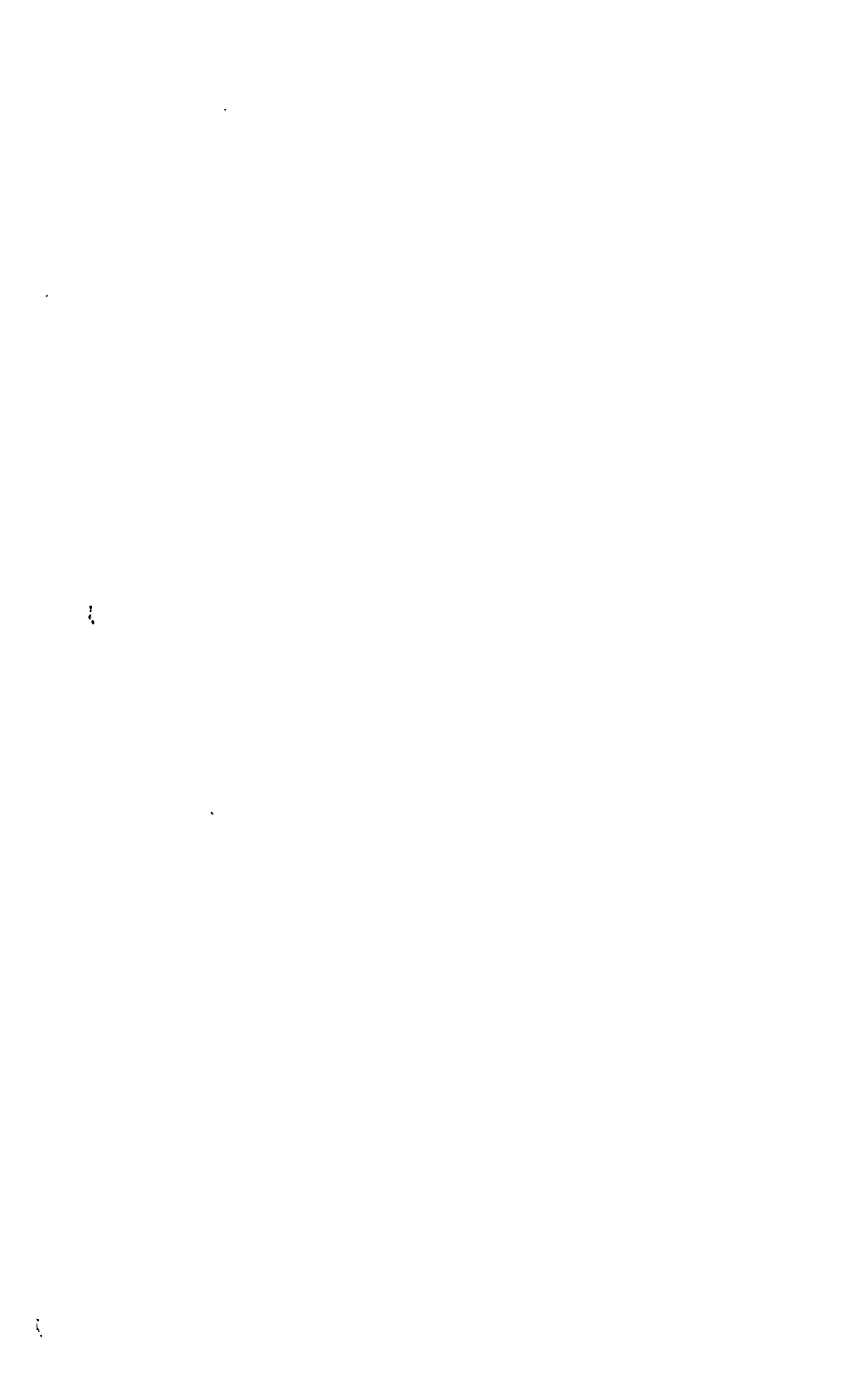
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American Antiquarian

—AND—

Oriental Journal

VOLUME XXIX

JANUARY-FEBRUARY - NOVEMBER-DECEMBER, 1907

REV. STEPHEN D. PECK, PH. D., EDITOR

CHICAGO
438 East Fifty-seventh Street
1907



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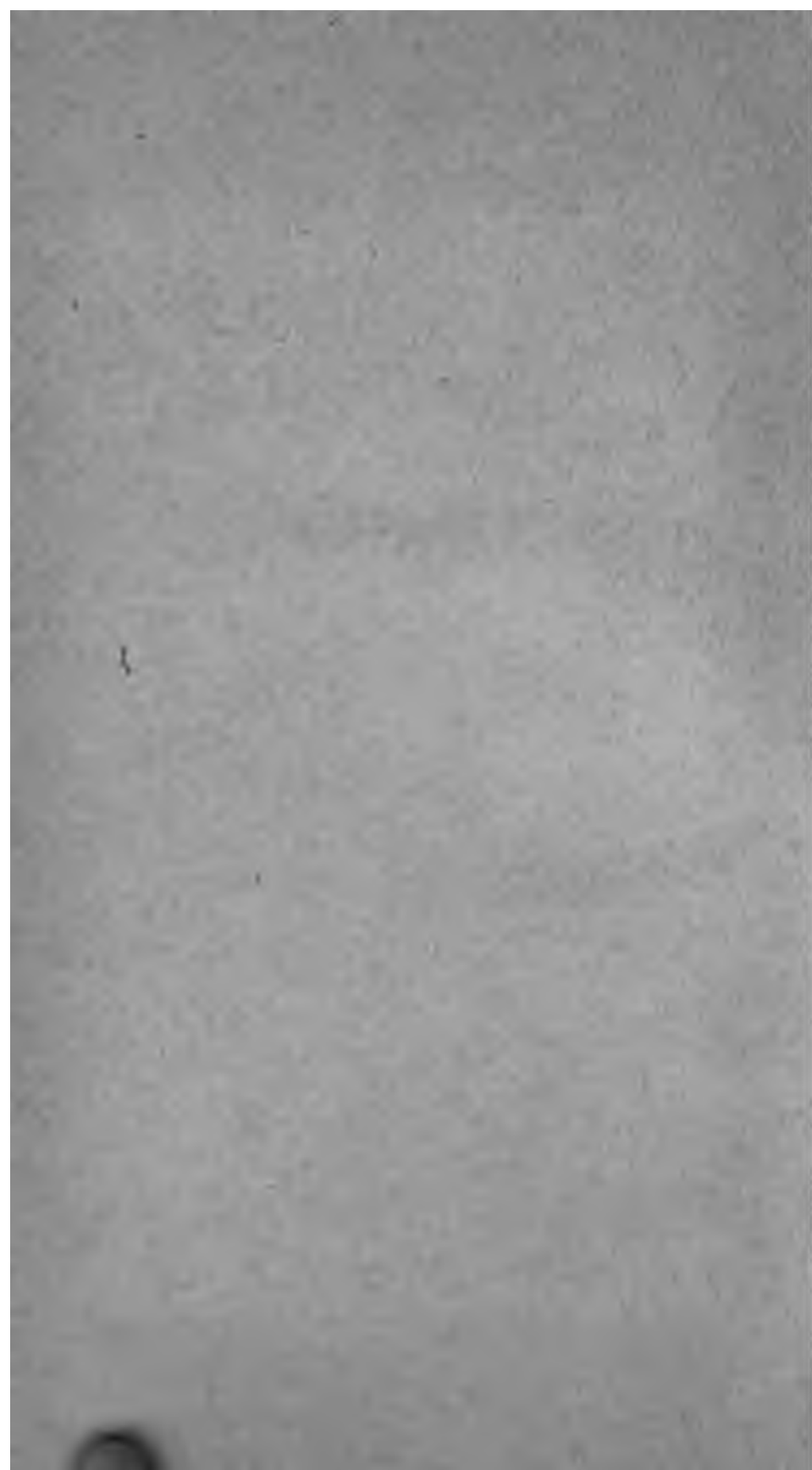
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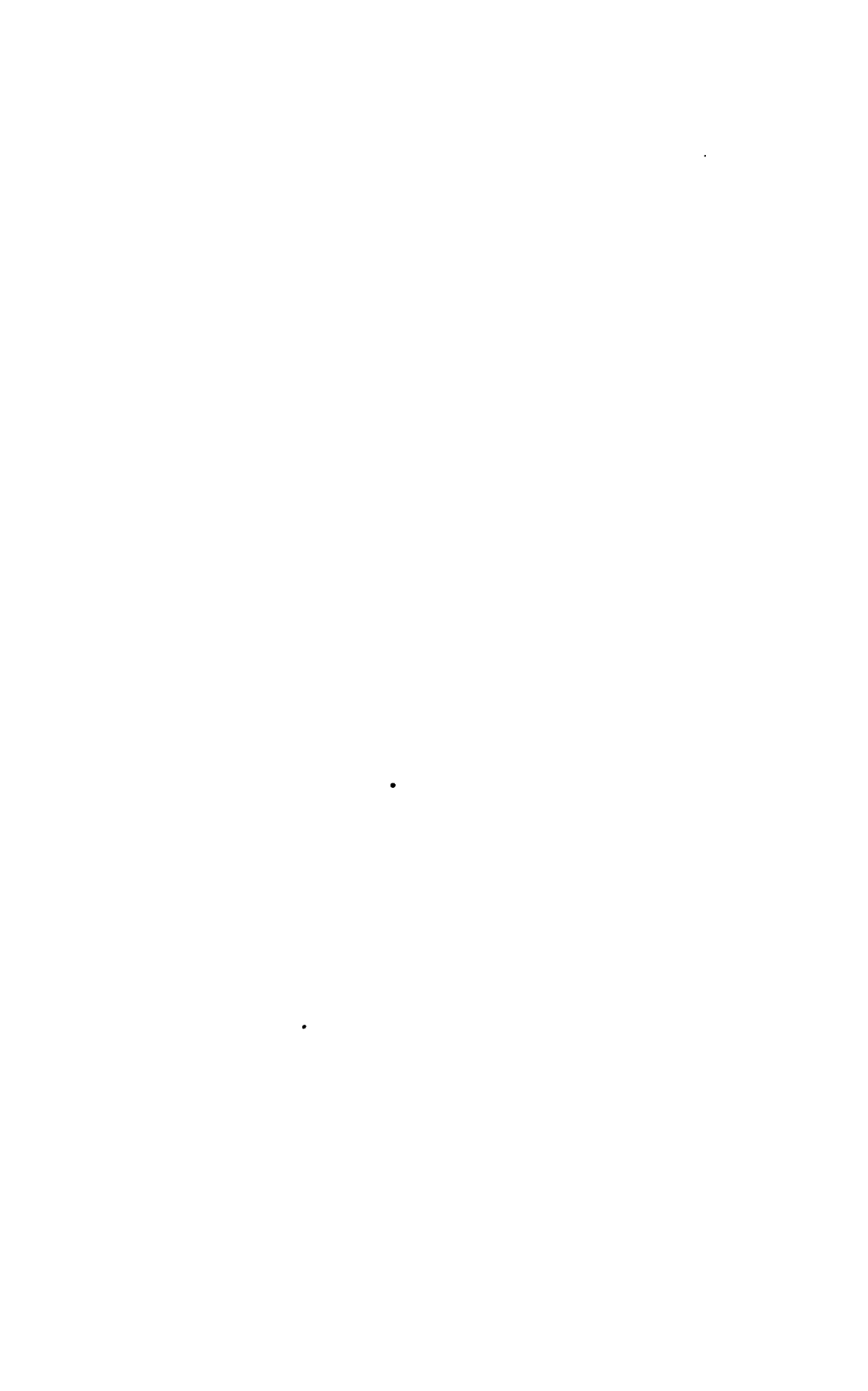
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American Antiquarian

VOL. XXIX.

JANUARY AND FEBRUARY, 1907.

No. 1

THE INHERITANCE OF NOAH.

BY STEPHEN D. PEET.

The great difference between the Bible and other ancient books, is that it describes the condition of the world before the time of the Flood, and actually begins the history of the human race after the days of Creation.

There are, to be sure, stories among the pagan books, about the earliest period as being one of great happiness, but they give no description of the locality where man began his career, nor even of the time. There was a belief among the Greeks, that there was a golden age, followed by a silver age, and this by the age of iron. The Egyptians also look back to their earliest age as the happiest. The same is true of the Hindus, Chinese, Japanese, and other nations. There is, among these nations, no story of the Fall, of the banishment from Eden, nor of the sin of Cain in slaying his brother, nor of the separation of mankind into two classes, though the first four chapters of Genesis are occupied by these various events which are told with great particularity. There are many traditions of the Flood, but the history of all the nations of the earth began after that event, rather than before. It is important, then, that we should go over again the Bible story in reference to the antediluvian period, and endeavor to learn what is taught by the Scripture record and compare it with the Pagan mythology.

I. We do not need to take up again the condition of the first pair; nor the description of the two trees, the tree of life and the tree of good and evil; nor even the banishment from Eden, and the placing at the entrance of the garden the mysterious creatures called the Cherubim; but we do need to study the story of Cain and Abel, and the offerings which they brought to the Lord, and the dire event which occurred in connection with this offering.

The cherubim are supposed to have been represented by the images which stood at the entrance or the palaces of Babylonia. They had the head and face of a man, the body of the ox, and sometimes the feet of the lion, but they all had wings. Other images were common in the East, at an early date. They had

the human form, but wore a peculiar head-dress, which was supposed to be an emblem of royalty. They carried in their hands a weapon with three prongs, which very fitly symbolized the lightning as it flashes in various directions, out of the dark cloud. This last figure seems to have been described in the Scandinavian mythology, and was very common among the ancient nations of the East.

It appears from the Scriptures, that there was a great contrast between the two brothers. Abel was the embodiment of innocence, and because of his innocence and death, he is regarded as the first martyr, and in fact the forerunner of Christ himself, who became both a martyr and a sacrifice. In this we find a great difference between the Bible and the books and traditions of all the Pagan nations of the earth.

It is difficult to explain the story about Cain and Abel. Some have thought that it refers to the contests which were likely to arise between the shepherds and the agriculturists, the shepherds having partaken of the innocence of the creatures which they were tending, while Cain is supposed to have represented the agriculturists, who not only tilled the soil but became owners of it, and were likely to have fallen into disagreements among themselves. The picture, however, which is presented by the Scriptures is not one which refers to classes but to individuals. Every where throughout the Old and New Testaments, Abel is referred to as the embodiment of innocence, and Cain as the embodiment of sin and guilt.

There is, however, a shadow of a great fall resting upon a large portion of the human race; a shadow which has covered the civilized nations, as well as the uncivilized, and continues to haunt the majority.

This, however, is not the point which is to be illustrated, for many events occurred before the days of the Flood which are important for us to consider, as well as the banishment from Eden. We are to notice that the story of the two brothers is quite common in Pagan mythology, though it is not often attended with a view of a sacrifice, as it is in the Bible. Sacrifices were offered at an early period in history, and were one of the elements of worship everywhere. The strange thing about the first act of worship recorded in the Bible, is that it should have been attended by so dire and cruel a deed. The theologians have generally founded on this, the doctrine of the fall, a fall which involved the whole human race in moral ruin, but the fact that Cain's offering was rejected and Abels was accepted, in reality disproves, rather than confirms the doctrine.

A third event is recorded in the Book of Genesis. The story is that the descendants of Cain went out and built a city, and so began what has since been called the process of civilization. We do not often think of the days before the Flood, as a period in which civilization began to appear, or in which cities were built, but the story is on record in the Book of



GOD OF THE STORM.



CHERUBIM FROM BABYLONIA.

Genesis, and there is no good reason for disbelieving it. It is in accord with the story of the Flood itself. According to that story, Noah was able to build an ark or boat of great dimensions; that he built rooms in the ark, and pitched it within and without with pitch; he made it first, second and third stories, and placed a window in it. The dimensions were: length, 300 cubits; breadth, 50 cubits, and height, 30 cubits. It must certainly have required much mechanical skill, familiarity with tools and the use of metals, to have built such a structure. The inference which one naturally draws is that long before the Flood, man had passed through the three ages, the paleolithic, colithic and neolithic, and had reached the Bronze Age, or at least the age of metals.

There is nothing improbable in this, though the general impression is that mankind, before the time of the Flood was in a very low stage of advancement.

Dates, however, are not given in the Scriptures, and there is no good reason for doubting that the events given in Genesis actually occurred, and that the hints in reference to the progress of mankind given in this old book as occurring before the Flood are actually correct. Confirmations of this are coming to us from the inscriptions upon the rocks, from the myths of the early races, as well as the traditions which come from the civilized nations of the earth.

It must be remembered that only the outlines of hisstory are given in the Scriptures, and yet it is singular that when the outlines are filled by the descriptions which are found elsewhere, the picture becomes not only instructive, but complete.

It is worthy of notice that the archæologists are carrying back the three ages into an indefinite past, and are proving that man began his career much earlier than has been supposed. The distinction between the paleolithic, colithic and neolithic ages prove that the progress of man was quite slow, and that he had come up through several stages of progress, before he was able to use what we call edged tools.

The art of shipbuilding began when the first dug-out or wooden canoe was made. The picture of the savage clothed in skins with the fur on the outside, with a stone chisel or gouge in his hand, digging out a log, with a fire at his side, may be a correct one; there is nothing in the Bible to overthrow it, though it indicates a stage of progress which may have occurred before the first altar was erected, and before the first city was built.

II. As to the distinction between the two classes of mankind, the good and the bad, the obedient and the disobedient, there is no actual statement, even in Genesis, which proves this to have been the case, unless it is found in the story of Cain and Abel, and afterward in the description of the Sons of God who saw the daughters of men and chose them for their wives. What does this last event refer to? Does it prove that the

story of Adam and Eve was only local, and that there were other people living outside of the Garden of Eden. Is it founded upon a belief which was common even among the Greeks, that the people outside their own territory were barbarians? Does it confirm the Greek story about the Argonauts, who sailed eastward to secure the Golden Fleece? The Greek idea was that there was a golden age, a silver age, and an age of brass; that there was a decline, rather than a progress. But the Scripture story in reference to the age before the Flood is in accord with the belief of the archæologists, who maintain that there was a progress from the rude stone to the polished stone, and from that to the metal age, even before the opening of history. This is also the belief of many of the Pagan nations of the earth, beliefs which were often embodied in mythology.

The Books of the Edda describe the first state, as one in which there was a luminous glowing world, not to be dwelt in by strangers. Surtur holds his empire there. In his hand is a flaming sword. That part of the abyss which lies toward the north is filled with a mass of gelid vapor. A breath of heat spread over the gelid vapor and melted it into drops, and from these drops were formed a man. This man's name was Ymer, the giants called him Vergelmer. From him descended all the giants. He was wicked, as were all his posterity. One of his feet, begot from the other a son, from whom descended the giant. The sons of Bor slew the giant Ymer and there ran so much blood from his wounds, that all the giants were drowned in it, all except one who saved himself and his household. He escaped aboard his bark, and in him was preserved the race of giants. The sons of Bor dragged the body of Ymer into the middle of the abyss, and from it formed the earth. The water and the sea were composed of his blood; the mountains, of his bone, and the rocks, of his teeth. Having formed the heavens of his skull, they made them rest upon the four corners of the earth, and placed a dwarf at each end. These dwarfs are called the east, west, north and south. After that they went and seized upon fires in Muspelheim, that flaming world of the south, and placed them in the abyss in the upper and lower part of the sky, to enlighten the earth. Every fire had its assigned residence. Formerly the sun knew not its place; the moon was ignorant of its powers, and the stars knew not what place they were to occupy. The earth is circular, and about it is placed the deep sea, the shores of which were given for the dwelling of the giants, but higher up at a distance from all sides of the sea, the gods built a fortress against the giants, the circumference of which surrounds the world. The material which was used for this work was the eye brows of Ymer. They called the place Midgard or middle mansion. They afterward tossed his brains into the air and they became clouds.

The sons of Bor, as they were walking one day upon th shore, found two pieces of wood floating upon the waves, the

took them and made of them a man of one, and a woman of the other. The first gave them life and soul; the second, reason and motion, and the third, hearing, sight and speech, garments and a name. Such is the Norse mythology, a mythology which seems to have transmitted from the earliest period, but resembles that of the Hindus and the entire European race. It is impossible that mankind should have known nothing of the world until Moses gave an account of it. It is incredible that all the patriarchs from Adam to Noah should have been ignorant of the Creation, until given them by Moses. He was not the first one to reveal the history of the world. He simply rectified the errors which had been superinduced into the primitive account, known to Adam and transmitted by him to his posterity.*

III. The history of mankind from the Fall to the Flood is nowhere given so connectedly as in the Bible, though there are hints of it in many books, *e. g.*, Sanchoniatho, the Hindu puranas and the Chaldean chronicles of Berossus. Still we have no information respecting the houses, the tools, or mechanical arts, except as they are given by a few hints. The first pair felt the need of clothing, and entwined large leaves of the fig trees. In Genesis it is said God made coats of skins and clothed them.

All this illustrates the superiority of the Bible to Pagan mythology, but it at once raises the question whether this is owing to the time and place in which the Bible was put together, or was owing to the spirit of inspiration. In answer to this, it may be said, that the time when Moses lived preceded that in which the Greek mythology prevailed, the works of Homer being the chief source of the Greek mythology, but the Books of Moses being the chief source of the theology which still prevails. It is true that there was a system of mythology among the Accadians and Semitics, which dated back to a period much earlier than either of these known writers, but even that mythology seems to have differed from that out of which the works of Homer evidently have grown. Some claim that the mythology of the Greeks, Egyptians and Babylonians was a common inheritance, but on this point there is a diversity of opinion. One thing, however, is to be noticed, that the conception of the Golden Age, which was common among the Greeks, was in some respects similar to that which came down through the early Hebrew Books.

The Garden of Eden was, after all, not so very different from the Arcadia of the Greeks. In fact, nearly all the tribes and nations of the earth have been inclined to look back, to what seemed a golden age. Even the wild tribes of America pictured out the first condition of man as one of peace and happiness. The Navajoes describe their first abode as the summit of the mountains, at the foot of which was a tree and

* "The Patriarchal Age," by Geo. Smith, New York, 1854: page 114.

a beautiful valley. The Zunis are supposed to have first dwelt in a cave, but were led up by their hero out from the cave into a beautiful valley, which was surrounded by four mountains.

There is another remarkable coincidence between the Bible story and that of the Zunis: their ancestors had finally emerged from the cave, which had grown brighter as they ascended, but they had scarcely entered upon the valley which stretched out before them when a sea monster followed them, and by his miraculous power filled the valley with a great flood. The people cried out in dismay, but the divinity who ruled on high came to their relief. He threw many-colored rainbows; which spanned the waters. Soon the sea monster withdrew, the water dried up from the valley and the people took possession.

It is certainly strange that a conception which is so similar to that which is contained in the Bible should have prevailed among these unlettered people. The Zunis have a myth which has even more striking resemblance to the Bible story than this.* They claim that their ancestors retreated to the summit of a rocky mesa, but the waters arose high up against the rocks; they then took a young hero and a maiden and let them down the side of the rock as an offering to the sea monster, when the water retired and left them in the possession of the region. They point to dark streaks in the sides of the rocks which marked the line where the water reached. They also point to two isolated rocks which have shapes resembling human forms. This story, or myth, so resembles the story given in the Bible, that it is supposed to have been borrowed from the whites and applied to this locality, though the story of the mountain and the valley and the rainbow seems to have been original with the natives themselves.

IV. It was soon after the banishment from the garden that the story of Cain and Abel comes in. What is remarkable, however, is that it gives us the account of the first offerings. Some have thought that the story was invented to account for sacrifices; others take the narrative as literal truth, and think that it gives great significance to the sacrifices which prevailed among the Hebrews at so early a date. It seems that Cain, who is supposed to have been the first agriculturist, brought an offering of the fruit of the soil; but Abel, who was the keeper of sheep, brought a member of his flock. Abel's offering was accepted, Cain's was rejected.

Sanchoniatho claims that in the first condition of man there were shepherds and the land was a common possession. Afterwards, man began to build fences and claim possession of the soil. We may say then, that there are different ways of looking at the same event. The narrative, however, illustrates the progress of man and the beginning of mechanical inventions.

* See my book on "Myths and Symbols," pp. 220, 321 and 329

Rev. O. D. Miller has suggested that it was of men cradled at the hearthstone of primeval humanity that the first priesthoods were formed. It was through these that the sovereign pontiffs might trace their descent back almost to the natal hour itself. The human spirit did not slumber through a long night of ignorance, unconscious of its power and to the destinies that invited it to activity. The first storm cloud spreading its dark wings along the horizon, the first thunderbolt shot from its jagged breast, would teach man the necessity of self protection. The divinity was shaping the course of history in these primitive ages. He, whose fiery breath melts down sun and planet, kindles the flame for the tongue of the prophet. This divinity screens himself behind the living things of nature, but he steps forth anon, to lead an unknown race through unknown paths, prompting them to illustrious deeds.

Now this may seem a rose-colored view of the story which is contained in the Bible, but there are hints which are in accord with the real observations of the science of ethnology.

From the fragments of Berosus we have this record: "When above were not raised the heavens, and below on the earth a plant had not grown up, the abyss had not broken open, its boundaries the chaos of water. Tiamat (the sea) was the producing mother. A tree had not grown, a flower had not unfolded, order did not exist. Then were made the great gods, the gods Lahma and Lahumu, and they grew. Men with the bodies of birds of the desert; human beings with the faces of ravens. These the great gods created, and on the earth the gods created for them a dwelling. Tiamat gave unto them strength. In the midst of the earth they grew up and became great and increased in number. It was delightful, all that was fixed by the great gods, stars having the appearance of animals (constellations) he arranged. He marked the position of the wandering stars (planets) to shine in their courses. He made man, the breath of life was in him."

The record which comes down to us from heathenism, seems to correspond closely with that given in Genesis. The question is, which had the priority: these heathen traditions or the Books of Moses. A supposition is common that the Book of Genesis was composed at a date earlier than all the heathen traditions or the writings which have been discovered in the mounds of Babylonia, in the region of the Tigris, but a more natural conclusion is that Moses brought together the fragments of traditions as they were known to the Egyptians and Chaldeans, and interpreted them all in the light of the belief in the one true God. It was his faith that lifted the traditions and mythologies of all the nations to the higher level of what seems to us direct revelation. It was an illumination of his spirit, which came from the worship of the one true God, that tinged the record with a glorious light and made them shine

before the eyes. There was an imagery which was common in Babylonia and elsewhere, but the spirit was divine.

It is possible that the Bible was put together so late in history that these creations of mythology were eliminated from it, and yet it is well known that in Egypt and Babylonia fabulous creatures were everywhere present. This is shown in the story of Hercules, who overcame the bull and lion, and overthrew the Chimera. It is shown also in the story of the cherubim, which were placed in the Garden of Eden to protect the Tree of Life from intrusion. Cherubim are mentioned in Ezekiel and Isaiah, and are said to have been placed over the mercy seat in the Tabernacle.

Even Persian sculpture represents Genii under the forms of cherubim. The cherubim evidently differed little from the fabulous creatures of the heathen and pagan mythology. The Chinese depict the dragon as surmounting the roofs of their temples. The Russian coat of arms is made up of the double-headed eagle. Even the English coat of arms is made up of the lion and unicorn. The cherubim of the Bible seem to differ from them, but they may have survived in the creatures which were found in the mounds of Babylonia. Creatures which had the head of a man, the body of the lion, the feet of the ox, and the wings of the eagle, the various elements of the earth, the air and sky, and the waters under the earth combining with the face of man. Symbols like these seem to have prevailed throughout the Old Testament, and illustrated points which were important for the right understanding of the sacredness of God's presence and the difference between the heavenly powers and ordinary human beings.

Even in the Book of Revelation there is a picture of the four and twenty elders, and the Sea of Glass and the Throne of Gold, and the Pearly Gates. Such symbols are well understood, but the facts of history are all recorded in simple and plain language, and so we go back to the story of Eden and the days of Abel and find that it was real life which was described and not mythology.

V. In reference to the inventions which prevailed before the days of Noah, there is much uncertainty. According to the story in Genesis, there was a separation of the people soon after the death of Abel. The descendents of Cain are said to have gone out and built a city, which was named after the son of Cain, Enoch.

It was in connection with the descendents of Cain that polygamy prevailed. Lamech was the son of Enoch and the grandson of Cain. He took unto himself two wives, one named Adah, and the other Zillah. Adah bear Jabel who is the father of such as dwell in tents and have cattle. His brother's name was Jubal and he was the father of all that handle the harp and organ. And Zillah bear Tubal Cain, the instructor in every artificer in brass and iron. Here, then, we have an account of

the different employments and modes of life, and at the same time a description of the different inventions which appeared. It seems singular that brass and iron should have been known so early. The prehistoric record shows that a long time elapsed between the beginning of the Stone Age and that of the metal age, though copper appeared before brass or tin, and long before the age of iron.

According to the Scriptures, the age of iron was known before the Deluge occurred. The record is consistent with itself, for Noah is described as having built the ark, which was a vessel of great size, and could not have been held together except by iron. This confirms the idea that the deluge was local and not universal, and that it occurred in a region where civilization began.

We have no record of the date when brass or iron became known to the people who dwelt in the valley of the Euphrates, or even to those who dwelt in the valley of the Nile. In fact, we have very little record of the events of history in Egypt which goes back of the reign of Menes, the first king; though a figure of a boat has been found inscribed upon the rocks of Egypt, which has been by some considered as referring to the ark, but this is very uncertain.

There is a story about the Argonauts, who sailed eastward to recover what was called the "Golden Fleece." It appears from this that the precious metals were known at an early date. There is no discrepancy between the testimony of the Bible and that of Science, for archæology teaches that the use of metals came in after the Stone Age, but boats were common even in that age.

A proper explanation of the Book of Genesis is, that the first inventions appeared in the valley of the Tigris and Euphrates, though there may have been different centers in which the Stone Age grew into the Bronze Age, and the Bronze into the Iron Age. The evidence is, however, that the knowledge of bronze and iron was carried from the regions about the Mediterranean, into the lake regions of Switzerland and thus the Lake Dwellers passed from the Stone Age into the Bronze Age.

The metals give the evidences of civilization, and were in a sense the cause, for whatever the advancement may have been in other things, it was necessary that metal tools should have been introduced before boats of any size were built. The building of the ark implies a knowledge of the metals. The same is true of the cities. The first city, according to the Bible, was built by the descendents of Cain. This is a singular record, and yet it is according to the natural course of things.

The records that have come to us from the lands of the Far East are to the same effect. It was after the separation of the Accadians or Sumerians from the Semitics that the great Turanian race migrated to the north and laid the foundation

for the Chinese kingdom. The Chinese have the story of the Flood, and they claim that Fohi, or Noah, was their first great ancestor and that he established their first great kingdom. His throne was placed at the head of the great stairways and was approached from all sides, and was spanned by two rain-bows.

Water holds a prominent position among the Finns, for they have a strong superstition that a river may resent being made into a slave, when a new mill was built. Even the Romans thought that the Tiber was offended by having a bridge thrown across it. In the Kalevala, the chief of the water spirits was a dwarf clad in copper, his shoes made of stone and his helmet a solid rock. He was supposed to perform acts which required the strength of a giant. The earth was worshipped as a goddess, the wife of the bright sky. Other deities who were representatives of the forest, because the earliest home of the Finns was the forest rather than cultivated fields.

VI. The history of mythology is instructive. Castren says of the Finns, that they all look for the divine nature in the clouds of heaven, the caves of the sea, the heart of the forest, and in the hidden lap of the earth. Afterwards the divinities assumed more of a personal and human character, and became the agents who control the vicissitudes of nature, and became the rulers of the material bodies in which their presence was first suspected, and rising higher and higher by praise and worship they became in the end the great deities—the gods of the sky, the earth, the waters, and the lower regions. Casrent ascribes to the Finns the belief in a universal god, the creator of all things, who loves his creatures, knows everything and can do anything; though he has given the control of the world to inferior deities.

The weak point in the study of comparative religions is that we possess no authoritative books of primitive ages. The egg is given in the Kalevala as the starting point, but the idea was borrowed from the Brahmans. In the Kalevala we read: the lower half of the egg should be the lower part of the earth, and the upper part the sky, whatever is white shall shine as the sun in the sky, whatever is yellow shall beam as the moon, the other parts shall beam as the stars of heaven.

Rev. A. A. Gill has described the mythology of Mangia: as that the universe was like a vast cocoon shell. Such is the teaching of nature; the elements and the earth, land and water, the sea and sky are all personified and peopled with unseen divinities.

The Scandinavian Heime or home was the abode of the divinities, and was embodied in the word "Niefenheim, Muspleheim," to show that there was a home above and a home below.

The scripture narrative represents Noah as a man of great faith and piety. He is called in the New Testament the righteous Noah, and is referred to as one worthy of imitation. In

the Old Testament he is represented as a man of affairs, and one who is capable of accomplishing great things. Faith and works went together with him. In obedience to the command of God he builded the ark, to the saving of his household.

There are many traditions and myths which represent a hero who survived the Flood, and was the means of peopling the world anew, but nowhere is there a personal character portrayed which can compare with this hero of the Old Testament. He was the father of many nations, but he was also one who had great faith. Noah was a just man and perfect in his generation, and Noah walked with God. This was, however, not all the inheritance to which we would call attention, for there was mechanical skill and a state of civilization and social progress.

The most particular history of the Flood is to be found in Lucien. He says that the present race is different from those which first existed, who were men of violence and lawless in



JUPITER PLUVIUS. THE GOD OF THE SKY.

their dealings. They regarded not oaths, nor observed the rights of hospitality, nor showed mercy. On this account they were doomed to destruction; and for this purpose there was a mighty eruption of the waters of the earth, attended with heavy showers from above; the sea overflowed, until the whole earth was covered with a flood, and all flesh drowned. Deucalion alone was spared to repeople the world, which constituted at least a part of his inheritance, and which he transmitted to the descendants who came after the Flood.

These descriptions from the Pagan writers are interesting, but there are pictures which are more suggestive. There is an old engraving which gives the symbols that were common among the Pagans. At the top is the winged circles which could be seen over the gateways of the Egyptians. Below is the figure of Jupiter Pluvius, the god of storms. He is represented as having arms spread wide to either side of the face, and over

the arms is the flowing beard, which falls down gracefully, but really symbolizes the rain. This shows that he was the god of storms. The picture is interesting, but the Bible view is superior to it.

In Job God is described as follows: "He removeth the mountains and they know it not. He overturneth them in his anger. He shaketh the earth out of her place, and the pillars thereof tremble. He commandeth the sun and it riseth, and sealeth up the stars. He alone spreadeth out the heavens and treadeth upon the waves of the sea. He maketh Arcturus, Orion and Pleades and the chambers of the South. He doeth great things past finding out. Yea and wonders without number. Lo, he goeth by me and I see him not, He passeth on also and I perceive him not.

Now, here is a word picture which is grander than any that have been drawn by classic artists or Egyptian priests. The spirit of inspiration seems to be contained in it, and the works of Creation are described by it.

The Bible abounds with descriptions like this. The works of Nature and the presence of God are brought before us with great sublimity. ●

VII. The building of the ark was an event in history, but it was one which involved much mechanical skill, and which shows that there was considerable progress in the art of building.

The Book of Genesis mentions elsewhere the fact that the descendants of Seth went out and built cities, and Sanchoniatho speaks of the art of building fences as common in this early period.

There are many allusions to the Flood among all the nations of the East, and even in the midst of the pagan nations everywhere.

According to the archives of the Medes and Persians, the Flood began on the fifteenth day of the month Decius. During the prevalence of the waters Xisuthrus sent out birds that he might know whether the flood had subsided. Afterwards, when the waters had abated, he quitted the ark and was never more seen by men upon the earth.

The Greeks have a story of the Flood. This phrase, "the eruption of the waters," is significant, as it confirms the theory of the geologists, that the Flood was connected with a tidal wave and an earthquake. ●

There is another fact of history which is as important as that, for history speaks of Deucalion as being saved from the Flood by the gods. This mercy was shown to him on account of his justice and piety. The Bible and history correspond in this respect. His preservation was effected in this manner: he put all his family, his wife and sons, into a vast ark, and went

into it himself, and at the same time animals of every species, cattle, horses and lions. Whatever lived upon the face of the earth followed him in pairs into the ark. After the disappearance of the Flood, Noah came out and built an altar to God, but soon disappeared and was seen no more.

Many ancient authors inform us that the remnants of the ark were in their day to be seen on the mountains of Armenia.



NOAH AND THE ARK.*

The people of the country used to get pieces of it, and even scrape the asphaltum from it and use it for a charm. Chrysostom says the mountains of Armenia bear witness to the truth.

There are those who maintain that the emblem of the ark may be seen in the heavens. The constellation of the ship Argos confirms the story of the ark. The Greeks call it the ship Argo; the Egyptians, the ship of Osiris. The hinder part of the ship only is to be seen in the constellations, the forepart is in the clouds.

The ancients describe the ark as a "lunete." This is its shape among the Egyptians especially. The story is confirmed the Greek historians; even Plato speaks of the deluge

of Ogyges; Pausanias speaks of a temple devoted to Poseidon, the god of inundation. Poseidon was the god of the sea, but the people have a tradition that this deity brought a great deluge over a great part of the country. They call him Inachus, which is really the name for Noah. He judged the land.

Now, all this implies that there was very considerable skill in the constructing of boats, as well as in the building of cities, in the days before the Flood. Nothing is said about the art of writing. There was a tradition among the Egyptians that Xisuthrus, who was really the Noah, inscribed certain things upon a tablet which he buried, but which was dug up after the Flood and kept as a record. (See illustration.)

There are many things in the ancient mythology which remind us of the story of the Flood. The god Dagon was an

* From an old engraving.

amphibious being, half man and half fish. There are many coins and other objects which represent the whale as a symbol, others have a dove inscribed upon them. The dove was a sacred symbol among the Greeks. According to Berossus, the survivor of the Flood was called Oannes. He lived both before and after the Flood, and was represented at Babylon as having two heads. The Romans and Scandinavians show that there was an acquaintance among all the nations of the East with the story of the Flood. Herodotus says that Jason sailed toward Delphi and was carried to the sea of Lybia, and then pursued his voyage to the Euxine.

There are also symbols in use among the nations of the East, which represent the ark as a box, and above it the figure of a whale; above the whale a tree. There were coins in use among the Greeks, which represent whales with persons mounted upon them. Other coins which have crescents on them as symbols. Some have referred these to the ark as a lunet, though it is probable that they refer to the moon, rather than to the ark or the deluge.



THE ARK, WHALE AND LUNET.

Now as to the place where the ark was built: it would seem from the traditions that it was far to the East. The Argonauts went to the East for the golden fleece. The Egyptians held that the ship of Osiris was the first ship that they constructed, though the Nile was the place in which it was launched.

It seems strange that there should be so many stories about the building of the ark, and in so many distant places, for there are vague traditions concerning it, not only among the Chinese, but among the aboriginal tribes of America. These furnish evidence that the Scripture story is perfectly correct and reliable.

BABYLONIAN AND ASSYRIAN DREAM BOOKS.*

About the commencement of our era a certain Artemidorus wrote a work entitled "Oneirocritica," which is devoted to the interpretation of dreams, especially with a view to explaining what prognostications were to be derived from them, so as to warn persons against any proceeding that might hasten, or permit, the accomplishment of any misfortune of which a vision had been a warning, or to encourage them to anticipate certain happy auguries approaching *overpopavtia* if the diviner had promised such a superstition called by the Greeks *Oveiromantia*. The book may be termed a manual of necromancy founded upon nightmare, and except for the explanation it gives as to the meaning of some ancient symbols and mythological allusions, and as to the manners, customs and superstitions of the age; is of but little value.

The statements of Artemidorus, he tells us, are founded upon researches as to the interpretation of dreams by various peoples and races, information as to which he obtained by travelling among them. It is regrettable that they are the veriest rubbish; but there is a certain method in the madness of the oneiromancy, indicating that behind the series of divinations recorded by Artemidorus there must somewhere, at some period, have been a vast collection of supposed dream interpretations from which many of those he has handed down were derived.

This is the more evident because a Mahomedan writer, Abdarrahan ibn Nasr, whose work upon oneiromancy was translated into French, by Pierre Vattier in 1564, contains many similar auguries from visions of certain occurrences, and the question of the original birthplace of this branch of magic was somewhat fully discussed in M. Bouché Leclercg's "Histoire de la Divination."

We happen to know that Artemidorus' mother was a native of Daldis in Lydia and it is very probable that his interest in dreams and their application originated with stories and interpretations which she recited to her son. If this is correct it points to Western Asia as the home of much of the contents of his book.

This view has recently been completely verified by the publication by Monsieur Alfred Boissier in 1905 of a volume entitled "Textes relating to Assyro-Babylonian Divination," which was chiefly occupied with alleged auguries derived from the inspection of the entrails of sacrificed animals, and further by his

*Alfred Boissier, Dr. Phil. "Choix de Textes, Relatifs a la Divination Assyro-Babylonienne. Vol. II, Fascicule I, Genere. Henry Klendtg.

this year having printed part one of a second volume devoted to the rendering and translation of many cuneiform tablets inscribed with what he terms "Textes Oniromantiques." That is to say auguries inspired by the myriad vagaries of dreams. In his work M. Boissier frequently uses the treatise of Artemidorus in commenting upon the scores, selected from many hundreds of cuneiform tablets from Mesopotamia which treat of this branch of old world magic.

It is now clear that it is to the folk lore and priestcraft, and the "Medicine Man" of ancient Babylon, Assyria and probably Elam as well, that we owe the pseudo science of oneiromancy, or the interpretation of dreams, a form of superstition still in vogue among the peasants of many lands and favored even now by servant girls in great modern cities.

Artemidorus displays to what absurd and puerile lengths the charlatans of ancient necromancy carried divination by means of their alleged foretelling of events and explanations of dream portents. They persuaded their dupes that if informed by them of their dreams they could prescribe the course of action that would preserve them from threatened danger or guarantee good fortune. Like almost every other item of human development or superstition, commonly practiced in antiquity, this phase in mankind's history is mentioned in the Old Testament, though as with other kinds of evil practices and false teaching it is only spoken of to be condemned. In Jeremiah xxiii, 37: and Zechariah xiv, 2: the Hebrew prophets especially caution the Jews, in the name of Jehovah, against having anything to do with the interpreters of dreams. It is evident from these citations, the Old Testament authors must have had in view parallel prevalent follies and senseless superstitions similar to those that interested Artemidorus at a later era. The volumes for which we are indebted to M. Boissier throw a most illuminating light upon the reasonableness of the prohibition to the Jews of having recourse to such magical misrepresentations.

He tells us, he at present offers only a small selection from many hundreds of cuneiform inscribed tablets, that are occupied with these pretended auguries of which the whole population of Mesopotamia, so advanced in art and science in many other respects, appears to have been the credulous dupes. He says:

"L'on comprend que le champ de l'omeromancie soit infini et "je suis sûr que quand on pourra dresser le liste exacte de toutes "les tablettes de Kouyunjik qui s'y rapportant, on atteindra un "chiffre tres eleve, chaque branche a son code prevns et en- "registres, le divn a sa reponse toute prete et le consultant doit "payer comptant"

As dreams are, almost invariably, absurd in themselves, representing impossible action and situations, the diviners' encyclo-

pedia, or vademecum, for their explanation and description of what they portended, had to be founded upon an immense catalogue of every conceivable coincidence or situation.

The first series of texts M. Boissier translates possesses for title, written upon each tablet of the number of those forming that particular collection, so that if they became disarranged or mixed with other series of documents in the library, the custodian would recognize the treatise to which they belonged, the sentence "If a man in his vision is arrayed in silver."

Another compendium of explanations enumerates the consequences of a person dreaming he is crowned with gold, or with the sun, or with the stars of the milky way. A third catalogue, of course, with a prophetic explanation derived from each concept, relates to visions of eating all kinds of substances, including street ordure, asphaltum, petroleum and so on.

As can easily be imagined a most lengthy series of visions interpreted appears to have been dreams of an erotic character. The indelicacy of a catalogue of sexual relations may be dimly imagined, for such a list would contain a description of unnatural and abominable acts such as an impure imagination could conjure up, or a disordered brain, perhaps, produce during sleep.

This feature of the subject doubtless chiefly afforded the reason for the denunciation of every practice of oneiromancy, or even the consultation of its diviners and magicians by the Old Testament authors. Dreams being supposed to be so potent, if properly interpreted, for foretelling the future, just as in astrology a careful watching of the starry heavens was necessary to supply their consultants with horoscopes by the Magi, so the provoking of dreams in themselves; and doubly so if by inducing their occurrence in special localities, or under particular circumstances, their augural importance could be augmented: became a matter of moment.

To this chain of thought and class of action belong the dreams recorded by the classics and in Greek inscriptions recovered from the shrines of the God of healing, Asklepios, directing certain remedies or curative actions for the cure of diseases or sterility, which were imagined to be induced and to be enhanced in value by sleeping in the various temples of that deity. After speaking of sacrificing in gardens Isaiah 65:4 forbids the Hebrews endeavoring to promote dreams for the purpose of having them interpreted by false necromantists, by sleeping in cemeteries and lodging among the monuments, or places supposed to be spirit haunted.

The underlying concept being that the spirits of the deceased would come to revisit their bodies in the tombs, a belief universally credited in Egypt, or that in the temple, or sacred

edifice, enclosures, any intuition received during sleep would be derived from the spirit of the deity which was present at his shrine.

Among the thousands of Assyrian portent tablets is one relating to what will happen "if a man sees the wraith of his father," but this was not necessarily an apparition during sleep.

The subject of ghosts of deceased persons as illustrated by cuneiform is treated of in the "Reone Semitique" for January, 1906.

The prohibition of these malpractices by the Hebrew prophets is now proved to have been most *apropos* of the superstitions of the Semitic brothers of the Jewish race with whom they came into close contact and confirms the view that the Old Testament writings bear internal evidence of the dates at which they are stated to have been composed.

There are numerous interesting facts which come to light in the course of M. Boissier's commentary upon the cuneiform tablets he edits in this work. A curious word which occurs is *surinnu*, which was a kind of mast or perhaps a pillar, or obelisk. M. Boissier provisionally renders the word as "emblem," but other texts set forth that the *surinnu* were erected in front of the temples and one record speaks of them shining like the sun. Dr. Muss Arnold in his dictionary renders it "pillars." It is probable a *surinnu* was a pole and later a pillar, supporting Totemistic symbols, because the masts and obelisks at the entrance to Egyptian temples can be traced backward to primitive times when the tribal symbols were displayed from poles, and in M. de Morgan's work on his excavations at Susa in Elam similar emblems at the summit of masts have been found upon early Babylonian or Elamite pottery.

A curious text of 18 lines, unconnected with dreams is translated by M. Boissier. It gives a series of portents from certain acts of a king provided they occur in the month Abrahamna. The result of royal visions may be found summarized and commented upon in Rawlinson's "Cuneiform Inscription of Western Asia" in the British Museum, vol. III, 50.

A curious coincidence with Greek mythology is that a deity Ningsizida, who produced, and also cured, fevers, is associated with a star bearing the name of a serpent and upon a vase he is represented accompanied by two serpents, an evident prototype of Asclepius and another proof of the Babylonian origin of many members of the Greek pantheon. M. Boissier gives part of a tablet which preserves a list of deities and the constellations they inhabit which should be useful for the history of

*A curious record is that of the preservation of an abnormal *fœtus* in a saline solution

Assyrian Astronomy. A series of dreams concerning certain plants and trees will also be of interest to botanists,* and many terms in these texts will soon find their way into cuneiform vocabularies, and throw light upon words hitherto but partly understood; whilst scholars will doubtless explain, or correct, much of M. Boissier's work. It is upon an arid subject, but no text, however unimportant, or fragmentary if at all legible in cuneiform literature, should remain unedited and the thanks of students are especially due to those who, like M. Boissier, take up the most troublesome documents for the first time. We look forward to further texts from his great collection of copies of tablets in various museums and hope that he may some day find time to visit the stores of texts in the Yeldiz Keok at Constantinople.

JOSEPH OFFORD.

PELASGIAN RELICS FOUND ABOUT LAKE TRASIMENE.

With the beginning of the historic period in Italy, we find that country inhabited by seven different tribes, or nations.

To the north dwelt the Etruscans; to the south and in Sicily, the Siculi and Sicani; while the center was inhabited by Umbrians, Latins, Samnites and Sabines.

Before the coming of these different nations, there dwelt about the shores of this historic lake a people, aboriginals of the country, living in a semi-civilized state; great hunters and fishers, peace loving cultivators of the rich soil that to this day makes the valley below Cortona, stretching away beyond the lake to Perugia, one of the most fruitful in Umbria. The lowest tier of Cortona's walls was raised by this people, and in fact Cortona would seem to have been one of their chief cities. Here, then, before the coming of the Etruscans, or Umbrians, dwelt a branch of that race, remains of whose walled-towns are found in both Greece and Italy— that mysterious, unnamed race, called by both countries "Pelasgian" or "aboriginal."

To-day one can walk along the shore of Trasimene and in a few hours pick up some relic of this race, either spear, arrow, celt or hatchet. My attention was first called to stone relics hereabouts by seeing certain arrowheads and celts for sale in the market-places of Cortona and Perugia, and the following was the quaint reason for such sale. The women of the countryside believe that these "thunder-stones" keep away fever and ward off thunder-bolts, even as did the Romans, according to Pliny. For this reason they buy (if they cannot find) one of these celts, wrap it in cloth, and place it in a silken bag. This is generally hung up in the room, but when some unusual electrical disturbance is on, it is hastily hung about the neck of the

owner. Small stone arrow-heads set in silver are also worn. The usual material from which celts are made is a dark green serpentine, though hematite is sometimes, though rarely, met with. Arrow-heads, spear-heads and scrapers are of a dark red, white or pink marble or black, gray or yellow flint. Celts are on the average $2\frac{1}{2}$ inches long by $1\frac{1}{4}$ across the edge, highly polished and often pierced for suspension. Arrows are on the average $\frac{3}{4}$ inch in length and spear-heads 2 to $2\frac{1}{2}$ inches in length.

All arrows and spears have a tang for hafting, which was done according to one in my possession by filling in the hole at the junction of tang and arrow-shaft with a black paste resembling antimony. Arrows are always exceedingly sharp pointed, well chipped, flat weapons; hunting spears are without barb of any kind, sharp pointed, flat and well shaped. A few in this collection are the equal of any ever turned out by the best stone flaker of any country.

Hardly anything has been done in the way of scientific research in this section of the country, though such richness in mere tillage and surface finds would lead one to expect good results.

Calabria, too, into which the migration of Etruscan, Umbrian and Latin finally pushed the Pelasgian, would well repay research, for Calabria is to-day one of the richest sections of Italy in the smaller relics of this vanished race. The common type of arrow, spear and celt is here figured, and all specimens are either tillage or surface finds found in the valley below Cortona, on the shore of Lake Trasimene or in the valley below Perugia.

The following are examples of the primitive relics from this region, including three amulets; the first, an arrow-head set in copper, taken from a Roman tomb, discovered near Pozzuoli; the second, an arrow-head, set in 18th century setting; the third, an amulet in gold-stone, made in a conventionalized arrow-head form. This latter form is worn to-day.

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ARCHAEOLOGICAL CONDITIONS IN ITALY.

The great activity Italy has displayed in archaeological research within the last few years is certainly a joy to the hearts of all archaeologists. The course pursued has been very commendable, and lessons of profit have been taken from the mistakes of Greece. The Italian government has kept foreign countries and institutions at a distance and allowed them no part in the excavations. Thus since the year 1870 all remains have

either been left *in situ* or have been placed in the museums of the country.

The developments in Roman archæology within the last half dozen years have been wonderful. So striking have been the revelations made by the spade and the pick that historians have been compelled to re-write many chapters of Roman history. Many questions have been solved, but many new ones have been created. To illustrate: the Kingly Period can no longer be relegated to the realms of legend, but must now be considered as a part of history. The details are yet to be filled in, which may be done as the years roll on, provided as wonderful discoveries are made in the next few years as have been made within the years just passed.

Between the temples of Antoninus and Faustina about forty very ancient tombs have been excavated. These tombs are far below the level of the Forum, averaging about four meters in depth. They are of two distinct types, one for the reception of cinerary urns and the other for inhumation. According to Professor Boni, the tombs date from the twelfth to the eighth centuries B. C. This Necropolis extended to the top of the Velian hill, but was destroyed in great part by the buildings of Republican and Imperial Rome.

While I write, the Lacus Curtius is being carefully examined, and it is hoped by penetrating into its lowest depths that many curious objects, offerings to the youthful hero, will be brought to light. A very curious mechanism for the lifting of heavy weights has already been discovered.

Some very interesting restorations have been made: among them the Imperial staircase leading up the Palatine, by the side of S. Maria Antiqua. By the removal of some 40,000 cubic meters of earth many remains of Imperial constructions have been uncovered between S. Maria Antiqua and S. Theodore. The reconstruction of the Imperial Rostra was very difficult on account of the fragmentary condition of the remains, but by the patient work of Professor Boni the fallen parts have been put together and the cornice restored almost entirely.

An undertaking that requires almost an infinite amount of patience, and a fullness of scholarship possessed but by few men, is being brought to a successful close. I speak of the restoration of the Arch of Septimus Severus. Signor Boni has accomplished this mighty work satisfactorily as far as he has gone. The side facing the Forum is finished and the side facing the Campidoglio is nearly completed. When we consider the mutilated condition of this arch we can appreciate the great amount of labor and intelligence required to restore it.

On the Velian hill, in front of the Arch of Titus, a diligent search is being made for the Aedes Larum, built by Augustus

on the summa Sacra Via. Many buildings of the Republican times have been uncovered, with walls of tufa or reticulatum, mosaic pavements, and rooms plastered and painted.

Explorations are being made further down the Sacra Via, facing the temple of Venus and Rome, and many buildings of concrete or tufa are being found.

Professor Boni never tires in good works. At his suggestion the ex-convent of S. Franchesca Romana is being fitted up as a museum for the treasure trove found in the Forum. Here in the future, artists and archæologists may study the remains and fragments found since 1870. Here without expending a great amount of time and energy in traveling from one museum to the other, the student may obtain much information concerning the manners and customs of the Ancient Romans.

It is the purpose of the government to excavate the Forum in its entirety. The north side will be nearly excavated, it is hoped, by June, 1907. By that time the Basilica Aemilia will be entirely free from debris. Questions at which topographers can now only guess will be settled definitely by these excavations.

The activity of the government is not confined alone to the Forum, but extends to all parts of Italy. It is now the intention to excavate the site of the Circus Maximus, which is at present occupied by a gas factory. Just as soon as satisfactory terms can be arranged this factory will be moved and the excavations begun.

On the Palatine hill are many remains that could be explored if it were not for the Gardens of the Farnese. The same is true of the Caelian, but just what can and will be done with these sites I cannot say. We must remember that all this property is in private hands, and that the laws governing the transfer of property are very peculiar. But Professor Renaud informs me that the government will buy all these properties as rapidly as possible and proceed to excavate; but at this point arises another difficulty that the government cannot overcome, viz: there is not a sufficiently large number of competent archæologists to carry on so extensive operations at one time.

I have been asked if there are any virgin spots in Italy for the archæologist. The answer must be that there are many places not yet touched by the spade of the excavator, and perhaps never will be. Why? Because the places are inaccessible. For example, in the construction of a recent tunnel for street railroad purposes, some very interesting finds were made by means of lateral borings, but the super-imposed earth would not allow tunneling other than the narrow cut being made by the railroad.

When all other sources are exhausted, the Tiber will prove

a mine almost inexhaustible. What few remains have accidentally been given up by this renowned river prove the existence of priceless treasures hidden by its yellow waters.

In the Forum itself further excavations within the structures already partially explored could be pursued to great advantage. For example, the temple of Concord could be further excavated. It is known that underneath this structure were secret and strong vaults for the deposit of moneys, yet the effort has never been made to lay open these subterranean rooms. In short, many things have been left undone that could have been done, and must be done before we can say that our knowledge is as complete as devastation will allow.

Other questions are being discussed pro and con that could easily be settled by the removal of a few inches of earth, yet this earth is allowed to remain. If any monument would be imperiled by such removal, the excavators would be justified in desisting, but when there is no such danger, it seems worse than negligence on the part of the authorities in charge not to continue the excavations to a lower depth.—J. O. Kinnaman, A. M.

THE FLATHEAD INDIANS.

The grinding process of national progress has at last reached the Flathead Indian in his sunny Eden in Western Montana, and the broad acres which he has called home must fall heir to the greed and the land hunger of the white man.

The "Great Father" at Washington has decreed that the little tribe must be broken and scattered by the ruthless hand of progress by that strange force which the white brother calls development and civilization. Just what these things mean is not clear to the Flathead as he thinks over the glories of the past, but he has ever been a "good Indian," always a friend to the white brother who wandered into his far-away home more than a half-century ago, has always obeyed the voice and the wishes of the "Great Father" at Washington, and so he submits to this thing called progress with all the stoicism of his race.

The government has decreed that the Flathead reservation shall be opened for settlement, and the surveyors have done their work, and during 1906 or early in 1907 the fertile lands of the valley of the Flathead will be ready for the establishment of at least 3,000 homes of the white man. This mysterious and often relentless thing called progress has still left sufficient sentiment in the souls of many to make it impossible for them to view the dismemberment of the Flathead tribe without deep twinges of regret. Certainly progress can pause long enough to permit sentiment to cluster for a moment around the first home of the

white man in the great State of Montana, around the scene of the first missionary effort in the Northwest, around the faithful fathers who traveled more than 3,000 miles into unknown dangers of an unknown wilderness that they might carry the gospel to the hungry souls of a little band of 2,000 red men and women, even to let a greater flood of sentiment cling to old St. Ignatius, where the first messenger of the gospel of brotherly love and good will toward all men knelt in prayer for the welfare of his red brethren. If not, then certainly progress can wait while sentiment clusters around that little band of Lewis and Clark as, nearly famished and spent by a myriad of hardships, they stagger into the firelight of the tepees of the friendly Flatheads who cared for them and nursed them back to life and sent them on their history-making journey to the Pacific.

AIDED LEWIS AND CLARK.

Surely the memory of what the Flathead did for that great expedition, which but for the friendly hand of the Flathead would have ended in the Bitter Root Valley, is sufficient to give progress pause while a tear is shed over the dismemberment of a people whose kindly acts made the speedy conquest of the Northwest empire possible. On Sept. 4 last it was just 100 years since Lewis and Clark, with their intrepid band, passed over the continental divide from the headwaters of the Salmon River in Idaho to the headwaters of the Bitter Root in Montana. Sunburned, weather-beaten, hungry and ragged, they staggered into the Flathead camp, not knowing, perhaps little caring, whether food and shelter or death awaited them. Lewis and Clark named them the Ootlashoots, but they were, in fact, a part of the Selish nation, which, together with the Pend d'Oreilles and the Kootenais, occupied what is now Western Montana, and whose hunting grounds extended across the Canadian border and far west along the Clark fork of the mighty Columbia.

Lewis and Clark gave the Flatheads a clean bill of sale, so far as hospitality, honorable dealing, truthfulness and morality are concerned, and they have ever since kept it unsullied. Why they were named Flatheads none seems to know. It is certain, however, that the name bears no significance, for the Flatheads never practiced flattening the head, as did some of the Indians on the Lower Columbia. They have ever been a happy, careless people, almost wholly free from the vices of the white men, and, though never warlike, they have ever been brave, strong and fearless. Owing to the friendliness of the Flatheads, the country about their homes has been rapidly colonized, and therein has been their more rapid undoing. Had they been unfriendly and had they occasionally risen and massacred a few white settlers, the demand for the fertile country of the reservation would

still be many years off. Such, however, has been, in their case, the reward of virtue.

DECIMATED BY WARS.

Continually harassed by the Blackfeet, the Crows and other more warlike tribes, the Flatheads have had to maintain themselves at a somewhat dear cost, and it is likely that they never numbered more than 2,500. Early in the '30s and through the wandering Iroquois they heard of the "Black Robes," as the Indians called the priests. They became enthused with a desire to be taught by the "Black Robes," and they sent a delegation of four to St. Louis to induce some of the fathers to come to them. Two of the first expedition died on the way, and the others failed to return. A second and a third expedition met disaster, but at last, in 1840, they succeeded in securing Father P. J. De Smet. Nearly all of the Flatheads embraced the Catholic religion, and have remained firm believers to this day.

In 1855 the government wanted Western Montana, and Governor Isaac I. Stevens met the Indians at a point six miles west of where the town of Missoula is now located. There was executed the Hell Gate treaty ceding to the government all of Western Montana except that portion reserved for the tribes and called the Joko or Flathead reservation. Many of the Indians, however, did not like to leave the fertile valley of the Bitter Root, and the government made provision for such as desired to remain there in preference to moving to the reservation. Then came the white settler, banking upon the friendliness of the Flathead, who welcomed him in the belief which his Catholic faith had taught him that all men were brothers. Alas for the virtue of the poor Flathead. The greed of his white brother soon led to an insistent demand that the red men be moved to their reservation, forty miles to the north. It mattered not that the red man had been there for generations and had of right selected the most fertile valley in all the west country. That grinding thing called progress demanded the sacrifice, and a wise government was not compassionate enough to stay the hand of the spoiler. Reluctantly but obediently the Flatheads moved north and found homes with their brethren on the reservation, and their lands in the valley were appraised and sold to the white man and the proceeds given to the banished red man. How it is possible to justify this desecration of justice upon a people so faithful and so identified with the history of the Northwest has never been explained.

Nevertheless, again, a second time are the faithful Flatheads called upon to stand and deliver in the name of progress, or greed, and, while here and there a murmur may be heard, they are determined to obey, like the trustful and good children of the

government they have always been since the days when they saved Lewis and Clark and gave the Pacific Northwest to the United States.

The Flathead Indian reservation is one of the garden spots of the Northwest. It was chosen well, was this little inland empire with its broad valleys and large rivers, with its lakes and its great forests, with its encircling mountains ever capped with snow and with its 1,500,000-acre storehouse. Its climatic conditions are ideal. It is difficult for an Easterner to imagine an equable climate in the northern latitudes, but the reservation with its average elevation of 3,000 feet is an ideal sanitarium. During the winters the temperature rarely falls below zero. While the storms are raging in other sections the reservatoim, sheltered by the mountains and warmed by the Chinook winds, enjoys immunity. The reservation country is also in one of the richest scenic sections of the Northwest. It lies in what has often been called the Switzerland of America. The Mission Range with its towering, rugged, snow-capped peaks ever feeding the many streams of the valley with icy floods; the great inland sea known as Flathead Lake with its thirty miles of brilliant-hued waters, peopled with speckled beauties, and its shores rich in timber; the grandeur of the St. Mary's chain and the glories of the peerless Lake MacDonald, as well as a thousand other natural beauties, make the region of the Flathead a paradise of scenery as well as of fertility.—Record-Herald.



Courtesy of the Northern Pacific Railway

MISSOURI RIVER AS SEEN BY CALLIN.

A GIANT IN A CAVE--AN AUSTRALIAN LEGEND.*

Among the remote ancestors of the Girriwurru tribe there was a man of great stature and superhuman strength, whose body was covered with hair. He dwelt in a cave in a rock on the bank of the Hopkins river, in the vicinity of Maroona. The natives aver that, in the olden days, if any person went to this place, during Murkupang's absence, the water in the river would surge up into the cave's mouth, and prevent intruders from going inside. During the day he used to go out hunting round about Mount William, Moorabool, Kirk's Mountain, and Mount Ararat.

Murkupang's mother-in-law resided near him, and one day she sent her two grandchildren to see him and ask him for some food, because in accordance with tribal custom she could not herself approach her son-in-law. As he had not been successful in the chase for the past day or two, he killed the children and devoured them. Fearing the retribution of his mother-in-law's friends, Murkupang left his habitation at daybreak next morning and journeyed down the Hopkins river to a place near Wickliffe, where he tried to make a cave in a rock by pulling loose pieces off with his hands, but did not succeed.

He next went on to Hexham, where the country opens out into plains, which enabled him to see in the distance Mount Shadwell, with its rocky sides. He accordingly bent his steps in that direction and on approaching the mountain he saw a suitable cave in one side of it, but it was up near the top where the ascent was difficult. Being a great conjuror or sorcerer, he commenced "bouncing" or scolding the mountain, and commanded the portion containing the cave to come down nearer to the plain on which he was standing. He stamped his feet and made passes or signs with his hands, while he sang a magical song. Presently, in obedience to his incantations, a large portion containing the cave, parted from the rest of the hill.

Murkupang turned round and ran away across the plain, shouting to the fragment of mountain to roll after him. After a while, when he thought he had reached a good camping place, he faced round again, stamping his feet and using other menaces, which caused the mountain fragment to stop. It then settled down and became what is now known throughout that part of the country as "Flat-top Hill." At the present day the aborigines point out a depression in one side of Mount Shadwell from which Flat-top Hill was disrupted. Markupang then selected

*An abstract of this legend was published in the Proceedings of the American Philosophical Society in 1904, Vol. 43, pp. 67-68.

a part of it which was sheltered from the weather by an overhanging rock—a sort of cave—and made his camp there.

In a few days' time his mother-in-law tracked him to his retreat. She had with her two young warriors, who were clever "doctors" and had some knowledge of magic. When Murkupang went out hunting, these fighting men hid themselves a little distance from the cave's entrance—one on each side. Before taking up their positions they were smoked by the wily old mother-in-law, to repress or overpower the smell of their bodies. The men moreover covered themselves with stringybark, softened by beating, so that they could roll it round and round their bodies to make them resemble the boles of trees. These precautions were taken to prevent Murkupang's dogs from scenting them.

While these treacherous proceedings were going on, Murkupang was away hunting as far as Ngurit or Black's mountain, where he filled his bag, *muka-muka*, with kangaroos which he caught, and started homeward. On nearing his cave, he dragged a dry tree after him to provide wood for cooking the game. On coming within sight, he observed the smoke of someone else's fire not far from his own, from which he concluded that his mother-in-law had found him out. He advanced cautiously, and "sooled" his dogs to search around. He had eight dogs, comprising the soldier-bird or maina, magpie, black jay, crow, white cockatoo, eagle-hawk, and quail-hawk; some being very watchful and noisy, whilst others were very swift and voracious.

These dogs ran smelling everywhere about the camp, baying and uttering their various calls. Murkupang was so alarmed at this that he concluded he had better be generous to his mother-in-law, so he took one of the kangaroos out of his bag, and laying it on the ground, he called out to her to come and get it. He then continued his careful search about the camp, expecting to find some enemy, but his old mother-in-law had planned everything so well that he discovered nothing.

He now broke up the tree which he had carried home and made a good fire, with which he cooked a large kangaroo, and he and his dogs had a hearty evening meal. By and by he again went all round the camp, in the light of the blazing fire, jumping and assuming very obscene postures in the hope of making any hidden onlookers laugh, and so discover themselves, but there was not a sound audible in any direction. Feeling quite satisfied, he went into his cave and soon fell fast asleep, and so did all his dogs, being weary after a long day's hunting.

As before stated, the two warriors who were assisting the mother-in-law, had coiled stringybark around their bodies from head to foot, and being somewhat of magicians, they had then given themselves the appearance of real boles or high stumps of

stringy-bark trees. There being plenty of other trees of that species growing in the locality, they were not noticed by Murkupang. After a while, upon receiving a sign from the old woman that all was quiet, the men divested themselves of their covering, and walking to the cave, stopped up the entrance with the stringy-bark. A fire was then applied to this inflammable material, which made a great flame and suffocated Murkupang and his dogs. His spirit flew out through the blaze and became a mopoke, called by the natives *mumgatch*, a bird which goes about at night. His dogs also emerged from the cave and assumed the forms of the birds whose names have been already mentioned.



MANDAN VILLAGE

THE PROGRESS OF THE INDIAN.

When the first settlers from Europe came to this country they found the Indian uncivilized and pagan. The French and Spanish were among the first, in connection with their colonies, to work among these natives for the purpose of civilizing and Christianizing them. In Florida, Texas, New Mexico and California they had prosperous missions. About 1643 Thomas Mayhew labored for three years with success at Martha's Vineyard, followed by his father and other members of the family for five generations. Before this time John Eliot began to preach to the Indians while pastor at Roxbury, Mass., doing so through an interpreter. His support for his Indian work came from a society in England. In 1643 the legislature of Massachusetts passed an act for the propagation of the gospel among the Indians, and in that year

Eliot began preaching at Nonamtum, now Brighton, without an interpreter. He was the first to translate the Bible into the language of the Indians. Great good was done under his labors. About 1740 several distinguished ministers in and about New York City appealed to the Society for the Promotion of Christian Knowledge, of Edinburgh, to take up work among the Indians of New York, New Jersey and Pennsylvania. The society appointed a commission with power to choose two missionaries. Azariah Horton was the first chosen, who was sent to Long Island, where he did great good.

According to the last census there were 249,273 Indians in the United States, including those in Alaska. Most of these were in the Indian Territory and on other reservations. The various Protestant denominations have been vigorously prosecuting work among these various tribes. Churches have been established, schools conducted, and various efforts have been made to teach the Indians the industrial arts, and to wear them away from their ancestral life. The most noble instance is that of Metlakhatla, in Alaska. One of the chief obstacles in the way of progress has been the government itself. Its policy with the Indians has been a vacillating one. It has made treaties only to break them. "They have been allowed to be the prey of rapacious speculators in land and thievish traders." These traders carried the deadly "fire water" to the Indians, proving, as it does everywhere, a great hindrance to the spread of the gospel. But, through the efforts of the Indians' Rights Association, the impassioned writings of such authors as Helen Hunt Jackson, and the work of such schools as those at Hampton and Carlisle, public sentiment and public policy have greatly changed, and the Indian is now coming into his rights as an American citizen. One of the notable things is the refusal of the people of the Indian Territory to enter statehood unless the sale of intoxicants were prohibited in the new State. The Commissioner of Indian Affairs says: "The Indian is passing out of our national life as the painted, feather-crowned hero of the novelist, to add the current of his free, original American blood to the heart of this great nation."

ORIENTAL DEPARTMENT.

EDITED BY DR. CHAS. H. S. DAVIS.

PROPOSED EXCAVATION OF HERCULANEUM.

In spite of the discouragement Dr. Chas. Waldstein received from the Italian Government two years ago, he has by no means given up his scheme of excavating Herculaneum. After long negotiations his plan for excavating this long-buried city under international auspices has been accepted in principle by the Italian Government. The delay has had to do with the control of the excavations, which is to be unconditionally Italian. Dr. Waldstein has obtained the active co-operation of King Victor Emmanuel of Italy, as president of the organization, and has, furthermore, had the assistance and support of Emperor William, King Edward and President Roosevelt. Dr. Waldstein is an American, though holding the professorship of Fine Arts at Cambridge. He began the preparatory work of forming his organization for the purpose of laying bare the hidden secrets of Herculaneum some two years ago, when the project aroused considerable interest throughout Europe and America. Despite political opposition to the scheme in Italy, where it seemed at first that the attitude of the Italian Government was one of unwillingness to permit any other country to take part in work of this character, the concession has practically been obtained, and the work will doubtless be inaugurated in the near future.

The work of digging up the ancient city, destroyed by an eruption of Vesuvius in A. D. 79, was begun by King Charles III. in 1738, and it was continued under the direction of the Italian Government in 1806. This excavation has always been attended with the greatest difficulty, as over the ruins of the ancient city there stands to-day the town of Resina, with 20,000 inhabitants. The location of Resina has often made it necessary to abandon the research work. Had the work gone further, undoubtedly the streets of modern Resina would have fallen in. In 1889 feeble attempts were made to repair a subterranean theater discovered, but from that time to this day Herculaneum has remained as it was in the awful moment when utter destruction came upon it, and it was buried with its fair sisters, Pompeii and Stabiae.

Dr. Waldstein's undertaking means immense labor. Pompeii suffered only from the rain of coagulated ashes, falling in soft pebbles without much admixture of water; so that as soon as the worst was over the returning citizens dug down where the walls of ruined temples and houses marked their sites and looted

most of the buildings of the great part of all movable treasures. Not so with Herculaneum. There a very different material drowned the town. An enormous mass of Lapilli, full of sulphur and of ashes, fell on the slope above the doomed place and at the same time terrific sheets of water came down. This mass was fluid enough to roll down the slope and literally obliterate Herculaneum with a sulphurous mud, in some places a height of sixty or seventy feet. While this material was not glowing lava, it penetrated courtyard and buildings and incased everything in a mass which became hard as concrete. It is the toughness of the envelope, not its depth, which has made the mining of Herculaneum a puzzle to treasure seekers for nearly two thousand years. To excavate the city will be a very costly and laborious task, unless chemistry discovers a method to soften and loosen the concrete in some reasonably economical way. The chemical problem may be complicated by the mixture of sulphur, chloride of iron and other elements which must have accompanied the downfall of water and ashes.

Prof. Seinazzola suggests that, inasmuch as Herculaneum is buried at a much greater depth than Pompeii, the excavation be pushed beneath the surface, leaving the concrete crust in place to form a roof over a vast cavernous museum. The villas and their rooms would stand undisturbed; the mural paintings, the statuary, the libraries in their original places; the streets would stretch out as they did when the chariots of patricians rolled along them.

Herculaneum must contain treasures a hundredfold finer and more valuable than those of Pompeii when the latter was overtaken—and it has never been plundered. Herculaneum, of distinctly Hellenic foundation, was a far more representative home of Greek art and literature than Pompeii, for the latter was purely a commercial city. The slight excavation which so far has been carried out at the site of Herculaneum has produced vast numbers of specimens of art and literature, one villa alone yielding 1,750 papyri. Some of the bronzes recovered are in a far more beautiful state of preservation than the majority of those from Pompeii. The latter city, though much influenced by Hellenic culture, was never a real center of Greek civilization, such as Herculaneum, and, doubtless, the excavation of the latter will bring forth priceless treasures of the literature and art of antiquity. The ruins of Pompeii have not furnished a single manuscript; Herculaneum, practically unsearched, has already given us a large library—medical and scientific, to be sure; further investigation will no doubt bring us substantial additions to classical literature.

The value of these hidden treasures the wildest imagination is not likely to exaggerate. As a writer has said, here is an

important classical site locked up in a perfect preservative—hardened volcanic mud—a site that has never been sacked by armies, rifled by pilferers, or drained by the insistent demand of wealthy amateurs. The history of archaeology hardly affords a parallel. The excavator of to-day breaks into an unknown Pharaoh tomb only to find that a sneak-thief had preceded him by a thousand years. The Greek marbles of ancient Rome are mostly in the mortar of the mediæval city, but here are the summer homes of cultured Rome of the Augustan period and earlier, only awaiting the careful use of the pick and spade.

The Rome *Tribuna* has published the conditions decided upon by the Central Committee of Fine Arts and Antiquities, under which it will accept the offer of foreign pecuniary aid in the excavation of Herculaneum. The *Tribuna* explains that the difference of opinion at first manifested among the members of the committee was due to the feeling that the original scheme proposed would have given excessive power of interference to foreigners, "from the heads of States downward." The committee, however, has now unanimously decided to accept aid on the following terms, which, in the *Tribuna's* opinion, safeguard the national dignity of Italy:

"First—That the subscription shall be of a private character, without any official intervention in foreign countries.

"Second—That the funds shall be administered by an international committee sitting in Rome, of which the King of Italy shall be honorary President, and the actual President some one nominated by him.

"Third—That the Executive Committee on Excavations of Herculaneum shall be composed of a number of foreign members, chosen from countries which have contributed to the fund, and of the same number of Italian members; the President of this committee shall be an Italian, and all its members, both foreign and Italian, must be nominated by the King of Italy on the recommendation of his Minister of Public Instruction.

"Fourth—That the first publication of all scientific and artistic material obtained shall belong to the Italian Government and be made at its expense, though the Minister of Instruction shall be empowered to invite Italian and foreign savants who do not belong to the Executive Committee to take a part in that publication.

"Fifth—That the foreign members of the Executive Committee may, on the responsibility of its President and with proper safeguards, permit students of their own nationality to be present at excavations.

"Sixth—That the whole production from excavation shall be the property of the Italian Government. This shall not prevent the Italian Government from giving to the States which have

most largely contributed some specimens of objects found, in case of those objects being in duplicate and such a concession not injuring national collections."

Rev. Melvin Grove Kyle, D. D., has received an appointment on the staff of Professor Naville, for the work of the Egyptian Exploration Society for this coming season. Professor Naville, of the University of Geneva, has long been acknowledged one of the foremost Egyptian explorers. He has spent twenty-two seasons in Egypt, pursuing his favorite task, and, on the continent and in Great Britain, his conclusions are accorded with such consideration and weight as are probably given to no other living Egyptologist.

The demolition of the Porte de Rome at Salonica has revealed a veritable archaeological harvest. The pedestals of the pillars are engraved with forty Greek and Latin inscriptions, which prove that Macedonian cities were Greek and not Bulgarian, as some historians have earnestly contended.

Reviving a thousand-year-old industry, several capitalists and scientists of England propose to introduce a formidable competition in the paper-making trade of both the United States and Great Britain. These men won't care whether the forests of the world are in the hands of a paper trust. They will manufacture news and book as well as wall paper and kindred articles out of papyrus. The papyrus farms will be in Egypt. The cultivation of this plant has been extinct for more than a thousand years. H. E. Winter, secretary of the newly formed papyrus syndicate, says: "We have been working on one scheme for years, and Smedley Norton, author and explorer, was commissioned to revive the seventh century papyrus reed. The Nile grass, commonly known as papyrus, is not the real thing. Mr. Norton discovered true papyrus reed near the River Jordan and the Sea of Galilee and cultivation was begun.

"We have a great tract of land on the Nile," says Mr. Winter, "and Mr. C. B. Clarke, the botanical expert of Kew Gardens, has certified that our plants are the real papyrus. After exhaustive experiments, Dr. Querin Weirtz, consulting chemist and analyst, has produced the most admirable pulp. A committee of experts has outlined for us all the methods for cultivation and paper manufacture, and we are now going ahead. Papyrus grows in water from seven to ten feet high. We gather three crops a year. Our land is irrigated by the Nile and is only plowed every five years. We shall begin manufacture of paper in the spring, when we will have 100,000 tons of papyrus ready for the market. Experiments have proved that the yield of

papyrus pulp, after bleaching, is much larger than esparto pulp and exceedingly strong. We expect to use it for the manufacture of all the things now being made out of paper.

Prince Albert of Monaco has undertaken the publication of a work dealing with engravings and paintings on the rock walls of caves dating from the later palæolithic age. The first systematic student of this art, Emile Riviere of the College of France, presented at a late meeting of the Académie des Inscriptions his own series of reproductions in photogravure and plaster casts of the chief examples found by him. At another session Abbé Breuil, whose work is aided by the Academy's subsidies, gave a summary of results obtained in six caves. Other investigators are MM. Cartailhac, Capitan, Duleau and Senor Del Rio. The entire collection of these art representations gives a certain completeness to our knowledge of the environment of the men of the later Old Stone Age in Western Europe.

At Sinai, Prof. Petrie found that a vandal mining company, organized some time since for the exploitation of the ancient turquoise mines, had destroyed in the most wanton and reckless manner, by blasting, numbers of the inscriptions cut in the rock and of the steles. They had also taught the natives how to blast, and it seemed likely that before many years absolutely none of these ancient ruins would remain intact. On Prof. Petrie's representations, his associate, Mr. Currelly, was commissioned by the Egyptian Government to cut out all the rock inscriptions which were accessible, and these pieces have now been transferred to the Museum at Cairo as the only means of preserving them.

Contents of the *Proceedings* of the Society of Biblical Archæology, Vol. XXVIII, Part 6. The Chedor-Laomer Tablets, Prof. A. H. Sayce. Two statuettes of the Godless Buto, Dr. Valdemar Schmidt. The Babylonian Gods of War and their Legends, T. G. Pinches. An Assyrian Incantation against Ghosts, R. C. Thompson. A Bronze Figure from Rakka, H. S. Cowper. Some Munich Coptic Fragments, H. E. O. Winstedt.

The work of Mr. D. G. Hogarth at Ephesus has brought to light one of the most valuable pockets of antiquarian treasure that has yet been discovered, whether artistic, archæological, or contributory to the history of religion. Although much has been unearthed of various dates in the great temple, the present treasure includes approximately 4,000 objects, which must be attributed to dates roughly comprised between 700 B. C. and 600 B. C.—that is, they antedate the time of Cræsus. The Artemesium excavated last year is not the Temple of Diana of Ephe-

sus, which was the scene of the exploits of Demetrius and the silversmiths. That was a much later temple, the seat of a more decadent form of worship. When on exhibition, the articles collected will be classified by their materials—jewels and crystals, amber and beads, bone and ivory, articles made with gold, silver, and electrum. The kernel of the treasure is the abundant stock of personal ornaments mostly made of the precious metals, but some also of bronze and lead. There are more than a thousand of these made of gold and electrum alone, with a small quantity of silver. They range from heavy bracelets, chams and earrings down to the most minute trinkets. There is a wonderful collection of repoussé gold plates, evidently intended to be sewn on dress materials. Some patterns which are of the purest design and highest artistic value are multiplied to serve the purpose of embroidery on a very rich dress. The objects are all destined for the museum at Constantinople.

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Dr. E. Littmann has published a valuable series of studies entitled *Bibliotheca Abyssinica*, devoted to the language, literature and history of Abyssinia. The first part in the series is contributed by the editor and deals in a scholarly manner with the Legend of the Queen of Sheba in the tradition of Axum. The second part in the series contains a critical study of the text of the Ethiopic version of the Octateuch, with special reference to the age and value of the Haverford Codex, and is the work of Dr. J. Oscar Boyd.

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The first part of a very valuable work by Dr. Bruno Meissner has been recently issued, under the title *Seltene assyrische Ideogramme*, as part one of the twentieth volume in the *Assyriologische Bibliothek* edited by Prof. Delitzsch and Prof. Haupt. The book may be regarded as supplementary to Dr. Brunnow's "Cuneiform Ideograms," and its appearance is largely due to the great amount of new lexicographical material which the trustees of the British Museum have recently made available for students by means of their publication of "Cuneiform Texts."

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A new theory of the origin of the Canaanite Alphabet has been put forward by Prof. Fr. Praetorius of Halle. He is of opinion that the oldest forms of the letters of this alphabet, which originally must have had syllabic value, can be brought in close connection with certain signs of the Cyprian writing; in fact, that at least eleven of the twenty-two Canaanite letters have directly sprung from the Cyprian or from a syllabary previous to it, which was in use in Asia Minor, and from which the Cyprian itself has originated.

The new director-general of the Department of Antiquities in Italy, Dr. Corrado Ricci, is to push the excavations in Pompeii, which were interrupted more than ten years ago because the excavators had reached privately owned land. Dr. Ricci has set aside 38,000 lire for the purchase of such land.

Objects of considerable archæological value, consisting of a number of bas-reliefs, have been discovered at Yozghat, in Asia Minor, in the course of excavations undertaken under the surveillance of Magridi Bey, of the Imperial Ottoman Museum at Constantinople, and Dr. Hugo Winkler of the University of Berlin. These reliefs, with their inscriptions, are said to throw light on the civilization of ancient Babylon.

The excavations for the unearthing of the Roman theater at Verona are being energetically carried out under the direction of Prof. Gherardo Ghirardini of the University of Padua, and yield interesting results. The theater occupies an area of 15,000 square meters. Soon this important monument will be freed from all the small houses which for a long time have grown up like mushrooms over the site. Only the little church of Santi Siro e Libera, which was erected in the ninth century A. D., among the imposing ruins, will be spared.

A recent number of *Der Alte Orient* contains an article by Dr. Otto Weber entitled "Damonenbeschwörung bei den Babyloniern und Assyern." In it the author summarizes the results obtained from a study of the published texts, preserved in the British Museum, which deal with the subject of demonology as practiced among the ancient Babylonians and Assyrians. He gives many quotations from the texts.

Inscriptiones Latinae Selectae, H. Dessau, Vol. II. Pars. II, Berlin. Weidmann. This fascicle completes the second volume of Dessau's collection. It contains inscriptions of *Collegia*, sepulchral inscriptions, and inscriptions on *amphorae*, lamps, and other movable objects. The classification is systematic, the transcription exact, and the annotation clear, precise and marked with good judgment. The whole work will contain 8,983 inscriptions, more than one-twentieth of all the Latin inscriptions.

One of the most interesting periods in the history of Southern Italy, the scene of so many superimposed civilizations in the ancient world, is that of the Phœnician dominion, of which so few remains are known. To those that are known, however, there is shortly to be added another, of the first order of historical and archæological importance. On the island of San

Pantaleo, off Marsala, lies buried the Phœnician town of Mozia, and Commendatore Whitaker of Palermo has resolved upon laying bare the ruins. Certain preliminary excavations have been made which give an earnest of the splendid results that may be expected. The magnitude of the undertaking may be inferred from the fact that the walls, several of the towers surmounting which are still visible, made a circuit of wide extent.

Conspicuous among the portions already brought to light are two of the town gates, one to the northeast and one to the southwest, corresponding to the known towers, and a curious battlement built with semi-circular blocks. Perhaps the most curious of all is an archaic town's gateway, with an inner inlet worked into it, similar to the Kothon at Carthage. Much of the building was done with blocks of colossal size. The work of excavation is being directed by Prof. Salinas, Curator of the National Museum of Palermo.

The trustees of the New York Metropolitan Museum of Art have established a department of Egyptian art, and have appointed Albert Morton Lythgoë as its curator. The Museum, in making this new departure, hopes to increase its scope and develop its present collection of Egyptian antiquities by having excavations conducted in Egypt. Funds have been privately contributed for excavations and the purchase of material to round out the Museum's collection on such sides as are not adequately represented. Mr. Lythgoë sailed for London in November, and after visiting Berlin to purchase equipment, is now in Cairo. His work will cover the main field of representative Egyptian art, and excavations will be made in cemeteries known to contain the material desired for the Museum.

Dr. von Lecoq, who has been traveling in the most remote parts of central Asia on a scientific mission with which he was charged by the Russian Government, has arrived at Spinagar, capital of Kashmir, with an important collection of archaeological discoveries. These include several highly interesting paintings upon stucco, with gold leaf backgrounds, like Italian work, and a number of manuscripts in ten different languages, one in a wholly unknown tongue. It is considered that this is probably the greatest archaeological find since the days of Sir Henry Rawlinson and Sir Arthur Layard.

What would appear to be a most important archaeological discovery has been made at Formiæ, near which place Cicero was assassinated nearly twenty centuries ago. This discovery consists of remains which are thought to be the tomb of the great

orator. They stand on a hill dominating both the Appian and Herculaneum Ways.

Mr. Théodore M. Davis has sent forth another large volume describing his excavations at Bibân el Molük, opposite Thebes, particularly the exploration of a rock-cut tomb, which proved to be the tomb of Hatshopsitu. Mr. Davis contributes the introduction. Dr. Edouard Naville writes exhaustively upon "The Life and Monuments of the Queen," and Howard Carter, the inspector-general of the Service des Antiquités, furnishes a "description of the finding and excavation of the tomb." The entrance to the tomb has been known from time immemorial, but its interior had not been explored for many centuries, and no one knew whose tomb it was. The outcome of the labor spent in excavation was the determination of the ownership of the tomb and the finding of the sarcophagus of Thothmes I., and that of his daughter, the great Queen Hatshopsitu (Hatshepsut: Hatasu). These magnificent memorials are now in the Cairo Museum. This book is published in folio by Archibald Constable & Co., London.

The *Bote aus Zion*, the religious quarterly which for nearly a quarter of a century has been edited in Jerusalem by the representatives of the famous Syrian Orphans' Home of Father Schueller, publishes in a recent issue an account of splendid synagogue ruins unearthed by the expedition of the German *Orientgesellschaft* at Tel-Hum. This is the probable site of the New Testament Capernaum, and some savants are confident that the remains are those of the very synagogue in which Christ himself preached his first sermon and performed some of his notable miracles. The structure was a massive building, almost square in form, with two parallel rows of columns through the middle. Only one side, the eastern, has been preserved in a comparatively satisfactory condition; but this is richly decorated with architectural ornaments of a distinctively Jewish type.

Some months ago the Emperor William, at the suggestion of his representative in Abyssinia, Dr. Rosen, sent out an expedition to that country, the first report from which has just been made to the Academy of Sciences, in Berlin. The members of the expedition have been at work in the old city of Aksum, have prepared a plan of the city, have examined the rich ruins there found, have re-examined the old inscriptions, and have discovered a number of large new inscriptions, which have been copied and are now in a shape to be studied. These latter take the history of Abyssinia back to the fourth and fifth centuries before Christ.

The excavations which the German Archaeological Institute undertakes every autumn at Pergamon are being carried on as usual under the direction of A. Couze and W. Dörpfeld. Some of the finds will help to fill gaps in our present knowledge of the history of Pergamon. The work is going on at four different points. The greater part of the laborers are clearing the largest gymnasium of the city. This will be the third building of the kind discovered at Pergamon. The two already known, situated on the south slope of the hill, were used by boys and youths for physical exercise. The newly found building, by far the most magnificent of the three, was devoted to the exclusive use of grown men. Another task is the opening of several artificial mounds in the plain of Pergamon, while a third group of men is busy with the bridge which once spanned the river Selinus. The myth that the arch is the invention of the Romans is still widely spread; it is of great interest, therefore, to find that at Pergamon this construction was used in various forms in the second century B. C., when Pergamon was still untouched by Roman influence. Mr. Grüber, an architect, is investigating the remains of the ancient aqueducts. The number of aqueducts at Pergamon is astonishingly large, and some are of extremely interesting construction.

Part I of Vol. IV of the Series A: Cuneiform Texts of the Babylonian Expedition of the University of Pennsylvania, is devoted to "Babylonian Legal and Business Documents from the time of the First Dynasty of Babylon, chiefly from Sippar." By Hermann Ranke.

The one hundred and nineteen tablets here published have been taken from the different collections which were bought for the University. Part II of this volume will contain the tablets which were excavated by the University Expedition of Pennsylvania. The tablets in the present volume were written in the city of Sippar, about sixty miles north of Babylon, on the banks of the Euphrates. As the tablets here published represent a space of more than 250 years, a development of the script from more complicated similar forms is very noticeable. With only a single exception, all the rulers of the first dynasty of Babylon are represented, and besides the recognized kings of the dynasty, there are found three rulers represented whose names are not found in the lists of kings. The tablets refer to contracts, decisions of the court and memorandums, lists, etc. The tablets belonging to the first and second classes being legal documents, invariably contain the names of a number of witnesses who were present at the legal act. While men occur more frequently than women in the list of witnesses, the women play quite a conspicuous rôle among the contractors. A number of men and women occurring in these

texts are old acquaintances from the London and Berlin tablets. As to their nationality, it is evident that the majority of them are Babylonians. There are also found a number of West-Semitic names. Says Dr. Ranke: "The language in which these documents are written is, in general, the Semitic Babylonian of Hammu-rabi's Code. How far this language is the old Babylonian (of which we know very little), and how far it is influenced by the West-Semitic admixture to the older population, is a question that at present can be asked, but not answered. At any rate, the Sumerian language has ceased to be the means of communication."

(Philadelphia: Published by the Department of Archaeology, University of Pennsylvania, large quarto. Pp. 79, with 84 plates.)



CHINESE TEMPLE

FOLKLORE OF SOME ABORIGINAL TRIBES OF VICTORIA.

BY R. H. MATHEWS, L. S.

There is a fascination in the folklore of any people, more especially of a primitive race such as the Australians. The following specimens have been selected from a large number of stories obtained by myself direct from the mouths of the aborigines. As they have never appeared in print, I am submitting them for publication.

Throughout the folk tales of the Australians we find the proclivity of the native mind to account for any specialties of animal structure or peculiar habits, as well as the remarkable forms of lakes, rivers, trees, hills and other natural phenomena. Mythologic ancestors and fabulous monsters form a conspicuous element in their legends. Some of these magical beings reside in the mountains, others in dense scrubs, others in the clouds, whilst others again have their abode in deep water holes.

Whether in human form, or in "questionable shape," these creatures of aboriginal fancy or exaggeration were possessed of supernatural powers. Some of them could form watercourses; some could cleave mountains asunder and make hills from the material; others had the power of causing springs to burst forth, and trees and rocks to rise out of the ground. Some of them were assisted in their work by magical weapons and wonderful dogs.

In different scientific journals in America, Europe and Australia, I have published grammars and vocabularies of the languages of the aborigines of Victoria, as well as describing their sociology—their initiation ceremonies—and several other customs.

HOW SNAKES BECAME POISONOUS.

In ancient times the turtles had fangs the same as the snakes of the present day, and their bite was poisonous. They lived mostly in the water, as now, and were very fond of young eels, which at certain seasons formed a great portion of their diet. They went out on the dry land and laid their eggs, which were deposited in the grass, similarly to the way ducks build their nests. The blackfellows of those times used to track the turtles and take their eggs when the mother turtles were away, for the purpose of eating them. The turtles consequently had a great "down" on the blacks, and when any of them came to the margin of a waterhole to drink, by dipping their mouth into the liquid, a turtle glided up and bit them on the tongue, so that large numbers of them died. Their best warriors often tried to

spear the turtles, but the latter always carried a large shield on the back and another on the chest, from which the spears glanced harmlessly aside. This method of defense was so impressed upon the turtles that they still carry their armor in the same way.

In their extremity, the blacks held a meeting and decided to consult Thuron, a notable person among the Plover people. It so happened that Thuron was also very fond of eels and was consequently no friend of the Turtle family, whom he looked upon as poachers, so to speak, upon his hunting grounds. Thuron was ambidextrous and carried a fish-spear on each shoulder when he went fishing. He frequented swamps and shallow streams where eels were plentiful, and never hunted for any other kind of food. He was a very agile fellow and kept a sharp lookout along the edge of the water. When he saw an eel on the right or left side of him he impaled it with the spear, which he carried in that hand, and threw it out on the bank. He ran along the edge of the water and stood a little while looking carefully for his favorite fish; if none were visible he again ran on and stood watching. He continued running up and down a stream, or around a lagoon, until he had caught as many eels as he required. Then he took them home to his camp, and while cooking them he kept on singing, "Pittherit! pittherit!"

Thuron used to paint his breast and the under sides of his arms with pipe-clay, so that the eels might not readily observe him. This is why the plover still carries the point of a fishing spear on either shoulder and likes to remain near water, painted as he was in the olden time. He also continues his old habit of running a little way and standing still, then running on again. And he still sings his ancient song, from which he has received the onomatopœic name of Pittherit.

When the blackfellows laid their complaint about the turtles before Thuron, self-interest exerted its usual influence, and he began to cogitate. The blackfellows, as well as the turtles, had a great predilection for eels, so that if he could devise some way of injuring both parties, it would be to his own advantage. Thuron suggested that the blacks should allow him a little time to think the matter over and arrange his plans, to which they readily assented. He then went away into the bush to consult his old kinsman, the tiger snake, who was one of the "headmen" among his people. In those days snakes were not poisonous and the blackfellows used to hunt them without fear, because they had no means of defending themselves.

Thuron told his friend that if the snakes could exchange their heads for those of the turtles, they would then be able to bite and kill blackfellows, and so punish them for all the mischief they had done to the tribe. The old snake took Thuron to the

private council place and the suggestion was unanimously agreed to, provided the consent of the turtles could be obtained.

Next day Thuron interviewed some of the leaders among the turtles, and enumerated the many advantages of swapping heads with the snakes. For example, a snake being so much more active than a turtle, could travel all through the bush, hiding in the grass and biting blackfellows as they passed along. By this means the turtles would obtain much more effective vengeance upon their enemies than they could ever hope to accomplish themselves. Moreover, Thuron told the turtles that they could make little burrows in the soil, in which they could lay their eggs and cover them over, out of sight of the blackfellows. He said that young turtles would come out of the eggs when they heard the rumbling of thunder and join their parents in the water. This way of hatching their eggs has been continued by the turtles to this day.

The matter of exchanging heads having been arranged to the satisfaction of both parties, Thuron was appointed to carry out the metamorphosis. He mustered all the turtles and snakes near the margin of a lagoon. First he cut off all the heads of the snakes, laying the heads in one row and the bodies in another. Then he decapitated all the turtles, making a row of the heads and another of the bodies. Next, he put all the snakes' heads on the bodies of the turtles, and as he did so they glided away into the water. Finally, he attached the turtles' poisonous heads to the bodies of the snakes, who went off hissing through the long grass. In consequence of this exchange, the heads of turtles bear a close resemblance to those of snakes to the present time. (Tribes of Southwestern Victoria.)

In the mythology of the aborigines of Victoria there are a great many fabulous stories about the exploits of two young men named Brambambult, who are represented as having gone about through the northwestern districts of that State, punishing the enemies of their tribe in various ways. In 1904 I published abridgements of several of these legendary tales,* and now submit a few fresh ones.

NGURRAU, THE TURKEY BUZZARD.

Ngurrau was a formidable character and lived out on a sandy ridge on the edge of a plain. He used to kill blackfellows who came to his camp, to supply himself with meat. He had three wooden shovels, *wurrau*, with handles about two feet six inches long, which he used in both hands. One day the two Brambambult brothers went to Ngurrau's camp to see what had become of several of their friends who had gone there visiting. Ngurrau was out hunting when the brothers reached his place,

*Journ. Roy. Soc. N. S. Wales, Vol. XXXVIII, pp. 364-376.

but upon seeing the shovels and a heavy club lying there, they suspected that he had them for no good purpose. The elder of the brothers, who was a great magician, lifted the shovels and drew a ring round the handle of each one with a quartz crystal which he always carried, and sang a charm. This was done so that when Ngurrau next attempted to use them the handles would snap off at the magic circle.

After a while Ngurrau returned, laden with yams and other things, which he at once commenced to cook. He said to his visitors: "You two can sit beside each other on the windward side of the fire, so that the ashes may not blow upon you while I am getting supper ready." When they were seated, he took one of his shovels and tried to throw the hot coals upon them, but the handle broke close by the blade. He grasped a fresh shovel and renewed the attack and the handle snapped in the same way. He took up the third shovel and the handle broke like the others. He then gripped his big club, *ganni*, but as soon as he swung it round to aim a blow at the Brambambults it likewise snapped in two, because it had been subjected to the same sorcery as the shovels. Seeing that his weapons all failed him, he took to his heels, but the brothers ran after him and killed him, after which he became a turkey bustard as we see him now.

DYIRRI-DYIRITCH, THE WILLY WAGTAIL.

Dyir-i-dyir-itch (or Jirri-jirritch) had a camp out in the bush, close to which he dug a pit, which he covered with small sticks and bushes, with sand strewn upon top, so that it could not be distinguished from the surrounding surface. In the bottom of the pit was a strong spear standing perpendicularly, with its sharp point upwards. If a blackfellow came to see him, Dyirri-dyiritch asked him to come and play at the game of wrestling. If the man said he could not wrestle, or that he did not wish to play, Dyirri-dyiritch kept on asking him over and over again, until at last, to get rid of the importunity, the man would consent. Dyirri-dyiritch was an expert wrestler, and when he got a good grip of his opponent, he kept shoving him towards the pit and threw him on the middle of it. The man fell heavily through the fragile roof and was impaled upon the spear hidden underneath. Dyirri-dyiritch then killed him and feasted on his flesh as long as it lasted.

After a number of men had disappeared in this way, Buipur, the turtle, who lived at Lake Lalbert, was asked by his relatives, the Brambambults, to go out in search of the missing men. Buipur was a clever fellow and always carried a large, light shield. When he arrived at Dyirri-dyiritch's camp he saw indications of blood on the ground. Dyirri-dyiritch asked him what he had come for and he replied that he was passing by

and just called, but would not be able to stay long. Dyrri-dyirritch persuaded him to come and wrestle and Buipur was getting the worst of it. When he found the ground giving way under his feet, he tried to jump in the contrary direction, but the point of the hidden spear just caught him on the rump and cut out a piece of flesh. If we examine the hinder part of any turtle now we can see the nick which was taken out by the spear. Buipur then said he had had enough, and went back to his own camp.

The next day he met the Brambambults near what is now Swan Hill and told them he had found the place where the men were killed, and reported his own experiences. The Brambambults started for Dyrri-dyirritch's camp, and when he saw them approaching about sundown he got some food ready for them. They told him they had plenty of cooked emu flesh and grubs in their bags and did not need anything to eat. When morning came Dyrri-dyirritch challenged them to wrestle. "Very well," said the elder brother, "I'll wrestle with you first." Dyrri-dyirritch said he would sooner play with the younger brother. The latter accordingly accepted the challenge and they commenced to wrestle. Dyrri-dyirritch threw him, but he sprang to one side as he was falling and so missed the spear. Young Brambambult tackled him again, and after a lot of struggling he threw Dyrri-dyirritch right upon the point of the spear and broke his back. The elder brother then drew Dyrri-dyirritch out of the hole and told him to go away and be a willy wagtail. These birds have a habit of throwing up their tails at a sharp angle, the result of the broken back of the olden time.

GRAPKILL, A LARGE HAWK.

Grapkill was another old warrior who replenished his commissariat from straggling blackfellows, and otherwise made himself troublesome. I have mislaid my notes of the doings of this man, as well as others, but the Brambambults went out and changed him into a large brown hawk.





A BABYLONIAN DIVINITY.

EDITORIAL.

MYTHOLOGIC ART.

Whether ornaments grew out of religious symbols, or vice versa, is an unsettled question.

Ornament is generally based on the symmetry of the objects of nature, but religious ornaments are so common that one is led to think that mythology is the real source. We, to be sure, find in Egypt and Assyria that mythology had an effect on ornaments, for the sphinx and the centaur are certainly mythologic, as are the winged circle, the serpent, the Dolphin, the Eagle, and even the Lion, the Ram, and the Griffon. There are also many geometrical figures, such as the circle and square, the lunette, the ellipse, the oblong panel, the star-shaped panel, the enclosed panel on one side and on the other, the bracket, the cornice, the trapezoid, the parapet, the terminus, the bannister, which are purely mechanical or architectural, and are neither mythologic nor imitative; the capitol, the scroll and the shaft may be either architectural or decorative, for the capitol may have the shape of an acanthus leaf, and the shaft may be in the shape of the human figure. Ancient art, however, implies the belief in super-human beings, for the palaces of Babylonia were ornamented by great, massive animal figures, which had the wings of birds and the face and head of human beings. These show the effect of early superstitions.

There was, however, a form of art which was even ruder, and more primitive than these.

It is true that man at the earliest date practiced funeral rites and believed in future life, but all we can say of his moral condition is, that as long as he was uninstructed, he was really without the sense of guilt, though he might have been haunted with vague fears.

Traces of primeval funeral feasts have been found in the caves of the mammoth age. The natives on the Red River believe that the departed spirit partakes of the visible material which is offered, as food, for the objects deposited are broken to let the soul out. In the caves of Mentone, in the reindeer age, the bones of the dead were painted red; even in North America the natives often bury the bones, sometimes the entire skeleton, in a deposit of red ochre. Many people believe that death is a rebirth, and so the mummies of Peru and the bodies of the burial grounds of Illinois were doubled up as they appear in the uterine life, before birth. The idea is that the earth is the common mother of mankind, and at the same time there is a belief that the sky is the father and the earth the mother. At the beginning both were

together, but were separated, when the sky was lifted into its arch, but the earth was left supine and the stars began to shine between the two. The human faces on the walls of caves in Spain have eyes and mouth, ears, and breasts. Caves are ornamented with pictures of mallets and flint hatchets, all of which show that there was a belief that a life began, in which the same tools were to be used, as well as the same food. The custom of burying the wives of deceased chiefs with the bodies, and the custom of burning the body of the wives with their chiefs, shows a belief that they are to be mated in the future state.

The Pagan mysteries gained a new significance in the early history of Christianity. The history of prehistoric archaeology and folk lore, along with comparative ethnography tells us that if we would construct the early forms of religion, we must examine the beliefs of the uncivilized tribes, while studying the elements given by the historic.

Not so long ago the celestial bodies were personified, and stories were told of their presence. The patriarchal age was full of these manifestations. Angels appeared to them, not only in their dreams but while awake.

Images have been discovered which represent an ancient divinity bearing in one hand a mace and in the other an emblem of the lightning. This would naturally represent an ancient nature divinity, just such a divinity as the Greeks imagined Jupiter, the god of thunder, the god of the air, and as the Scandinavians represented their god of thunder. This figure itself confirms the opinion of the ethnologists about the great Indo-European race, a race which included Germans, Romans, Greeks, Assyrians and Hindus, all of which had myths about the thunder god.

PRIMITIVE MUSIC AND EARLY SONGS

In Africa the bushman sings while he dances, swaying his body in strict time. When dancing, he leans upon two sticks, as the dirt is generally too low for him to stand erect. The Kaffirs remain seated, but making violent motions. They compare the sun to a bird who wanders alone through the sky. One improvises songs and the party joins in the chorus, as they sit in a circle around the fire.

Among the Doreeras the custom is to imitate the customs and attributes of animals, as they are familiar with oxen, and own large numbers of them. The Kaffirs have three subjects for their songs, war, cattle and a libration for their rulers. In Zanzibar a single person beats the drum, but dancers surround him and

move backward and forward, keeping time with hand clapping and foot stamping. In Dahomey the King dances at festivals which precede human sacrifices. The people of Madagascar are passionately fond of music. The Chinese had music at a very early date. They have a hymn preserved from time immemorial. The Chinese melodies are a series of horrible noises. They scrape, scratch and strike their instrument but really produce a terrific din.

Messrs. Spix and Martius tell of a pantomime in Brazil, in which, with lamentations the actors attempt to pluck a flower from a tree, but fall down insensible.

As to what musical instrument was the first to be invented there seems to be a difference of opinion. Some have maintained that the drum was the most ancient. The drum, however, is a compound instrument and is made up of a number of inventions. It differs in this respect from the whistle, the flute and other wind instruments. The flute or hollow tube seems to be very primitive, but the shell horn was more so. The shepherd or the hunter have a flute which is nothing more or less than a whistle. In Peru there are many musical instruments and a certain class has it for their mission to keep the instruments and the annals of the nation. To the teachers was assigned the duty of keeping the national calendar and practicing music. They possessed a shepherd's pipe made of four reeds. Their four notes were the air, tenor, bass and contra bass. The Patagonians have funeral notes. The performances of the Indians of the Amazon consist of processions, masquerades, and animal pantomimes.

In Central America Sherzer found a primitive fife and a drum consisting of a piece of wood beaten with a stick eighteen inches long, and a tortoise shell, which was also shaken as a rattle. It is a strange anomaly that the Indians had an ear trained to harmony, and that their voices would blend when they sang in concert. With the Chinese there is no such concord. It is impossible to work out a melody unless there is a harmony of voices. The most primitive harmony is the combined blending of melody with the keynote. The essence of melody is the sense of tone which is felt rather than sung. There is this difference, however, that the savage never changes from the minor to the major key, even when there is abundant occasion for it. The Indian will sing his funeral song in the minor key, but when he sings the song of triumph it will continue in the minor key.

The drum, the fife, the flute and the lyre may have been contemporaneous, though some may think that they follow the succession of the stone, bronze and iron ages.

Drumming is certainly a primitive music, and may continue through all the ages. Humboldt maintained that the use of reeds marked the three periods in the life of a nation, but bone flutes

existed long before the reed flute, and even before the reed arrow. The original flute was a bone, and its tones were used first as signals and calls. In Tahiti flutes and fifes and flageolettes are found in all conditions and stages of culture. The Kaffirs use their fifes for calling cattle, as the hunter uses his whistle for calling his dog. Catlin found among the Indians a whistle, a deerskin flute, and an instrument called the migrating whistle. Brown speaks of an Indian flute, in ancient Mexico, with six notes. An Iroquois youth always plays a certain melody when he wants to entice his beloved from the hut, but the most common panpipe seems to be found in Peru.

Mr. Ives found in Mexico an instrument like a clarinet. Rattles are used as musical instruments by many primitive races. On the Columbia River the Indians used the skin of a seal filled with stones. The Missisauga Indians used a gourd filled with stones, but the Indians of the Amazon used a tortoise shell. In Virginia several rattles were so tuned as to make the bass, tenor, alto and the soprano.

The bell was originally a rattle, but was afterward used as a musical instrument. Hawk bells, so called, have been found in all parts of America and are supposed to be prehistoric.

Gardner, after studying the Fox collection of musical instruments, was of the opinion that the bell was of Chinese origin. The "Hawk Bells" may have been borrowed from the Chinese.

The drum, however, was a primitive instrument, but was more widely distributed than either the reed or the bell; still it was not known in Australia or the Fiji Islands, but in Greenland it was the only instrument.

The Papuans, the Dyaks and the New Guinea Indians had several kinds of drums. In Tahiti the largest of their drums were placed in front of their temples.

Nearly every people has its own style of drumming. The American Indian has one style, the Chinese another, the Papuans another. It is not the rhythm which has to be marked by the drum. In some cases the drummer is careful to get a peculiar note which he uses in the performance, but in every case the rapidity or slowness of the drum would indicate different sentiments. The kettle drums would be used for lively music and quick action, while the bass drum is usually used as an accompaniment to other instruments.

The bull-rarer is another instrument which was common in America. It is not so named, but it might be called the whizzer. It is found among the American tribes as well as New Zealand and West Africa.

As to the use of stringed instruments, there is more uncertainty. The idea of producing tone by rubbing one stick with another is not new, but the stretching of strings over an arch re-

quires more art. As to the existing of marches among the savage races, it is uncertain. Dances were conducted with the tones all in concert. The use of several drums at one time was also common. The very fact that dances were accompanied with voices pitched at different keys is significant. The primitive orchestra was where a conductor led with an audible stroke, but the Indians used a notched stick, drawn over a resounding medium. A vast number of really beautiful instruments once existed in Central America, and in them we find the remains of a high state of culture.

Whether the musical art ranked as high as the plastic or the poetic is not the question, for there is no doubt that there were many musical instruments in use in prehistoric times. The Aztecs had a number of musical instruments; some of them were shaped like birds, others in the shape of reeds and vegetable products.

In Chiriqui there are wind instruments made the same as the Aztecs, in the shape of an animal, the mouthpiece being the tail.

As to the breadth of the scale, there seemed to have been a difference between the lower and the higher races. If we compare the modern songs with those of the savage races, we find that the latter is confined to two or three tones or octaves and rarely rise beyond these.

There are tribes who have made no advance, but have remained stationary ever since the stone age.

It is surprising how often the song is in the minor key. The music of the Australians, the Tasmanians, as well as the American Indians, was generally in the minor key. The songs are marked by sudden and sharp variations of the voice. Among the Indians the song begins in a slow and solemn style, gradually joined by other voices, who quicken the time and the music until the voices reach the highest pitch, and the motions become the quickest, but the key remains the same.

It is not true, as some hold, that the minor key corresponds to a sad frame of mind. Savages will stick to the same tone with which they have begun. The two keys do not correspond to two different qualities of feeling.

There is no distinction between the two among the untrained.

As to the first and earliest appearance of music, an ancient pipe in the stone age had the first four tones. An instrument from Mexico had the first four tones. The flutes of the Iroquois had the first five or six diatones of the scale in minor.

Still it is strange how many things are held in common by both the civilized and savage, to express the natural feelings of the human heart. The Hottentot mother will caress her child and sing, kissing all the parts she is going to sing about. The civilized mother will do the same.

The evidence of archaeology is that ancient music had reached a high stage. In the tower of the Temple of Teotihuacan various musical instruments were placed. There was a peculiar custom among the priests of the temples. They at certain seasons submitted to a bloody scourge; next they plunged naked into water, and raised cries in imitation of water fowl.

In America music was common among all the tribes, even at the time of the discovery, though each tribe had its own song, and its own peculiar instruments.

The history of music among the civilized races is also very interesting.

The Roman legions took delight in music. Venice was a musical center in the Roman period. With the introduction of Christianity music played an important part. In 1745 the statutes of St. Boniface forbade secular hymns in church. The Christian Fathers forbade heathenish songs, and histrionic shows.

Folk songs were common at an early date. The Minnesingers were great lovers of music and lived during the middle ages. The Knight of Oswald was one of the last.

In India music was practiced at a very early date. Sir Wm. Jones says that certain tunes were connected with certain times and seasons, but concludes that they knew nothing of harmony. Their songs are fit to frighten wild animals. The songs of the Siamese, on the other hand, have a melancholy expression, but are full of repetitions. As to the music of the ancient nations, little is known. The Arabs consider themselves the natural successors of Orpheus. The most primitive musicians are the Ainus. They are fond of singing at their festivals. The words of their songs are numerous, but their melodies are monotonous and accompanied by hand clapping.

In Java music has attained a high standard. In the Philippines music was attended with the sounds of drums and whistles, yet it is reported that a chorus of girls was performed in a charming manner. The Figis are fond of dancing and song. The Tongas sing while at work, and have dancing accompanied by their voices, as well as by instruments. In Tahiti music is monotonous. In New South Wales the natives are fond of singing while paddling their canoes. (See *Geschichte der Museen in Wien*, by Von Dr. Joshua Montuni, Adolph Hausen Moffinson, Vienna, *Musical Instruments in Chiriqui*.) Some of the earliest wind instruments are found in Chiriqui; flutes and flageolettes are made of pottery. The various Indian tribes of the Mississippi Valley had musical instruments in the form of rude flutes. Their tone was generally plaintive and somewhat monotonous.

LULLABIES AND WAR SONGS.

The songs which were sung to children, thousands of years ago, seem to be echoing in the air, even to the present day. They were not confined to any race or locality, but were as common among the savage races as among the civilized.

Among the Sioux Indians the lullabies are in use to-day as they were before the time when the white man appeared. The Sioux are supposed to have migrated from the far East as a branch of them can still be seen east of the Allegheny Mountains, but they carried their cradle songs with them.

The natives of Tahiti have historical ballads, and the children are taught the songs referring to the achievements of the gods. The desire for regular rhythm seems to be universal with the human race. The Indians of different tribes in Wisconsin, at an early day, were accustomed to gather in their camps, or near their villages, and dance by the hour, all of the time keeping up a sort of monotonous song. The motion of the body and feet corresponded with the cadences of their voices. These songs were not always commemorative of events, or even inspired by mythology, but resembled more the lullabies which were sung to children.

Catlin has given pictures of the Mandan Indians, who gathered at the camps and sung and danced, assuming different attitudes as the dance proceeded. In some of these dances, the performers imitated the attitudes of some of the animals, exercising their imagination, as well as their bodies, as the song proceeded. One picture is given in which the dancers assume the very attitude of the buffalo. The war songs differed from those used in their dances, for in these natives would take their various weapons in their hands and imagine themselves in the very midst of battle; they would hold the weapons high in the air, brandishing them; at times they would rush out, strike a tree or post with the weapon, imagining they were attacking an enemy; in that case their imagination was so excited that their passions were aroused, and they were ready to go out and attack the enemy wherever it was to be found. Imagination had great power among the uncivilized races.

The lullabies show that natural affection was strong, but the war songs show that passions were fierce. We read about the Indians' councils, where bargains were made, treaties entered into, but even the councils were swayed by those who had the gift of oratory. All of these peculiarities of the native tribes are disappearing and they are becoming civilized. On the other hand, the civilized are somewhat in danger of changing places with them.

MODERN GYMNASTICS AND GREEK GAMES.

It may be that the trials of strength and the contests which are witnessed by such crowds, near all of our universities, are in a measure copied after the old games of the Greeks, who were a cultivated people; but if so, they lack the grace and symmetry of the Greeks. There is certainly less contrast between the lullabies of the Indian mother and the cradle songs of the white woman than there is between the Olympian games of the Greeks and the gymnastics of the universities. These seem to furnish a common ground for the descendants of the whites and the young men among the Indians. This does not prove that the young men are deteriorating, or that the Indians are improving, but the songs are not so far apart either in their sentiment, their poetry, or even their melody.

Is it a return to Greek culture? Are we receiving the graces which were supposed to have prevailed in Greek civilization, or is there to appear a culture, which is better than the native American and even better than the Greek? What is the ideal? The lullabies will continue in our homes. The little children will be nursed in the lap of indulgence, but what is the standard which the young men have placed before themselves? Does the inspiration come from the war songs? Or is there a standard of manhood and self-control better than has ever appeared?

PALEOLITHIC MAN.

Paleolithic man swarmed from the great Plateau of Central Asia, which was in later times the home of all the tribes which invades Europe, India and China, a race now quite as extinct as the mammoth. There are, however, no such drawings in America as has been found in the caves of Asia, Africa and Europe. In Africa iron followed immediately upon the stone age, which, in Egypt, Algeria and Morocco has left a slight record for itself. In Egypt copper and bronze intervened between the stone and the iron, the same as in Europe. Fohi made weapons of wood.

Primitive Flint Implements found on the plateaus are distinguished from those in the valley. They are the prototypes, for they are rude and peculiar types. The majority of the valley implements have been made from large flints. Here there are old workshops and gravel flints, green-coated, and lanceolate forms similar to the Danish javelins, or spear heads. The Plateau Heights were at a paleolithic period frequented by man from the valley drifts.

BOOK ON MAGNETISM AND THE COMPASS.

Petrus Peregrinus, author of an *Epistola de Magnate*, written in 1269, before the time of Marco Polo, was held in high esteem

by Roger Bacon. He carried forward Bacon's teaching about the magnet. He described three new instruments. The first was a floating compass, furnished with a line and a circle divided into degrees. The second was a pivoted compass or needle, the third was a wheel with a loadstone pivoted so as to revolve around the tops of teeth iron, fixed within a surrounding rim. It is believed that as early as 1260 the declination of the compass had been discovered.

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BOOK REVIEWS.

The Apostolic Age in the Light of Modern Criticism, by James Hardy Ropes, Professor of New Testament Criticism and Interpretations in Harvard University. New York: Charles Scribner & Sons, 1906.

It appears from this book that we are not confined to the Book of Acts for our knowledge of the apostolic age, for there are many side lights. The state of the civilized world was favorable to the spread of Christianity. It was but a step from the evangelical to the apostolic period, but the contact with paganism outside of the Jewish Dominion opened a broader field.

The work of Paul extended to Antioch, Asia Minor, Greece and Rome. Ephesus, Corinth, Athens were ancient cities in which civilization had reached a high stage, but Paganism was dominant. The worship of the old gods, which were the successors of the strange nature divinities of the Babylonians and Egyptians, prevailed in all the cities. Poetry and mythology, rather than history or theology, ruled the minds of the people. The Christian church came into existence with the Sacred Book in its hands, and the various systems of Paganism began to pale before them, as the stars do before the rising sun. These facts are brought out clearly by the writer, and we believe that the book will have a tendency to confirm the faith of the Christian.

The Religion of Ancient Scandinavia. By W. A. Cragie, M. A.

The Mythology of Ancient Britain and Ireland. By Chas. Squire.

Magic and Fetishism. By Alfred C. Haddon, London. Archibald Constable & Co., 16 James Street, Haymarket, London, 1906.

"The Origin of Man," by G. W. Pool, of the Methodist Book Concern, Cincinnati, Ohio.

These little books are timely, for they bring us into contact with the various systems of religion which prevailed in Scandinavia, in ancient Britain and Ireland, in Africa and Australia. The first two bring us into contact with systems which are familiar, for the gods of Scandinavia were very similar to the ancient gods

of the Greeks. From them the names of the days of the week are derived. They erected special buildings to worship their gods, and the Sagas furnished descriptions of the temples and holy places. The gods of the Welsh and Irish are not so familiar.

We come upon a vast number of names which are very strange and seem outlandish. We come in contact also with giants, witches and wizards. The story of King Arthur is better known. Still, the mythic history of Britain is very obscure. *Magic and Fetishism*, by Alfred Haddon, carries us far afield, and brings us into contact with nations and fields which are comparatively unknown.

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The First Peopling of Polynesia Is Described in An Article in the Am. Jl. of Philology, Vol. XXVII, No. 4, by Wm. Churchill.

This occurred in successive streams, along a chain of islands parallel to the Australian coast, at an indefinite time in the past. This is the first settlement of the Central Pacific Islands. A second wave followed. This caused the first war between the Islanders. Afterward came the historic age, and the great voyages. In these, the canoe fleets, pushed eastward from Rarotonga, to Cook, Gambier, Hervey Island, and to Tahiti. The stream then swept north to the Marquesas, and to Hawaii. Other fleets sailed southward to New Island. Samoa was the clearing house. All this occurred long before the discovery of America, but how early is unknown. A Polynesian population in the islands of Fiji, Tonga and Samoa appeared at an unknown date. Few are the tongues of uncultured men which have been heard over so wide a dispersion as this of the Polynesians. If we use the term Malayo-Polynesian, we may point out upon the maps such a dissemination of a single speech as no other language could show, until the fleets of modern vessels, scattered the indo-Germanic speech abroad. Madagascar marks the western limit near Africa. The Easter Islands mark the eastern landmark near South America. The southern part of New Island carried it down nearly to the antarctic circle. To the north the fires of Pele in Hawaii, and the loneliness of Guam, as well as the Philippines, mark the boundary of the language. The Polynesian tongue shows little modification from outside influences. No other family of languages have made such light contributions to modern culture. The English has borrowed the two words, tabu and tattoo. The languages of this family are one structure and of a common vocabulary, but have varied dialects and constructions. The Moori, the Samoan, the Hawaiian are as far apart as the English, Dutch and High German, or even as are the French, Spanish and Italian. The work of analysis of Polynesian speech has progressed to a point where we are warranted in announcing that the Samoan opens a plain and simple path to a higher step. The Samoan lies between the Mouasalavic and the Agglutinative. The Samoan has been reduced to writing. Mr. Tregear has published a Maori Polynesian comparative dictionary. This dictionary shows that the capacity for the abstract conception was possessed by this primitive people, though phrases were crystallized, and the language was generally concrete. It offers something more primitive than the root in other linguistics. Still there is (1) a law of vowel progress, (2) a law of consonant mutations, (3) a law of conditional changes.

Polynesian speech gives us a new point on which to stand in Philological studies, with a view of the simple sound of elemental

sounds, which are in concord for the use of human speech.. The concrete is a special characteristic of these languages.

The Hebrew religion, from Moses to the establishment of Judaism, under Ezra, by W. E. Addis, M. A., London, Williams & Norgate, 1906. From a nomadic to an agricultural state. From this to the giving of the law, and to the days of the prophets mark the stages through which the process of evolution of religious thought passed, as it is embodied in the Bible. This progress is marked by the influence of divine inspiration, as well as by the advancement of society from a lower to a higher stage of civilization.

The documents which are named J. and E., form the oldest part of the pentateuch. They are believed to have been reduced to writing somewhere about 750 B. C.

RECENT PUBLICATIONS.

Books on Comparative Religious Myths of Greece, by Geo. St. Clair, two volumes, Williams & Norgate, London, 1901.

Primitive Constellations, by R. Brown, Jr., two vols., ditto.

Myths, Ritual and Religion, by A. Lang, two vols., by Longmans, Green & Co., N. Y., 1901.

Modern Mythology, by A. Lang, Longman.

Evolution of Man, Watts & Co., London.

The Hubbard Lectures, by Duke Alviella.

Religion of the Semites, by W. Robertson Smith, W. & C. Black, London, 1901.

The Golden Days of the Renaissance in Rome, by Lanciani, 21 shillings.

The Evolution of Culture, Ed. by J. L. Myers.

Science and Future Life, by James Hyslop, Putnam Sons, New York.

Primitive Music, by Richard Welschok, Longmans, Green & Co., London, 1893.

A critical rendition of the Hebrew Bible has just been issued. It is called Kittel's Biblia Hebraica.

American Antiquarian

VOL. XXIX.

MARCH AND APRIL, 1907.

No. 2

THE BEGINNINGS OF HISTORY.

BY STEPHEN D. PEET, PH. D.

One of the most remarkable things about the Bible is that it begins with the story of the Creation, and draws a most sublime picture of the process which took place during the six days or periods in which the world was prepared for the abode of man.

This work took place in successive days or ages and involved great changes on the surface of the earth, the creation of man being the last and crowning work.

Such is the first record, but history cannot be said to have begun at that time, for history concerns the activities and improvements and changes made by man, after the work of creation was finished. It was after the seventh day that man began his career, but even then there was no history, for history implies a record, and there could be no record until there was the means of making one by writing or otherwise. In fact we may say that history did not begin, until about the time of the Deluge, a time when great improvements had been made and much skill had been acquired.

I. There are, to be sure, traditions which have been handed down from antediluvian times, but we have to wait until the human events had actually taken place, before a record could be made. We see, then, the value of these records which constituted the "beginnings of history," for these we find are confirmations of the story which is contained in the Bible, and are striking illustrations of the correctness of the Mosaic account. It is true that the pagan records are tinged with vagaries and monstrosities which prevailed in the so-called sacred books of the heathen and pagan nations, but the very contrast teaches us to prize the Bible story all the more. The record, to be sure, is confined to the first four chapters of the Book of Genesis, but it is confirmed by all parts of the book after these.

The third chapter of Genesis begins the history of the human race, a history which has been marked all the way through by temptations, and by sins and violations of the laws of God. The story of Cain and Abel brings before us the

division of the two classes, for the descendants of Cain, who went out and built a city, were wicked, but the descendants of Seth were called the sons of God. The next record is that the sons of God saw the daughters of men that they were fair, and took to them wives, all which they chose, and from them the race of giants arose.

Whether alphabetical characters were in use or not, the traditions show that ancient records were kept even in antediluvian times. The testimony comes from Babylonia that tablets were buried before the Flood, and afterwards dug up and preserved as a record of the past. But we need not go to these ancient tablets, for if we look up to the sky we shall find the golden letters which reveal to us the condition which prevailed before the Flood. For, we see not only the image of the serpent in the north, but of the harp and lyre and chair, near the zenith, and recognize the fact that there were inventions and signs of progress long before the constellations were read in the sky. Lacouperie has shown a very early connection between the civilization of the Euphrates Valley and China, and that the lunar zodiac was Euphratean in its origin.

Schliemann also found evidences of civilization at Troy, for images of the bull, ox, horse, cow, dog, goat, eagle, serpent, fish and lion were common there. He also found that the constellations appeared on the shield of Achilles, but the shield of Hercules bore a mighty serpent with the heads of twelve snakes. Astronomy and arithmetic came to the Hellenes from the Phœnicians, though the Hittites were known to have migrated from the Persian Gulf even before the Phœnicians. The very symbols and weapons which they carried in their hands, showed that they were just coming out from barbarism.

II. There are, however, besides the traditions many things that give hints as to the early condition of mankind and his progress toward the historic stage. Among these, we may refer to the symbols which were mingled with the mythology which prevailed. The symbols and the myths, however, corresponded



THE SERPENT AND TREE IN INDIA

closely, and together indicate the condition and beliefs of the people in those early days.

The figures embodied in the constellations also show that there was a progress from savagery to civilization among other races, for the bear and the serpent are seen near the north pole, but the ship and the chariot, the lyre and the harp are found on the ecliptic. In fact the history of human progress may be read in the images which have been exhumed, as well as in the star pictures in the sky, for mythology was embodied in both.

The great Chinese dragon, so conspicuous in every public and private edifice, as well as on the national banner of the Chinese Empire, indicated everything that was sacred and the stamp and symbol of royalty. It was blazoned on all the temples and the furniture of the houses, and interwoven in the vestments of the chief nobility. The mystic serpent extends into the mythology of every nation of Greece and Rome; was worshipped by the Druids, and is found among the mounds and monuments of America.

This symbol which is seen upon the surface of the earth, as well as in the sky above, perpetuates the Bible story, and illustrates the antiquity of the serpent symbol. The Bible furnishes an account, that as far as it extends is perfectly true, for it is perpetuated by the constellations of the sky as well as the mounds and monuments of the earth, and was known to the prehistoric tribes of America, as well as to the historic people of Asia. They have been traced out by many in modern days, and their strange shapes have often excited wonder, though those who are familiar with the mythology of the Eastern nations have readily understood their meaning and realized their source.

The symbols were not all confined to the earth, for the constellations in the sky are full of them, and these furnish information as to the religious beliefs which prevailed, as well as the stage of progress which had been reached. We recognize, also, the belt of Orion, who stands like a giant in the sky.

The period in which these constellations were drawn on the scroll of the heavens above is supposed to have been very early, perhaps as early as the time of the Flood, or at least as ancient as the monuments, which have been so long buried. They, however, illustrate the skill of man and his capacity.

A common supposition is that musical instruments are modern, but we read in Genesis that even before the Flood, the tiller of the ground and dweller in tents and the owner of cattle were all nomads, and that Jubal was the father of all such as handle the harp and the organ. Tubal Cain was the instructor of every artificer in brass and iron, the forerunners of modern tools.

It should be said here, that the Mosaic story of the Deluge is not the only historic account, for recent discoveries have shown that there were tablets contained in the palaces or

of the Greeks. From them the names of the days of the week are derived. They erected special buildings to worship their gods, and the Sagas furnished descriptions of the temples and holy places. The gods of the Welsh and Irish are not so familiar.

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There is no ornament more common in prehistoric, savage, Egyptian, Assyrian or medieval art, than the zigzag or chevron. At least two thirds of all conventional ornament is based on its lines. It has been regarded as a symbol of lightning, of serpents, bats, butterflies, frogs and human figures. The same uncertainty prevails in reference to the patterns.

The First Peopling of Polynesia Is Described in An Article in the *Am. Jl. of Philology*, Vol. XXVII, No. 4, by Wm. Churchill.

This occurred in successive streams, along a chain of islands parallel to the Australian coast, at an indefinite time in the past. This is the first settlement of the Central Pacific Islands. A second wave followed. This caused the first war between the Islanders. Afterward came the historic age, and the great voyages. In these, the canoe fleets, pushed eastward from Rarotonga, to Cook, Gambier, Hervey Island, and to Tahiti. The stream then swept north to the Marquesas, and to Hawaii. Other fleets sailed southward to New Island. Samoa was the clearing house. All this occurred long before the discovery of America, but how early is unknown. A Polynesian population in the islands of Fiji, Tonga and Samoa appeared at an unknown date. Few are the tongues of uncultured men which have been heard over so wide a dispersion as this of the Polynesians. If we use the term Malayo-Polynesian, we may point out upon the maps such a dissemination of a single speech as no other language could show, until the fleets of modern vessels, scattered the Indo-Germanic speech abroad. Madagascar marks the western limit near Africa. The Easter Islands mark the eastern landmark near South America. The southern part of New Island carried it down nearly to the antarctic circle. To the north the fires of Pele in Hawaii, and the loneliness of Guam, as well as the Philippines, mark the boundary of the language. The Polynesian tongue shows little modification from outside influences. No other family of languages have made such light contributions to modern culture. The English has borrowed the two words, *tabu* and *tattoo*. The languages of this family are one structure and of a common vocabulary, but have varied dialects and constructions. The Maori, the Samoan, the Hawaiian are as far apart as the English, Dutch and High German, or even as are the French, Spanish and Italian. The work of analysis of Polynesian speech has progressed to a point where we are warranted in announcing that the Samoan opens a plain and simple path to a higher step. The Samoan lies between the Mousalavic and the Agglutinive. The Samoan has been reduced to writing. Mr. Tregear has published a Maori Polynesian comparative dictionary. This dictionary shows that the capacity for the abstract conception was possessed by this primitive people, though phrases were crystallized, and the language was generally concrete. It offers something more primitive than the root in other linguistics. Still there is (1) a law of vowel progress, (2) a law of consonant mutations, (3) a law of conditional changes.

Polynesian speech gives us a new point on which to stand in Philological studies, with a view of the simple sound of elemental

temples of Babylon which were older than the days of Moses. In fact Moses wrote after at least a thousand years had passed, and long after writing was known both in Babylonia and Egypt. This, however, does not conflict with the view that he was inspired, for his description shows plainly that he had a belief in



AN ANCIENT WARRIOR.

the personality of God, and had inherited from Abraham and the patriarchs a view of God's covenant which was entirely different from anything which the pagan writers had either adopted or transmitted. History implies a record, but there could be no record until there was some method of writing, or some method of transmitting information, other than the word of mouth.

These constellations show the mythology which prevailed, and give hints as to the real beliefs of the pagan nations of the earth, but they also show the con-

trasts between pagan and christian nations. We speak of the stars as golden letters, and they are such, for they show the glory of God as recorded in His works and suggest the grandeur of His presence and the beauty of His throne. His trailing garments are seen in the evening sky, and His shining presence is suggested in the brightness of the setting sun.

All of the works of creation existed long before the page of history was opened, and yet it is doubtful whether the power and presence of God was felt and known, as it is at the present time when history has made such progress. The revelation of God is contained both in His works and in His word, and there is no reason why man should not be able to read God's will in both. These, however, are only the shadows of His presence. They existed and were recognized in prehistoric times, but history and revelation have shown the personality of God, even more than have His works.

We do not need to go to Egypt, or Babylonia, or Phœnicia to find pictures or familiar symbols, for we may see in the sky objects which remind us of the beginnings of history. We learn from the constellations in the sky, as well as the monuments upon the earth, about the mythology which prevailed long ago in the lands of the East. The constellations are full of mythology, but the monuments are often full of symbolism. We are conducted back to the period of the first separation of

families up to the Deluge, or even beyond that, to the time when the post-diluvian race made but one people, and it is not improbable that astronomy or astrology was cultivated previously to the Deluge itself. Sir David Brewster says:

"From the general view of the astronomy of the ancients, the evidence necessarily led to the conclusion that the rules and facts of the Egyptian, Chaldean, Hindu and Chinese astronomy are but the wrecks of a great system of astronomical science, which was carried to a high degree of perfection in the early ages of the world."

The constellations reveal to us the stage of progress which prevailed in those early days, for we recognize the harp and the lyre and the chair, as well as the horns of Taurus, the ox; the belt of Orion, and the form of the twins; though we find that the constellations of the Egyptians were different from those of the Greeks, for the Theban tomb presents a series of animal figures such as the hippopotamus, the crocodile, the tiger and lion, all of which were the totems of the different tribes.

There were, however, certain constellations, such as the great bear, the serpent and the pleiades, which were as well known to the North American Indians as they were to the ancient inhabitants of the East.

There are allusions to the constellations in the Book of Job, which show the effect which was produced by these figures even upon those who had recognized the work of God's hands. The constellations carry us back to the earliest period of history, and give to us a sense of kinship even to the pagans, which learned so early to depict the objects with which they were familiar in their own houses. It is not merely to the nations of the East, which are mentioned in the Sacred Word, such as the Egyptians, Babylonians and Assyrians, or even the Greeks and Romans, but such far off nations as the Chinese and the Japanese that we are carried by the study of the stars.

Mr. Norman Lockyer has given a star map representing the precessional movement of the celestial pole from the year 4000 B. C. to the year 2000 A. D. He says: "The first bit of solid information bearing upon ancient Egyptian constellations was gained at the temple of Denderah. This temple was pointed within a few degrees of north. At the northeast corner of the temple is a device to represent the sunlight falling on a statue of a goddess of the shrine. Investigations have shown that the zodiac has reference to a great many celestial phenomena of the utmost importance, but brings out the fact that it is impossible to disconnect the Egyptian mythology from astrology. The stars represent different mythological personages sailing along in boats. Above them we get half the zodiac, the signs of the ram, the bull and the twins. In the center of the zodiac we have a jackal and the Little Bear, the thigh and the Great Bear. Now, from these constellations we learn what animals

abounded in Egypt and Babylonia. One mythological form represents the hippopotamus and jackal. These carry us back to a time 7,000 years ago, and show not only the changes which have taken place in the sky itself, but upon the face of the earth." A conflict was suggested between a people who worshipped the rising sun and another who worshipped the circumpolar stars. In the sequel there is an astronomical suggestion of two distinct races.

III. There is, however, an important lesson which comes from the study of stars. It is the very lesson which is taught in the Book of Genesis, viz.: the conflict between good and evil.

This conflict between the elements, symbolized by the serpent in the sky, represented by the constellations, was recognized at an early date, and has been embodied in the architec-



THE PLAIN OF BABYLONIA.

ture of Asia as well as that of America. There are in India, temples in which the many-headed serpent is represented as climbing a tree, is placed at the very entrance, while at the side of the serpent are arches of the sky with ornaments above the arches.

Other objects in nature were chosen to represent the conflict between the god of evil and darkness and the god of light and good, for images of the leopard, hyena and wild boar were chosen as representing the gods of evil and darkness on account of the ravages on flocks and crops which were made by these animals. On the other hand, there was the representation of the rainbow in the form of a goddess with the feet and hands touching the earth, and the body spanning the sky; below and above the sky were the stars, which shone out upon

THE BEGINNINGS OF HISTORY.

every side. Even the course of the seasons was symbolized, by the constellations.

The struggle between light and darkness, and good and evil, began very early, according to the symbolism found in all mythologies. In Egypt, it was personified by the struggle of Osiris, or Horus, with Apophis, the sun, and the serpent; as among the Greeks by Uranus and Tyho, or light and darkness. These primordial elements were at the basis of mythology, and probably preceded all personal elements of religion. The mysterious name was considered a real and divine being, and for this reason it was not often spoken, but some other word was used. In the Hebrew Adonai and Elohim were the words, but afterwards a new name was given, Yahveh or Jehovah.

The tree of life, and the tree of good and evil, were the first symbols which represented the distinction between holiness and sin, and innocense and guilt. It was prophetic and served to interpret the divine will. The famous oak of the diviners, near Shechem; the palm tree, under which Deborah prophesied; the oak of Ophrah, where the angel appeared to Gideon; the mulberry trees in which God was made known by "going in their top," were all symbols, just as the asherah or pillar was. The tree behind which the serpent uprears itself and from which the woman plucks the fruit, was also a symbol. These were known before the art of writing was introduced. The growth from symbolism to the use of letters was slow, and came through pictographs and through the cuneiform writing; the one being used upon paper, the other upon tablets of clay.

This symbolism, once accepted, increased more and more. It ran in parallel lines with the alphabet and continued long after the art of writing was known to the nations of the East. The struggle of Osiris, or Horus, with darkness, according to a symbolism found in all mythology, naturally resembled good and evil. The first was prominent in the mythology of the Egyptians.

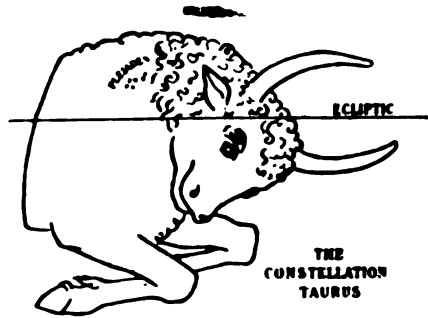
The pagan tribes contemplated the Divine Being under the aspect of a certain phenomena of nature, in fact, as their nature god, and so worshiped the sun and moon and the elements, but the true believers have from the outset worshiped a true god, who was holy and dwelt in heaven, and was worshiped by the angels.

Miss E. M. Plunket has given a description of the constellations and the date at which they may be supposed to have originated. She says: "On the celestial sphere many serpents and dragons are represented, but the far-reaching constellation Hydra exceeds all others in its enormous length from head to tail. Almost irresistibly the conviction forces itself upon the mind that it was 4000 B. C. that this baleful figure first traced in image upon the sky, fitly to represent the power of the physical darkness. The dark mid-winter season was the time of the Hydra's greatest glory."

The Accadian calendar gives us a date when the winter solstices coincided with the sun's entrance into the first degree of the constellation Aries. The date in round numbers will be 6000 B. C. The constellation Sagittarius, an archer, half man, half horse, is not a figure of Grecian invention, but it is to be met with depicted on Babylonian monuments.

It is of some moment to note the resemblance between the idea connected with the constellation Aquarius, among the astronomers in countries as far away as China and Mesopotamia.

There were variations in the constellations among the nations, for in Babylonia the fourth constellation of the zodiac was the tortoise, and not a crab. And in Egypt it was Scarabeus, or the beetle, instead of the tortoise. Libra was known among the different nations, for in the Great Hall of Judgment in Egypt, the souls of men were weighed in the balance by Osiris. Capricorn seems to have been known in Egypt as early as 6000 B. C., for the goat's horns are portrayed in Egypt as springing out of a ram's head.



The ancestors of the Egyptians and all the great civilized nations of antiquity followed the same calendar, and had about the same constellations, such as Pisces, Gemini, Virgo and Sagittarius, as early as 4000 B. C., and some of them as early 6000 B. C.

Bootes was depicted in the vault of heaven as presiding over the northern sky, and Sagittarius with a bow and arrow, and the composite figure of the Centaur, or archer, half man and half horse, was added in later ages.

The two stars called the Twins were associated by the Greeks with the two heroes, Castor and Pollux, both of whom possessed immortality.

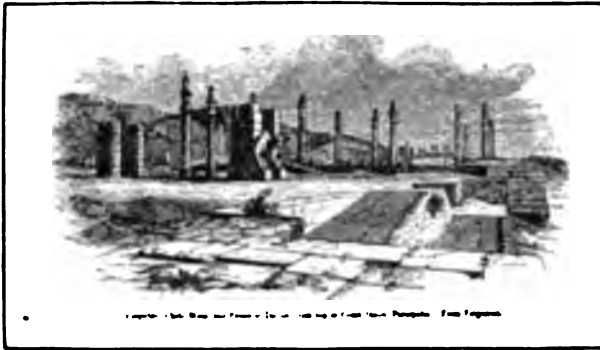
The constellations have been denominated ancient, for their position relative to the solstitial and equinoctial colures gives them a date as early as 5744, or nearly 6000 B. C. The constellations may, then, well be called ancient, but what is more important, they suggest degrees of progress and that a certain



number of inventions prevailed in the world at the very early date of 6000 B. C.

IV. The history of ancient architecture carries us back to the prehistoric period, but shows to us another element which constituted the beginnings of history. The first specimen brought before us is that which was embodied in Noah's ark. There are, to be sure, allusions to cities which were built by the descendants of Cain, but there is no definite description of them. It appears that the size of the ark and its very shape was given to Noah when he was commanded to build the ark. The next specimen of architecture, if it can be so called, is the altar which Noah built upon the mountain, and on which he offered the burnt sacrifices. It was not long after this, that there was the record of the building of the Tower of Babel. The form of this tower is uncertain, but it is supposed to have been in terraces, similar to the towers which survived for many ages in the same region.

We may go back to the days of Noah for the history of



RUINS OF PERSEPOLIS.

architecture, but we trace its beginnings even to a much earlier date. The monuments of Babylonia bear testimony to the truthfulness of the Bible story.

The Persians are supposed to have borrowed their architecture from the Babylonians, but they introduced a different style, for the temples were built with porches in front of them, with lofty columns to support the projecting roof. The ornaments above the columns were, however, very different from those which were afterwards introduced by the Greeks. These ornaments were in the shape of bulls' heads with projecting horns, similar to those which can be seen in the illustration. It is uncertain whether the winged bulls which were placed as guards in the palaces of Babylonia preceded or followed these bulls' heads, which were so common among the Persians, but they belonged to a very early period of architecture. An interesting fact is to be noted here: that the constellation of

Taurus has the same shape as the ornament at the head of the column.

Another cut represents the winged bulls which were placed at the entrance to the palaces of Babylonia. They were intended both as ornaments and objects of religious regard, for they represent the divinities which were worshipped by the Babylonians.

The Book of Genesis makes reference to the cherubim which were placed at the entrance to the Garden of Eden, some have imagined that these had the same shape as the images which were afterwards placed in the palaces, but the story of Abraham and his departure from Ur-of-the-Chaldea seems to contradict this. The constellation Taurus can still be recognized in the sky.

It will be remembered that Abraham was bidden to look up to the sky and count the stars for multitude, when the angel visited him at his tent. It even seems plausible that Abraham took these constellations into account when he received the promise of a numerous posterity and the possession of the land in which he was then a sojourner.

The patriarchal age is supposed to have preceded the historic age, and yet architecture evidently prevailed both in Babylonia and in Egypt during the entire period when the patriarchs were dwelling in tents.

The history of architecture carries us back to a very early period, and brings us through the entire patriarchal age, and even through the time of the Judges to the days of Solomon, but architecture prevailed both in Chaldea and in Egypt long before this time. The same may be said of the history of art, for various images are coming to light, which carry us back to an early date in the history of the East. Some of these images are dressed in long garments, but they carry in their hands weapons which are symbols of the lightnings and of the Nature powers. Some of them have birds' heads for faces, and wings on their shoulders; others have human faces, with tall caps upon their heads, but bear in their hands standards on which are maces which have exactly the same shape as the banner stones which were common in America in prehistoric times. These were the personifications of the Nature powers. The forked spear represented the lightning; the hammer represented the thunder; while the wings symbolized the clouds. Plates previously given show divinities with birds' heads, bearing in one hand those forked lightning symbols, and in the other peculiar symbols resembling those found among the mounds of America. These were Hittite divinities rather than Babylonian, but they show the symbolism which prevailed throughout the East.

These fabulous creatures appeared before the days of Hammurabi, and show the superstitions which prevailed. Anu, the god of the sky, or of the celestial ocean, stood at the head

of the Babylonian pantheon. He had a son Inlilla, who was god of the air, and a grandson of Ea, the god of the earth. Anu, Bel and Ea formed the earliest triad of divinities in Babylonia. Ishtar, the daughter of Ea, the personification of the celestial ocean, the mistress of the air, was the wife of Bel; while Ishtar was also the planet god, the god of the morning and evening stars.

This gives the same idea which is common among the Greeks, that there were families among the gods, but differed from them in that all their exploits were performed upon the earth. We are, however, carried back to the beginnings of history by these various stories.

There was, however, a domestic life which prevailed in the earliest period. A picture of Ur Nina surrounded by his own



RUINS OF BORSIPPA

sons and pages is given by a tablet which was discovered by De Sarzec in Babylonia. The king is clothed in a coarse, short skirt, divided into three parts, with a belt or sash around the waist. In order to express the dignity of the king in his position, he is, after the manner of the Oriental and Chinese people, represented as a giant, and his children and servants around him appear like dwarfs. The cuneiform inscriptions are numerous, but one inscription begins near the mouth of the king, as though representing words flowing from his mouth or spoken by him. Other inscriptions are seen on the skirts of the figures. All the figures are represented as having bald heads, and the upper part of the body is naked. The faces are very much alike. This is one of the earliest specimens.

There is no tradition among the pagan races which refers to the building of cities, and we must regard the Scripture record

as more ancient. The evidences, however, comes to us from ancient nations of the earth, that there were uncivilized tribes and creatures of a low order, some of these dwelt in caves; others in trees; others among the mountains, who were all nearly as wild as the animals which they hunted. The story abounds among them that the Flood swept into the very valleys in which they dwelt, and so was local, as the story given in the Bible seems to indicate that the Deluge was confined to that region.

V. The story of the culture heroes comes in before the historic period. Noah was the first of all these. He is mentioned in the Bible, and his family is supposed to have re-peopled the world. It is a strange fact that the same story of the Flood is scattered all over the earth, and the re-peopling of the world appeared after this event. In the Bible the world is re-peopled and a fair degree of progress was made in antediluvian times; but in nearly all pagan nations, the flood came after the time of the cave-dwellers, and the first peopling of the earth occurred when the people came out from the caves.

The study of the culture heroes which are described in the Old Testament brings us into contact with the early records of history. These heroes are placed quite late in the history of Israel, but they resemble those heroes which appeared elsewhere just before the dawn of history. It will be understood that the patriarchal age followed soon after the time of the Flood, but it carries us back to the ancient cities of Babylon and Assyria. They, however, are in great contrast to the kings and monarchs of Babylonia, for these were surrounded by the magnificence of their palaces, and are supposed to have lived amid great elegance. Such was the case, even with the early monarchs and despots whose records are contained in the cuneiform tablets.

The culture heroes of the Eastern Hemisphere remind us of those which prevailed on the American continent in prehistoric times, for there was the same contests between the good and the evil, the God of Life and the God of Death.

The tragedy of the fall seems to have been prominent among all prehistoric races, and resembles that which is described in the Bible. In Persia the story of Ormuzd resembles that of Adam while in the Garden of Eden, for heaven was his destiny on condition that he should be humble of heart and pure in thoughts. Ahriman, the evil one, resembled the serpent, who was a tempter, but Ormuzd was adored by the Persians, and Ahriman was held up to execration. They say Ormuzd gave us the earth, the water, the trees, the animals, the sun and stars; but the lie entered into the thoughts of the first pair and altered their dispositions. Ahriman deceived them and sought only to seduce them.

The Turanian race manifested a decided tendency to worship with superstitious terror the powers which they regarded

as infernal, dark and malevolent. The vast Tartarus in the depth of its abyss. Aristophanes says: "Dark chaos and night existed, and in the beginning dark Nubus Tartarus, but neither earth, nor air, nor sky were then."

Among the ancient Medes the Yezidis were devil worshippers, who worshiped only the evil principle, because they say worship has no other object but to appease the divine power, that the good principle has no need to be appeased.

The civilization of Phrygia was intermediate between the Lydian and the Dorian, but in Phrygia there was a development of some most monstrous conceptions and barbaric worship which led to frenzied dances and voluntary mutilations.

A similar tragedy occurred in Central America in prehistoric times, as that between Baldur and Loki in Scandinavia. Quetzalcoatl, the fair god, was plotted against by Huitzilopochtli, the god of death, and was driven from his throne, and finally took his phantom canoe and made his way across the ocean and disappeared. We find then, this tragedy conspicuous in all the sacred books and systems of mythology throughout the world, and are impressed with the resemblance of the story in its details. The story belongs to a comparatively late period, but prevailed in widely-scattered places.

The Scandinavian mythology gives us the same contrast, for Odin was regarded as the chief god, and was worshipped as one who was without reproach; but Thor was the thunderer, who reminds us of Jupiter. The hammer in the hands of Thor, reminds us of the forked weapon which was in the hands of the god of the Hittites, who was the god of storm.

Odin in Valhalla was the commander of all the gods. He was the commander of all the poets, and was held in esteem and veneration. Thor was originally the chief god, but his supremacy was threatened by the growing cult of Odin. Odin is a ruler in whom knowledge and power equally combine. Thor had little more to rely upon than his bodily strength. Odin bears all the stamp of the new life and culture about him. Thor is rather a yeoman of the old, unpolished type. Odin's weapon is a spear. Thor's is the more primitive hammer. It is to Odin that all the warriors go after death. Thor gets only the thralls. Baldur is the fair god of the Scandinavians. He is the embodiment of all that is good and is actually Christ like in his character.

The most beautiful picture on the face of the earth, is that of the Saviour, but there are persons even in the mythology of the pagan nations of the earth, who resemble the Christ in many respects. Among them, Baldur was perhaps the most beautiful.

Loki was, however, the great enemy and tempter and mischief-maker, and resembles in this respect the serpent in the Garden of Eden.

There is a mythical narrative among the Chinese, or the

Shintoos, of a serpent whose eyes are as red as the winter cherry. It has one body with eight heads and eight tails. Its length extends over eight valleys and eight hills. Its belly is always bloody and inflamed to look upon. "The Prince of Darkness" was the arch offender of Japanese myths. The serpent was regarded as the most cunning of all the beasts of the fields.

All these systems of mythology bring up the last echoes of the popular and entirely mythical traditions which are ascribed to a long series of mysteries and miracles without end. All ancient writers are agreed in assigning high antiquity to Zoroaster. He was the founder of the religion of dualism. The story of his life is enveloped in darkness. The gods of the religion became demons, the two most important were Indra and Siva. The system of Zoroaster tended to pure monotheism, but he was driven to dualism.

The beginnings of history border so closely upon the realms of mythology, that one is at a loss how to trace the dividing line, but in the Scriptures we have a record which is far more ancient than that given either by Greek, or Roman, or Egyptian mythology and may trace the course of events which occurred in antediluvian times.

VI. The question arises here as to the relation of history to the alphabet. It has been generally held that there could be no history unless there was writing, and there could be no writing unless there was an alphabet. It must, however, be acknowledged that tradition preceded writing and that even a certain form of symbolism came in between tradition and writing. It is well known that the Bible record began with tradition and that tradition continued to be the chief source of information, even through the patriarchal age, and that the first mention of writing contained in the Scriptures is that which occurred on the summit of Mt. Sinai when Moses received the ten commandments on the two tables of stone.

The beginning of history and writing is supposed to go back to the days of Noah, and even to those which preceded the Deluge. It is, however, uncertain whether an alphabet was known before that time, though there was a tradition among the Babylonians that a record of the events had been inscribed upon a tablet and the tablet was buried, and after the days of the Flood it was exhumed and preserved. We learn also that there were many inventions in the antediluvian period. Now these favor the idea that an alphabet may have been known. The building of the ark certainly required great skill, even more skill than that which has appeared among certain nations who have possessed no alphabet.

The question arises, in this connection, whether the monuments preceded the alphabet, or the alphabet the monuments. There was a primitive development of mythology in the valley of the Tigris and Euphrates, which took a local character.

Each tribe and village contemplated the divine being as a certain phenomena of nature, but the nature god had double essence, it was male and female. The goddess was the companion of the god, but a manifestation of nature. When the god had a solar character, the goddess had a lunar nature. If one presided over the day, the other presided over the night. If one personified the elements, fire and air; the other represented the passive elements, the water and earth.

The gods of Chaldea and Babylon as they come before us in the most ancient inscriptions resemble those Assyrian gods, of whom it has been said, that they had no firmness of outline, no perceptible determination. In the earliest period of the religion of the Euphrates the idea of a cosmic and uranic god, arose who was at once heaven and earth, a deity termed by the Greeks an *Aion*. He was the "Ancient of Days," and allied to the notion of Primordial Unity, the Progenitor and the Father of the Gods.*

There were certain mysterious ceremonies which were hidden from the apprehension of the vulgar, and revealed only to the initiated. There were, also, formulae and incantations. The symbols, then, preceded letters, and images may have preceded writing. The figure of the circle, as the symbol of the serpent, may have preceded the name of the serpent, just as the figure of the circle with projections symbolized the sun, even before any name of the sun was put on record. Such was the case certainly in America, and it may have been in the far East.

In Egypt the soul was figured as a sparrow-hawk, with a human head, holding in its claws the two signet rings symbolizing eternity. In Greece the phoenix was the symbol of life, while in Egypt it was the Nile Key. Vignettes were common at a very early date, and preceded the alphabet, just as totems preceded the real names of tribes.‡

A survival of this form of picture language and of symbolism, even down to the times of the patriarchs, is shown in the record of the prophecy which Jacob gave in reference to his twelve sons and the tribes which grew out from them.

Now, all this illustrates the point, that symbols appeared before any alphabet, although there was never a sentence made out of symbols. The symbols were read by sight, and the letters by sound. The alphabet then, probably grew out of the use of symbols, and was at first made up of a series of abbreviated symbols or pictographs. The letter "A" represented the horns of an ox; the letter "B," the shape of a house; the letter "D," the shape of a door; the letter "E," the shape of a window; the letter "G," the neck of a camel, and so on. The growth of the alphabet out of these primordial elements is acknowledged, but the date of it is unknown.

We are to notice that the alphabet was really founded on

* Lenormant's "Chaldean Magic," page 133.

and grew out of pictographs—the pictographs of very familiar objects, such as doors and windows; the forms of animals, such as the camel and ox. Such at least was the alphabet which we have inherited. It is true that the cuneiform alphabet was quite different, for it was composed of a series of wedges which were cut into clay tablets or bricks, the position of the wedges giving significances to them. These cuneiform characters were, however, often associated with pictographs wrought upon clay. One of these is described by Mr. Heilprecht, it belongs to about 2900 B. C. It represents a statue of Gudea. This is called the priest king. About two thousand lines of writing, a number of bronze figures, two terra cotta cylinders, and a number of metal and earthen vessels were found with this statue. The cuneiform letters on this tablet are much better wrought than on the tablet which represents the king Ur Nina, showing that a great advance had been made even in the cuneiform writing.

It is, however, to be noticed that there was no picture writing with animals ever discovered in Babylonia. The nearest approach to it is the tablet of Ur Nina. There is, however, an Hittite relief with inscription, which was found in a mound and is now in the Imperial Museum. This tablet represents two warriors in a chariot drawn by horses, a dog accompanying the chariot. There is a lion in front, which has been pierced with an arrow, the king is represented with bow in hand. The legend which describes the scene occupies the upper part of the relief. It seems to be a combination of pictograph and symbols. This represents the style of writing which prevailed among the Hittites, a style which differs from the cuneiform. It prevailed among the Hittites at a much later date than the cuneiform.

An inscribed tablet from South Arabia has a still different kind of writing inscribed upon it. There is no picture writing in this, but the characters are quite regular and are arranged in parallel lines. The tablet has a different style from the others, and shows that the style of writing had advanced very much between the two periods. We can understand how the system of writing advanced from the cuneiform style to this square form of letters, and that each nation or race was developing a style peculiar to itself. There are no connecting links to show the lines of development, but there are certainly evidences of great progress.

ORIENTAL DEPARTMENT.

BY DR. CHAS. H. S. DAVIS,
MERIDEN, CONN.

Theodore M. Davis, of New York and Newport, the discoverer of the tomb of the parents of the Egyptian queen Meie, has just discovered the tomb and mummy of Queen Meie herself. She was the mother and inspirer of the famous "Heretic King" of Egyptology." When, two years ago, Mr. Davis excavated in the famous Valley of the King at Thebes, the tomb of Queen Meie's parents, the discovery was hailed by Prof. Maspero and others as the greatest in the history of Egyptology. Queen Meie—sometimes spelled Teye--was the wife of Amen-hotep III., one of the Pharaohs of the Eighteenth Dynasty. He reigned for thirty-six years, from about 1410 B. C., and he chose as his principal wife a woman, not of royal blood, but the beautiful Meie. It had long been believed that she was of Mesopotamian descent, and this theory was corroborated by inscriptions found by Mr. Davis in the tomb of Yua and Thua, her parents. Meie's son, Amen-hotep IV., is one of the most interesting characters in Egyptian history, because of the religious reform he attempted. He endeavored to replace the old religion of Egypt by the exclusive worship of the sun, but his attempt left no permanent results. After his reign of eighteen years his innovations were abolished and the old religion was reintroduced. It is believed that Meie was largely responsible for her son's religious opinion.

The tomb is a plain, square sepulchre cut out of the rock, and adjoins the tomb of Rameses IX. Unfortunately the tomb lay in a bed of a water course, and owing to the percolation of the water through the rock such perishable objects as wood and the royal mummy itself have suffered severely. Apart from this, the tomb, when it was entered, was in the same condition in which it had been left by priests amid the throes of a religious revolution that had spent its force before Moses was born. The tomb of Meie bears witness to the blind rage of the victorious priesthood of Thebes and the intensity of their hatred towards the Heretic King, whose name they carefully erased from every article in the tomb on which it had been inscribed.

The men, however, who thus violated the tomb were no common thieves. The jewelry of the Queen and the sheets of solid gold with which the sepulchre was literally filled were left untouched. Wherever the excavators walked they trod upon fragments of gold plate and gold leaf. The coffin was intact, and

is a superb example of jeweler's work. The wood of which it was composed is entirely covered with a frame of gold inlaid with lapis lazuli, cornelian, and green glass.

The mummy itself was wrapped from head to foot in sheets of gold. The water which had been for so many ages draining through it had reduced it to little more than pulp, and it fell to pieces when examined in the presence of several Egyptologists.

There were bracelets on the arms and a necklace of gold beads and ornaments of gold inlaid with precious stones around the Queen's neck, while her head was still encircled by an object priceless and unique—the imperial crown of the Queens of ancient Egypt. It is simply and exquisitely fashioned and represents a royal vulture holding a signet ring in either talon, while its wings surround the head and are fastened at the tips behind by a pin. The whole is of solid gold without ornament.

Signor Raya, Minister of Public Instruction, whose ministry has jurisdiction over antiquities and excavations, has decided that the excavations at Herculaneum shall be carried out by the Italian government, with Italian money and without foreign aid, "although gratefully taking into account the advice of eminent foreigners, such as Professor Charles Waldstein, of New York and Cambridge, England."

Drs. Grenfell and Hunt have returned to Egypt to make their last attempt on the Oxyrhynchus site. Next winter they hope to undertake excavations among the boxes of papyri now in the strong room at the bottom of the staircase in Queen's College, Oxford. They may two years hence return to Egypt, as it is essential that immediate action should be taken on the remaining sites, the country being rapidly broken up by the increase of the irrigated area and the removal of the earth on the town sites for use as a fertilizer.

A notable find, considered by many the greatest of the year, was made under the auspices of the Egypt Exploration Fund, in a temple believed to be the oldest in Thebes, which has recently been excavated. It is a natural sized Hathor cow, cut out of sandstone and painted, in a perfect state of preservation. This is the first time on record that a shrine containing a god or goddess has been met with intact. A message was at once sent to Cairo, and soldiers were sent to guard it; but before they arrived Mr. Currelly, who was engaged in the work, sat up all night with the charge to protect her from harm. The shrine was built of sandstone blocks, covered with stucco, and elaborately painted and sculptured with the pictures of Thothmes and Merit Ra and the cow of Hathor. The whole shrine was taken down and care-

fully transported, together with the cow, to Cairo, where it has been rebuilt in the Cairo museum. Experts declare this to be the finest specimen of Egyptian animal sculpture yet found.

Four Cornell explorers will start on March 9 for a trip through Asia Minor and Syria. The expedition will be headed by Prof. J. R. S. Sterrett, and with him will be Dr. A. T. Olmstead, B. B. Charles, J. E. Wrench, and Dr. O. C. Harris. All are members of the American School of Archaeology at Jerusalem, and have had experience in field work in Palestine. They will travel through Asia Minor, going through Armenia, Syria and Palestine into Persia and Turkey. They will make extended surveys, identify ancient cities, and translate inscriptions. The money for the expedition has been subscribed by W. K. Vanderbilt, Andrew Carnegie, H. C. Frick, J. P. Morgan, James Stillman, Mortimer L. Schiff, and others.

Dr. Hugo Winckler, who recently returned from Asia Minor, reports that the German Asiatic Society has discovered within the walls of the present city of Boghaz Koi 2,000 tablets, dating back to the Hittite civilization. The scientist believes the remains were the State archives of the Hittite Empire. Another tablet found bears a treaty made between Rameses II, and a Hittite king, written in the Assyrian language 1200 B. C. A similar tablet in hieroglyphics was found on the walls of the Temple of Karnak. Until recently the almost invariable mention in the Mosaic writings of the Hittites with the Canaanites, the Amorites, the Perizites, the Girgashites, the Hivites, and the Jebusites caused them to be set down as merely one of many small tribes inhabiting Palestine. Modern research, however, among the monuments of Egypt and Asia Minor has shown that they were one of the principal peoples of Western Asia, who were able for centuries to keep up conflicts with such powerful empires as Egypt and Assyria, and whose kings intermarried on equal terms with the mightiest royal families.

Light on the Old Testament from Babel, by Albert T. Clay, Ph. D., Assistant Professor of Semitic Philology and Archaeology, University of Pennsylvania.

Dr. Clay has written a book of great interest to every one interested in archaeological researches in Babykonia, Assyria, Palestine and Egypt, and the light which they throw upon the Old Testament records. There is scarcely a period of the Old Testament that has not received some light through these researches. The discoveries in Egypt, Assyria and Babylonia have restored to us the inscribed records and monuments of great civilizations which preceded or existed concurrently with the Hebrew people

and held contemporary intercourse with them. Abraham, who it was supposed to have belonged to the dawn of civilization, with primitive and aboriginal surroundings, is shown to have lived at a time when there had preceded him over four thousand years of a civilization highly developed and organized.

Events regarded formerly as merely incidents in the life of the Israelites are now seen to be but portions of greater and more widely extended popular movements, and that Israel enjoyed in common with other peoples, certain social, political, and religious institutions, as well as rites and customs. The recovery of the historical records of Egypt, Assyria, and Babylonia has given to the historical and prophetic books of the Old Testament an increased importance, and at the same time an increased responsibility, the test of historical accuracy. The volume before us presents facts which conclusively show that the theories of the negative critics are not based upon facts, and that the position of these critics rests upon a basis created by their speculations or theories. Dr. Clay shows that wherever any light has been thrown upon the subject through the excavations, invariably their hypotheses have been found wanting, and it has been shown that what remains of their conjectures rests upon purely speculative grounds.

Dr. Clay gives a translation of the Babylonian creation and deluge stories, which so closely resembles the Bible account; and shows that while it has been fully determined that the Babylonians had these legends long before the beginning of Israel, both the Babylonian and the Hebrew stories must have had a common origin, or in some early age the account had found its way to Palestine, when the Hebrew writer made use of the accounts current among the people, and made them instruments whereby religious truths were set forth.

And so the story of Babel in Genesis, the Codes of Hammurabi and Moses, the name of Jaiweh in cuneiform literature, and the maintenance of temples in the second millennium B. C., are discussed at considerable length. Many customs referred to in the Old Testament receive new light from the ancient records found in Babylonia and Assyria, and all the information revealed by the cuneiform inscriptions is set forth in its proper bearing upon the Old Testament. Hundreds of important points have been located definitely, thus making a new historical geography. Peoples of whom we have had little or no knowledge are again introduced into the galaxy of nations. One of the most important results obtained is the knowledge that Israel enjoyed in common with other peoples certain social, political, and religious institutions, as well as rites and customs. The book is well

printed, with a map of Palestine, Syria, Assyria and Babylonia, and has 122 illustrations.

(Philadelphia, The Sunday School Times Company, 8 vo., pp. 436. Price \$2.00.)

Lecturing at Oxford on recent discoveries at Oxyrhynchus, Dr. B. P. Grenfell stated that the finds of the last season were the greatest that had fallen to the lot of excavators in Egypt. On one day nine texts were discovered, several entirely new, including new odes of Pindar, parts of the lost tragedy of Euripides on Hypsipyle, parts of a new Greek historian, and of a commentary on the second book of Thucydides, the second half of the Symposium, and portions of two manuscripts of the Phaedrus of Plato, of the Panegyrics of Isocrates, and the speech of Demosthenes against Boeotus. The Pindar manuscript was of about A. D. 100, and was written on the back of a census, which fortunately assisted in the assembling of detached fragments. The find constituted an addition to Greek literature of the first rank, and Dr. Grenfell obligingly read one of the new odes.

As for the new Gospel fragment found later, it contains, Dr. Grenfell said, a complete account of a dramatic episode. Jesus had taken His disciples inside the Temple at Jerusalem, to the place of purification, where His presence was challenged by a Pharisee, who reproached Him for entering the sanctuary without having performed the requisite religious ceremonies of purification. A short dialogue ensued, in which Jesus asked the Pharisee if he was pure, and the Jew answered, recounting the different religious rites for cleansing purposes which he had observed. To this our Lord delivered an eloquent and crushing reply, contrasting outward with inward purity. In stern accents He recalled the foulness of the pools below the Temple hill, and drew a striking contrast between the outward bathing prescribed by Jewish ritual and the inward cleansing which He and His disciples had received in the waters of eternal life. Controversy, Dr. Grenfell remarked, would range rather about the framework and the coloring of the vivid picture disclosed by the fragment than about its main object. The denunciation of the Pharisees was no stronger than that which occurred, for instance, in St. Matthew xxiii., 25, and St. Luke xi., 37.

Messrs. Nelson Annandale and Herbert C. Robinson made an expedition in 1901-1902 to Perak and the Siamese Malay States, under the auspices of the Universities of Edinburg and Liverpool, with anthropological and zoological studies as their chief object. They are now publishing the results of their work in a number of reports printed under the title "Fasciculi Malayenses"

(published by the University Press, Liverpool). Their travels were in the almost unknown interior from Selangour to beyond the frontier of Siam, and their anthropological studies related chiefly to the Sakais and the Semangs, the latter and more northern people having had no intercourse with the white race and mixing very little with other tribes. They are negritoid and of fairly pure stock, most of them inhabiting the plains, while the more southerly Sakais are hill men. The studies of these explorers and the later work of Mr. A. Grabauer among the Semangs (*Pet. Mitt.* 1905, Nos. 11 and 12) throw clear light upon a distinct type of the jungle folk of the Malay Peninsula.

Sultan Abdul Hamid, taking a leaf out of the book of the King of Italy, has issued an edict strictly prohibiting, under all sorts of pains and penalties, the removal from Turkish territory of all objects in the shape of archaeological treasures and antiquities. The terms of this law have been communicated by the Porte to the various foreign embassies and legations at Constantinople, and it is expressly stated, by order of the Sultan, that no exception will be made to it, and that the Turkish Crown will enforce its ownership of all antiquities and art treasures excavated from Turkish soil. There are now several American and German exploring parties who are engaged in costly excavations on the sites of Babylon and of Nippur. These excavations have been carried on until now, by virtue of firmans obtained from the Sultan. But these firmans are explicitly repealed by the action of the new law.

At the last meeting of the *Vorderasiatische Gesellschaft* in Berlin, Prof. Hugo Winckler gave a full report of a rich new archaeological field which he has undertaken to investigate under the auspices of the society. This is found at Boghaz-Koi, about five days' march east of Angora, and in the heart of Asia Minor. A preliminary investigation had led Professor Winckler to regard these remains as the City of Arzaba, which from 1500 to 1100 B. C. was one of the leading cities of the famous Cheta or Hittite kingdom. Now, however, he has learned that he has found the city of Cheta itself, the central seat of this empire. Among the finds are a large number of letter fragments, tablets, etc., containing among other things treaties with the kings of Egypt, as also with subordinate potentates. It appears that the Cheta empire was a federation of States, reaching at that time to the borders of Syria, but with a central power vested in the great king. The archaeological finds made here amount to more than two thousand items, and furnish material for research for years to come, that may clear up the problems connected with the mysterious Hittite Kingdom.

Dr. Stein reports in a letter to the *London Times* his return from his second series of explorations in Chinese Turkestan. On this journey, as earlier, he combined careful surveys of the Chinese-Indian frontier with archaeological work. His former surveys of the farther side of the Kuen-lun have been largely supplemented and he has explored more ancient sites, revisiting also the Rawak Stupa, from which, on his first visit, he obtained such important archaeological material. He has secured more ancient documents and his whole work will be very valuable as a sequel to his first investigation.

Crete has always been regarded as one of the most interesting islands in the world. Its history reaches far back into the days of mythology, when Minos was one of the earliest exponents of the value of sea power. In Homer's day it was the 'Island of a hundred cities,' and one of its own poets, Epimenides, is quoted by St. Paul as confirming the reputation for mendacity among its inhabitants. The systematic excavations which are now being carried out in the island have yielded and are likely still to yield results of extraordinary value and interest not only to the archaeologist, but also to the ordinary educated reader. Professor Ronald M. Burrows has recently written a little work entitled "Cretan Excavations, and Their Bearing on Early History," which presents in a form acceptable to the general reader as well as to scholars.

A successful investigation of Christian antiquities has been begun by Karl Maria Kaufmann, a merchant and savant of Frankfort-on-the-Main. He has found in the so-called Mareotis desert, south of Alexandria, an extensive field of Christian ruins, including the remnants of the memorial church of the Alexandrian martyr Menas, two other Basilicas, and the site of a great Egyptian clay and pottery industry. A preliminary report has been published in a good-sized pamphlet, embellished with some fifty illustrations and sketches; and this is to be followed by a more exhaustive publication. A second archaeological expedition is to be sent out soon to this new field, the money being furnished by the city authorities of Frankfort. The modern name of the ruins is Boumna Karm Abu'm; and the flourishing city that once occupied this place was still seen and described by an Arabian geographer of the tenth century. The excavations all took place during the year just closed. The Munich *Allgemeine Zeitung*, which reports fully on this new field of archaeological treasures, considers that these finds will show a close connection between the ecclesiastical architecture of the Western Roman Empire and that of Oriental peoples.

In Col. L. A. Waddell's book, "Lhasa and Its Mysteries," he makes this novel observation upon the possible effect of low temperatures on speech: "One curious result of the cold should he mentioned here, namely, its effect upon the speech of the people. A peculiarity of the language of the Tibetans, in common with the Russians and most Arctic nations, is the remarkably few vowels in their words, and the extraordinarily large number of consonants; for example, the Tibetan name for Sikhim is 'Hbrasljongs.'" Indeed, so full of consonants are Tibetan words, that most of them could be articulated with almost semi-closed mouth, evidently from the enforced necessity to keep the lips closed as far as possible against the cutting cold when speaking.

The French archaeological expedition at work on the island of Delos has been able to extend its operations very considerably. North of the Hieron an extensive hall of columns has been laid bare, with an inscription stating that it was built by the Macedonian King, Antigonus Gonatus. In the same neighborhood a tomb from the Mycenaean period was found. New streets, extending from the theatre, have been exposed, and in several of the houses fine statues were found, one of Polyhymnia being particularly beautiful. South of the Hieron the archaeologists unearthed a circular monument, probably the shrine of the wealthy Athenian family of Heros Archegetas; and near by an esplanade hewn into the rocks with five extra large lions, dating from the pre-Persian age, the stone evidently from Naxos. New chronological data have also been found, one of the stelae containing a list of the names of all the priests during the second Athenian occupancy of the island. Numismatics, too, have been enriched, especially with additions of Attic silver coins.

The first part of Professors Dieterich and Wunsch's "*Religionsgeschichtliche Versuche und Vorarbeiten*" is taken up by Dr. C. Thulin. The author holds that on the famous bronze liver tablet from Piacenza, inscribed with the names of Etrurian deities, the astrological division of the celestial sphere was represented, and some similar statement with reference to the Babylon models of a liver would explain in a highly satisfactory way the astrological terms found upon these objects. Those persons interested in omen texts from Babylonia based upon an investigation of the livers of certain animals used for offerings, will find this an important contribution on the subject.

Dr. Fr. Thureau-Dangin has written a compendious volume of transliterations and translations of nearly all the inscriptions from Sumer and Accad, including a revised edition of those of Gudea. This work is the result of many a year's study and

work, and Assyrian scholars have obtained a throughout reliable and at the same time handy text-book for the oldest period of cuneiform texts.

The Belgian archaeologist Grainger has laid bare the Poseidon temple on the island of Tenos, and in connection with it a magnificent hall of columns, a "found seat," or *exedra*, of marble well preserved, a series of sculptural remains, such as two dolphins in relief form, as also a number of inscriptions. These nearly all were gifts dedicated to Poseidon and Amphitrite. An interesting specimen is a large block of marble on which a sundial has been cut, giving also the directions of the wind, the course of the sun, and the seasons of the year.

The second volume of Professors Fischer and Zimmern's "Leipziger Semitistische Studien" contains two valuable articles of interest to students of Assyriology. Dr. E. Behrens has selected a number of Babylono-Assyrian letters, despatched in the time of Sargon II, and now in the Kouyunjik collection of the British Museum, in order to show which cultic elements are contained in such documents, and what is to be learned from them for the development of the religious conceptions and life in ancient Babylonia. Dr. Karl Frank has studied the attributes and emblems found upon representations of the various deities in the Assyrian pantheon. The description of these attributes, which is illustrated by a number of good photographs, has the special advantage of being independent of the "astral system," by which in recent times almost every outcome of religious belief in Western Asia has been explained by certain Assyriologists. In an appendix, Prof. Zimmern deals with the emblems on the so-called Kudurru of Nazimaruttash.

Contents of the *Proceedings* of the Society of Biblical Archaeology, Vol. XXIX, Art. 1. The Chedor-laomer Tablets, A. H. Sayce. The Tablets of Negadah and Abydos, F. Legge. St. Menas of Alexandria, Margaret A. Murray. Some Unconventional Views of the Bible, VII., Sir H. Howarth. Some Notes on the XVIIIth Dynasty Temple at Wady Halfa, P. Scott-Moncrieff.

The International Archaeological Congress will meet in Egypt April 10 to 21, under the presidency of Professor G. C. C. Maspero. There will be sessions at Cairo, Alexandria and Thebes.

Mr. Ellsworth Huntington, whose recent work of exploration in Asia, first as a member of the Pumpelly Expedition and

later as a member of the Barrett Expedition, is well known to geographers, has brought back what he believes to be conclusive evidence that during the last 2,000 years there has been progress a desiccation of Asia. This matter is no new one, for many explorers in this same region have previously come to the same conclusion. Mr. Huntington, however, has matched up the evidence of tradition, historical record, topography and archaeology in a more thorough way than did any of his predecessors, and his conclusions therefore carry more weight. The evidence brought forward by Mr. Huntington in a recent paper on "The Rivers of Chinese Turkestan and the Desiccation of Asia" (see *Geog. Jour.*, Oct., 1906, and *Bulletin of Am. Geog. Soc.*, Dec., 1906) is of various kinds. The rivers appear to be withering, for dead vegetation is found in several cases beyond the present reach of the waters, indicating a retreat recently of fifty to sixty miles. A former greater size of certain streams is also indicated by old channels now in process of being filled with sand. Thirteen of seventeen of the larger rivers have on their lower course the ruins of towns which date back a thousand years or more. Where there are ruins of various ages, the older lie farther down stream, and are so far out in the desert or on rivers so small or saline that it would be impossible again to locate towns of equal size in the same place unless a far better system of irrigation were introduced. On the Eudere River there are ruins of three towns of different ages, which apparently grew up one after the other, the later town in each case being smaller than its predecessor. There is water enough to-day for a large town, but it is too salt to use. The lake of Lob Nor agrees with the rivers, showing signs of having been larger at no very distant date, but there is evidence also of expansion in the past, as well as of contraction.

News has come from Geneva that in a collection of Egyptian papyri Prof. Jules Nicole has lately come across an ancient Latin guide through Rome, which he found in the midst of Greek texts. The guide contains an inventory of sculpture, enumerating the chief works to be seen in the city, and indicating exactly where they are placed; it also gives a description of each one, with the name of the artist, its provenance, and so forth. Many interesting facts concerning hitherto unknown artists are given, as well as additional information relating to already known Greek sculptors. This discovery may prove of importance in supplying us with data for the attribution of as yet nameless statues.

In his *Report on the work of the Survey Department of Egypt* (Cairo, 1906), Capt. H. G. Lyons, Director General, says that the chain of triangulation from the Mediterranean along the

Damietta Beach of the Nile and up the Nile Valley as far as Wadi Halfa is completed. From Cairo southward this forms a network, covering all the cultivated land; while to the north about two-thirds of the delta have not yet been triangulated with sufficient accuracy, but this work is now in hand. With the completion of the triangulation in Upper Egypt the cadastral survey progressed rapidly, and a very large out-turn for the year brought within sight the completion of the mapping of the cultivated lands of Egypt for revenue purposes. With the completion of Beni Suef province in the latter half of 1906, the whole of the cultivated land of Egypt will have been surveyed on the scale of 1:3,000 or 1:2,500 and the maps of all excepting the provinces of Sharqia, Beheira and Beni Suef will have been printed and published.

The importance of language in relation to political and social aspects of the native question in Africa seems liable to be overlooked. The possibility of large groups of tribes, hitherto distinct and mutually antagonistic, becoming rapidly able and eager to understand each other in some common form of speech has apparently to be taken into account. Twenty-six years' contact with Swahili and various dialects of Eastern and Central Africa points so far to the conclusion that there is a remarkable degree of similarity, amounting in many important respects to substantial identity, in the grammatical structure of language over the whole vast area occupied by the Bantu races of Africa, from the Soudan to the Cape. And the stock of words common to all Bantu tribes, when recognized under the various dialectic disguises, will probably prove very considerable.

The officials, missionaries, traders, settlers and travelers of various nationalities who are qualified to give help in testing this conclusion by personal and first-hand study of a Bantu dialect are naturally difficult to reach—scattered in remote and often isolated spheres of work. It is, therefore, perhaps justifiable to ask publicity for the request, that persons so qualified and willing to accept and reply to a brief communication on the subject would send me their addresses at Fort Jameson, North Eastern Rhodesia. I should be grateful if foreign journals and local papers in Africa, general and official, would assist by calling attention to my invitation. Address as follows: A. C. Madan, in care of the British South Africa Company, Fort Jameson, North Eastern Rhodesia.

While examining some sheets of parchment bought at Cairo for Coptic manuscripts, Carl Schmidt made a discovery of much importance to philology and history. The repetition of the word "Uru," which among modern Nubians means king, con-

vinced the German savant, who is an authority on Coptic and the early Christian archeology of Upper Egypt, that the text was Nubian, a language which, although still spoken, is no longer written. The manuscript dates from the eighth century A. D., and are translations of Christian works in which frequent references to St. Paul are made. One manuscript is a collection of extracts from the New Testament, and the other a hymn of the cross. The Greek original of the hymn is not known. When the documents are deciphered philological science will be enriched by the knowledge of the language spoken by the people of Nubia before the invasion of Semitic tribes, and the mysterious inscriptions on many of the Egyptian monuments may be read.

An American scientist has lately interested the French Academy of Sciences in his researches concerning the glass mirrors that were used in ancient times in Thrace and Egypt. These mirrors were backed with a highly polished metal, the nature of which has been in question for many years. The American scientist has discovered that the metal was almost pure lead and he believes that the method of manufacture was to pour the molten lead on the concave surface of discs cut from balloons of blown glass. In consequence of their shape the mirrors minimized the images of objects looked at in them.

Dr. Von Lecoq, of the Berlin Ethnological Museum, who sometime ago made discoveries of Buddhist antiquities in Northeast Turkestan, the announcement of which roused eager interest in the scientific and literary world, has returned to Berlin. His most precious discovery consisted of fifteen chests filled with manuscript in no fewer than ten languages. These, with many other articles dug out of the sand, are relics of a highly cultured and artistic people that once inhabited those regions. It was a composite nation, a strange congeries of Uigur Tartars, Christians from Syria, Manichaeans from Persia, and Buddhists from India and China, a conjunction and long mingling of peaceable races in Northeast Turkestan at Turfan and elsewhere.

Wall pictures as well as manuscripts were found. The grandest linguistic discovery relates to the Manichaean writings, and will throw much light on the early speech of the Persians. Most of the writings are on paper. There is no papyrus, but some of the documents are on soft white leather. The wall paintings are on plaster and had to be skillfully hardened before they could be safely cut out. The majority of the pictures are representative of Buddhist art, and it is thought may furnish the missing proof of how Indian art advanced across Asia to Japan; but it will take years to decipher the manuscripts and

other treasures. The government appropriated \$50,000 for the expedition. Dr. Von Lecoq once lived in the United States and received a degree from an American university.

Professor Lawrence H. Mills, of Oxford University, writes in the *Monist*, for January, of Zarathushtrian Analogies, "with Daniel, Revelations, and some other books of the Old and New Testaments." His purpose, Professor Mills says, is to illustrate from various points of view taken from portions of the Semitic Scriptures, the admitted fact that the Jewish tribes entered a new intellectual world at the so-called captivity and then that this sphere was largely dominated by Medo-Persian as well as Babylonian ideas, and that it was, therefore, to a degree Zoroastrian, and that upon this it has built up as a mass of national religious sentiment and system. In "Mythical Elements in the Samson Story," Dr. Paul Carus takes the position that the origin of the Biblical narrative is of the same character as that of the stories of Heracles, Melkarth, Siegfried, and other legends which center around a mythological solar hero. He discusses the positions held by other investigators along the same line, and the arguments on both sides of the question of the historicity of Samson.

Dr. Hugo Radau gives a critical and exhaustive review of Dr. Albert T. Clay's "Business Documents of Murashu, Sons of Nippur."

A remarkable collection of great archeological interest is to be disposed of in London. This comprises the extensive array of Egyptian curios collected by the well-known Egyptologist Mr. R. de Rustafjaell, and it is of a most complete description. The collection has been carefully classified and annotated and affords an informative and interesting history of this ancient country for a period of some 6,000 years, from 4400 B. C. to the present day. The pre-dynastic era is represented by an extensive array of flint implements; the dynastic period by sculpture, bronze, pottery and fresco paintings; and the times nearer allied to the present by numerous personal ornaments, treasures and trophies gathered from Egypt people, the Sudan and surrounding tribes, including the famous praying board of the Madhi found with the body of the Khalifa after the battle of Omdurman, and which is regarded with religious awe by the Dervishes, as it is popularly supposed to have been handed down to their chief through successive generations from the great Mahomed.

American Journal of Archeology. Vol. X, Number 4. A Bronze Statue of Hercules in Boston, J. R. Wheeler. A Panathenaic Amphora with the Name of the Archon Theiophrastus.

J. C. Hoppin. Mr. Van Buren's Notes on Inscriptions from Sinope. D. M. Robinson. On Dating Early Attic Inscriptions. Leila C. Spaulding. A Doryphorus on a Red-figured Lecythus. R. C. McMahon. Ointment Vases from Corinth. D. M. Robinson. A Bronze Statuette from Norba. S. W. Van Buren. Inscription from Rome. C. R. Morey. Archeological Discussions.

Further details of the recent discovery of a papyrus manuscript of Menander are at hand. Even if this manuscript does not offer a complete play of this author it is a discovery worth making. It appears that M. Gustave Lefévre, a French inspector in the service of the Egyptian Department of Antiquities in Upper Egypt, had an opportunity of making a small excavation in a ruined village, in the course of which he came upon a jar containing papyrus manuscripts, which the extreme dryness of the soil had preserved from decay. Some of the books were Coptic, others were Greek; but among them was a large number of leaves which M. Lefévre identified (by means of the extant quotations which are very numerous), as containing portions of Menander. The manuscript was in book form, not a roll; it can, therefore, hardly be older than the third century of our era, and may be of any date between that and the early part of the seventh century. It is incomplete, but according to the discoverer's estimates it contains about 500 lines, in very good condition, of one play, 500 less perfectly preserved lines of another, 150 of a third, and 50 of a fourth. M. Lefévre hopes to publish them in the course of this coming year.



THE RELIGION OF THE ANCIENT EGYPTIANS.*

BY JOSEPH OFFORD, M. S. B. A., M. S. A. R.

The first series of lectures delivered at the College de France, upon the foundation bequeathed for the purpose by M. Michonis, was by M. Edouard Naville, the celebrated Swiss Egyptologist and director, now for some years of the British Egyptian Exploration Fund's excavations at Deir el Bahari.

It is fortunate for science that the opportunity of this course of lectures induced M. Naville to set forth what his erudition enables him to explain of the Religion of the Ancient Egyptians. It is now nearly thirty years since he published a translation of "The Solar Literary" and of "The Myth of Horus" and he is the greatest living authority upon "The Book for the Dead." Therefore all that he has to say as to Egyptian culture, worship and religion in this new volume published by M. Ernest Leroux of Paris in the series of Annals of the Musée Guimet will deserve careful study.

M. Naville explains, in the preface, that in his lectures he has treated of the six most important phases whose developments display the chief aspects of Egyptian religion, because the field is so vast that no complete study could be made of it in six addresses or contained in 270 pages.

The first chapter is devoted to a discussion of the origin of the ancient Egyptians, and the probability of the earlier civilization they acquired being derived from Babylonia; and the author sums up his view upon the first part of the subject by giving it as his opinion that the original population, so far as any vestiges of their works and ways enable us to judge, was of African origin, and was civilized by Asiatic invaders coming from Arabia, who had crossed the Red Sea and entered Nubia to the south.

By "African" as the title of the earliest Egyptian race known to us M. Naville does not mean "negroid," but a white race akin to the modern Berbers and Kabyles and members of which are shown upon the later Egyptian monuments as representatives of tribes to the west of the Nile Valley, called Temenhou, or Tehennou. These the author connects with the old Anou, or "Archer people," with whom the Horus follower invaders of Egypt, whose chief emblem was the Falcon, or whose greatest tribe used that bird as their symbol, fought and conquered.

As to whether the Anou were sufficiently civilized to reside in cities M. Naville is uncertain, but he points out that An, the earliest name for Heliopolis is the first half of their name, and

*"La Religion des Anciens Egyptiens." Six Conferances faites au College de France, en 1905, par Edouard Naville.

that it was at that town that the conquerors first established any metropolitan religious center, and so it was probably an ancient town of the Anou.

That the conquerors who introduced the arts and culture to the primitive inhabitants came from the south into Egypt M. Naville thinks proven by the universal testimony of the Horus invader myths as to their arriving from the south, and from the fact that an Egyptian when orientating himself always looked to the south. But this latter posture is also facing the sun and the region where the beneficent Nile God was stationed, and so the argument here appears to be weak.

The introduction of the vine, the horse and the camel**, the author ascribes to later invasions, or introductions from Asia by way of Palestine and the Delta, but the camel has been found carved upon extremely ancient specimens of sculpture.

Of kings even of Upper Egypt, only, existing before Menes M. Naville will not hear. Because such a Pharaoh as Rameses II. desiring to trace his royal ancestors back to the utmost limit stops at Menes, and every list of early monarchs we possess does the same.

With regard to the Babylonian origin of Egyptian civilization M. Naville says, "I do not believe that Egypt is a daughter of Babylon, but upon the other hand we can quite admit, that they are both connected with Arabia, and so it was the common origin which accounts for the analogies between the two."

With profound respect for the erudition of M. Naville this does not explain the striking fact that the Menes dynasty introduced into Egypt the use of the Babylonian cylinder as a signet, a type not derived from Arabia. A form also not suitable for a nilotic people whose documents were written upon stone, leather or papyrus, and excepting for the jar sealings and so-called "funerary" cones, not of clay.

The use of these cones is also absolutely identical with the practice at Telloh and elsewhere near to the Persian Gulf. Moreover, an extremely ancient drawing upon a small relic discovered by M. de Morgan at Telloh shows a boat, or sacred barque, with similar "Totem Poles"; supporting a bull's head symbol; to those of the earliest Egyptian pottery.

There is also a probability that these divine emblems are alluded to in the old cuneiform texts as being placed at the entrance to Mesopotamian temples; just as they are shown in front of the primitive temple pylons upon the drawings of the divine processional barques, described by M. Foucart.

**M. Moller, in a prehistoric cemetery at Abisir el Maleg, found an extremely early representation of a camel, so primitive in style he thinks the animal later became extinct in Egypt. See *Mitt d'Deutsch Oriental Gesell.* 1876, No. 31.

In his "Textes Relatif a la Divination Assyro-Babyloniene" M. Alfred Boissier refers to a word "Surinnu," which M. Thureau-Dangin has proved to mean emblem, guidon, or flag-staff. Dr. Lehmann has shown that these poles or pillars were erected in front of temples. The very old inscriptions of King Gudea of Telloh, in maritime Babylonia, speak of them. Some of these surinnu "shone like the light" and were coated with gold or silver. In the old cuneiform astrological or augural reports, a portent of dire disaster was the destruction of these surinnu. M. Boissier renders the word by "emblem" perhaps Totem would be quite as precise.

M. Calice has pointed out that the old Egyptian word "nemset," for a certain class of vase is the namsa of the Tel el-Amarna tablets and can be traced back to the old Babylonian "namzitu." M. Heuzey has shown an identical peculiarity of ornamentation in one of the prehistoric Egyptian slate palettes, and a Babylonian cylinder engraving, consisting of elongating the heads of animals. We must wait until excavations upon the littoral of the Persian Gulf, and at the island of Bahrein have disclosed to us the relics of the maritime Babylonians and Elamites.

The tenth chapter of Genesis, the oldest ethnographical survey in the world, associates a Persian Kush with an Ethiopic Kush, that is an Asian and African identity of race, separated by the Arabian Sea. This Ethiopic Kushite territory is the very region from which M. Naville says Egyptian culture came and the secret of the similarities between Egyptian and Babylonian culture most probably lies this way*** We are of course only treating of Semitic or Mesopotamian analogies upon Egyptian antiquities undoubtedly dating from prior to the Hyksos kings, or even the connection of the early Egyptian dynasties with Syria at the Sinaitic peninsula. In later times Asiatic styles in Egyptian art would be attributable to intercourse via Syria.

M. Naville evidently considers the tableaux upon the tomb walls as merely indicative or productive of parallel environment in the next world for the defunct.

***In Herr I. Weissenborn's valuable work "Tierkult in Afrika Eine Ethnologisch, Kulturhistorische Untersuchung," he says, "The ancient religion of Egypt is formed of two elements. The autochthonous negroid population had been subjugated by a Semitic tribe coming from Asia. To the amalgamation of these two races was due a religion, in which, whilst preserving the original beliefs, they sought to make them agree with the conceptions of their conquerors. They assimilated their animal worship to the polydemonism, or polytheism of the Asiatics, assigning certain animals to certain gods of which they became the symbols." This, to a certain extent, agrees with craniological evidence, for Messrs. A. Thomson and Randall-MacIver in "Man," 1900, p. 55, say, "It seems, then, that Dr. Keith supports our contention that the population of ancient Egypt exhibits two strongly contrasted sets of physical features, viz., a negroid and a non-negroid"

It is worthy of note, however, that every scene of these panoramas may be connected, instead, or also, with the providing of a princely funeral feast. For instance, the culture of grain, plants, herbs and flowers, the netting of birds, the weaving for funerary garments, papyrus growing and making into papyri for the rituals, seal and scarab manufacture for the priests, beer brewing for beverages, tree cultivation to construct the sacred boat and to build the sleigh or chariot for the sarcophagus. Quarrying for the funeral stele stone and statuette making for the ushabtis and sculptors for the Ka statues, goldsmiths and embroiderers for mummy amulets and draperies.

The preparing of animal skins for the boat sails, the writing of the "Book for the Dead," brickmaking for the tomb, dressing and cooking all the menu for the sepulchral banquet, these will account for every action depicted in the Sakara Mastabas. Is it not possible that the whole "mise en scene" has a double object?--to describe, with much exaggeration, the funeral feast, preliminaries and function here on earth, and to secure its reputation for the deceased "quand qu'il ait une bonne sépulture dans l'accident." As M. Naville says the producing reason for the whole custom "must not be applicable" (solely) to the tomb in which we find the stelae (and the decorations and tableaux) erected when it was completed, but to an ideal tomb in the west the duplicate of that upon earth."

If this is so, it appears to us that the Elysian Fields scenes are not those of a future "country seat" life of the dead Egyptian, but the production of the next world sepulchral service and festival. The justified Egyptian is not a squire in a country home of the Ain Tuat, but a fellow passenger with Ra and his crew of deities in the sun god's ship.

The second chapter discusses the different modes of sepulture in early times, and the evidence from burial relics as to the belief in a future life. M. Naville considers that the numerous tombs or ground burials having the defunct arranged with the knees drawn up to the chest is not imitation of the position of the unborn child, indicative of a new birth to come; but merely the sitting posture, habitual to all races unused to chairs or stools. This sitting upon the haunches with knees drawn up was precisely the action of the hunter in his hut returned from the chase. So his limbs were arranged thus after death; only the corpse was necessarily laid upon its side. Certain many funerary statues exhibit the deceased in this attitude.

Another suggestion is in regard to the elaborate tomb or mastaba reliefs, which show the person in whose honor the sepulchre was ornamented, furnished with many servants and owning much cattle, fields and orchards, vineyard and boats. M. Naville says that this does not necessarily indicate that the

owner of the grave enjoyed such opulence and broad domains on this earth; but is what it was hoped he will possess in the world to come. The reliefs are in fact, just as the ushabti figures were; if the requisite formulæ were properly recited and inscribed, ensurers of the possession of slaves and servants in the next world. The means of granting to the deceased a complete estate in the future.

There is not any reason to doubt that the number of ushabti figures frequently in a tomb exceeded the establishment of domestics employed by the departed owner of it and so may the quantity of animals and fowl, of groves and pasturages upon the Mastaba walls.

In this chapter in describing the Egyptian's future life, Mr. Naville comments upon the various sacred books relating thereto, such as the Book of the Am Tuat and also the Nether World portions of the "Pyramid Texts."

When, having been acquitted in the "Hall of Judgment" and his second funeral in Hades fulfilled, he is free to "go in and out and come forth by day."

M. Naville devotes some space to the question as to whether human sacrifice was in early times an Egyptian practice, and decides in the negative. As he says had it been common it is inexplicable that among the innumerable religious tableaux it should be unrepresented. He refers to the relief in a Theban tomb where two "Nubians," also styled Anou, are apparently going to be executed and concludes they are images of men and the sacrifice was a theatrical one reminiscent of the execution of Anou prisoners of war, in the early period campaigns of Horus celebrated in later times at the Festival "de Frapper les Anou." That human beings were occasionally sacrificed as elsewhere, he does not deny. The evidence accumulated by M. Lefebure in his "Rites Egyptiens," relating to edifices proves it, but such instances were exceptional and not part of funerary customs.

The chapter upon "Rites and Ceremonies, the Divinity of the King, and the Daily Worship" has little that is new to readers of the work of MM. Lefebure and Moret. M. Naville says, "I believe that the worship of the dead king was merely the prolongation of that accorded to him during his life time. In my opinion the gods had not at first been deceased mortals and this leads me to a conclusion contrary to that of M. Moret. I believe differently to him, that they have at first been living personages for whom has been continued, perhaps somewhat modified, or developed, that which had been accorded to them during life."

This apparently means that the deities possessing temples and cults in Egypt were deified human beings, such as Imhotep probably was, we suppose the tribal chiefs whose animal emblems be-

came theirs when deified. To become a god one must have first been a king or chief, whilst later to be born a Pharaoh was to involve and insure being proclaimed a God.

M. Naville says that the Amulet or figure known as the *Dad*, or *Tat*: a sort of double column supporting four cross bars is representative of the spinal column with the projecting ribs of the vertebrate man, and says the texts leave us in no doubt as to this, but he does not quote any passage on the subject.

This symbol has mostly been considered to exemplify stability, or firmness, and to have been an hieratic representation of the four corner world pillars which support (according to Egyptian cosmogony theories) the firmament; shown in perspective. We think that there is a good deal to be said for this view of the case and consider the matter at present undecided.

One of the lectures discussed the "Doctrine of Heliopolis and the Egyptian Enneads the rôle of Ammon at the Thebes, and the religious reforms of Amenophis IV." These last it is now evident were not induced by any foreign influence. It was a selection by Amenophis of a particular form of the deity to have offered to him, solely, a type of worship already familiar, probably, in many temples. It was not a doctrinal reform, but intended to disqualify the varieties of theology and doctrine which separated the teachings of the numerous sacerdotal colleges, and to merge into one form of worship all the religious cults of the whole of Egypt. Naturally Professor Naville quotes more than usual from texts at Der-el-Bahari, as he has recovered most of these; also from other old Egyptian literature first edited by himself, such as the "Myth of the Destruction of Mankind by the Gods," but all the more important publications of inscriptions and papyri are drawn upon and a short, but select, bibliography is appended to each chapter.

It is to be hoped this book will be translated and published in the United States.

CHALCAN ART.

(M. De Morga's Discoveries at Susa.)

BY HENRY PROCTOR, F. R. S. L., M. R. A. S.

In a new edition of his "Manual of Oriental Antiquities" M. Ernest Babelon gives a very interesting account of M. de Morgan's mission in Susiana. This led to the opening up of a new field of archeological drainery in the ruins of Susa, the ancient capital of Elam. These ruins form a number of immense tells which cover an area of four to six square miles on both banks of the river Kherkha. Among other interesting discoveries is that of a bone cylinder, inscribed with what is believed to be the earliest stage of cuneiform writing, which is followed by a series of clay tablets, ranging in size from two and one-half inches to nine inches at the sides, with the principal face covered with writing of which the signs are almost cuneiform. Over a thousand inscriptions in the Elamite language have now been brought to the Louvre. Some are on slabs of stone, others on door-sockets and bricks. These have been deciphered by Dr. Scheil; they give the names of the kings by whose commands the buildings were erected, of which they formed part. After the mythical period the earliest historical texts introduce us to the princes of Elam as vassals of the Mesopotamian suzerains. Of these the first is called "Ur-iti-Adad," vassal successively of the two kings of Agade, Sargani-sar-ale, and Naram-Sin about B. C. 3750. One of his successors, Karibu-Sa-Susinak, patesi of Susa, boasts of having built the temple of the god Suga "the ancient," and of having constructed the canal of Sidar; he is a vassal of the well-known Dungi, king of Ur, and of Gudea, patesi of Sirpurla. To the rule of the patesis at Elam succeeded that of the *Tukkal-mah* and the suzerainty from being Chaldean now became Elamite. About B. C. 2280 Kudur-Nakhunta, king of Susa, effected the conquest of Mesopotamia and spoiled the towns of Chaldea, transporting at this time the statue of the goddess Nana, from Uruk (Erech) to Susa. Long after this the well-known Hammurabi delivered Chaldea from the domination of Elam, and one of his successors* entered Susa as a conqueror, but later on the Susians took Babylon and carried away the statue of Bel.

A king of Susa, Shutruk Nakhunta, boasts of having devastated Chaldea, captured several kings, hundreds of towns, and of having built a large number of temples at Susa which were afterwards restored by his grandson Shilkhah-en-Shusinak. The names of about twenty other Susian kings belonging to two or

*Kuri-galsu.

three different dynasties are known and there are traces of conflicting races in Susa itself. This fact is further shown by the scarcity of languages, which are found written in cuneiform character.

Under Sargon, king of Assyria (B. C. 722-705) and his successors, there began a mighty struggle which ended in the ruin of Susa by Assurbanipal in B. C. 647. This conquest Assurbanipal records thus: "I, Assurbanipal, the prince who adores the great gods, I conquered the land of Elam. . . . The statue of the great goddess Nana had been in adversity for 1635 years; she had been carried into captivity in Elam, a country which was not consecrated to her. . . . I seized the hands of the statue of the great goddess, and in order to rejoice her heart, I caused her to take the direct road to the Temple E-anna. The first day of the month Kislev, I caused her to enter into the city of Uruk, and I reinstated her in the eternal tabernacle of E-anna, the temple of her choice."

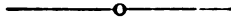
At the time of the destruction by Assurbanipal, Elamite Susa contained, not only the objects of art, but all the valuables which had been brought by the various kings of Elam from their expeditions into Chaldea as trophies of victory. Assurbanipal recovered the greater part of these objects and replaced them in the towns from which they had been taken. All that could not be carried away was destroyed, thus effecting the complete ruin of Susa. The city, however, was afterwards rebuilt, for a cylinder of Nebuchadnezzar II. informs us that he built many temples there.

Many examples of Chaldean art were found at Susa. The most interesting is the triumphal stela of Naram Sin, a primary inscription on which relates that Naram Sin, king of Agade, in lower Chaldea, 4000 B. C., caused this stela to be erected in order that there should be engraved on it the account of his warlike deeds against the people of Lulubi. There is also a second inscription, thereon, added long after the time of Naram-Sin, which bears the name of Fhutruk-Nakhunta, king of Elam, and is in the Anzomite language. Thus this same stela which was originally a trophy of the victory of the Chaldean king, Naram-Sin, was afterwards used to celebrate the victories of Chatruk-Nakhunta, the Elamite king, over the Chaldeans.

Among other marvelous discoveries are the statues in bronze which they succeeded in casting to life-size or more at a single casting. There is one such of Queen Napir-Asu, wife of Untash-Gal (B. C. 1500) now in the Louvre. It is life-size, and remarkable for its splendid execution. On her wrists are quadruple bracelets, on the left hand a ring. The costume consists of a long fringed robe which falls to the feet. The bodice is tight-fitting and shows the outlines of the figure, on the shoulder there

is a jeweled bula, and down the length of the sleeves there are elegant clasps. It is indeed marvelous, as M. Babelon remarks that such details could be accurately rendered in a statue of solid bronze, weighing many tons.

Beside the gigantic statues in bronze, there are native statuettes in gold and silver and numerous objects in ivory which date back to the primitive period of Elamite history. There are also cylinders, some in glazed pottery, others in ivory, hematite, chalcedony and jasper, which were employed to seal their contracts; alabaster vases of various shapes; an immense quantity of small gold, silver and bronze rings, and also flat dishes in these metals, which may have been used for money; magnificent gold bracelets, and others of silver and bronze, domestic utensils, axes, knives and various weapons. Indeed there is every kind of material to enable us to reconstitute the history and the daily habits of the heretofore unknown Elamites. Our friends across the channel are highly to be congratulated on the acquisition of such vast archeological wealth and on the ability of M. de Morgan and Père Scheil to decipher the inscription which certainly forms a splendid addition to this excellent volume.



PREHISTORIC RELICS CLASSIFIED.

GEORGE GRANT MACCREEDY.

The first step in the establishment of a relative chronology for prehistoric times was taken by a Dane, C. J. Thomsen, of Copenhagen, seventy years ago. Much of the subsequent progress along this line has been due to Scandinavians. Professor Brogger's work on the position of raised beaches in Southeastern Norway during the stone and bronze ages is of such a character as to indicate that northern investigators are still among the leaders in the kind of research that tends to render our knowledge of prehistoric archæology more accurate.

That the climate of the kitchen-midden period (first stone age in the north) in Denmark was warmer than at present, is now well known. It has also been established by recent investigations in both Denmark and Sweden that the age of the kitchen middens of Southern Scandinavia corresponds to the period of maximum postglacial submergence.

It was long ago observed that the kitchen middens of Northern Denmark are well above the present beach lines. They contain the oldest stone industry to be found in Denmark, viz., flint flakes and paring knives (*Skivespalter*). But in Southern Norway, where flint is scarce, other stone was employed during this early period to produce the so-called *Nostvet* industry. Brogger's researches have established the fact that this old industry

occurs at a level corresponding to that of the raised beaches marking the maximum postglacial submergence. It is nowhere found below that level and is, therefore, contemporaneous with the early stone period. The Nostvet industry is, on the other hand, rarely found much above the level of the highest raised beaches. The population must, therefore, have been a coast population, deriving its sustenance largely from the sea.

The axe with pointed pole never occurs at a lower level than that of the beach line marking the close of the early stone period. It is a transition from connecting the first northern stone epoch with the second, the latter being the epoch of polished stone axes. The early part of the second stone epoch was characterized by a variety of the axe with pointed pole; the latter part, by a flat-poled axe. During this epoch the habits of the people changed. They were engaged largely in the domestication of animals and in agricultural pursuits. The minimum level of occurrence of this industry is, then, no longer the dominant one. But there is sufficient evidence to prove that, at the close of the second stone epoch, the beaches at Christiania were from 23 to 26 meters above the present beach level.

The third epoch of the stone age is characterized by the thick-poled axe. These are found in *Scrobicularia* clay deposits as well as in graves. The position of some of these graves is such as to lead to the conclusion that, when they were built, the beach line at Christiania was not more than 13-15 meters higher than it is now.

The bronze age is divided into two epochs. The close of the first corresponds to a former beach elevation of not more than 3.5 meters higher than the present. At the close of the second epoch, the beach line was probably the same as it is now.

In an interesting table, Professor Brogger gives the results of his attempt to measure the lapse of time since the maximum postglacial submergence. His basis of reckoning is as follows: (1) The rate of elevation was about the same at the beginning as at the close; (2) the rate during the middle period of elevation was greater than at the beginning or close; (3) the determining of the position of the beach lines at the beginning and end of the bronze age and at the beginning and end of the closing epoch of the stone age, compared with the estimates of archaeologists as to the absolute length of the bronze age and the last epoch of stone, gives a standard of measurement for the rate of elevation during the last period of the same. His results are:

(a) For the stone age:

First epoch, 4900-3900 B. C., or 1,000 years.

Second epoch, 3900-2400 B. C., or 1,500 years.

Third epoch, 2400-1900 B. C., or 500 years.

- (b) Bronze age, 1900-500 B. C., or 1,400 years.
 (c) Iron age, 500 B. C.-1905 A. D., or 2,400 years.
 Total of 6,800 years.

According to Sophus Müller, only about 4,900 years have elapsed since the beginning of the stone age in Denmark. He places the duration of the first epoch of the stone age at a minimum of 500 instead of 1,000 years, and the beginning of the bronze age at 1200 B. C., instead of 1900 B. C.

May, 1906.

PRE-COLUMBIAN VOYAGES.

Professor Fiske rejects all the stories of pre-Columbian voyages to the continents of the Western Hemisphere save that of the Norseman's visit to "Vinland." He insists, however, that Columbus knew nothing of this Vinland episode. It was not the purpose of Columbus to discover a new continent, but to prove that a westward voyage of three thousand miles would bring him to Japan. This colossal blunder, as it happened, led to his most stupendous achievement. If he had calculated the distance at ten thousand or twelve thousand miles, which it really is, there would have been no point to his scheme, for the western route would have been no shorter than the eastern. Even now Europeans as a rule prefer the eastern route to the western.

Professor Fiske does not join in the common outcry against Americus Vesputius for robbing Columbus of the glory of giving his name to the western continents. Originally the name of America was given to a portion of the coast of Brazil which Americus was the first to visit. It was gradually extended to the whole of the southern continent, and eventually to the northern. But this was after the death of Americus, and he in no way, personal or posthumous, shared in the responsibility.

Properly indignant at the barbarities of the Spaniards, Mr. Fiske can nevertheless wax correspondingly enthusiastic over the philanthropic work of the Spanish monk Las Casas, the first and greatest of anti-slavery advocates, whose good name he clears from the slurs of careless and credulous historians.

He shows that the cavaliers, who settled in the southern colonies, were not all aristocrats nor the New England Puritans all plebeians, but that English traditions of birth and breeding were equally divided between the sections. In short, he overturns many prejudices and establishes many facts not hitherto accepted. His good temper is as contagious as his sincerity is impressive.

RELICS OF THE REVOLUTION FOUND IN HARLEM HEIGHTS.

Subterranean history was unearthed by the New York Gas Company when digging the mains in Harlem, and the relics gathered in that process are now in a museum at the office of the company. The battle of Harlem Plains strewed all that neighborhood with souvenirs, which, under the pressure of many seasons of rain and frost and growth of vegetation, have sunk deeper and deeper into the soil. C. C. Simpson, general superintendent of mains of the Consolidated Gas Company, has taken great interest in the making of his collection of these relics, which is still on the increase.

As the settlement of the northern end of Manhattan Island progresses, the grading of streets and excavations for sewers, water and gas mains and foundations, reveal more and more relics of the Revolutionary period. Among those at present included in the collection are British officers' buttons, an ornamental British sword hilt, bayonet, musket balls, a belt plate, bearing a figure which may be either 6 or 9, some bones, and a beautiful, long, octagonal-barrelled flintlock rifle, all found near the foot of Depot Lane (Fort Washington Point), the rifle hidden in the rocks; camp chest plate and a cannon ball, from the site of the Fort George Casino; linchpin for gun carriage, wedge for the same, pewter spoon, lance tip, lance point, horseshoe, horse bit, pot hook, hammer, bombs, large and small; shoe buckle and bullets from Fort George; twenty-pound bar shot, probably from the Pearl, and bullets found at Kingsbridge Road and Dyckman street.

Historians have figured out that fully thirty regiments saw service at the northern end of this island during the period of British occupation. The barracks of Fort George were about on a line with 192d street. Regimental buttons record the presence of the 17th Light Dragoons, 17th Foot, 7th Fusiliers, 45th Foot, 53d Foot, 14th Foot, 71st Highlanders, 80th Royal Edinburgh Volunteers and the Tory regiment of New York volunteers. It would be interesting to know how many descendants of that Tory regiment are now living in New York or elsewhere.

At the end of 201st street, on the north side of Sherman's Creek, was found the debris of a long vanished camp, including buttons of the 10th, 26th and 33d British regiments, besides some Continental buttons. At Fort Prince Charles were found buttons of the 71st Highlanders and a Massachusetts regiment. The famous 44th was among the regiments on Laurel Hill. About two hundred yards north of Dyckman street, on the western side of Prescott avenue, an important British camp is indicated

by some of the relics before mentioned and others in William L. Calver's large collection of regimental buttons. The stump of an old flagstaff was also found here.

There was very stubborn fighting in the valley between Laurel Hill and Fort Washington along the present Kingsbridge Road, from 187th street for half a mile northward. In this short section was found a miscellaneous collection of treasures. Among them are grapeshot, musket balls, a button of the 17th Regiment of British Lancers, a belt buckle marked "G. N. 31," gun flints, bayonets and lance tips. The latter are all in a row, showing where the lancers, dismounting, struck their lances into the ground and presumably tethered their horses. At the gas house on Kingsbridge Road, just south of Dyckman street, was found an eighteen-pounder shot and the portion of a limber. About two hundred feet to the eastward, on the plain, were the bones of many dead, buttons of the 38th Royal Regiment and the 71st Regiment (Fraser's) Highlanders. At the corner of Sherman avenue and Dyckman street, upon bits of cloth clinging to the wristbones of a huge skeleton, were link sleeve buttons made of small Spanish coins bearing the inscription, "M. Vtraque Vnum, M., 1771." At Dyckman street and Post avenue a jackknife was found buried in a pile of oyster shells and with the spring in good condition still. The blade was much nicked, as if it had been used for opening oysters. On the slope just north of Fort Tryon, the bones of many Hessians were discovered, and skeletons were also numerous on the ridge east of Kingsbridge Road, between 187th street and the gas house.

The battle of November 16, 1776, becomes very real to the imaginative sightseer as he handles these relics of long-dead armies and pictures to himself their camp life, their dress, their munitions of war and their advance upon the American forces.

THE FOSSIL HORSE.

Prof. Henry Osborne has been at the head of an expedition sent out by the American Museum of Natural History.

It is stated that he has discovered not only the ancestors of the dinosaur but of the rhinoceros and of the horse. It is stated in the American Journal of Science that the bones of the fossil horse have been discovered in North America by Prof. Lull. The facts can be learned by writing to these gentlemen.

IN THE TULARE BASIN.

"Tulare Lake, a prominent feature of an old map of California, and once the largest body of fresh water west of the Mississippi River, is located in the extreme southern part of San Joaquin County, at an altitude of about 200 feet above tidewater. In the 40's its superficial area, it is said, exceeded 1,200 square miles, but in 1868 its dimensions had shrunk to 700 square miles, and twenty years later to less than 200. Occasional floods have raised the level of the lake, but the general tendency has been toward obliteration. Originally the lake, by a well defined outlet, emptied into the San Joaquin River, but sedimentary deposits have gradually built up a dike which obstructed the flow of waters and made the Tulare basin an independent system of its own. The lake receives the waters from many rivers, each draining large sections of the country and in periods of flood carrying immense volumes of water. The lake is extremely shallow, the deepest part being only thirty feet in depth, while evaporation exceeds eight feet annually. Within the last ten years Tulare Lake has been visibly growing less in dimensions, and the belief in its permanent disappearance became settled in the minds of those who were interested in the land.

"Several reclamation districts were organized, appropriating 150,000 acres of the old lake bed, and a large area was put under cultivation. Immense crops were raised, and land being protected by levees and carefully drained at an expense of several millions. Faith in the future was stimulated by absence of floods. The last year opened with less than the usual rainfall, and more land was put under cultivation in Tulare basin than ever before. Thousands of acres which no plough had ever touch were planted to grain and fruit, and up to February 1 the outlook of the lake dwellers was most alluring. A vast amount had been laid out in permanent improvements and farming machinery, and appearance flattered the most exalted hopes of abundant crops.

"These would have been fulfilled had not the early months of 1906 violated all precedent and proved the most extraordinary in point of rainfall in the history of the State. Unprecedented floods, having no outlet, covered the bed of Tulare Lake to a depth which submerged every acre of cultivated land within its boundaries, swallowing up all crops and improvements and utterly destroying the results of ten years of unremitting work expended by the industrious colonists. Where were once wide spreading tracts of highly cultivated farms there is now but a waste of waters, above which rise the ruins of great harvesters and the wrecks of homes."

PREHISTORIC BOOKS AND PAPERS IN AMERICA.

The first specimens of American paper which came to the hands of the Spaniards were found, according to the testimony of Dr. Valentini, on the coast of Vera Cruz, immediately after Cortez landed. They were covered with pictures, bound in the form of books, and were sent to Spain, among the presents which Cortez sometime later received for his monarch from Montezuma.

"Among these were two books of those which the Indians had made, six specimens of drawings; another one which was red and has a few circles drawn on it and two specimens painted blue."

Peter Martyr writes of them to Pope Hadrian, as follows:

"They do not bind them as we do, leaf by leaf, but they extend one single leaf to the length of several cubits, after having pasted a certain amount of square leaves one to the other, with bitumen, so adhesive, that the whole seems to have passed through the hands of the most skilful bookbinder. Whichever way this book was opened, it always presented two sides written and two pages appeared in as many folds.

"We have said before that these natives had books, and the messengers who were procurators for the new colony, together with other presents, brought many of them here to Spain.

"The leaves of these books upon which they write are of the membrane of trees, from the substance that grows beneath the upper bark. These porous membranes they fill up with bitumen and render them pliable, and stretch to whatever form they please, and being made hard again, they cover them with a certain kind of gypsum."

This statement is concise and of remarkable clearness. Dr. Valentini says:

There is a ring of truth in it, which makes us believe that the alleged messengers actually happened to be eye witnesses to the act of paper making by the Indians. Though the tree from which the membrane was taken is not named, it cannot be other than the rubber tree.

The rubber tree presents a fanciful appearance, for a large number of long, triangular roots are grouped around the foot, leaning against it, in order to support the tree, for without these natural buttresses the tree would not be able to stand. The tree is not felled by cutting the roots or braces, but a scaffolding is placed above, at the height of seven yards. The bark of these natural buttresses begins to dry and come off.

It needs only a little practice to peel off long pieces, which when soaked and beaten, yield a membranous tissue.

Lander, in speaking of paper, made from the roots of a tree, had in mind this portion of the Anatt tree. It is bark paper.

A special paper which was found to be in use with the Maya people, who lived on the east coast of Mexico.

The Nahuas made a use of the Maguey plant in making vegetable fibre.

This plant furnished the people with fire and fence wood, with gutters, tiles and thatching material, with paper and fibres, and from it shoes and cloth were made. They gather nails and needles from it, as well as fruit, wines, honey, sugar and vinegar.

The manufacture of paper as found among the Mexicans was as follows:

Their vegetable fibre was taken from the Maguey plant. The leaves were soaked, purified and the fibres washed, smoothed and extended, for the manufacture of thin as well as thick paper. After having been polished, they painted upon it.

The Geographical Society of New York is in possession of an ancient Mexican painting, which represents the plan of a little village, which had been taken away from the people by the Spaniards.

Another specimen of paper was examined by Dr. E. Forstermann. He says:

The ground color is white, with some reddish spots popping out. According to tradition the paper is taken from the Metl plant. The substance of the sheets was held or fastened together by thin membranes. The seventy-four sheets, of which the Codex was composed, consisted of two separate layers. It was a membrane which furnished the painter with an even surface, but the Maguey fibre formed only the body of the sheet. Now as to the amount of paper that was paid in tribute, Dr. Valentini says that twenty-four thousand reams equal to eighty-four thousand sheets could hardly have been distributed for capital. But we are fully informed for what different purposes paper was employed.

They had to record the historical annals of the year, provide the priests with copies of ritual calendars, register tributes, and in case of litigation, on the limit of rural estates, to draft the map for the parties and the judge. There was lack of a phonetic alphabet and writing did not allow these people to indulge in voluminous literature. Their imperfect system of representing an event or an idea by means of objects and symbols, confined them to the recording of only the most important data of civil and religious administration. In this the reports of the Spanish chroniclers do unanimously concur and the paintings which are left to us confirm the impression that the records and the use of

which was made of paper, was almost exclusively confined to purposes of administration.

The Mendoza Codex, which may be called a prehistoric book, contains in its first part the annals of the Aztec tribe, the pictures of their rulers, the cities they conquered and the signs for the years in which the events took place.

The second part contains the pictures of the coats of arms of the same cities, with an illustration of the product which each of them was to pay as tribute.

The third illustrates the education which the Aztec boys and girls received.

In the first part of the Codex is the picture of a house destroyed by fire, which is really the picture for conquest. Also the tribute list, due from towns.

These are all pictured or painted. Along with the pictures we find the representation of paper, and the tribute list.

Among the names are sixteen towns, and one town, Yzamattam, was tributary in 8000 reams of paper. The name of the town was "Paper City." Number 8000 is represented by a pouch, trimmed with fringes, and with three tassels attached, and a roll of paper by the side.

Other indices show that the amount was about one hundred and sixty thousand sheets of paper in the bundle, which was tied with the rope.

Another picture represents a tribute of paper. The coat of arms of the town shows that the tribute of paper was due from this town named Amacoztitla, which means "Paper Town."

The yearly tribute of paper to the city of Mexico from the different towns was twenty-four thousand reams, equal to 480,000 sheets. As to the number of sheets of paper used for the official purposes, only a minimum of the four hundred and eighty thousand sheets can have been consumed in this way.

There was another use for paper. The children to be sacrificed were dressed and adorned with paper of a red color. On one hill they dressed the children in paper showing black and red stripes; on another hill the children were arrayed in paper of blue color; on another dresses striped with black; on another the dresses half red and half yellow. On the seventh hill the dresses of the children were a yellow color and on the shoulders they fastened a pair of wings, also of paper, so they looked like angels.

The woman destined to be sacrificed in honor of the goddess Xilonem had her face painted with two different colors. Her nose was of yellow, her forehead red, her head was adorned with a paper crown of four points.

The prisoners were painted all over, their bodies with white color. The apron being pink. They walked at the head of the

procession, with a Maxtli's with corrugated paper and their shoulders studded with rosettes of paper as large as shields.

They were first wrapped in white paper, then in richly embroidered cloth. They wore crowns of paper and all the papers in which they were dressed were sprinkled with liquified ulli. The unfortunate victims were dressed in their robes of paper, each of them bore in his hand a paper banner.

Finally one of the priests stepped down from the hill of sacrifice, carried in his hand a large bundle of paper. Another priest carried in his hand a kind of sensor, which had the form of the head and tail of a serpent; the tail being made of paper. At the end, after the victim was dead, they tore from the body the paper in which they were dressed and burned it all in the yard of the same house.

THE UNIVERSITY OF CAIRO.

The University of Cairo, El Azhar, as it is called, for centuries has been one of the most famous in the world, and wherever you go in Mohammedan countries you will hear it spoken of as a great institution, one of the greatest, oldest and most influential in all the universe, with a faculty of wise, learned and progressive men. It is the only institution for higher education under the care of Islam, and young Mohammedans of wealth and future responsibilities are sent there from every land in which faith in the prophet is proclaimed. It is perhaps the oldest of all universities, being the outgrowth of the Serapeum which was established at Alexandria by Ptolemy Soter 300 B. C., as I wrote you a few days ago, in connection with the great library. Saladin, however, was the actual founder of the present institution, about 1170. He gave it its present home, which it has occupied ever since, and there is not the slightest doubt that at one time it did exercise a powerful influence throughout the civilized portion of the world.

It is not what we would consider a university. At least, it is not arranged or conducted upon the plan we are accustomed to; but it has from 10,000 to 12,000 students from all parts of Turkey, Syria, Algiers, India, Bokhara, Turkestan, Afghanistan and the other Mohammedan countries. Most of them, however, are from Egypt and the countries immediately surrounding it.

ARROW HEADS AND HARPOONS

There is one peculiarity about the prehistoric relics of the American continent which is worthy of special attention. It is this: They show an adaptation to the region in which they are found, and have shapes and forms which make them especially useful in those regions. In other words they are adapted to their environment, and are perhaps the result of the life which prevailed. This is illustrated in such relics as the bow and arrow and the harpoon, which are supposed to rank among the simplest of all the stone relics. It is well known that harpoons are found at present in the far north, as well as the bow and arrow, but in the middle and southern part of the continent arrow heads are very numerous and harpoons very scarce.

It is true that a few harpoons, made out of stone, have been found as far south as the State of New York, but generally at a considerable depth below the surface, giving the idea that they may have been deposited when the Eskimo fishermen were living on the edge of the great ice sheet, which at that time extended as far south as the chain of the Great Lakes. This is the opinion of Rev. W. M. Beauchamp, who has made a specialty of the stone relics of New York.

Prof. F. W. Putnam has also found harpoons in the shell heaps, scattered along the coast of New England as far south as Martha's Vineyard. These relics may have been left by the fishermen, who had come from the Arctic regions, or they may have been left by the Botocudos, who were in the region at the time of the Discovery.

Everyone knows that in the Arctic regions there are open seas in which seals and whales were formerly numerous, and that these furnished the chief source of subsistence, but in the regions further south there were many wild animals which have always been the prey of the hunter, and the regions between were the habitat of those creatures which occupied both land and sea.

Under these circumstances, it is very proper to interpret archæology from two standpoints, viz: the chronology as well as locality. If the harpoons are found at any considerable distance below the surface, it is quite probable that they were dropped at the time that the ice sheets extended as far, or farther, than the chain of the great Lakes, but the arrow heads, which have been found near the surface, were deposited when the ice sheets had withdrawn, and the various Indian tribes were occupying this region. America furnishes a favorable field for the study of harpoons and comparing them with the arrow heads and spear heads, for there are enough of these different kinds

of weapons, still in the hands of the natives, to show how they were hafted and to what uses they were subjected.

Boats are still numerous in the Arctic regions, and in them may be seen Eskimos, who both manufacture and use the harpoon, in catching the whale and other creatures of the sea. There are also pictures which show that the same kind of boats were seen by the early discoverers, even on the coast of New England. It is not five hundred years since America was discovered, so that we have a view of the rapid changes which have appeared on this continent, though on the continent of Europe we have to count the years by thousands, rather than by hundreds. In this respect archæology proves that America is indeed the New World.

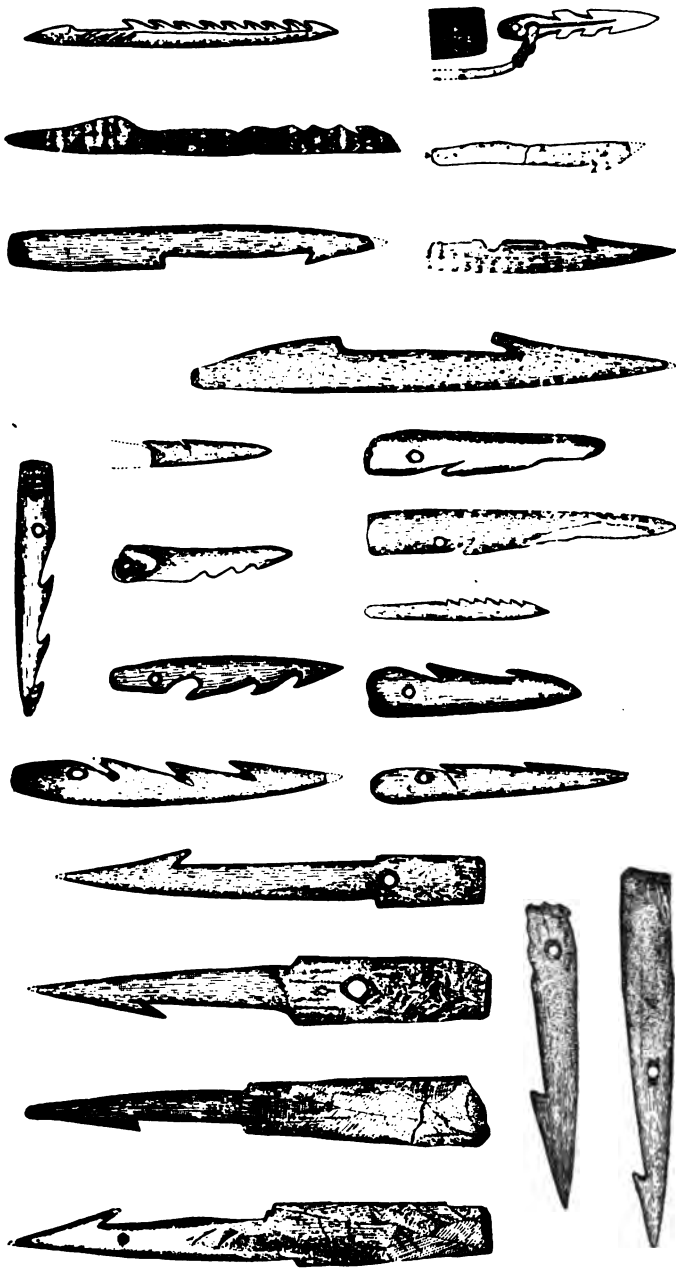
Now the difference between such relics as the harpoons, spear heads and arrow heads help us to realize the changes which have taken place in the circumstances and employments of the people. It is plain that there is a difference in this respect, for the harpoons are composite relics. That is to say they are made up of two or three parts, the harpoon head, harpoon shafts and the cord or line which united the two parts of the weapon as well as the line which was held in the hands of the fisherman. On the other hand, there was no line attached to the arrows, for they were shot from the bow, or hurled from the hand, and their recovery was secondary in the minds of the hunter.

It is true that the arrow was a compound implement, as well as the harpoon. It was made up of three parts. The arrow head, which was generally made of flint or chipped stone of some kind. It was fastened to the shaft by a thread. The arrow itself also had feathers at the end and a notch which fitted over the bow string. These made it a compound implement. The bow itself was a composite weapon.

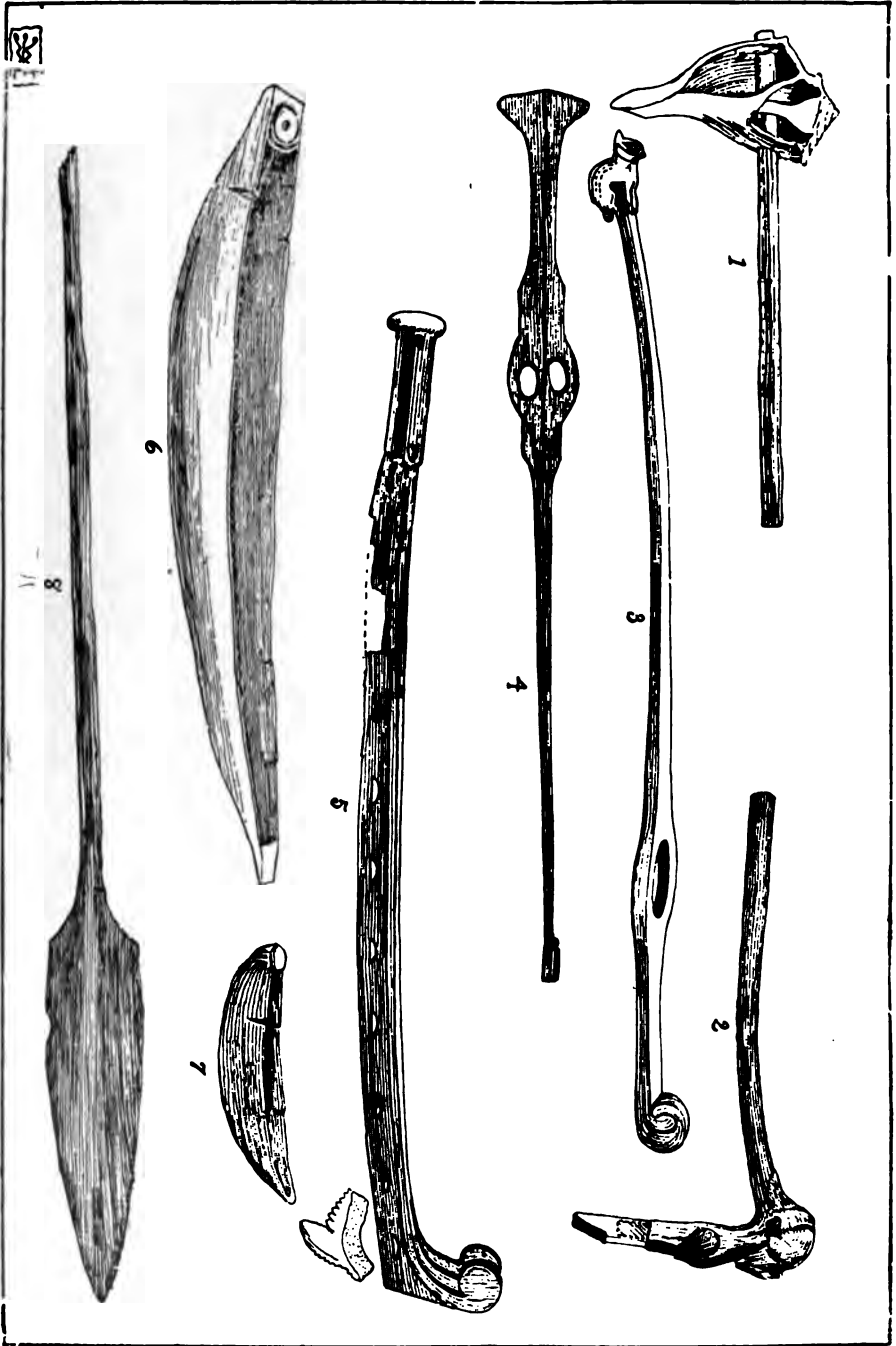
It is made up of a piece of wood which was of a size and thickness such as could be bent by the hand of the hunter. The elasticity of the wood furnished the propelling force, while with the harpoon, it was the arm of the fisherman which propelled the implement.

The similarity of the two implements consisted in this—that a cord was used in both, but in the bow the cord, or bow-string, was attached to both ends of the bow, while with the harpoon, the cord was held in the hand of the fisherman, and was used in retrieving the implement.

There was another difference between the two. The fisherman was compelled to use his arm as well as his eye in hurling his weapon—but the arm was thrust out, while with the bow, the arm was drawn in. We have in this an analogy between the bow and arrow and the gun—for it is gun powder that gives the



HARPOONS FROM THE NORTH.



WOODEN RELICS FROM FLORIDA.

propelling force, but the gun itself remains stationary. The only other weapon which resembled the harpoon was the spear for this was propelled by the arm and was afterward retrieved.

The point of resemblance between the harpoon and the arrow is that the harpoon reached the body of the whale or seal, and often reached the vital parts, but the harpoon itself was retrieved and used again, the arrow was sprung from the bow, and penetrated the body of the game, but was retrieved only after the game had ceased to struggle and its life had departed. The arrow shaft was like the hunter's hound. It was sent after the game, but was "retrieved" exactly as the hound is.

Now these differences are important, for they show the process of invention which was common among the fishermen, as well as the hunters, but they also show the difference between fishermen and the hunters, as well as between the hunter and the warrior. There are pictures of ancient warriors riding in chariots with spears in their hands, while a lion may be seen lying beneath the horses. The body of the lion is filled with arrows which had been shot from the bow of the warrior or his attendants. This was in Babylonia.

Now these illustrations of the progress of man, in the use of weapons are important, for they show the correlation between man and his surroundings.

We would not expect to see a fisherman with harpoon in his hand sitting in his canoe on the Euphrates, but we might expect to see a coracle, which was common in ancient times, in this valley, though it is uncertain whether the coracle is a survivor of the canoe.

It is, however, worthy of notice that there were coracles on the Missouri river, which Catlin once discovered. On the banks of the river were hemispherical huts, which in their shapes, resembled the snow huts of the Eskimos, though they were made of timber and bark and covered with earth rather than snow or ice. The comparison is suggestive, though it is a question whether the hut covered with earth is a survivor of the hut, which is, even now common in the far north.

These various comparisons indicate that the primitive inventions of man have this peculiarity, that they seldom disappear, but have generally survived through long periods of time.

Mr. W. J. Wintenberg has described the bone and horn harpoon heads of the Ontario Indians.

He says, "It was among the Eskimos that the harpoon reached its highest development, calling into existence numerous accessories which were unknown to the Indians. One is struck with the remarkable similarity between the harpoons from Europe and America. As Sir John Dawson says in this "Fossil Man," "The visitor to the British Museum may see harpoons from the

caves of the Reindeer folk of France, so like those in the same collection from Greenland and Terra del Fuego, that all might have come from the same workshop.' Mr. W. Boyd Dawkins, in his "Early Man in Britain" suggests that the Eskimo might be the descendants of the ancient Cave Men of France, for there are no savage tribes known which use the same set of implements without being connected by blood.

The resemblance between American and European harpoon heads tend to strengthen Prof. Dawkin's hypothesis. In his notes on "Primitive Man in Ontario," Mr. Boyle says: "On account of the extensive use of bone by the Eskimo there is a strong temptation to refer many of our specimens to Innuit origin. The Huron Iroquois tradition is that the Eskimos of the north, formerly dwelt on the Gulf of the St. Lawrence. It has been claimed that the Northmen encountered the Eskimo in New England nine hundred years ago. Among other evidences of Eskimo influence, and contact, we have the semi-lunar knives of slate, which are very much like the Eskimo woman's knives. Our Indians seem to have had a knowledge of the Eskimo toggle-joint. Several articles made of walrus horn have been found on New York village sites, and there is a walrus horn in our own museum from Balsam Lake."

The cuts show the resemblances. Fig. No. 1 shows the head of an Eskimo harpoon, and a connecting line, and a plug of wood.

The simplest form of the harpoon is the one with barbs on one side only. A single barbed harpoon is seen in No. 2. A specimen of horn 8 inches long is shown in No. 4. Two examples from the Rock Shelter of Bruniquel of France are shown in No. 5. Another from Kent's Cavern in No. 6. A specimen from Brant County, N. Y., is shown in No. 7.

The specimens from New York State may be seen in the next wood cut. One of these is nine inches long, four others, single barbed with the hole through the base for the cord is shown in this cut. All of these are from York County, Ontario. Ten others may be seen in Fig. 3. Of these, several specimens are of deer's horn; one from Lansing, York County, another from Brantford, another from Otonabee river, another from Simcoe County, one from Victoria County, another from York County.

The toggle heads have been described by Mr. Wintenberg, they are more complicated than the barbed type. The toggle-head was designed to serve the same purpose as the arrow head, it was shot into the body of the whale or other animal, and left even after the harpoon was withdrawn. The cord which held it to the harpoon being broken by the animal in its flight.

Of the prehistoric character of the harpoon heads, there can

be no doubt, but it is uncertain whether the pattern was borrowed from the Eskimos or from the ancient Cave Dwellers. If it was, the antiquity of the harpoon must be acknowledged.

In this connection, it is well to consider the throwing stick. Prof. O. T. Mason described this weapon, and has given a number of plates to illustrate its shape, as well as its use. He says there are three areas for the throwing stick, Australia, the Upper Amazon and Hyperborean regions, quoting from Col. Lané Fox. The method of holding the throwing stick is shown by the plate, which represents an Eskimo launching the harpoon. Mr. John Murdoch states that the hand is held by the Eskimo, as low as the shoulder, and the method of throwing the harpoon is quick.

Throwing sticks are common in Greenland, also Ungave as well as the Cumberland Gulf, and the Point Barrow and the lower Yukon.

Throwing sticks have been found as far south as Florida. Mr. Frank T. Cushing has described them. He speaks of them, as buried in the mud at the bottom of the Pyramid Mound, along with the other wooden implements, as well as stone relics.

Throwing sticks covered with gilt have been found in Central America; they were probably used as batons and were signs of honor, or of office. This furnishes a hint as to the development of the civilized tribes, from an early condition of barbarism or savagery, for it is not likely that the rulers of the tribes in Central America ever used throwing sticks in hunting animals or spearing fish, or throwing weapons at an enemy.

The throwing stick, however, may be classed with the spears, arrows, javeline and other weapons, which were common in the stone age.

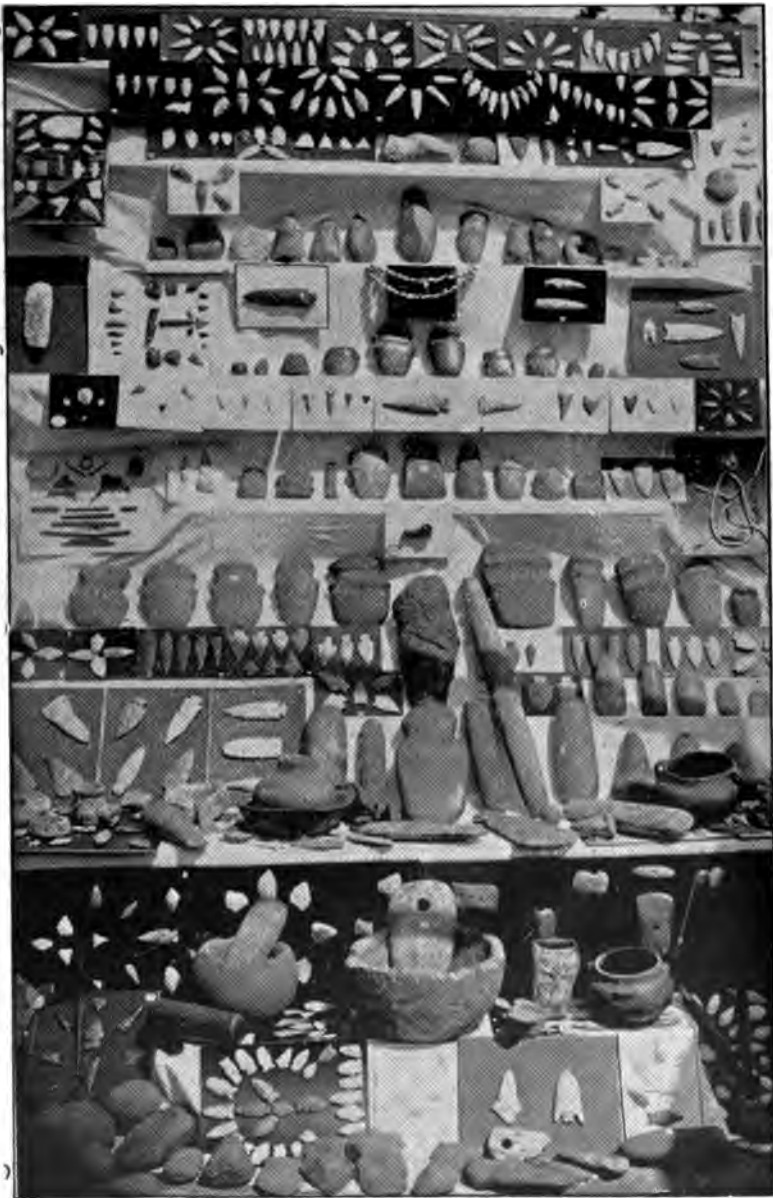
Throwing sticks are common on the N. W. coast. They were found by Mr. W. H. Dall, of Unalaska, Sitka and elsewhere.

The throwing stick, from Vancouvers Island, differed from those found on the Florida coast. They are much ruder.

The plate given by Prof. Mason represents about thirty different kinds of throwing sticks, another represents seventeen kinds of harpoons, and another plate represents many kinds of bows and arrows. These are all on exhibition at Washington, and are worthy of study as they show the stages through which this weapon had passed.

The arrow heads, however, surpass all other relics in their number, in their diversity of form, the great differences in their sizes and shapes, as well as their finish.

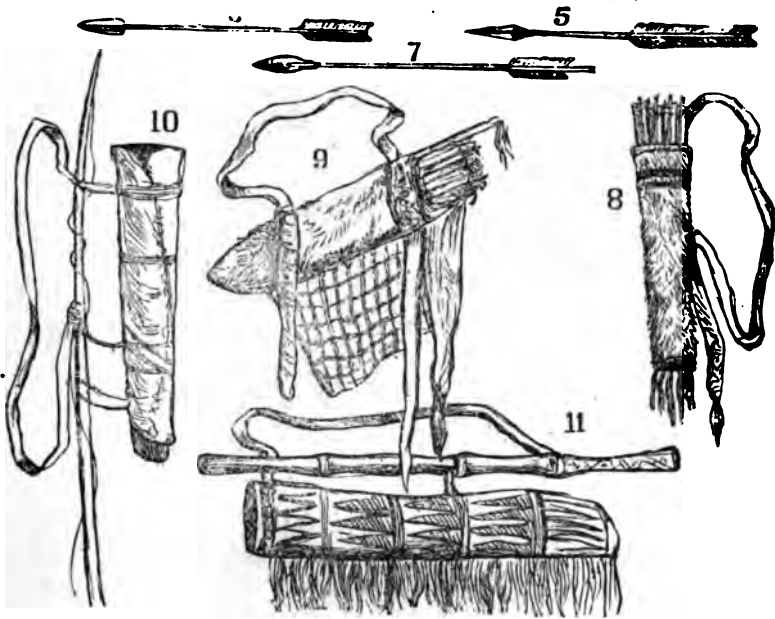
There are many engravings which represent the arrows which were common in America. These show the distribution to have been widespread. It is probable that scarcely any part



ARROW HEADS FROM THE MISSISSIPPI VALLEY.

of the two continents are without specimens of arrows. Some collectors have endeavored to secure all the different shapes, patterns and sizes, and have been able to discover the peculiar characteristics of the arrows in their immediate vicinity. A few have taken a wider range, and have brought together all the different types which could be found in a larger circle.

The Museums have, however, been able to bring together arrow heads from still wider districts. The National Museum at Washington has perhaps secured the best representative collection, for access has been gained by it, to all of the regions



ARROW HEADS AND QUIVERS.

embraced by the two continents, and even the regions on the eastern continent.

The plate which is given herewith contains pictures of the various patterns, sizes and shapes which may be seen in the Mississippi Valley. Along with these are many stone axes, those with grooves and without. Also a few pestles and mortars. The mortars being mainly of soapstone and the pestles of a harder kind of stone. The plate is valuable because of the fact that so many different stone tools and weapons are brought together in such a way that they can be compared.

It should be said here that there are no quivers in this col-

lection. A cut, however, is given which will show the shapes of the quivers which are most common. One of the quivers has the arrows in the quiver with the cord which was designed to pass over the shoulder and hold the quiver in its place. Another represents the quiver with a hunting bag hanging from it. This is probably modern and not prehistoric. Another quiver seemed to be fastened to the branch of a tree, the lower figure, No. 11, represents a quiver suspended to a cane or reed. It is decorated with various ornamental figures and has a fringe hanging below it.

The arrow heads at the top, are nearly all of the same shape,



INDIAN WARRIOR WITH SPEAR.

but represent the three parts: The arrow head, the shaft, and the feather which was generally attached to the shaft. The cut represents the modern style of quivers and arrows, rather than the ancient, and the historic rather than the prehistoric.

The history of the arrow and spear as well as the harpoon, goes much farther back than that which is represented by these

different plates. The typical specimens represent the variety which is to be found in the various parts of this continent, but they do not go back to the early stages which are represented by the Cave Dwellers, and Gravel Beds of Europe, nor forward to the stages which were represented by the weapons which were common among the ancient races of the far East.

The picture which is given in America, begins much farther back than any which is found among the historic nations of the East, but does not bring before us the shapes and forms which prevailed in the early part of the prehistoric age. There were Cave Dwellers in Europe which really possessed the earliest forms of arrow heads or spear heads, though there is no continent which so thoroughly represents the middle stages of progress, or in other words, the weapons of the stone age, including the early part of the metal age.

It will be found, however, that even in the stone age there was a love of ornament as well as a war-like spirit, and that the warrior had his method of displaying his weapons in a way which was imposing. The cut given with this shows the warrior carrying a spear which is ornamented with feathers and a medicine bag. He has upon his head a pair of horns which are the symbols of his power. They remind us of the Scripture passage, "Out of his head were horns."

The distribution of the harpoons is of considerable interest, because of the study throughout the northern part of this continent and the north of Europe.

The resemblance between the American and European arrows has engaged the attention of Prof. Dawkins, who believes that the Eskimos were descendants of the ancient Cave Men of France, and that they came originally from the north of Europe. He says that no savage tribes known, use the same set of implements without being connected by blood, a position which is not sustained by the archaeologists generally. Mr. Boyle, in his notes on primitive man in Ontario, says: "On the account of the extensive use of bone by the Eskimo there is a strong temptation to refer many of our specimens to Innuït origin, but there does not seem to be any more reason for so doing than there is to attribute the same origin to flint and some other relics. When we take into account the Huron Iroquois records we may at once conceive the strong possibility of Eskimos effecting the work of our Indians.

The old time contiguity of the people favors this supposition for the earliest voyagers speak of seeing the Eskimos on the shores in the neighborhood of New Foundland, and as far south as Cape Cod.

It is the opinion of certain archaeologists, such as Dr. Beau-

champ and others, that the Eskimos occupied regions as far south as the St. Lawrence, éven in New York, for many very rude relics are found at various depths in that vicinity.

Other evidence of Eskimo influence in other regions are semi-lunar knives of slate, and the presence of walrus horn relics in New York Indian village sites.

Most of the harpoon heads were fastened to the shaft the same as those of the Eskimos. It appears that a cylindrical piece of ivory and a wooden shaft are fastened together by a tenon joint and a thong. The material from which the harpoons are made varies according to the locality. Specimens of deer horn have been found, also elk horn, but those found further north are of walrus bone.

The shapes of the harpoon vary. The most of them have a heavy shoulder below the barb and a hole through it, by which the weapon is fastened to the pole.

As for the barbs themselves there is no uniformity. The large majority of the harpoons have a single barb, others have two, three and four barbs, the most of them on one side, called bilateral. Bone harpoons have been found in York County with three barbs on both sides.

Toggle-head is another peculiarity of the harpoon, which is exceptional. In fact there is scarcely any other stone or bone implement that has any thing that resembles a toggle-head, for the arrow heads and spear heads are all made out of a single piece of bone. If it is to be separated from the handle or pole, or from the arrow, it is because the single arrow or spear head is drawn off from the arrow or spear.

Mr. W. J. Wintemberg has described these peculiarities of the harpoon, and has given many illustrations of them in a pamphlet issued by the Society at Toronto, Ontario.

As to the kind of fish for which the harpoon was used, this author mentions the sturgeon, bass and blue fish, but it was such larger fish as abound in the ocean and the Arctic Sea and Hudson Bay that the harpoon was most used. Father Dablon, however, speaks of the Indians spearing the eels, sometimes they would catch three hundred and more in a single night. The peculiarity of the harpoon is, that like the bow and arrow, it was a compound of a shaft of an arrow or spear head with a shaft, and sometimes a line or rope to connect the harpoon head with the harpoon shaft. This is a very suggestive point, for it shows that the fishermen acquired a skill in manufacturing their implements, which was quite equal to that of the hunters, which formerly prevailed on the great plains of the west. Another evidence of their skill! was exhibited by their boats and canoes. It is well known that the tribes which dwelt along the banks of the rivers, both in North and South America, were very

skillful in making boats, some of which could contain a whole band of warriors, but the Eskimos who formerly dwelt north of Hudson Bay, were even more skillful in making and handling their canoes.

In the tribes of the northwest coast they are skilled in making large wooden canoes, in which they navigate the ocean, even in stormy weather.

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THE CROGHAN CELEBRATION.

The Croghan celebration at Fremont, Ohio, on August 2, 1906, commemorates the exploits of General Harrison and Maj. Croghan, who figured conspicuously in the War of 1812, and especially the battle at Fort Stephenson.



CROGHAN.

General Arthur St. Clair, Governor of the North West Territory, organized Hamilton County in 1792, with Cincinnati as county seat.

Wayne County was organized in 1796, with Detroit as county seat.

The county covered a vast extent of territory from the Cuyahoga on the east and Fort Wayne on the west.

The description of General Harrison's campaign, published in 1816, describes Col. Croghan's heroism in defending Ft. Stephenson. The rank of Lieutenant Colonel was conferred by the President of the United States for his gallant conduct.

The ladies of Chillicothe presented him with an elegant sword. Tecumseh, the famous Indian warrior, had taken part with the British, but Fort Stephenson was defended against the attack.

A little six-pound cannon, called "Old Betsy," served an important part. Proctor's report of the battle, in which he was badly worsted, acknowledges that he went against his own judgment, for Sandusky is fifty miles by water from Lake Erie, and he could not with his small force remain more than two days. The fort was composed of block houses, connected by picketing.

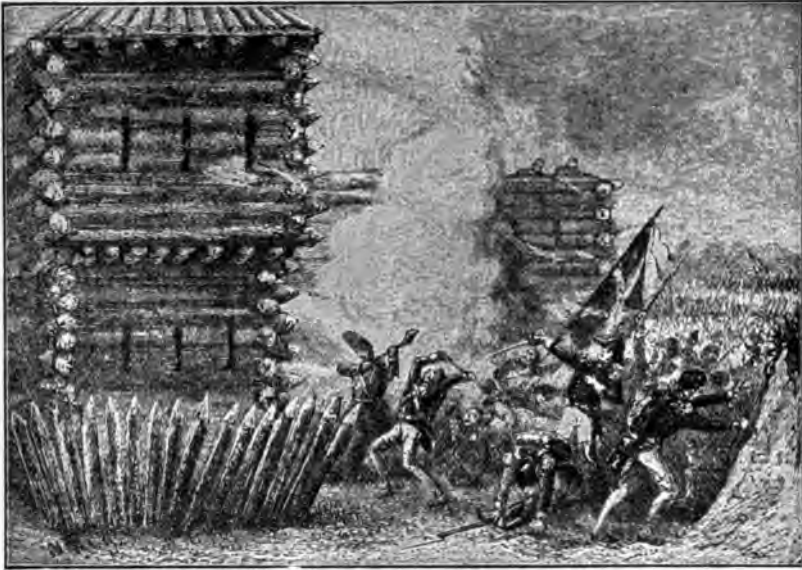
Tecumseh was the great Indian warrior who had joined General Proctor in his attack upon Fort Stephenson.

There were other persons beside General Croghan who served an important part in the repelling of the English troops and the Indians.

Mrs. Whittaker, on the approach to the fort of Tecumseh's Indians fled from Whittaker ford, three miles below, to Ft. Stephenson, and many ascribe much of Maj. Croghan's success

to the information furnished by her, for she had learned of the intention of the Indian allies, and so the generals were made acquainted with the prospect of attack.

Rev. Joseph Badger, a revolutionary soldier, and missionary in 1801, sailed up the Sandusky river in 1809 and made an



ATTACK ON FORT CROGHAN.

appointment at Mrs. Whittaker's and persuaded the Wyandots to take no part against the Americans.

Gen. Harrison once stopped at her house and was nursed through an illness of over six weeks. She was fired on by the Indians whose bullets riddled her cape.

The honor of defending the fort is due to General Croghan, but it is plain that the few settlers who were scattered throughout the entire region as well as the soldiers within the fort, deserve much credit for they were the forces in reserve who kept up the courage of the besieged.

The celebration and monument will have a tendency to awake an interest in the struggle between the English and the American troops, but the geographical lines have served to keep apart the two great nations more than this famous battle, though the victory possibly saved the region about Chicago and further west to the United States.

The Hittites.—The last number of the American Antiquarian contained four full page plates which represented the Hittite Divinities—one of them with trident and hammer in his hand—another with the axe and sword, representing a warrior. A third represented the winged sphinx with human head. Another a mythologic figure with bird's head and with wings. They were all of them labeled as if from Babylonia, though they should have been credited to the Hittites.

Mr. Cyrus Adler has described them in a pamphlet entitled, "Biblical Antiquities," which was published by the Smithsonian Institute in 1898. The casts were on exhibition at the exposition at Atlanta in 1895, and are now in the National Museum at Washington.

BOOK REVIEWS

THE JOURNAL OF THE POLYNESIAN SOCIETY. Wellington, New Zealand, December, 1906.

The leading article in this number is by our old time contributor, Mr. Eldon Best, called the "Nursery Songs." None of them are translated, and so we cannot pronounce as to their value in a literary point of view.

The Maori Bird Names are described by Rev. H. W. Williams, M. A.

The ancient Maori was a close observer of nature, but was not skilled in ornithology. The names are divided into about 100 classes, and seem to refer to the different birds.

The Polynesian Society has continued now fifteen years and is in a very vigorous condition at present.

EGYPT EXPLORATION FUND. Archæological Report, 1905-1906, F. D. Griffith, M. A. London, 37 Russell street.

Excavations at Dier El Bahari have been carried on during the last year. A shrine has been found with its goddess, a cow of natural size, made of sandstone. On the right side is a boy being suckled. On the neck is a cartouch of Amenophis II. It is said to be the finest statue of its kind ever found. Notice is given of the work which Prof. Breasted has done, with a full appreciation. Also the publications of Prof. Von Bissing, of Edman, and Seton Karr.

The memoir or biography of Champollion is also noticed. All race distinctions are ignored and the co-operation of archæologists' is recognized. Prof. Flinders Petrie has made some remarkable discoveries. It appears that the Hiksos were archers and a nomadic people, and they imported black incised and buff painted pottery from Egypt.

The Semitic source of the people is shown by the early portrait at Beni Hassen. The thoroughbred horse of the Arab breed, probably came from Lybia as the original horse.

DISCOVERIES OF THE ACTS OF PAUL. The various discoveries have been made which prove the genuineness of the Acts of Paul as given in the New Testament.

Among these were the apocryphal gospel of Peter, discovered in '80 or '81. Mrs. Lewis' discovery of the earliest "Syriac Gospel," Robinson's "Fragment of the Old Acts of John."

The new sayings or Logia of Jesus, the Shepherd, teaching of the Apostles. The Apocalypse of Peter. The spurious correspondence between Paul and the Church of Corinth. The Ephesian Fragment mentioned by Hippolytus.

The Fragments describe the events of Paul's life in Antioch, Iconium, Corinth, Philippi and Rome. These constitute the list. But the origin of the fragments and spurious "Acts" is unknown.

THE FIFTEENTH INTERNATIONAL CONGRESS OF AMERICANISTS.

By George Grant Maccurdy.

The opening paper was on the French dialects in Canada, by Prof. Rivard. Sig. Leopold Batres describes his excavation at Teotihuacan. Dr. George Grant Maccurdy dealt with the Armadillo motive in the ancient ceramic art of Chiriqui. Father Morice read a paper on the position of women among the Tinne. Prof. Franz Boaz discussed the ethnological problems in Canada. Other papers read were: The Iroquois, by Abbe J. A. Forbes. The Language of the Tinne, by Father Le Goff. The manners and customs of the Hocelags at the time of Jacques Cartier.

THE ORIGINAL NARRATIVES OF EARLY AMERICAN HISTORY. Reproduced under the auspices of the American Historical Association. Gen. Ed. J. Franklin Jameson, Phd. LL. D. *The Northmen—Columbus and Cabot, 985-1503. Spanish Explorers in Southern United States, 1528-1543.* Chas. Scribner's Sons, New York, 1907.

The Sagas may be classed as the original narratives of early American history, for they deal with the voyages to Vinland. They carry us back to pre-Columbian times.

The Norse colonists in Greenland found no natives there, only vestiges of them. It is probable that they came in contact with the Algonquin, the Micmac and Beothu Indians.

To read the Sagas, then is to read the first chapter in the history of America.

The next chapter is given by the Journal of the First Voyage of Columbus. A journal which occupies 188 pages. The second voyage occupies 30 pages. The third voyage occupies just 100 pages, and the voyage of John Cabot occupies 10 pages.

These are the original sources from which the earliest American history must always be drawn, for nothing else has been found which can give us any information in reference to the people who dwelt here unless we go to prehistoric archæology for our evidence. It is therefore with the greatest interest we are permitted to take up a volume which gives to us the narrative of the different voyages as written by the voyagers themselves.

Of course it is understood that the most striking incidents in the narratives have been told over and over again, and there is no American history which does not refer to the scenes which are described in the original journals.

The Spanish Explorers in the Southern United States includes the narrative of Cabeca de Vaca, the expedition of Hernando De Soto and the expedition of Coronado.

The first brings before us a view of the region between Florida and the mouth of the Mississippi, and from that point to the great plains of the west.

The second brings us also across the same region, but includes the great plains of the interior and the remarkable dwellings of the Pueblos.

The mysterious region of Quivira is sought for, and is found, but it does not prove to be as interesting as the region already traversed for Quivira was only a desert country.

The early English and French voyages bring us into contact with a region which had already been discovered by Columbus, and by the Norsemen before him.

Cartier's first three voyages bring us into acquaintance with all the region situated on the St. Lawrence river as far west as the Sault Ste. Marie. The early English voyages commence in 1536 and end in 1608. They make us acquainted with New Foundland and the West Indies.

Sir Francis Drake reaches the California coast after having passed around Cape Horn.

It is a positive luxury to read the volumes, whether one takes them in a series or strikes upon any particular locality or period. The only thing that has been omitted is the re-publication of the early maps which were made by the voyagers and discoverers. If the publishers could reproduce a volume of maps which could accompany the three volumes, they would add very greatly to the value of the series and could bring before the eye the progress of discovery which would be even more comprehensive than the letter press, as valuable and interesting as that is. The firm, Charles Scribner's Sons, deserve a great deal of praise for bringing out these volumes.

The most important point about these books is that the very best translations have been used.

Mr. Geo. Parker Winship is the translator of Castenada. Mrs. Fannie Bandelier is the translator of Cabeca de Vaca. The Smith's translation of Hernando de Soto has been used. The Hakluyt's translation has been used in the first volume.

The volumes are all printed in large type with ample space for table of contents and index. They are well bound and would prove an addition to any library, and what is more important is that they present a birds eye view of the continent, the natural scenery, and the people who formerly dwelt in it. Both North and South America are included, but the greatest interest is concentrated upon North America.

AMERIGO VESPUCCI. Harper Bros., 1907. New York; London.

This volume is a continuation of the one on Columbus. There is a chapter in it given to Vespucci's debatable voyage, and another upon his second voyage, which will be read with interest.

It is believed that Herrera was the first to accuse Vespucci of artfully and wilfully falsifying in his narrative, with a view of stealing from Columbus the honor of being the discoverer of America. The author seems to think that the second voyage really took place and that the honor bestowed upon the voyager was well bestowed.

Both volumes are valuable, very interesting, and well illustrated.

COLUMBUS—THE DISCOVERER. Frederick A. Ober. Harper & Bros., publishers. New York; London; 1906.

The history of Columbus is never old and never new, but is always interesting. Mr. Ober has brought out the facts in a very interesting manner. One chapter describes how Columbus became an Admiral. Another describes where the flag ship was wrecked. The return voyage and triumphal journey are described. The second voyage and the first settlement form the subject of another chapter. The subjugation of the Indians another. The volume contains a beautiful picture of the landing at Quanaham, and another representing the return of Columbus from his first voyage.

COSMOS, THE SOUL AND GOD. By C. L. Arnold. A. C. McClurg & Co.

The keynote of this book is given in the introduction.

The author says "All the sciences are attempts to know certain portions or phases of nature or the physical world." "In the physical world unseen forces make themselves manifest." Among the primeval cosmogonies those of the Semitic races, are alone worthy of any consideration. It is difficult, however, to trace the unifying principle. The beginnings of animal

life are unicellular organisms, but what the process was which introduced the human soul, is a problem too difficult for ordinary mortals. The individualizing principle is very vague and does not reveal immortality.

RELIGIONS, ANCIENT AND MODERN. *Ancient Britain and Ireland; Ancient Scandinavia.* Archibald Constable & Co., publishers, London; 1906.

These little books, which sell for one shilling, contain brief summaries of the Ancient Religions which prevailed both in Scandinavia and in Great Britain.

The first, represents Thor, as the son of Odin and Earth. Odin is called the All-Father, because he is the father of all the Gods, but Thor was the God of War, for to him were assigned all those who were slain in battle. Art and poetry were attributed to Odin. The worship of Frey was very popular in Norway. Heimdall was the warden of Gods. There were five chief Divinities of the Gauls, which resembled those of the Greeks. But the gods of the Britons and Celts were very different, for they were the personification of the Nature powers. It is, however, very interesting to trace the analysis between them and the books will be prized highly by those who are studying the subject.

A COMMENTARY ON THE NEW TESTAMENT. Prof. Bernhard Weiss, D. D. Funk & Wagnalls Co., publishers. New York; London; 1906.

This commentary on the New Testament is confined mainly to Matthew and Mark.

The introduction gives a short history of the manner in which the Gospels were transmitted from the time of the Apostles to a later date. The reason for placing the different epistles after the Gospel are also given.

The value of the book to archæologists consists in the fact that it connects theology with the geography.

EWAS—A TALE OF KOREA. W. Arthur Noble; 1906. Eaton & Maines, New York.

This story of Korea seems to have been written for the purpose of bringing out a description of the island and the country.

The scene is, however, too far away to be thoroughly appreciated. Possibly the story may awake an interest in the country and so help on the cause of missions.

ANALES DEL MUSEO NACIONAL DE MEXICO. Sigunda Epoca. Mexico. Imprenta del Museo Nacional.

This pamphlet contains a description of the geological formations of Mexico, including the stratified rocks, the great steg-lamites, the caves, with their overhanging crystalline, and varied

stalactite roofs, and many other peculiarities which are illustrated by maps and plates.

THE UNIVERSAL KINSHIP. J. Howard Moore. Chas. H. Kerr & Co., 56 5th Avenue, Chicago; 1906.

The author of this book says: "Nearly all animals from mollusk to men, reason—not once or twice in a lifetime, but the most of them every day and every hour of their existence.

In fact, it would be impossible for any animal addicted to moving about and with a delicate and easily wrecked organism, to long survive in a world like this, without that elasticity of action, which reason alone can impart. When wild geese are feeding there is said to be always one of them that acts as sentinel. When it has acted awhile, it gives the bird next to it, a sharp peck, and utters a querulous kind of cry, and the second one takes its turn.

takes its turn. "This is prudence, which is a form of reason." "The members of his tribe are to the savage for the most part, his kinspeople." To the ancient Greeks there was two classes of people in the world: Greeks and Barbarians. The Chinese called their country the "Flower Kingdom."

The people of Spain look upon themselves much the same way.

Altruism is just as "Natural as egoism. There are the same reasons for the recognition by human beings of ethical relations to non-human beings as there are among human beings for the ethical relations among themselves."

"The doctrine of 'Universal Kinship' is not a new one. It was taught by Buddha 2,400 years ago."

These quotations will give an idea as to what the book contains.

COLLECTIONS OF THE STATE HISTORICAL SOCIETY OF WISCONSIN.

Edited by Reuben Goldthwait, LL. D. Vol. XVI. 1902.

Vol. XVII. 1906.

The first volume contains an old portrait of Marquette, from an oil painting, which was discovered in Montreal in 1807. It is the only portrait in existence and is very interesting, whether genuine or not.

Those who have read about this famous missionary and explorer naturally look for a different face, and yet there is nothing inconsistent in the belief that it is genuine.

Several other full page plates are given in this volume. The second volume treats of the posts established among the Sioux. The war between the Foxes and the Sioux; and the aid of the Winnebagoes against the Foxes. The fate of the Foxes. This all comes under the title of "The French Regime in Wisconsin," but is a very valuable contribution to history from original

sources. It is expected that Vol. XVIII will contain the remainder of the French papers which may have an important bearing upon the history of this State.

SCIENTIFIC CONFIRMATIONS OF OLD TESTAMENT HISTORY. Geo. Frederic Wright, D. D., F. G. I. A.

This book reverses the order of history and of the Bible, as it commences with the witness of the Old Testament, passes on to the middle and later Jewish history. Gives a chapter to Israel in Egypt. Another to the Exodus and then devotes 12 chapters to the Deluge, and concludes with a chapter on Genesis and sciences. The title would have been as appropriate if it had been "History of the Deluge," according to the Old Testament and Sciences. Two hundred and eighty pages are devoted to this subject and 158 to other topics, such as the Exodus and the physical geography of Palestine. The author thinks that the three great miracles, such as the falling of the walls of Jericho, the parting of the waters of the Jordan and the Destruction of Sodom and Gomorrah were not miracles at all, but were results of such natural causes as earthquakes, land slides, etc.

JOHNS HOPKINS UNIVERSITY STUDIES IN HISTORICAL AND POLITICAL SCIENCE. J. M. Vincent. J. H. Hollander. W. W. Willoughby. Internal Taxation in the Philippines, by John S. Hood.

This pamphlet, containing forty-five pages, describing the old system of taxation and coinage compared with the new.

For many years commerce with the Philippine Islands have been cursed with a heterogeneous silver—Spanish and Mexican peso; with silver and copper coins of neighboring countries, and hammered copper pieces from the mountain tribes.

THE PROCEEDINGS OF THE SOCIETY OF BIBLICAL ARCHAEOLOGY. Vol. XXIII. 3d Session. Third meeting, March 14, 1900.

The first article is by Prof. A. H. Joyce, D. D., on Unpublished Hittite Inscriptions in the Museum at Constantinople. Illustrated with three plates.

Another article on two Kabalistic planetary charts, by E. J. Pelcher.

Astronomers conceive the universe as consisting of ten concentric spheres, each being under the influence of ten emanations of the absolute. The spheres were as follows: The sphere of the Zodiac, the sphere of Saturn, of Jupiter, of Mars, of the Sun, of Venus, of Mercury, of the Moon, of the Mundane Sphere.

Another article describes two figures of idols found near the South Temple at Made Hafa. The society is one of the most learned and at the same time the most vigorous in Great Britain.

NEW ZEALAND GEOLOGICAL SURVEY. The Geology of the Hokotoka Sheet—North Westland Quadrangle, by James Mackintosh Bell, M. A., Ph. D., F. R. G. S., assisted by Colin Fraser, M. Sc.

This bulletin is in folio form and contains twenty-four full page plates and one hundred pages of letter press.

It describes the geology and topography of a portion of New Zealand, and gives a very good idea of the character of the country. One who has read about Australia as a great island in the South Pacific, can hardly realize how much of it is occupied by mountains which are even now almost inaccessible. The plates show this, and the letterpress increases the impression.

It appears that the grasses grow to a very considerable height in the valleys. There are Alpine passes which lead from the scattered settlements to the large and prosperous towns on the fertile plains. There are three types of lakes, some of them surrounded by irregular glaciers, debris, bordered by an old sea beach; others ice-formed ponds, lying in the glacier drift; swamps, consisting of hard, boulder glacial clay. There are passes and saddles, the saddles being the seats covered with grass - the horns being the mountain tops. There are coastal plains, with outlying mountains. There are flood plains with distant mountains and high summits with surrounding valleys, in which the clouds still linger. The upper slopes are precipitous, broken and rocky, and without vegetation. The summits are everywhere patched with snow. The geological history is made up of sandstones, gran-wackers and argillites. Coal-bearing rocks, cretations and Eushany age. Other places where the rocks of the ancient land have disappeared, though they were chiefly granite, the sedimentary rocks being derived from them. The thickness of the sediment is difficult to measure.

In the upper cretation and early tertiary times thick beds of conglomerates, grits, sandstone and coal were formed, with beds of limestone on top of the coal measures.

The mountains rose to magnificent heights and the glaziation reached immense proportions. In Miocene times clays and sandstone became one thousand feet thick.

In early pleocene times the glaciers made great advance.

The rivers flowed free beneath the ice and deposited fluvial material.

This is a very brief summary of a descriptive pamphlet which has been prepared by such able geologists as James Mackintosh Bell F. R. G. S. and Colin Fraser, M. Sc. Nothing is said about the archaeological history of the country. It is purely a geological report.



SCENE ON THE ARCTIC OCEAN.



LIKE A PAINTED SHIP ON A PAINTED OCEAN.

THE

American Antiquarian

VOL. XXIX.

MAY AND JUNE, 1907.

No. 3

THE DISCOVERY OF A HITTITE RECORD OFFICE.

BY A. H. SAYCE, D. D., LL. D.

A discovery made last year by Professor Winckler of Berlin is likely to produce as great a revolution in our conceptions of ancient oriental history as did the discovery of the famous cuneiform tablets of Tel el-Amarna. Professor Winckler was commissioned by the German government to excavate at Boghaz Keni in Cappadocia, which I had long ago indicated as the capital of the Hittite empire, and where fragments of cuneiform tablets had already been found inscribed in a language which I had concluded to be Hittite. Though his excavations extended over only a few weeks, the results of them have far surpassed all expectations. He brought back with him about 2,500 tablets or fragments of tablets, most of which were obtained from the same spot. When he returns to the site this year, it is probable that the number of tablets will be more than doubled. Some of them are of large size, more especially those which were found near the surface of the ground, and which therefore probably belong to a later period of time than the tablets disinterred from the lower part of the ruins.

The larger proportion of the tablets is in the native Hittite language, though the characters in which they are inscribed are the cuneiform characters of Babylonia. But there are many which are in Assyrian, which was at the time the language of diplomacy as well as trade. Numerous Assyrian words are introduced, even into those which are in the native language, a fact which will be of material assistance in the decipherment of the latter. It would seem that while foreign correspondence and international business were conducted in Assyrian, the Hittite language was used where Asia Minor was alone concerned.

It will be long before the tablets can be fully copied and deciphered. But already sufficient has been made out to show that the views I have advocated for the last twenty-five years were fully justified—that there was a Hittite empire in the age of the nineteenth Egyptian dynasty which extended from the Greek seas to the borders of Egypt and had its center at Boghaz Keni. Boghaz Keni itself was known as “the Hittite City,” and the kingdom of Arzawa, with which, as we learn from the Tel el-

Amarna tablets, the Egyptian kings corresponded, was not far distant from it. Among the tablets discovered by Professor Winckler are letters to and from Egypt, as well as a copy in the Assyrian language of the treaty between Ramses II of Egypt and "the great king of the Hittites." The name of Ramses Miamon is written Ria-masesa-mai-Amāna, and the text agrees with the Egyptian copy of it in stating that the copy in Hittite characters was written "on a silver tablet."

The names of the Hittite kings who are found in the Egyptian version of the treaty are met with again at Boghaz Keni. It would seem that the empire had been founded by Khattu-sil I or his son, Subbiluliuma, who was followed by Mur-sil, Muttallu and Khattu-sil II. Portions of the text of another treaty have been found which was concluded by Khattu-sil II with one of his vassals in Asia Minor, who was king of the country called Kiz-zuwadna. The latter had made a campaign in Syria and conquered some of the districts lying upon the Mediterranean Sea, and the treaty provides for the division of the spoil between the vassal and his suzerain. The Hittite king is here entitled "the Sun-god," and quite a long list is given of the various countries that were included in the empire. In another tablet a war with Mitanni or Mesopotamia is mentioned.

The tablets naturally afford me a special satisfaction, since they comprise the theories for which I have so long contended. They also verify my decipherment of the Hittite hieroglyphic inscriptions, the same grammatical forms and words appearing in them as those which my decipherment has brought to light in the hieroglyphic texts. It is possible that the King Mutāli whom I have found mentioned in one of the inscriptions from Carchemish is the Muttallu of the Boghas Keni tablets.

One fact is now assured. The civilization of Asia Minor goes back to a much earlier period than has hitherto been supposed. The Hittites were the leading people in it in the age of the Egyptian eighteenth and nineteenth dynasties, and the culture was Babylonian in origin. But it underwent modifications in Hittite hands, and in this form was passed on to the Ægean. Much of what seems traceable to a Babylonian source in the culture of primitive Greece must have made its way to the west through Hittite intermediaries.

Two years ago I obtained a tablet in Constantinople which also came from Boghaz Keni and which has been since edited by Dr. Pinches and myself for the Royal Asiatic Society. It is written in cuneiform characters, but in the Hittite language, and relates to the gifts made to the gods by certain individuals. This year an even more interesting tablet has been obtained from Aleppo by Mr. Randolph Berens. It too is in cuneiform characters and the Hittite language, but it was found in northern Syria and not in Asia Minor. It is therefore clear that the native excavators have discovered a Syrian site where a collection

of cuneiform tablets exists similar to that of Boghaz Keni. The Berens tablet is perfect and throws much light on Hittite theology and the names of the Hittite gods. The sacred tree of the Sun-god, which I had already found in the Hittite hieroglyphic texts, reappears in it; so too does "the idol" or "fetish" of the Wine-god, which I had also found in the hieroglyphic inscriptions. This "idol" is the Sutekh of the Egyptian version of the famous treaty; each city had its Sutekh or idol-fetish, as well as its Sun-god. In most cases, it is probable, the idol represented the deified state.

THE CRESCENT AND THE CROSS.

BY LIEUT. COL. G. MACKINLAY, LATE B. A.

The Turkish national emblems of a crescent and a star are often taken to represent Mahommedan power; this idea has perhaps been fostered by the title of Warburton's well known book, *The Crescent and the Cross*, in which a contrast is apparently made.

The crescent is not, however, a symbol of Mahommedan power as such. Several facts negative this supposition. The crescent and the star were the symbols of the Assyrian goddess Hera. Layard found representations of her near Pteriem with a wand bearing a crescent in one hand and with a symbol in the other much resembling the present astronomical and astrological symbol of the planet. Hera of the Assyrians corresponded to Istar of the Babylonians, to Astarte of the Greeks and to Venus of the Romans; all referred to the goddess of love, and each was identified with the planet which we call Venus.

Artemis was the great goddess of Asia Minor before and after New Testament times. Ephesus was provided with a wonderful temple to this goddess whose symbols were a crescent and a star. In Acts xix, 23-41, we have a graphic account of the prevalence of the worship of the great Diana (as the Greek Artemis is rendered in English), said to be worshipped not only by the Ephesians, but also by all Asia and the world.

There was also a temple in honor of Artemis in Byzantium. When Christian sway arose in that city and when the name was changed to Constantinople the same national symbols of a crescent and a star were still continued, although the worship of Artemis had disappeared. More than a thousand years later, in the middle of the fifteenth century, the Turks became masters, but the old symbols which had been in use for so many centuries were still continued.

A Christian order of knighthood named the Crescent was founded by Charles I, king of Naples and Sicily, in A. D. 1268; it died out, but it was reconstituted in A. D. 1464 by Revic, Duke of Anjou. It had a crescent badge with the words "Loz (Laus) en croissaul"—Praise by increasing.* That the crescent and

the star is not a Mahommedan badge is also established by the fact that at the present time persecuted Christian Armenians embroider the device very frequently on tablecloths, pillows, etc.†

The crescent is absent from the flags of Mahommedan powers distant from Turkey; but it is to be seen (generally surmounted by a cross) on some Russian churches, and this fact is considered to be a proof of the Byzantine origin of the national church of that empire.

For long periods anterior to the rise of Christianity the worship of the sun and moon was almost universal on the earth; from China on the east to Stonehenge in England and the west, and remains of sun temples can still be found. Egypt and Babylon each contained large numbers devoted to both the sun and the moon, as well as to the host of heaven. As early rising was and is common in the East, the morning star was found to be of great practical utility as the herald of dawn, because clocks and watches were absent: hence *it* also became a great object of worship, and in Babylon, under the name of Istar, was for a time at least equal to the sun and moon in importance as a divinity. Very important temples in honor of Istar existed in Nineveh and Babylon, and so much was the latter identified with the worship of this planet that its king was spoken of by the prophet Isaiah (xiv, 12) under the name of Lucifer, day star, son of the morning, or the morning star.

Babylonian boundary stones still exist on which are depicted figures, each about an inch in diameter, of the sun (Sâmas), the moon (Sin) and Venus (Istar), each orb being represented of the same size.* Accompanying inscriptions contain the curses of the divinities represented by the figures on any one who shall dare to move the boundary stones. (Compare the Mosaic warning and imprecation with reference to the removal of the neighbor's landmark, Deut. xix, 14; xxvii, 17. See, also, Job xxiv, 2; Prov. xxii, 28; xxiii, 10.)

The Turkish crescent suggests the idea of the moon; but it *may* represent the planet, which is easily seen in the telescope to assume a beautiful crescent form at times. There are several facts which support this view: Let us go back for a moment to the consideration of Istar and Hera, from whose symbols the modern Turkish ones have evidently been derived.

The Babylonian name Istar has its equivalent in Hebrew Ashteroth, which occurs some sixteen times in the Old Testament, either as the name of the goddess or of places called after her. Ashteroth-Karnaim, mentioned in the early days of Gen. xiv, 5, is a very interesting name. The second part of it means

**Transactions Victoria Institute*, Vol. XXXVIII, pp. 258-9. Comr. Caborne, C. B., R. N. R.

†These may be seen for sale at the depot of *The Friends of Armenia*, 47 Victoria Street, Westminster, London, England.

*See *A Guide to the Babylonian and Assyrian Antiquities*, British Museum, pp. 58-65 Dr. Urkis Budge. The original stone carvings dating from about B. C. 1120 are to be seen in the Babylonian and Assyrian Room of the British Museum.

"two-horned." Some have consequently supposed that Ashteroth means the moon, but that is quite contrary to the meaning of the word, which is of plural form. In very ancient times the morning and the evening star were thought to be distinct from each other, and hence it is likely that at one time they were called stars, and even after it was discovered (several thousand years ago) that they are the same object, the plural termination may still have been retained. Dr. Pinches consequently thinks it probable that the two-horned planet Venus is intended by this name. It *may*, however, mean the town of Ashteroth, between two peaks of rocks.

In one of the Babylonian inscriptions Istar is described as daughter of Sin (the moon). Dr. Pinches suggests* that the reason may have been that the planet resembles the moon in presenting a crescent appearance at times.

We thus have the name Ashteroth-Karnaim, the crescent and the wand of Hera, and the name for Istar of daughter of the moon, all suggestive of the thought that the ancients were aware that the planet sometimes assumes a crescent form. How could the people of Abraham's time and before have known this?

There are some who assert that they have seen the horns of the planet Venus with the naked eye,† whilst astronomers apparently deny that this is possible. If a man of very keen vision knows what to look for, it is imaginable that he may then discern the crescent with the naked eye; but it seems unlikely that any one who has not seen the horns of Venus in a telescope, or who has not been told of their existence should discover them for himself without an instrument. The thought therefore comes, which was held by the astronomer Proctor‡ that the ancients may have had some artificial aid to vision, and this idea is strengthened by the fact that a rough lens of rock crystal was discovered by Lavard in the ruins of Nimroud.

On the other hand, the generally accepted opinion that the crescent is that of the moon is impressed in the statement § that at the siege of Byzantium by Philip of Macedon in the fourth century B. C., the garrison were saved from a night surprise by a flash of moonlight which suddenly broke out from behind dark clouds. Hence the adoption of the symbol of the moon; but this narrative does not explain the origin of the star.

Whether, however, the crescent is that of the moon or the planet, it seems to be quite clear that the star in the Turkish symbol is that of Venus derived from ancient Greek, Assyrian and Babylonian sources.

The Persian emblems are a cross and the rising sun; the latter may probably also be derived from the same ancient times.

* *Journal of Eastern Literature*, Vol. XXXVIII, p. 266.

† For a discussion of the possibility of seeing the horns of Venus with the naked eye see various letters in *Naturalist*, Vol. 1, for 1862 and 1863.

‡ *Solar and Terrestrial System*, Appendix Chaldean Astronomy, pp. 196-197. R. A. Proctor.

§ *The Crescent and the Cross*, p. 372. E. Warburton.

The idea of increasing or coming power is thus apparent in the three emblems on the banners of these two modern powers, Persia and Turkey, the rising sun, the crescent (waxing) moon and the morning star which foretells dawn. Each is an inspiring national sign.

In the Turkish symbols we have a clear reminder of the very great regard paid to the planet Venus in ancient times. This herald of dawn is referred to in Scripture not only as a figure of the King of Babylon, but also of Christ Himself, in Rev. ii, 28; xxii, 16. A more sustained figure, however, is the simile of John the Baptist to the morning star and Christ to the sun: See Mat. iii, 1; iv, 2; Luke i, 76, 78; John i, 8; iii, 30; v, 35; viii, 12; Is. ix, 2, etc.

There are good reasons for thinking that the Star in the East, Matt. ii, 2, seen by the shepherds, was the same planet; as we are twice told it was "in the east"; presumably it was not also visible in the south and west as other stars are. Its period or time of appearing is alluded to; the morning star shines continuously in the east for about nine lunar months at the end of each night.

As the periods of shining of the morning star during the years historically possible for the Nativity, B. C. 10 to B. C. 5, are readily calculable from astronomical tables; and as certain times of year are indicated in the Bible narrative, we possess data from which it can be deduced that the Nativity took place B. C. 8. This date is in entire accord with all the historical evidence available, including that of the enrolments and the probable date of Quirinius' first tenure of rule in Syria.

What interesting associations are connected with the star represented in the Turkish national symbols! Want of space, however, prevents us from pursuing this subject further; it will be found fully discussed in a book by the author of this article, shortly to be published, entitled, *The Magi, How They Recognized Christ's Star*.

PROBLEMS AND PRESENT CONDITIONS AT POMPEII.

J. O. KINNAMAN, A. M.

More than one hundred and fifty years have passed since excavations began at that most wonderful city in the world, Pompeii. During that time a great many things have been accomplished, but, as usual, much still remains to be done. Time, to the Italian, enters not into the problem. Eighteen centuries have passed since the destruction, and apparently many more years must elapse before the last shovelful of dirt will be thrown out of this silent city. The task of excavating Pompeii is not a hard or difficult one. The light volcanic ashes are as easy to work as the loose, fertile soil of a garden; no lava having been mixed with the ash shower. Like snow fell the ashes, shrouding the

doomed city in a mantle of grey instead of white. Had lava been mixed with these ashes, not much would have been left to tell the story, if we may judge from the destruction wrought upon several villages during the eruption of 1906.

The ashes buried it, but their weight broke down the roofs and the second stories, so that to-day we look upon a roofless city except where modern restorations have been made.

In one hundred and fifty years about two-thirds of the area of the city has been excavated, but at the rate of progress now attained, it will take nearly one hundred and fifty years more to complete the task.

It is thought by some archæologists that the most interesting parts of the city have been excavated. These conjectures do not seem to be well founded, or at most, they remain conjectures merely. This same school tells us that the remainder of the city belonged to the poorer class, and therefore nothing of importance remains to be discovered. This position is only another guess, nothing more. The most unexpected finds have been made in the most unpromising places. What the ashes yet conceal no man knows. Excavations alone will reveal that.

Pompeii was the fashionable winter resort of the wealthy or moderately wealthy Romans, and it would not have been an impossible thing for the entire city to have been owned by them. But all speculation is vain, energy is worse than wasted in juggling with a subject that the spade and pick alone can settle definitely.

The problem that confronts the excavators and defies solution lies in the impossibility of finding a convenient dumping ground for the debris. It appears that in the past some of the debris from the parts now excavated was dumped on the portion still buried, thus increasing the amount now to be removed. If a proper and convenient dumping ground could be found, the rate of progress in excavation would be perceptibly accelerated.

The depression left by the retreating bay might be used, as far as convenience is concerned, but it would render useless several farms for many years. As a result of this inconvenience the excavations will have to progress very slowly. The condition now extant was very appropriately expressed by the captain of the steamship *Canopic*, who said that he found at work one old man, one boy, one mule, two soldiers to watch the trio, and an official board to watch them all.

Some problems have been solved, but others remain as much enigmas as ever. One thing that has been recently settled is the manner in which the city secured its water supply. On the principal streets are found fountains, but by what means they were supplied baffled scholars for a long time. At length the main aqueduct passing through the city was found. It still flows with pure, cool, delicious water. With a little work all the fountains could be made to flow as of yore.

On visiting the Triangular Forum one is amazed at the mass of material lying about in every conceivable shape and in every stage of transformation. Columns there are, half finished in fluting, capitals just as the chisel of the stone-cutter left them, foundations uncompleted, and everything in a wild chaotic state. When closely studied, it is easy to see that in this apparent disorder there is order; furthermore, that it represents one of two activities on the part of the Pompeians. Either this Forum was building for the first time, or it was being restored after the earthquake of 63 A. D.

A little study of the restorations made after the earthquake soon convinces of a certain deterioration of art, or more properly speaking, architecture. The patch-work employed in the restoration engenders a feeling antagonistic to æsthetic taste. We must look upon this as the result caused by the ebb of the exchequer of the municipality, and not as the beginning of the decline of art in the Roman Empire.

The public buildings, having suffered most in the catastrophe, are in a most ruinous condition, with the exception of several baths, which, with the restoration of the roofs, are in a perfect state of preservation. The private dwellings, as a rule, are better preserved, and a hundred years of exposure seems not to have had any effect upon them.

Such monuments as weather and exposure will not damage have been left *in situ*, but the greater number have been transported to the museum at Naples. This arrangement makes it very inconvenient for the student of archæology, in spite of the fact that in the same museum is a model of the city. A small museum is to be found within Pompeii itself near the sea-gate, in which has been placed the most interesting relics, but it is as nothing compared with the one at Naples.

As we study the monuments preserved to us through eighteen centuries, as we contemplate the daily life of these people, we are so absorbed that we forget all about problems over which we may puzzle ourselves.

After a time we are almost led to believe that Vesuvius covered up everything, only some of the inhabitants escaping with their lives. A closer study seems to convince of error. True, many things have been found, just as left by their owners during that memorable catastrophe. For example, in the surgeon's office was found all the instruments of his profession. This office has revealed some astonishing facts. Surgeons of modern times have flattered themselves that science has given the profession many new instruments of which the ancients knew naught, but this collection has dispelled their illusion, and, furthermore, has given them something over which to cogitate. Not only are most of the instruments known to medical science found in this collection, but in addition, many instruments the use of which the surgeon of 1907 cannot even offer a suggestion.

While many shops and residences were never disturbed from the time they were buried until unearthed by archæologists, yet there are many indications that the ash shower having ceased, Pompeii was visited by at least some of its former inhabitants. These, by tunnelling, seem to have entered the city and carried away much valuable treasure. This may be inferred from the fact that many articles are missing that we might reasonably expect to find. To illustrate: In each Roman house we would expect to find the strong-box, yet in only a few instances has this been the fact. One or two may be seen *in situ* and several in the museum at Naples. Again, paintings are missing, but the niche in the wall still shows where they were. It is not probable that they were carried away by the owners on the day of destruction. The same is true of statuary. It was not possible for the statuary to have been destroyed by the hot ashes and pumice stone as the paintings might have been. The only reasonable explanation to this is that these monuments were afterwards either rescued by the owners or by those who were not the owners. It is probable that in some cases all the members of a family perished, or the exact location of their house could not be ascertained, or everything was thought to have been utterly destroyed. As a result, no effort was made to recover anything, and, after the lapse of time, vandalism ceased, even the site of the little city being utterly forgotten.

The population of Pompeii has been estimated as thirty thousand souls; of this number three thousand perished on that day in 79 A. D. Thus one person out of every ten met death at the hands of Vesuvius. But it may easily be that more than three thousand perished. The future alone (as the moulds are discovered) can place our doubt at rest. It is possible that the part yet to be excavated will disclose more dead than the parts now exhumed.

There are still other problems to be solved. Among those that yet defy us is the time of eruption. All writers agree as to the year, but two different months are usually given. Some give the date as August 24, while again others give it as November 25. There are two things in favor of the latter date, and of such nature as to prove almost unassailable. Provisions of many kinds, in a carbonized form, were found in the city, among them fruits of the late autumn. Botanists assure us that these fruits must have been in season and not carried over the year. According to this item it must have been well into November when the eruption occurred. The second thing that militates toward the latter date is the fact that the historian Dion Cassius says the eruption took place during the autumn. One consideration more might aid us in finding the approximate date. On the walls are the advertisements and graffiti of election. We are aware that these relics of politics may speak of campaigns waged long before 79 A. D.,

but possibly waged just as heavily on the other side. Autumn was the time for the election of certain officials.

Near the great theatre is an open court with a peristyle of seventy-four columns, surrounded by a series of detached cells. This goes under the name of Gladitorial Barracks. The open court is supposed to have been the *plæstra*. This building proved the tomb of sixty-three men, as that number of skeletons were found within its bounds. Among them were several prisoners in stocks, the instrument of torture still retaining their skeleton legs. Near-by, just out of reach, was the key that would have released them. It is the popular belief that this building was the real barracks of the gladiators. Let us see if this theory is well founded.

There are no graffiti of which we are aware that give an absolute clue as to the true character of this enclosure, nor is there any kind of documentary evidence. What evidence we have is purely circumstantial and imaginary. True, there are graffiti on the pillars of the gallery. Some of these are simple Greek and Roman names, or fragments of sentences like the following: *curate pecunias, fur es Torque, Rustico feliceter. Inludus Velius bis victor liberatus—* *leonibus, victor Veneri parmam feciet, etc.* Other graffiti give us the names of several well-known gladiators, such as *N. Festus Ampliatius, N. Popidius Rufus.*

But what does this prove, except that these particular gladiators were very popular with some one who visited the galleries? It is not likely that we have here the autographs of these same gladiators. Up to this time no prison of any kind has been discovered in Pompeii. Every Roman city must have had some place in which to confine, at least for temporary purposes, the offenders who needed attention. Was Pompeii without such a carcer, or is it still beneath the ashes and pumice stone of Mount Vesuvius? The cells would not certainly suggest gladiators, neither would men in the stocks militate toward such an interpretation. No Tullianum has been found in connection with it, but that kind of a dungeon was not needed except for state offenders. For many years it was thought that the wild beasts at Rome were confined in cells beneath the Colliseum, but it is now known that these cells were for the temporary retention of men only, not beasts. The animal house was some distance away and communicated with the amphitheater by means of an underground passage, in which rolled a car that transported animal and cage, then a trap door gave the animal access to the arena.

Pompeii had gladiatorial combats and huntings. We know from advertisements that one such hunting was to take place at sunrise. If huntings and shows of this sort took place in Pompeii, there must have been an animal house. Where was it, or rather, where is it?

Standing in the great amphitheatre one of the first things that the observer notices is an apparent paradox: The structure is in a wonderful state of preservation, and yet in a wonderful state of ruin. How account for this condition of affairs? Pompeii was badly wrecked by the earthquake of 63 A. D. That can account for the ruin in which we find the amphitheater, otherwise it would be in a perfect state of preservation. There was nothing about it which the smoking mountain could destroy, and it would have been buried in its entirety. Apparently it was never used after the earthquake, neither was it repaired. Again, if on the day of the eruption a spectacle of men and animals was in progress, the bones of the victim or rather their moulds, would have been found, but nothing of the sort was exhumed. The amphitheater was very large for such a small provincial city. The arena is sixty-eight by thirty-six yards, surrounded by a wall two yards high, above which was a grating of thick iron bars as a precaution against the bounds of the wild animals.

About all the grounds popular fancy has for attributing spectacles on that day is the fact that ivory admission tickets were found around the structure. But we repeat again that if such had been the case, the moulds of the victims, both of the arena and Vesuvius would have been found.

What the original names of the streets were seems doomed never to be known. Names have been given them, but they are purely imaginary or rather modern and not at all the classical designation. Nothing has been found to identify them or suggest their nomenclatures. With further excavation something may be found that will enlighten us as to the names of the streets of Pompeii.

Cicero owned a villa in the vicinity of Pompeii, the site of which has not yet been ascertained, nor does he himself give us any clue by which it may be located. He merely mentions the fact, giving just sufficient detail to convince the archæologist that the ruins pointed out as such cannot possibly be it. But it answers the purpose for the ordinary tourist.

In spite of all the problems confronting the archæologist, Pompeii has given us an insight into the manners and customs of the Roman people such as never could have been gained from literature alone. By means of the articles unearthed, the daily life of eighteen centuries ago can be reconstructed, and we see Roman life passing before us as it did in the time of the Republic and the Empire.

Among the latest discoveries displaying the condition of art in the time of Vespasian, is the panel paintings in the Villa Pisanella, situated on a beautiful slope of Vesuvius inclining toward Pompeii. These paintings are the best so far discovered. The artist succeeds in giving soul and depth of expression to the countenance of his masterpiece. The spirit of the beautiful Zith-

erist is enrapt in the harmony she produces, and her eyes have that far-away look as if she were approaching the author of all music and harmony. The point at which the artist excels himself is the color effect; here the blending of tints correct what the lack of perspective corrupts.

In the majority of cases the wall paintings portray some mythical scene or character, but this is not always true. On the walls of the bedrooms in the houses of Pompeii are portraits apparently taken from life. These are excellent pieces of work, demonstrating that the artist has a technical knowledge of portrait painting.

The problems we have presented above are just a few that confront the archæologist in his attempt to clear away the mysteries still surrounding Roman life of eighteen hundred years ago.

For some time yet we need not expect much improvement in the rate of excavation, for the Italian government appropriates only twelve thousand dollars per annum toward the work. This is a very small sum, indeed, but it keeps the shovels going and accomplishes something toward ultimate success. If American enterprise had hold of the undertaking, together with the expenditure of about one-half million dollars, the remainder of Pompeii could be excavated in less than six months. No blame can be attached to the government when we consider current expenses, the youth of the monarchy and the great archæological work it is carrying on within the city of Rome.

In the future, as the city is excavated, we may expect just as wonderful finds to be made as has been made. Problems now crying out for solution will be solved, and likewise new ones created. At the present rate of progress we shall be held in suspense for several generations before we shall know the full extent of the city. But alas! the day that the last shovelful of debris is carted away, the mystery will be gone, the veil will be lifted, the unseen will be seen, and the fascination of seeking for the hidden will be no more.

NOTES ON THE AUSTRALIAN ABORIGINES.

BY R. H. MATHEWS, L. S.

Among the Thurral, Thoorga and other tribes inhabiting the southeast coast of New South Wales from Sydney to Cape Howe, there is a legend current that in former times the people were all of one sex. At last one of their chiefs named Dillagoon took a stone knife, and by a surgical operation made the difference which is now observed between the genital organs of men and women. Afterwards this person was changed into a small lizard, still known as Dillagoon, which lives in rocky places and among dry logs. It derives its name from the verb, dill-wa, to open, which is said to be in commemoration of his anatomical feat. This story was told to me by old natives at different places between Sydney and Cape Howe.

It is worthy of mention that lizards are associated with the differentiation of the sexes in the folklore of other Australian tribes, separated from each other by vast distances.

In 1840, Teichelmann and Schürmann reported that the natives of Adelaide had a legend of "a fabulous person named Tarro-tarro, said to have made male and female, or divided the two sexes." He became a lizard called *Kadno*. The *kadnomarn-gutta* or small bullroarer is the symbol of Tarro-tarro. The *teimmarri*, or larger bullroarer is also his symbol.¹

In 1844, when Mr. Schürmann was working among the natives of Port Lincoln, he spoke of "*ibirri*," a small species of lizard, said to have separated the sexes. The women call it by the name of *waka*, whenever one of these little animals makes its appearance, it usually is the cause of merriment and jokes."²

In 1874, Mr. S. Gason,³ a police trooper stationed in the country of the Dieyerie tribe about Lake Eyre, in South Australia, some 470 miles north of Port Lincoln, reported that "in the beginning" certain small black lizards, *moonkamoankarilla*, were the principal persons connected with the origin of males and females in the human family. He says these lizards are still to be met with under the dry bark of trees in that district.

BELIEF CONCERNING BAIAMAI.

In describing the initiation ceremonies of the Kamilaroi, Wiradjuri and other tribes, I have made numerous references to Baiamai, a real or imaginary ancestor, who occupies a prominent place in their traditions, and is intimately connected with their initiation ceremonies. Earth-moulded figures of Baiamai and his wife are made upon the surface of the ground at the place where the ceremonies are held. Baiamai is said to have had two sons, bark images of whom were fixed on the Bora ground at Gundibloui.⁴ Associated with Baiamai at the initiation ceremonies is an invisible personage named Muddhegang or Dharramoolan, whose voice is represented by the sound of a bullroarer—his name being given to that instrument. Muddhegang or Dharramoolan was a fabulous being, half man and half spirit, who in olden times took the boys into the forest, apart from the tribe, and put them through all the secret rites of initiation.⁵

As far as I can learn, worship was never offered, nor supplications made, to either Baiamai or Dharramoolan. I feel equally clear that neither of these fabulous personages were suggested to the aborigines by their contact with missionaries or other white men, but were an independent development before the Europeans occupied this continent. In my opinion there is no

¹ Grammar of the Language of Adelaide (1840), p. 45. Tasmanian Journ. Nat. Science, 1842, Vol. I, p. 121.

² Grammar of the Parika's Language (Adelaide, 1844), Part II, p. 5.

³ The Dieyerie Tribe of Australian Aborigines (Adelaide, 1874), pp. 13 and 30.

⁴ Journ. Roy. Soc. N. S. Wales, XXVIII, 113.

⁵ Journ. Anthrop. Inst., London, XXV, 297. Journ. Roy. Soc. N. S. Wales, XXXVIII, 344.

foundation for the assertion made by some writers that the aborigines believed in an "All Father who had his home in the sky." Baiamai, according to the natives, has his home on the earth, among trees and other mundane surroundings.⁷ Dharramoolan or Muddhegang lives in gnarled trees and other places in the bush.⁷

When describing a Bora ceremony held at Gundabloui in 1894⁸ I referred to certain remarks by Mr. John Henderson respecting this aboriginal rite. His statements respecting Piamé (Baiamai), are the earliest we have, and are quite free from the suspicion that the natives were influenced in their belief by Christian missionaries. It was from the natives of the Wellington district in New South Wales that Mr. Henderson got his information and the date is 1830. He says that Piamé had two sons, Melgong and Yandang. There was also an evil spirit called Mudjegong.⁹ In my account of the Gundabloui Bora I reported that Baiamai had two sons named Kobbarailba and Baiallaburra. I also reported the evil spirit Muddhegang,¹⁰ evidently Mr. Henderson's Mudjegong.

In 1837, some seven years after Mr. Henderson's visit, Rev. James Günther¹¹ commenced missionary work among the aborigines of the Wiradjuri tribe at Wellington, consequently the natives whom Mr. Henderson met could not have been taught any religious ideas by Mr. Günther.

In 1882, Mr. James Manning read a paper before the Royal Society of New South Wales,¹² compiled from notes taken by him in 1845, respecting some beliefs, reported to him by a black fellow named "Andy", a native of the Jugiong district, which is also in the territory of the Wiradjuri tribe. Mr. Manning says the natives had a belief in Boyma (Baiamai), who had a son called Grogrogally. There was another personage, Moodjeegally, who is called "a great lawgiver" by Mr. Manning. Moodjeegally is stated to have made a law that women should always be kept ignorant of the "mysteries" or "grand secrets" of the ceremonies. If the women became informed of them, there would be a "general massacre".

The above quoted portions of Mr. Manning's paper tally very well with the information gained by me from old black fellows concerning Baiamai, his sons, and Muddhegang, but I am convinced that many parts of "Andy's" story, which it is unnecessary for me to quote, were founded on scraps of information picked up from other natives who had been to the mission station at Wellington. It is not unlikely that Mr. Manning has unconsciously put his own construction upon "Andy's" confused

⁷ Journ. Roy. Soc. N. S. Wales, XXXVIII, 344.

⁸ See my "Folklore of the Australian Aborigines (Sydney, 1899), pp. 15-19.

⁹ *Ibid.*, XXVIII, 101-102.

¹⁰ Observations on the Colonies of N. S. Wales and Van Diemen's Land (Calcutta, 1832), p. 147.

¹¹ Journ. Anthropol. Inst., XXV, 297.

¹² An Australian Language, Appendix, p. 56.

¹³ Journ. Roy. Soc. N. S. Wales, XVI, 155-173.

statements. A direct line from Jugiong, "Andy's" country, to Wellington, via Molong, Cowra and Burrowa, is about 160 miles. The whole of this distance is through country occupied by tribes speaking the same language," and all belonging to the same great community. Probably "Andy" had been to meetings for the Burbung ceremonies at, say, Cowra, where he had met blacks from Wellington who had told him about the missionary's teachings at the latter place. From Jugiong to Cowra is about seventy miles, and from Wellington to Cowra about ninety miles. At the Gundabloui Bora, some tribes came more than a hundred miles, and at the Bulgeraga Creek meeting, a tribe came a hundred and twenty miles, for the purpose of being present at the ceremonies." From 1837, when the mission station was established at Wellington, till 1845, the date of Mr. Manning's notes, would allow eight years for the news to travel a hundred and sixty miles.

THE WALLAROO AND THE WILLY-WAGTAIL.

A wallaroo used to camp under the shade of a large tree, near the butt of it, and had a habit of beating the ground with his tail as he sat resting—a habit which his lineal descendants have adopted ever since. One day a padamelon was out hunting and, hearing the thudding sound of the wallaroo's tail, he approached and called out, "Who is there?" and was answered by the wallaroo in a very plaintive tone, as if he were sick and in distress. The padamelon then came up and inquired where the wallaroo's friends were. He answered that they were away yonder fishing in the river, and asked the padamelon to go and tell them he was sick. Being a kind-hearted fellow, he agreed to do this, and at once started in the direction indicated. When he got 20 or 30 yards away, the Wallaroo called out to him, "you had better take this hunting boomerang of mine with you, perhaps you may see some game by the way." "Very well," said the padamelon, "pitch it here to me. The wallaroo then threw the boomerang with all his might and killed the padamelon, and ate him.

As the padamelon did not return to his camp that evening, one of his relatives started out next morning in search of him. On following his tracks for a long way, he heard the intermittent thumping of the wallaroo's tail upon the ground and went over to see what it was. He inquired if a stranger had been there the day before, but the wallaroo denied having seen anyone. He then asked where the other members of the camp were, and was told they were away fishing in the river. The wallaroo said he was very sick, and begged him to go over and tell his friends to come and help him. He agreed to do this, and started away,

¹ See my "Wallyuroo and Other Languages of New South Wales", *Journ. Anthrop. Inst.*, London, XXXIV, 284-305.

² *Journ. Anthrop. Inst.*, XXV, 269.

but the wallaroo called after him that he had better take a boomerang with him, in case he saw any game as he went along. The wallaroo then threw the boomerang and killed him, as he had killed his friend yesterday, and made an equally good repast off his carcass.

Next day another friend of the padamelon went out to look for him, and upon reaching the wallaroo's camp and calling out to him, he was answered in the usual mournful tone, and the same delusive story was reiterated by the wallaroo, and the same treachery repeated. Several different animals went in search of the padamelon, but as none of them ever returned to their own camp, their friends held a council to determine what should be done. It was decided that the willy-wagtail should undertake the task, because he was a clever fellow and an agile warrior. So he set out on the following morning along the tracks of his friends, until he discovered the camping place of the wallaroo. The same introductory parley took place as in the case of his predecessors, and the wallaroo made him a similar offer of his boomerang. Suspecting foul play, the willy-wagtail said, "Throw it to me and I'll catch it," but he kept a watchful eye upon the thrower. Being very quick and active, he leapt to one side, and the boomerang went past him. The wallaroo threw all his boomerangs and spears, but the willy-wagtail jumped out of the way of every one. When the wallaroo had exhausted his stock of weapons, the willy-wagtail picked up one of the boomerangs from the ground and threw it with good aim, striking the wallaroo a mortal blow in the chest, splitting it open, which accounts for the white streak on the breast of all wallaroos since that time. The willy-wagtail roasted the wallaroo in the same hole in which he had cooked his victims, and dined heartily off the best parts of his body. He also anointed himself with the fat of his enemy and returned to his own camp.

THE THREE SONS OF NOAH AND THE THREE GREAT RACES.

BY STEPHEN D. PEET, PH. D.

It was not long after the Deluge that an event occurred which resulted in the dispersion of the race. How long, is unknown; this is, however, on record, that Noah and his family went down the mountain and began the planting of vineyards, and introduced that employment for which that region was well adapted. It was in connection with the partaking of the wine which came from this first vineyard that the great patriarch was overcome, and lay in his drunkenness exposed to the gaze of his three sons. One of the sons ridiculed his father, but the other two treated him respectfully, and walked backward and covered him with the robe which they had upon their shoulders.

This act brought a blessing upon Shem and Japheth, but a curse upon Ham, and a prophecy which has been fulfilled through all time. The curse also fell upon Canaan, who was one of the descendants of Ham, but the blessing fell upon the descendants of the other two sons, and has continued with them.

In ancient times the idea was prevalent that the curse of a father was a fearful calamity; while his blessing was sure to bring prosperity. In modern times the conclusion is, that the traits of the first ancestors are perpetuated in the lives and characters of their posterity for many generations, and that in this way those races have arisen, which not only trace their descent from some great ancestor, but have shown characteristics which were in reality results of the conduct and course of their fathers.

The family was formerly a far more important factor in society than at present, and a belief was common that the traits of an ancestor were perpetuated for many generations. This was illustrated in the Greek tragedies, for in them the inner history of the household had a great effect upon the nation's history, and the Greek chorus had for its mission to sing of the dire events which would follow unfilial conduct.

It is true, also, that in Christian lands the words of the patriarch have rung through the ages, showing the value of a father's blessing, and the evil that followed his curse. It was not in a palace that this scene occurred, for the story was told long before palaces were built, but we learn, both from ancient and modern history, that palaces have been full of tragedies, which were the result of unfilial conduct. This sentiment was formerly much stronger than at present, though in modern times the tendency has been to trace the law of develop-

ment much further back, and to recognize animal traits in human life and character. Some even look to the revelations of the spade as throwing light upon the history of the race. The broader view is sometimes taken, which includes the three great continents, Europe, Asia and Africa, and the history of the different races which have occupied them has been traced back to this event which occurred in the family of Noah. It is to this broader view that we shall call especial attention.

I. The prophecy to Noah has been remarkably fulfilled, not only in the immediate descendants, but in the history of nations and races that are remote from the region where the scene occurred. There is an allusion to the history of Canaan in the words of the patriarch, and a subtle prophecy which took in the history of the three great races—the Semitic, the Hamitic, and the Japhetic. In following up the history and the migration of these races, the prophecy in reality becomes almost world wide in application, for the descendants of Ham migrated south and west, and first settled on the west coast of the Persian Gulf and finally made their way to the west coast of Africa, and became the autochthons of that continent. Another portion moved northward and became divided into two races, one called the Accadians, and the other the Sumerians. Some believe that their descendants ultimately reached the region occupied now by the Chinese and the other parts of the Asiatic Continent, though their language and physical characteristics hardly carry out the theory.

The sons of Japheth are known to have migrated westward. They first occupied the Islands of the Sea, and afterward moved over toward the European Continent and settled in Greece, Italy, Spain, the coasts of Brittany, and even moved northward and filled the continent of Europe, giving a language which has been spoken by nearly all of the civilized nations of the earth. It was the Indo-European race, who were the descendants of Japheth, who also moved eastward and ultimately reached Farther India and filled the Asiatic provinces. It is supposed that one or the other of these races crossed the great ocean, occupied the islands so widely scattered, and ultimately reached the coast of America as well as the great continent of Australia.

This is certainly a very wide region, and there is so much obscurity about the migrations and the peopling of the world, that it is impossible to trace the lines of descent so far afield. Enough, however, is known of the history of those races, which actually descended from the sons of Noah to prove that the moral and social life has an effect not only upon the physical constitution, but on the history of great nations as well as individuals.

It is a narrow view which would confine the prophecy of Noah to the immediate descendants, for every one knows that the book which has been transmitted from the Hebrews to the other nations of the earth, has had a marvelous effect upon

individual life. It is now claimed that Noah in his prophetic vision included the races over which we may now look, as we examine the history of the world and trace influences and institutions back to the very region where Noah and his three sons were then dwelling. How strange it is that the limited vision of the patriarch Noah has been repeated and enlarged as men look backward over the field of history and see what wonderful influences have come to them from this same region which was occupied by the patriarch and his sons.

The Semitics are known to have remained in their original home; they became ancestors of the Babylonians, the Assyrians and the Hebrews. Their history is the oldest of all the nations, and their civilization appeared at a very early date. The Bible dwells upon the history of the Semitics, and does not treat of any other race, by any means, with any such fullness, as it does upon the Hebrews. It is in reality a Hebrew book. Though the New Testament was written in Greek, the prophets wrote in Hebrew; some of them in Syriac.

We are not confined to history for our evidence as to the three races, for language, religion, and physical peculiarities all show that at a very early date these were the races which re-peopled the earth. They are known by ethnologists under the name of Turanian, Aryan and Semitic races. There are, to be sure, certain races whose present habitation is so remote from their starting point, that it is difficult to trace their migration, or to prove that the original home was in this region, and yet, if we enter into the study of their language, their religion, and their physical characteristics, we shall find confirmations of the Scripture record.

It is well known that language has been divided into three classes: Aryan, Turanian and Semitic. The Aryan is spoken by the great Indo-European race which stretches from the Atlantic to the Pacific, and embraces portions of the two continents of Europe and Asia. The Turanian race includes the tribes which moved northward and settled in China, and whose speech is monosyllabic, whose religion is unpoetical and colorless, consisting in the worship of a host of ancestral spirits. The Semitic embraces that people who settled in Babylonia and Assyria, but migrated westward and occupied not only the region on the Mediterranean Sea and among the mountains of Arabia, but even established their dominion in Egypt; though their language and religion have shown many different phases and peculiarities.

In reference to religion Max Muller says: "It is language and religion that make a people, but religion is even more powerful than language. Perhaps the most signal confirmation of this view is to be found in the Jews, the chosen people of God. The language of the Jews differed from that of the Phœnicians, the Moabites, and other neighboring tribes, but the worship of Jehovah made the Jews a peculiar people. It was

their faith in Jehovah that changed the wandering tribes of Israel into a nation. It was God as affecting the destinies of individual, tribes and nations, rather than god wielding the powers of Nature."

He maintains that there was not only a primitive Semitic, but likewise a primitive Turanian religion, before each of these primeval races became separated. The ancient temples are destroyed, the ancient deities are forgotten, but the dialects, however changed, still keep up the tradition of the most distant ages. There were also ethnic religions which can be identified as thoroughly as the languages and races.

It will be acknowledged that in Egypt there was developed at an early date, a peculiar form of religion, which continued throughout its history. It has been shown, however, that the Egyptians were identified with the Semitics, and differed from the other inhabitants of Africa, and were in a measure related to the Babylonians. On the other hand, the early inhabitants of Europe were related to the Japhetic race, and their religion consisted in the worship of personal gods, who dwelt on the summit of the Mount Olympus, but resembled the gods who were worshipped by the ancient Scandinavians and Teutonic races. The descendants of Ham migrated southward, and became scattered throughout the continent of Africa, and adopted forms of religion which were peculiar to that continent and differed entirely from that which prevailed in Europe or Asia.

We should say, also, that two of the great races, the Semitic and the Aryan, have each produced a book religion. The Hindus have given to us the religion embraced in the Vedas and Shastras; the Hebrews, a religion embraced in the Old and the New Testament; but Africa has given us no book religion, except the Egyptian Book of the Dead, and that is more the product of the Semitic race than the Hamitic.

Nothing is said in the Bible about the languages as such; nor are the names of many of the historic nations mentioned. But the destiny of the three great races is brought out very clearly, and we may say that the personal traits of the three great ancestors have been inherited, and have worked themselves out in the history and destiny of the world. There is a latent significance in this fact which almost startles one with the thought that there are so great possibilities in every individual, and that such consequences may follow the right and wrong actions of anyone. The inheritance, then, is not only that of language, but of personal character as well as employment and modes of life. The ruling motive of the individual is transmitted to the generations following, and the mode of life which is chosen is often the result of parental influence and character. Noah himself had inherited many of the improvements and inventions which had appeared before the Flood, but even in the antediluvian world, the mode of life was the result of personal character.

II. The differentiation became, however, much greater after the days of the Flood, for then the ethnic traits followed the peculiarities of the three great ancestors. Many proofs of this are given in the works of art, as well as in the physical appearance and the language of the people.

Civilization appeared very early and grew very fast. The early stages are shown in the seals and the cylinders, some of which are very rude. There are tablets, however, that show an early date, and become very significant. We see also tablets in our museums which have come from the palaces of Babylonia. These represent the proud monarchs riding in chariots and driving their horses, which are covered with caparisons, while beneath the chariots are the bodies of the enemies which have been overthrown. All these carry us back to an early date, and give us a view of the Semitics, or descendants of Shem.

We have a description of the kings of Babylonia and their physical appearance; how they wore their hair, as well as how they dressed. The explorations in Babylonia have shown this, and we have images which are very instructive.

We have also a picture of the Japhetic race, of which the Phœnicians are supposed to be a branch. The Phœnicians migrated from the Persian Gulf and settled upon the Mediterranean coast, and afterwards carried their commerce across the Mediterranean Sea. It is supposed that they passed out from the sea and reached even the British Isles and the North Sea. They may have been the people from whom the Greeks received much of their civilization and many of their treasures. The Pelasgians are supposed to have preceded them, but made their way across the Euxine and became the first inhabitants of Greece and Italy. It is possible that the Pelasgians carried on a trade with the Lake-Dwellers of Switzerland, and that the Bronze Age was introduced into Switzerland by this people.

Along with the Phœnicians there comes before us another race which is quite mysterious: which some call the Hittites. They were a very rude people and made a very rude appearance. They carry us back to a very primitive state of society. They are represented as clad in short garments and bearing in their hands the most primitive form of weapons. Some of them have long daggers in their belts, a hammer in one hand and a trident in the other. The common soldiers have crooked knives in their hands and tall steeple hats on their heads; they are represented as marching and keeping step. The kings wear long robes trimmed with fringes, with a belt around the waist: they carry sceptres and spears, and wear close-fitting skull caps. They have heavy beards, resembling the Assyrians. They are represented as hunters as well as warriors. There is also a tablet on which is sculptured a hunting scene in which a lion is attacked by two warriors, while the king himself rides in a chariot. The charioteer is driving furiously after the lion, but the king himself is drawing the bow, with which he wounds the

lion. Above his head is the winged circle, which is the emblem of royalty.

All of these tablets show that the early kings received about the same general culture, and led about the same mode of life as the Assyrians. One tablet has been preserved which shows a strange figure holding a hare in one hand, and a throwing stick or war club in another; on his shoulders are perched two birds. He has the head of a beast of prey, who is represented with open mouth and large eyes and a small ear, the teeth are plainly seen; but he wears a short kilt or skirt with a belt; fringes hanging from the skirt.

Another tablet represents the king or priest wearing a long garment, or gown which covers the entire figure, and even hides the feet, though it is fringed at the bottom. He is surmounted by a winged sun disc, which is a sign of the sun-worship and shows that the people had the same system of religion which prevailed in Babylonia, but was less developed. The winged divinity is shown also by another tablet, it has the head of a griffon.

These tablets were discovered at Sin-Jirli in Asia Minor; They show the form of religion which prevailed in the region of Mesopotamia before the time that the monarchs there attained to their magnificance.

These figures, which represent either Kurds or Hittites, belong to a comparatively late period, and yet they carry us back to an early date, as early as even the times of Noah, for the Hittites were among the descendants of one of the sons of Noah. They really have exhibited in their rude condition, and in their peculiar religious beliefs, a fulfillment of the prophecy. It is not known exactly when they migrated from the East, nor what route they took. It is supposed by some that they were preceded by the Phœnicians, who also dwelt on the shores of the Persian Gulf. They differed from the Arabs, who dwelt among the mountains between the Persian Gulf and the Red Sea, who were Semitics.

There are, however, figures of the winged sphinx with human head, which remind us of the sphinxes of Egypt. They have the forms of a lion with tail erect, and large claws, symbolizing the courage and strength which was embodied in the divinities, and which was supposed to have been transmitted to their kings. These have been described by Dr. A. H. Sayce.

These bas-reliefs differ very much from the Assyrian bas-reliefs, and show a lower stage of civilization and a different form of religion.

These figures carry us back to the subject of the dispersion of the races. It will be understood that the descendants of Noah migrated from one center, and ultimately reached the very ends of three continents, and possibly extended beyond them into not only the Islands of the Sea, but into the continent of America. This brings up problems which are very different



AN UNKNOWN KING ENGAGED IN A LION HUNT.

It is uncertain what nationality these figures represent, though the winged circle above the chariot, and the appearance of the attendants would indicate that they were Assyrians, or an allied race, such as the Kurda. Layard has, in "Nineveh and Its Remains" depicted a similar group. In this, the king is represented as in the chariot, but the lion is beneath the horses.

from those which concern the so-called historic races; and makes a double line of research. But we must suppose it was late enough for the descendants of the three sons of Noah to have become very numerous. In fact numerous enough to form different nations and tribes, and to have begun to speak different languages. We may conclude that the traits of the three sons had already been transmitted and had begun to produce their consequences.

It is worthy of notice that notwithstanding the revelation which was made to Noah and to Abraham, and the Hebrews generally, which consisted in the worship of a personal God, there prevailed in Babylonia the worship of animal divinities, as well as the heavenly bodies. There was no such thing as the worship of one God, or the comprehension of His holiness.



WARRIORS HUNTING LIONS.

Besides these, there were symbols which represented the sun, moon, stars, and the Nature powers, showing that one form of religion grew out of the other, and survived even long after civilization appeared.

III. This leads us to the origin of the races. There were three great races which occupied the lands of the East at an early date, and they corresponded exactly to the three sons of Noah. But few realize that the three continents of Europe, Asia and Africa were occupied by the descendants of these three sons. This is the most wonderful part of the Old Testament history; yet it is confirmed by the study of ethnology as well as by language and ancient history. Africa has apparently borne the curse of the patriarch, for it is supposed that the inhabitants of Africa were the descendants of Ham. Asia has been occupied by the descendants of Shem, at least that part of Asia which lies between the Persian Gulf and the Mediter-

anean. Europe is to the present day occupied by the descendants of Japheth, but it is remarkable that the great Indo-European races extend across both continents of Europe and Asia, the Atlantic constituting the borders on the west, and the Pacific on the east. The continent of America has been peopled by the same Indo-European race, and is proving the correctness of the prophecy of Noah. What is more important is, that this very Indo-European race has received the religion of the Semitics as its most precious inheritance, and so has fulfilled the prophecy in a most remarkable manner: "They shall dwell in the tents of Shem."

There are some problems which come to us from the different races and their location, which are difficult to solve, for it is not known exactly what relation the races which are called Allophylian have to the Semitics. In fact it is difficult to say whether the Chinese and the Japanese are descended from the Japhetic race, or from the Hamitic. But the more one studies into the early history of the world, the plainer it becomes that there is a close connection between the modern races and those which are mentioned in the Bible as the descendants of Noah.

Some think that there were certain prehistoric races in Europe, which were more ancient than even Noah himself, and perhaps had their origin among some of those races which are mentioned as living before the Flood. It would be useless to undertake to prove that the people who left their relics among the gravel beds of Europe, were the descendants of any of the three sons of Noah; and as to the Cave-Dwellers, there is no evidence that they or their ancestors came over in the ark. The ethnologists have long ago taken the position that these primitive races must have had a descent quite different from any of the historic races. The study of the crania proves this, as well as that of the relics.

When Boucher de Perthes discovered in the valley of the Amiens certain gravel beds, and among them the relics which show that they were wrought out by the hand of man, all Europe was startled at the discovery; but the archæologists have gone on with their discoveries, until they have found that prehistoric man was associated with the fossil horse, the mastodon, megatherium, and the fossil sloth.

Deniker has given a valuable sketch of the origin of the different races. He says: "The absence of bronze relics outside of Egypt leads us to suppose the majority of the people of Africa passed from the age of bone and wood to that of iron without migration. This suggests the idea that there may have been a transition from the prehistoric to the historic in Africa, and that the primitive race of the gravel beds, or what might be called the ground race, had spread into Africa at the time that the extinct animals, such as the elephant, the mastodon and the rhinoceros migrated southward, and such animals as the elk and deer and moose appeared in Europe as well as in North

America. This is a theory, and yet it may account for the great differences between the negroes and the white race.

"The substratum is found in the negroes; the black skin in the north, the brown skin dwarfs in the center, the short yellow races in the south. On this substratum the Hamitic race seems to have arisen. The Ethiopians were formed by mingling with the negroes. The Berbers drove the negroes toward the south. A new wave of migration followed that of the Hamites. These were the Himyaritics who crossed the Red Sea

"There was a mingling, however, of the prehistoric and historic. As far back as the neolithic period in Egypt there began a slow process of modifying the Berbers by the Ethiopian Negroes of the northeast of Africa. They were obliged to mingle with the pygmies, the Ethiopians, the Hottentots, the Bushmen comprising the Bantu linguistic family. Putting on one side the Madagascar people, and on the other the European colonies, the thousands of people on the dark continent may be grouped into seven great linguistic stocks or geographical groups, as follows:

1, The Arab Berbers; 2, the Ethiopian or Hamites; 3, the Negritos; 4, the Pygmies; 5, the Guinea Negroes; 6, the Bantoots, and 7, the Hottentots or Bushmen.

The Berbers, who were Hamites, occupied the north of Africa; they mingled with the Arabs, who are Semitics. The Lybians have preserved the Berber type, but have become Arabs in language, especially in Tunis and Algeria. Physically the Berbers who are Hamitic differ from the Hamitic Arabs, being short in stature, while the Arabs are tall and lofty. There are four sub-races or types among the Berbers according to Collignon.

Among the nomadic Berbers we find characteristic costumes and peculiar relics. They wear stone rings on their arms, and they employ certain characters in their writing. The Bedouins of Egypt are Berber Arabs. The nomadic Moors of the Western Sahara speak a Berber dialect from Morocco to Senegal.

The Felaheen of the Lower Nile are descendants of the ancient Egyptians, but they have abandoned the speech of their ancestors and adopted that of the Arabs who were Semitics. They preserve the type of the primitive Egyptians as shown in the monuments. The ancient Egyptian language is preserved among them under the form of the Coptic.

This is modern history and leads us away from the Bible and from the ancient races. Still the position as advanced by Deniker is very suggestive. The common opinion has been that the negroes were the descendants of Ham, and that their low condition was really a fulfillment of the prophecy. It was formerly more popular than at present, for the negroes were supposed to have been cursed by God on account of the sin of Ham, as it is supposed that the condition of mankind is the result of the sin of Adam.



UNKNOWN KING WITH SCEPTRE AND SPEAR.



UNKNOWN GOD OF THE CHASE HOLDING HARE.

It is very convenient to throw the blame of our present condition upon our first ancestor, and to quote Scripture to sustain it; but here comes the science of archaeology which points to the fact, that long before the days of Adam there were human beings who were lower in the scale than Adam possibly could be, and yet no one thinks of throwing the blame upon them. Science has proved that the human race has made a great progress and that there is really more knowledge of the personality of God than formerly. The enlightenment of man has come in part from revelation, and in part from observation and the close study of Nature. It is, however, not to natural science that we are looking, but to the early history of man, as recorded in the Scriptures and confirmed by the monuments.

IV. This is a point of great interest, and one which seems to be confirmed not only by the Scriptures, but by the study of languages and of history. We have already seen that there is a great difference between the physical appearance and the habits and employments of the people; and we ascribe these differences to the inheritance which they received from one of their great ancestors, either Shem, Ham, or Japheth.

The difference between the descendants of Noah consisted not merely in the physical appearance, but in the national life especially in the language which prevailed among them. We learn from the story of the confusion of tongues that the difference of languages commenced at a very early date. It may be well to take up the study of the languages in this connection.

Languages are divided into three classes: the monosyllabic, the polysynthetic, and the inflected. The Chinese and Thibetan languages are monosyllabic; the Indo-Europeans and Semitics use inflections, and their languages are distinguished by this; but many other nations and races have used the agglutinative. The peculiarity of this language is this: the words consist of several elements which follow one another without inflections or suffixes. The root of the word alone is given.

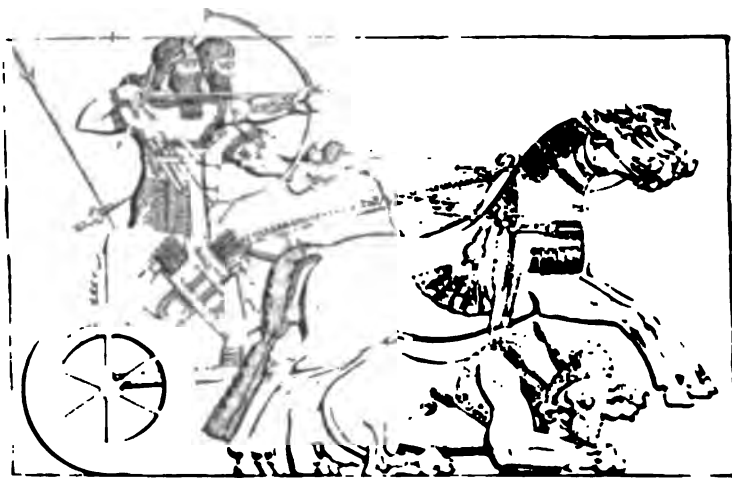
It was formerly supposed that all languages were monosyllabic, but by evolution became agglutinative, but the researches of Terien de La Couperie into the Thibetan and Chinese have led many to regard the agglutinative as the most primitive form.

Schrader says: "Among the thousands of languages there exist jargons, or semi-artificial languages, which have arisen from the necessities of commerce, but these do not throw any light upon the primitive languages or primitive races. There is a linguistic paleontology, however, which is full of instruction. Analogies between the primitive languages and the neolithic civilization have been drawn. At the beginning metals were unknown, and manufactures did not exist. Agriculture and breeding of cattle, however, reached a fair stage of development."

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from those which concern the so-called historic races; and makes a double line of research. But we must suppose it was late enough for the descendants of the three sons of Noah to have become very numerous. In fact numerous enough to form different nations and tribes, and to have begun to speak different languages. We may conclude that the traits of the three sons had already been transmitted and had begun to produce their consequences.

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Scriptures contain the story of the confusion of tongues, and some are inclined to think that it was this miraculous event which has scattered the descendants of Noah to the various parts of the globe. But is it not possible that those who conspired together to build this great tower or pyramid, which should reach to heaven, were already speaking different languages? We must make allowance for the lapse of time and the progress of the race.

The lesson which we learn is that the three sons of Noah, who were gathered around the altar upon the mountain, and offered sacrifices to the Lord, had raised up a posterity which had begun to people the earth, and were following different pursuits, and spoke even different languages; but the attempt at building the tower showed how great differences had arisen. It was a revelation to them, and the consequence of their own irreverent and rebellious spirit was that they should be confounded by their own manner of speaking, and were obliged to give up the work of building the tower.

This furnishes the first evidence of the progress of the race. There probably had already arisen a difference in employments and in the modes of life. Each nation and tribe had become affected by their surroundings, as well as by their employment. There is no definite record of the change, but reasoning from the development of society of later times, we may conclude that the shepherd life had appeared in one locality; hunters in another; the tillers of the soil in another, and perhaps the seafaring life in still another locality. All this may have occurred even in the region of Babylonia before the race had dispersed, though after this event mentioned in the Bible these different races gradually separated and migrated toward the distant regions where their pursuits could most naturally be followed, the elective affinities having arisen even before the separation. There are hints of this not only in the Scriptures, but in history.

VI. We know this: that the shepherd life was followed by the descendants of Shem, for Abraham and Isaac and Jacob were all shepherds. As for the descendants of Ham, there is not a distinct record, but if we take the Egyptians as representing the Hamitic race, we might suppose that they favored the gathering into cities. The descendants of Japheth, on the other hand, may have followed a seafaring life. The Ionians, who dwelt upon the coast of the Mediterranean, were descendants of Japheth.

There was a race of mountaineers which appeared at an early date, the most of whom are supposed to be Semitics. The Arabs claim that they were the descendants of Shem, and the Bible speaks about the Edomites, who were settled south of the Dead Sea and in the region of Mount Hor.

Jastrow says: "The Sumerians and Accadians are the names given to the Semitic settlers who preceded the Babylonians in the control of the Euphrates Valley. The names are derived

from the terms 'sumer' and 'akkad,' which are frequently found in connection with titles of kings."

Hommel pronounces in favor of the highlands lying to the east of Babylonia as the home of the Sumerians, whence they made their way into the Euphrates Valley.

Our present knowledge of Babylonian history reaches back to a period about 4000 B. C. At this time we find the empire divided into four parts. The old Babylonian cities in the south are Eridu, Lagash, Ur, Larsa, Uruk and Isin, and in the north, Agade, Sippar, Nippur, Keitha and Babylon. The rulers of these cities call themselves either kings or governors.

It was from the Sumerians that the Semites learned to live in cities. Their word for city was Alu, which is the Hebrew word for Ohil, or tent, which is still used in the Old Testament in the sense of home. The Hebrew, Hekel, palace, comes from the Sumerian Egal, or great house. The first palaces seen by the Semitic nomads must have been those in the Chaldean towns or cities. The Semites improved upon the heritage they had received, and even the system of writing was enlarged and modified.

It is probable that at the court of Sargon of Akkad, what we term the final revision of the syllabary took place. Sargon was the founder of the Semitic empire in Asia. His date was placed by the native historians as far back as 3800 B. C. The power of Sargon extended to the Mediterranean, and it may be to the Island of Cyprus. His conquests were continued by his son Narim Sin, who made his way to the copper mines of the Sinaitic peninsula, the chief source of the copper that was used in his day. The empire of Sargon was extensive, but the land of the Semites reached beyond his kingdom. Syria was called the land of the Amorites and was a Babylonian province.

It is from these different names, such as Accadians, Sumerians, Phœnicians, and Hittites, that we learn that the region of the Tigris was the starting point of the different races; but the languages which prevailed in China, in India, in Europe, and in Africa, prove that the confusion of tongues was in reality an historical event. Whatever we may say about the building of the Tower of Babel and the sudden confusion of tongues, we may certainly conclude that in this region different tongues were spoken, and that distant nations still retain traces of the languages which were begun very early in the history of the race.

EDITORIAL.

ABORIGINAL BASKETRY.

The making of baskets was a favorite occupation among the aborigines of America, and one in which they excelled.

Mr. O. T. Mason says: "There is no department of art in which their taste and eye for beauty is more manifest. It was a department of art which did not require much strength, but did require a delicacy of touch and an eye for correct form, and especially for color. Material for basketry required some strength, as the wood needed to be split carefully, the desirable part separated from the undesirable; but skill was needed in taking the fibrous portion and making ribbon like strips equal in thickness and width, also in twisting and braiding the cord which might be woven into the basket, and bringing it into the proper shape, so that it would have a correct form. The coloring and ornamenting also brought into play another set of faculties, so that upon the whole basket making was a somewhat complicated art.

The tools which were necessary were very simple. They consisted mainly of a knife for cutting the fiber into proper width, and a shell for scraping the fiber. Where plants grew which were suitable for making baskets, it was easy to gather the material, but when woody fiber was used, skill was necessary to select it and cut it into shape. For coloring matter, the juice of plants and mineral substances were used to produce darker shades.

It was easy for the Indian woman to recognize the plants which would be useful as dyes, and the gathering of them was not difficult. Where wicker baskets were made, a log of wood without knots was selected and beaten with a wooden mallet. The strips were torn off one by one, and were shaped into splints, by splitting and shaving them down smooth. The basket-makers used an awl of bone as the chief implement, though the knife was very essential. This was generally made of flint, but since the appearance of the white man, is made of steel. The Twana Indians use a steel bladed knife and a steel awl, but they formerly used a pointed stick. Fingers and teeth were always necessary.

1. Baskets are generally made by the women and girls in or near whatever dwelling was used for the household. There was no separate house or shop. Not even a wigwam was erected for the purpose, though in the case of the Cliff-Dwellers, both weaving and basket making were done in the rear of the dwelling apartments, or in what might be called the "village common." Both of these arts—weaving and basket-

making—were frequently carried on out of doors, and with the simplest of tools. Strange to say, there was scarcely ever a pattern in sight. It was not necessary for the Indian woman to have a model, for she carried in her mind the shape of the basket, the style of the weaving, the pattern after which it was to be ornamented, and even the coloring. There was an inner consciousness which was, perhaps, inherited. Still, industry leads to fine arts among savage, as well as among civilized people, and experience proved a training school.

Mr. O. T. Mason says: "Basketry is the rival of tool making, wood carving, skin dressing, and pottery. The basket maker must be botanist, colorist, weaver, designer and artist all in one. Could the windows of her mind be thrown open, there would be seen in addition to these, the mystic lore of her tribe, and the mingling of the mythic and the poetical with the practical" *

As to the patterns used in ornamenting baskets, the following may be mentioned: 1, Those which were used in imita-



BASKETRY PLAQUE.

tion of natural objects; 2, those used as pictographs; 3, conventional ornaments; 4, those used as symbols.

There were not as many imitative figures in the basketry as in the pottery. Occasionally there are, however, the figures of birds with wings spread; also of human forms with the arms thrown out. Occasionally figures of deers are found, but always with angular legs, giving the animals a very stiff appearance. The Tulares of California have many mortar baskets on which human figures are woven. The Hopi have sacred coil trays on which spread eagles are seen in different colors, and have wicker plaques with the human figure in colors. The ancient Cliff-Dwellers have left finely wrought baskets in which the forms of deers and human figures may be recognized. The Pomo gift basket has a row of human figures, male and female, woven into the side.

There is no doubt that many of the patterns are inherited. The Ojibwas about the Great Lakes preserve all sorts of patterns in porcupine quill work, while the Sioux, the Arapahoes,

* O. T. Mason, Report of Nat. Museum, page 313; A. L. Kroeber, Bulletin of Amer. Nat. Hist., XVII, 1902.

and the Kiowas use the totemic symbol of their tribe. There were many conventional figures and ornaments used by the same tribes, and copied by each individual basket maker, but the practice of borrowing from the tribes was so common, that it is difficult to identify any ornament or shape as belonging to any one tribe, though they might be peculiar to some geographical district or locality.

II. In this respect, basketry differs from the costumes of the aborigines, and still more from the ornamentation of the person, for the costumes differ according to the tribe; but the patterns on baskets are common to many tribes. It would certainly be difficult to identify the tribe by the baskets, but it is always easy to identify the tribe by their dress, or costume, as well as by the cut of their hair and manner of tattooing their faces. There is a good reason for this difference between basketry and clothing or costumes, for the material which is used in basket making varies according to geographical districts; while the material used for clothing is found in many districts.

To illustrate: the Haida Indians make wallets and baskets from spruce root, and from other materials, but they are extremely plain in their personal decoration. The Thlinkets of Southeastern Alaska make their baskets precisely the same as the Haidas, out of the same material, and embody the same symbolism in them.

On the other hand, the Chilcats cover the surface of their fringed robes with their totemic symbols, which are peculiar to themselves. The technical process of making their blankets may be exactly the same, but their symbols are different from others. Their blankets are always soft and warm, but the baskets are of hard material and cold. Coming farther southward, a basketry of another kind is reached. The symbolism is very remarkable, for the myths and stories of these Indians, which were common in olden times, are often recorded on the baskets, and they are made for no other purpose than to perpetuate the legends.

The tribes of Washington, California, Arizona and Mexico all place some kind of design on their basketry, whether it has a symbolical significance or not. The ornamentation is always peculiar. Among these tribes there were mythical personages, who were acquainted with sorcery and witchcraft. Their gods and heavenly beings were peculiar to themselves, some of which partook of the scenery and the surroundings. The same is true of the tribes on the Northwest coast, for some of these have figures of animals and human forms represented on the baskets; while others have the stepped figure which represented the mountains; others have zigzag figures which represented the lightning; still others have animal figures which were both totemic and symbolic. In fact, we may learn about the mythology of the people from the baskets.

It is said that the Iroquois formerly cut their hair so that

their totem could be recognized: tufts of hair were left in front and back, so as to resemble the head and tail of a bird. This would represent one form of totem. Another form was represented by a ridge of hair on top of the head, which represented the spine and tail of a buffalo.

Totemism may have been embodied in the ornamentation of the baskets, but it is not recognized in modern times. Whatever animal forms are shown are imitative rather than totemic. There is so much uncertainty in most of the ornamentation of baskets, that it is somewhat unsafe to decide upon the totem, by studying the animal figures which are represented on them, though the imitative faculty is always manifest, and the skill and taste may excite the admiration.



TULARE BOWL.

III. In reference to the fiber and material there is no uncertainty. There are, to be sure, several kinds of fiber which was found in nearly all localities, and used by nearly all tribes. To illustrate: the shoots of the hazelnut bushes are found in many places, they are used for baby baskets and for burden baskets. The six Indian tribes of New York used black ash in their baskets. The Moquis of Northern Arizona use the stems of grass and the leaves of the yucca plant. The Coahuilla Indians of the Colorado desert used material gathered from the marshes. The Menominee Indians of Wisconsin use the rushes and flags which grow in the lakes near where they dwell; they also take elmwood blocks and beat them into fiber and cut them into uniform width. The Chippewa Indians near Lake Superior, before the advent of the white man, used reeds and grasses for their baskets, specimens of which have been found in the old copper mines. Champlain saw corn stored by the Indians in great grass sacks. Josselyn saw baskets, bags and mats woven in bark and rushes, dyed black, blue, red and yellow.

The Klamaths and the Apaches use wire grass. The Modocs and Klamaths use the twisted tule and slender strands split from the root of the sugar pine. Splints from the white oak are used by the Cherokee Indians. The Desert Indians use the slender branches of willow, and the Apaches use the thin leaves of the sumac. Among the tribes using willow are the Mojaves, Coahuilla, Cocopas, Yumas, the Zunis of New Mexico, the Yokuts of California, and the Tinnehs of Alaska. The Indians of Canada, such as the Penobscots and the Abenakis use a variety of material.

Baskets, or fragments of baskets, have been found in the caves of Kentucky and in the mounds of Ohio, which show that the material which abounded in those regions was woven into baskets. The cords in some cases resemble wicker-work,

and in others resemble net-work; others resemble coarse cloth; still others have a twine weave.

The baskets of Peru were sometimes imitative of work baskets, and were quite graceful. The Brazilian carrying baskets were made of split fiber, which was common in that region. The Venezuela basket was made out of yucca. Ancient baskets from Oraibi were made from fiber. Athapascan baskets were made of splints of cottonwood, sumac, mulberry, willow, yucca and agave. Navaho baskets are made out of splints of sumac and willow. The Apaches made their baskets out of yucca. The Pueblos made baskets in which they buried their dead; coarse wicker matting was placed in the bottom of the grave, on this was laid a matting of yucca; human hair was sometimes employed for filling. Sometimes the hair of wild animals was used in baskets, as well as in textiles, for the sandals of the ancient Cliff-Dwellers were made out of the same material and woven in the same way as the baskets were.

The Hupa harvesting baskets were made out of the same material as the harvest itself. The outfit consists of a large basket, a mill stone for grinding, a hopper basket for holding the acorns, a pestle for grinding the acorns, a broom for sweeping the meal.

Mr. Holmes speaks of the milling industry in Northern California. The acorn was the harvest, the nuts were pounded in stone mortars, the meal was sifted by shaking and blowing, and was cooked by hot stones and thrown into the baskets, and the whole process, except picking was done with the basket. Rawhide receptacles were used on the great plains of the West, but in the industries and activities of life the basket-maker had a mission. The bark of the white birch was decorated by the quills of the porcupine and dyed in many colors. Walls of houses, rude fences were made of coarse basketry, as well as trinkets, wallets, fancy boxes, for holding tools.

There was a great difference among the tribes as to the selection of the material for coloring with dye-stuffs. Each area seems to have furnished a different material, but was carefully exploited and such dye stuffs were used as could be found in the region. There was scarcely any importing of dye stuffs from a distance, though adjoining tribes might borrow from one another. Squaw grass is used by the Indians of Northern California and the Vancouver Islands, and yucca by the Pecos Indians and those dwelling on the Rio Grande.

There was a difference among the tribes as to the preparation of the material. The Canadian Indians have shown very little care in their preparation, but the California Indians took great pains, and the result was that wonderful pieces of delicate workmanship are to be found here, some of them belong to pre-Columbian times.

The different districts can be identified by the color, pattern and shape, as well as the material. It is, however, the color

that gives the brilliancy to the large collections. The fineness of texture, the shape and the pattern are, however, better tests than the color, though the delicate shades of the color adds to the value of every specimen.

The preparation of the material consisted of the splitting and trimming such materials as the region furnished most abundantly, this was done in the simplest way, and with very few tools. Sometimes by merely selecting such material as came to hand. To illustrate: mats and baskets were woven from the willow, but the sweet-scented leaves of the savastana were also used. The Pomo Indians use the root of the bulrush for the brown and black patterns of their baskets. The tribes of the Northwest coast use the split roots of a tree for their water tight huckleberry baskets; the same tribe use the brown



POMO BASKET.

inner bark as the warp of their finely woven flexible baskets. Split hemlock roots are used by the Indians of Neah Bay. The Sioux Indians use the inner bark of the elm to make a coarse basket. The Menominees and the Winnebagoes use the birch bark for their baskets to hold maple sugar. A kind of fern is used by the Hupas

IV. There are beautiful baskets, which were made in prehistoric times and by uncivilized people, but the basket maker had the same eye for beauty that the maker of baskets has even now. Such specimens are of great value to the connoisseurs; they not only gratify the modern taste, but they show that the eye for beautiful forms existed among prehistoric people as well as historic, and is a common inheritance to humanity. As to the prehistoric baskets, the same material was generally used, and many of the same ornaments and figures which were probably survivors from prehistoric times

A few years ago there was found in a cave in Western Tennessee, bodies which had been buried in baskets made of cane, which showed much skill. The bodies were placed erect in the baskets and a cover of cane was placed over them; next to them was a very curiously wrought feather garment, the feathers were rolled around and twisted through the net work and the whole woven into a coarse cloth. This rug was about three feet wide and six feet long. It had different colors—green, blue, yellow and black. Beneath this was the body of a female. Around it was a deer skin. There was also a scoop net made of bark thread. The cave in which they were found abounded in nitre, copper and salt. Another body was found in 1815, in a saltpeter cave in Kentucky. Around it was a deer skin, with hair on but trimmed; next, a wrapper of cloth made of twine, and inside of all was a mantle of cloth, made with feathers interwoven, which were fastened with great art. The plumage was distinct and well preserved.

A number of other articles from caves in Kentucky and Tennessee have been discovered by Prof. F. W. Putnam and Dr. W. H. Holmes. One of these is a moccasin made of cord into the shape of a sharp-toed slipper, stiff enough to retain the form of a shoe. Mr. E. G. Squier has described a mummy which was exhumed from a tomb in Pachacamac, Peru. The body was enveloped in a braided network of twisted grass, bound with cord which held the wrappings; next came an envelope of cloth of finer texture. Around the head and neck was twisted fiber of agave. The net was such as is used by fishermen. Beneath his feet were the remains of nets, also fish-lines and hooks, also a pair of bronze tweezers.

The ancient Cliff-Dwellers had mats and baskets which were covered with animal figures, and many conventional symbols representing rainbows and mountains. The Tulares of California have many meal bags which they ornament with herring bone ornaments and other symbols. Some of these baskets are fastened in large stone mortars, which are used for pounding grain. The mortuary baskets among the Cliff-Dwellers resemble the common baskets, but the custom was to cover the body with woven garments, with a filling of feathers and the fur of wild animals, which was really the winter clothing of the living.

There are many other specimens of prehistoric basketry, but we have not space to describe them.

Among the Algonkin Indians the designs are changed to suit the whims of the buyers. In the birch bark ware in Alaska and Canada, and the receptacles of the Sioux and Plains Indians mythical conceptions have been re-awakened. The Ojibwas preserve all sorts of ancient patterns of porcupine quill-work on birch bark. While the Sioux, the Arapahos and the Kiowas paint upon their cases a totemic symbolism of their tribes. The Thlinkets cover the surface of their baskets with

symbolism connected with their daily life; while the Chilcats cover the surface of their fringed robes with totemic symbolism.

The basket is frequently made for no other end than to imitate nature. The tribes of Washington, Oregon, California, Arizona and New Mexico, all place some signs on their basketry.

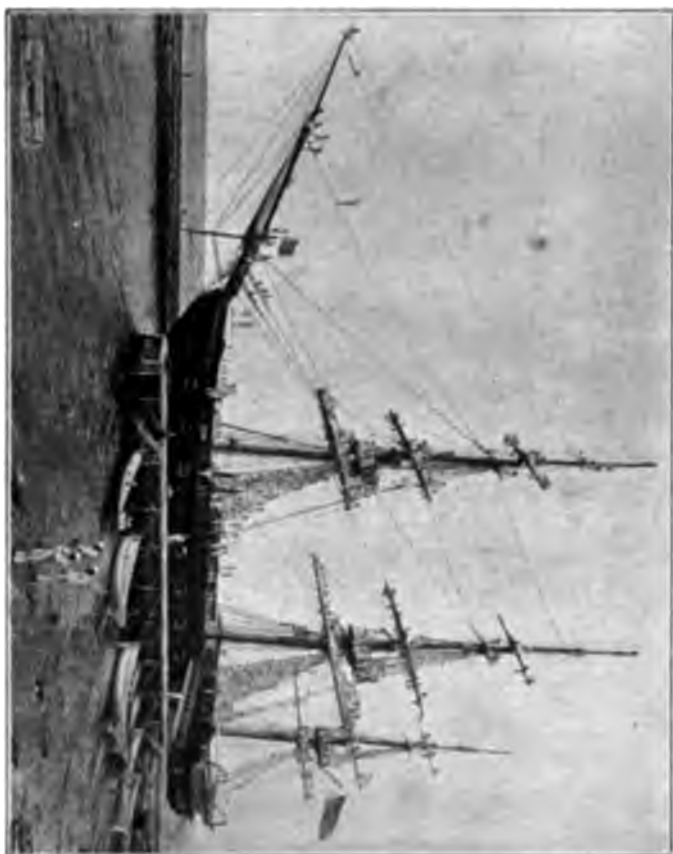
They are classified as follows: 1, natural phenomena, such as lightning, sunrise, clouds and sky; 2, mountains, lakes, shores and rivers; 3, plants; 4, animals and parts of animals; 5, human beings; 6, arrow heads; 7, mythical personages; 8, gods and heavenly beings.

V. The history of the symbols on basketry is the same as that on pottery and the painting on hide. Mr. A. L. Kroeber found among the Araphoes 458 distinct symbols, including tribal ornaments, tent ornaments, and other objects. The Thlinkets have developed a unique scheme of symbolism, covering a wide range of meaning. The Thompson Indians have many symbols on baskets, which are classified by Mr. James Teit as follows: 1, arrowheads; 2, root patterns; 3, butterflies; 4, stars; 5, packing straps; 6, zigzags; 7, box; 8, eagles. They have also the symbol of the snake, bird tracks, bear tracks, geese flying, beaver, bear and horse. The Hopi have many symbols representing rain clouds, sky goddesses, and sky birds. These symbols often assume a conventional form and are difficult to make out. The most suggestive figure is that which represents a stepped pyramid, and really symbolizes the clouds. This figure is very widely distributed; it is most common among the Pueblos and Cliff-Dwellers, but is seen even as far as the Hupas and Klikitats and the Modocs and Nes Perces.

There is another symbol which is quite widely distributed. It may be supposed to represent the revolving sky. There are arms projecting from the center to the circumference, but they are bent or hook shaped, and so suggest the thought of revolving. The turn of these arms are always to the left. There are many specimens of coiled baskets and bowls among the Tulares and the Tetons. The Hupa twined baskets present a combination of stepped pyramids and zigzags. Nearly all these figures are seen upon the modern baskets, and are really conventional figures. But the symbolism is hardly thought of by those who are making them. It is one of the evils of the trade in baskets which has come up within the past few years, that the religious significance is lost, and only such ornaments as will seem attractive to the buyer are put into the weaving.



WOVEN BOTTLE.



THE SHIP CONSTITUTION.



NOTES ON ORIENTAL ARCHAEOLOGY.

BY DR. C. H. S. DAVIS.

RECENT ARCHÆOLOGICAL WORK IN EGYPT.

A correspondent of the *Nation* says that immense undertakings are now in progress in Egypt. Dr. Reisner is at the Giza pyramid, having extended his field to the abandoned Italian and French concessions. He is now in his tenth year in Egypt, and a life work lies before him. For the first seven years he was attached to the University of California, with funds provided by Mrs. Phoebe Hearst; during the last three years he has served Harvard University and the Boston Museum of Fine Arts. At present his excavations are at the eastern base of the smaller of the three Giza pyramids, that of Menkura, where he is removing the enormous blocks of facing granite, which it is hoped may have been the indirect means of protecting some sanctuaries of the pyramid temple. Here one may see the perfection of modern excavation; not an iota of evidence escapes; the laborers are the most perfectly trained, the most honest and the best disciplined in Egypt. The volumes published or now in press under Dr. Reisner's direction are devoted to the culture of the early dynasties, and the connection with the pre-dynastic or pre-historic cultures among the Egyptians of the stone age.

A few miles south Dr. Borckhardt, head of all the German explorations in Egypt, is now engaged, in a similarly thorough manner, but not on quite so extensive a scale, with the pyramids of Abusir in the interests of the Berlin Museum. Continuing down the plateau at Sakkara, the necropolis of Memphis, Dr. J. E. Quibell, the field representative or director of the special explorations of the Cairo Museum, is a most able and enthusiastic excavator. He is in his second year at this point. The Cairo Museum reserves for its own exploration the entire Memphis necropolis of Sakkara, as well as the two more southerly pyramids of Dashur. The historical method of search is a time-consumer, and even at Dr. Quibell's fairly rapid rate of progress, a half-century will be needed to complete the enterprise.

Some ten miles further south, Dr. Lythgoe is beginning his excavations for the Metropolitan Museum of Art of New York. The concession is regarded as valuable, promising fine results. The excavations are starting, as at Giza and Abusir, in the temple on the eastern face of the most northerly of the two pyramids. Like Dr. Reisner, Dr. Lythgoe is a graduate of Harvard, with a special training in the University of Berlin, and he has had five years in the field with Reisner himself. He is the author of one of the most important volumes in the Reisner series. He has

ample means which he is expending judiciously with a large force of well-trained workers, and with full realization that the surest results will be obtained by thorough procedure through a long and difficult campaign.

Two hundred miles to the south, near the exquisite Temple of Abydos, Dr. John Garstang is digging in tombs of the eleventh dynasty for the Museum of the University of Liverpool. He has a large and enthusiastic camp of laborers from Guft. Among them are many typical Egyptians with profiles resembling those on the ancient tombs. From this region of Abydos is reported an illustration of the vandalism of defective methods. An archæologist who need not be named was busy on a valuable concession here for three years without results; he was followed on the very same ground by Dr. W. M. Flinders Petrie, who in two years secured extremely important material, including the names of all the kings of the first dynasty. Dr. Petrie is now in the service of the British School of Archæology.

Opposite Luxor can be seen the admirable work of Dr. Edouard Naville, the Swiss archæologist, who has been aided for ten years by the Egypt Exploration Fund. Just north of the beautiful temple of Queen Hatasu, which he has restored—an object familiar to all travellers in Egypt—he has recently laid bare a much more ancient temple of the twelfth dynasty. Mr. Davis's concession is very valuable; and, as every one admits, he has worked with exceptional pertinacity, liberality and good judgment. In 1903 he reached the tomb of Thothmes IV; in 1906 the tombs of Ua and Tua, the father and mother of Queen Tyi. The contents of these tombs, transferred in entirety to the Cairo Museum, constitute a unique and perfect exhibition of a royal burial. The room set apart by M. Maspero for this collection is certainly the most interesting in the Museum; rich as it is, Mr. Davis will now add the treasures of Queen Tyi. A special volume, succeeding those upon Thothmes IV and Hatasu, elaborately illustrated, will soon be issued. In 1905 Mr. Davis laid open the tomb of Queen Hatshepsut. In the year 1906 he came upon nothing exceptional, though the Italian archæologist, Schiaparelli, discovered an unlooted tomb, the entire contents of which he was allowed to transfer to the Cairo Museum. Finally, in 1907, the Davis excavations were again richly rewarded by the discovery of Queen Tyi. M. Maspero was so delighted that he presented Mr. Davis with the objects to be anque jars, which will then be sent to America. Four of these jars were discovered in the middle of the chamber, the date of alabaster, surmounted by beautiful carved portraits of the queen herself (in place of the four traditional heads of the animal gods of the dead) with inset eyes and eyebrows. In the opinion of Mr. Davis, these heads surpass, as works of plastic art, anything thus far found in Egypt; they most nearly approach the Greek standard.

The German Orient-Gesellschaft has recently published a colored plate representing the results of its researches, in the shape of a reconstruction of the Egyptian pyramids in the vicinity of the ancient city of Memphis. The plate is the work of Prof. L. Borchardt and is published by Georg Büxenstein & Co. in three colors.

M. de Mathusieulx has given an account of his recent explorations in the ancient Cyrenaica—an unexplored field of immense possibilities in Greek archæology. He received less encouragement from the Turkish government than during his three previous sojourns in Tripoli; and it seems likely that the ruins of the Pentapolis will remain hidden for some time to come beneath the Libyan sands. From this vicinity—the ruins of Barka—Louis XIV quarried the colored marbles which still adorn his palace of the Trianon at Versailles.

Italy has not only refused all foreign aid for excavating Herculaneum, but is planning other undertakings of great importance. Ostia, the ancient port of Rome, and one of the favorite summer resorts of fashionable Romans during the Empire, is at last to be excavated and the work to be started within the year. An attempt will also be made to find the remains of the great buildings at Pæstum, to which both Greek and Roman historians frequently refer. At present the city walls and three magnificent Doric temples are all that can be seen of this ancient town. Moreover, the Baths of Diocletian in Rome are to be completely cleared. Signor Rava, the minister of public instruction, has obtained permission to expropriate all the houses in that neighborhood, and \$100,000 has been conceded to carry out the plan.

The *Allgemeine Zeitung* of Munich (Supplement No. 255) gives a very interesting report of the excavations at Bouma Karm Abu'm by Karl Maria Kaufmann, a merchant and savant of Frankfort-on-the-Main. The flourishing city that once occupied this site was still seen and described by an Arabian geographer of the tenth century. It is situated in the so-called Mareotis desert, south of Alexandria, and is an extensive field of Christian ruins, including the remnants of the memorial church of the Alexandrian martyr Menas, two other Basilicas, and the site of a great Egyptian clay and pottery industry. A preliminary report has been published in a good-sized pamphlet, embellished with some fifty illustrations and sketches; and this is to be followed by a more exhaustive publication. A second archæological expedition is to be sent out soon to this new field, the money being furnished by the city authorities of Frankfort. That which has been already unearthed is of special importance as showing the close connection between the ecclesiastical architecture of the Western Roman Empire and that of the Oriental people.

The University of Pennsylvania has received a gift of eight thousand dollars a year for five years, for the maintenance of excavations in Egypt under the direction of Dr. Randel McIvers.

Such an enterprise should be productive of much good and the results will be awaited with great interest.

M. G. Legrain, in his great excavations about the foundations of the temples at Karnak, still continues to bring to light statues in great numbers. He seems to have found a storehouse of the gods. The first two seasons' work have yielded more than seven hundred statues in stone and more than sixteen thousand in bronze.

Contents of the *Proceedings* of the Society of Biblical Archaeology, Vol. xxix, Part 2, St. Menas of Alexandria. Margaret A. Murray—Some Unconventional Views of the Texts of the Bible, VII. Sir H. H. Howarth—The Tablets of Negadah and Abydos (Con.). F. Legge. The Chronology of Asurbanipal's Reign, B. C. 668-626, V. Rev. C. H. W. Johns—The Tomb of Thyi. E. R. Ayrton—Note on the Name Zaphnath Paaneah. P. Scott—Moncrieff.

In "Die Archäologischen Entdeckungen des Neunzehnten Jahrhunderts" (Leipzig: Seemon), by Prof. Adolf Michaelis gives in ten chapters a clear and readable account of all the great discoveries in Italy, Greece, Egypt and other Oriental countries from the eighteenth century down to the year 1905. An initial chapter deals with our knowledge of ancient works of art up to the end of the eighteenth century. The book is without illustrations, but the author refers to the pictures in the well-known handbooks of Springer and Winter. A list of sources and a complete index further increase the usefulness of the book.

Dr. Charles R. Gillette, assistant Curator of the Department of the Egyptian and Cypriote arts, has received leave of absence and is now in Egypt, where he has met Mr. Albert M. Lathgoe, who has already begun his season's work there. Mr. Gillette has now gone to Cyprus to make some investigations in connection with his editorial work on the Catalogue of the Museum's collection of Cypriote antiquities.

In Part I of the *Hibeh Papyri*, edited by B. P. Grenfell and A. S. Hunt, the editors say: "A comparison of the papyri of extant Greek authors with the corresponding portions of the mediæval MSS. shows that the early texts hardly ever favor in a marked degree any one of the later MSS. or families of MSS., while in the case of some authors, e. g., Xenophon, the papyri show that modern critics have often gone too far in preferring one family of MSS. to another, and prove clearly what is apt to be sometimes forgotten, that the proper guiding principle in the reconstruction of the text of any ancient author is a judicious eclecticism."

Among the fragments of extant classical authors found at El Hibeh are a number from Homer's "Iliad," which show the now familiar divergence of text from the Vulgate, and one fragment from the "Odyssey" (xx 41-68), in which similar divergence occurs. This is the first Ptolemaic fragment of the "Odyssey" to be discovered. The editors take occasion, at some length, to uphold, in view of the new evidence and in the face of recent attack, their earlier theory that the vulgate text of Homer did not indeed originate with the Alexandrians, but certainly was not the prevalent text in Egypt until some time between 150 and 30 B. C. Its final acceptance, they think, must have been due in some measure to the influence of the museum scholars.

The Greek minister of education has informed the authorities that the district of Pyrgos, in which are the Olympian ruins, that early in the spring Dr. W. Dörpfeld, director of the German Archaeological Institute in Athens, will again dig near the Altis and on the Alpheios. It is confidently expected that the deposits left by the overflow of the river will contain a number of important finds.

News is received that excavations at Thebes have brought to light the ruins of what is believed to have been the palace of King Cadmus, the legendary founder of Thebes. Some remains of the ancient walls of the Cadmea, the acropolis of ancient Thebes, were visible as late as 1890, but seem since to have disappeared. Leake, who visited Thebes in 1805, speaks of having seen thirty yards of ruined walls more than twenty-eight feet in thickness, the masonry of which is formed of roughly hewn masses of stone not unlike that of ancient Tiryns. The report from Athens indicates that the palace within the acropolis bounded by these walls has been discovered. The clearing of the Cadmea would be of great value in supplying us with another "Mycenaean" acropolis. The undertaking, however, is made especially difficult by the fact that modern Thebes is built on that site.

A Belgian archaeological expedition under the leadership of Dr. Jean Caparts, conservator of the Royal Museum of Arts in Brussels, has just started for Egypt to make researches on the probable site of the ancient Heliopolis, the sun city of the Pharaohs. The territory granted for this purpose by the Egyptian government covered about 1,000 hectares. The Belgian government has granted this expedition, in which the Louvain archaeologist, Dr. Mathieu, and Ferdinand Mayence, member of the French Archaeological Institute, will take part, money for three years.

At a point about thirty miles due south of Cairo and the great pyramids of Giza, and near the pyramids of Lisht, Dr. A. M.

Lythgow has recently begun his excavations in the interests of the New York Metropolitan Museum of Art. Dr. Lythgow, who has had a long training in Egyptian excavation, is fitting up his quarters in a simple and inexpensive but thoroughly scientific manner, in preparation for a long campaign similar to that which Dr. Reissner, another American, is so ably conducting around the Giza pyramids.

In the Beilage of the Munich *Allgemeine Zeitung*, No. 19, Prof. Ed. Koenig of the University of Bonn, discusses the archæological researches made by Prof. Ernst Sellin of Vienna, in three expeditions under his charge, in the ruins of Taanakh, the Taanach of Joshua xii, 21. Says the *Nation*: "While the Tigris-Euphrates and the Nile valleys have for decades been furnishing good materials for the Biblical archæologists, Palestine itself, outside of Jerusalem, is largely virgin soil. Only recently have English savants been at work in Tell-Chesi, in the southwestern portion of the country, and later in Geser, south of the road from Joppa to Jerusalem. Prof. Sellin has now published a full report of his researches in two volumes of the *Denkschriften* of the Vienna Academy of Sciences. He has laid bare in Taanakh four strata of ruins, each with utensils and other finds characteristic of four stages of civilization, the earliest antedating the advent of the Hebrews. Among these discoveries are also a series of letters, all, however, of a private nature, and written in cuneiform characters, as are also the famous Tell el-Amarna letters found in Egypt. Particularly abundant have been the finds pertaining to religious affairs, a large number of amulets and images of gods and goddesses being unearthed. No fewer than nineteen nude images of Astarte are included in this list, as also an image of the Babylonian and Assyrian god Nergal. The most interesting specimen of this class of discoveries is a movable incense altar, found in the third stratum. Koenig concludes that the data and details brought to light by these investigations are fully in harmony with the reports of Old Testament sources, and tend to confirm the reliability of the literary sources extant for the history of Israel's religious development.

Mr. Seton-Karr has published an interesting paper on "Flint Implements of the Fayum, Egypt," in which he gives a full description, copiously illustrated by plates, of flints recently found in the Fayum desert, around the shores of the Birket el-Kurun, the shrunken representative of the ancient Lake Moeris. The flints are found on the surface of the desert above the ancient water level, and generally on the crests of undulations from which the prevailing north wind has removed the sand. The nodules of flint which occur all over this desert are of a tough consistency and small, and were thus very suitable for making

arrow points and the distinctive and peculiar Fayum flint implements. Two hundred and fifty-nine specimens are illustrated.

The recent number of *Klio* (Beitrage Zur Alten Geschichte, Bd. vi, Heft 2), edited by Prof. Lehmann-Haupt and Prof. Kornemann, contains a monograph by Dr. M. Streck on the earliest history of the Arameans, with special reference to contemporary events in Babylonia and Assyria. It has long been known that Aramaic was employed as the official language of the western half of the Achaemenian empire, and the German excavations at Sinjiri have proved that in Northern Syria it existed as a written language as early as the eighth century B. C. But we have not to depend on actual inscriptions in Aramaic for the early history of this Semitic group. Seamen tribes and states are frequently mentioned in the cuneiform inscriptions. Dr. Streck points out that the earliest representatives of the Aramean stock were termed Akhlame, who are first mentioned in the Tel el-Amarna letters, and later on were conquered by the Assyrian king, Arik-den-ilu, about 1350 B. C. Tiglath-Pileser I, termed the Arameans Akllame Armaia, i. e., "Aramean Akhlame," and they were subsequently known by the generic title of Aramu.

The British School of Archaeology in Egypt has proved a great success. Within a year and a half the collection of over £3,000 has shown what a hearty interest was felt in the recovery of the history and civilization of Egypt. The assured position of this society for future work needs now to be thoroughly maintained in order to make it comparable with the richly endowed French School, the many official enterprises of German Oriental work, and the royal undertakings of Italy. The work of the past season proved one of the richest historical harvests that Professor Petrie has ever known. The Tyksos camp and cemetery, the City of Raemeses, and the temple and town of Onias had all consolidated their vague impressions and scanty literary statements in a most satisfactory manner. The three students who went out with Professor Petrie largely contributed to these results, and Mr. Petrie drew fifty plates. They were able to keep two camps at work, and altogether to examine six sites. This year there will be six students at work, one of whom, Mr. Firth, has done admirable drawings for previous volumes at the Mastabas of Saqqara.

The ground which Professor Petrie is permitted to work is in three districts. First, they will begin on the desert between Giza and Abusir; tombs of the First, Second and Third Dynasties were already known there, and it was the most promising site available for ascertaining the civilization between the great ages of the First and Fourth Dynasties. Whether there was a great decline in the interval was one of the urgent problems in

history. Secondly, they will probably work between Assiut and Sohag, with a view to trying for any light between the Seventh and Eleventh Dynasties, as tombs of the Ninth Dynasty were known there. Lastly, the temple site of the important city of Athribis ought to be found, and perhaps Professor Petrie will search for it. At each of these sites the need of work is urgent. Not only was there ceaseless destruction carried on by the native, and the almost equally destructive excavations of the licensed digger who did not work scientifically or publish all his results; but in the last year or two there had been a fearsome activity in selling off government lands to speculators.

The great cemetery of Heliopolis was sold; the cemetery of Tell el Yehudiyeh with the Hyksos graves, was sold, and only by a rare chance was Professor Petrie allowed to work in it; the town of Goshen was sold, and work there was impossible; land below the pyramid hill was sold; most of the site of Athribis was sold. In every direction the chances of recovering history were disappearing forever. The only possible course seems to be to work out the sites in danger as rapidly as possible; not to expend any of the receipts over clearing up monuments which are already recognized and not in danger, but to exhaust as quickly as possible the ground which might soon pass irrevocably into speculative hands. Rev. Dr. Wm. C. Winslow, 525 Beacon street, Boston, Mass., is authorized to receive subscriptions for the British School of Archæology.

For the preservation of the ruins of Carthage, which vandals are fast laying waste, a festival, the proceeds of which will be devoted to the purpose, was given during Easter week in Tunis. In that festival all the glories of ancient Carthage were revived; the customs and the peoples of those early days when Rome ruled the conquered province, and during the changes when its blood-stained history was made by warriors of various nations, were presented for the first time in scenic reproduction. Recent excavations have furnished matter that has lain covered for hundreds of years. It is the intention of the Society of Archæologists, which has the affair in charge, to give a festival every Easter, the funds received from which will be applied towards the preservation of the ruins.

One of the most important expeditions, from a scientific point of view, has recently left this country for Southern Egypt, where a thorough search will be made for the pre-historic ancestors of the elephant. Heading the expedition is Professor Henry Fairfield Osborn, of the American Museum of Natural History, who will also act in the capacity of geologist and paleontologist of the United States Geological Survey. His assistants are Walter

Granger and George Olsen, connected with the American Museum of Natural History, each an experienced explorer in many fields.

The expedition is particularly interesting because it will follow in the footsteps of an Egyptian survey which the British government has been carrying on for about three years. C. W. Andrews of the British Museum, is at the British expeditions, and some time ago published a large volume on the pre-historic animals found in Egypt. At that time Professor Osborn predicted that the ancestors of the elephant would be found in Egypt, and his prediction was verified, as a year ago the British survey found a fossil which, it is said, is undoubtedly the ancestor looked for. It was named *Arsinoëtherium*, after Queen Arsinoë, the consort of Ptolemy I of Egypt, who lived 280 B. C.

This present expedition is financed by Morris K. Jessup, president of the American Museum of Natural History. The expedition will be gone about four months. If success has not crowned its efforts by that time the assistants will remain, although Professor Osborn will return. The principal search will be made in the Fayum desert. This is a three days' journey by canal from Cairo, near the Fayum oasis, and is entirely in the desert. Water will have to be carried sixty miles by camels to the expedition. It is expected that the British government will co-operate in the work and will allow the use of many of the workmen who have been working heretofore for the British Museum.

At Ancona, Italy, recently workmen discovered two ancient tombs of extraordinary value and interest while excavating for the foundations of a new hospital. The tombs date from the third century before Christ. They contained some beautiful silver vases, a pair of gold ear-rings, set with emeralds, and a gold ring, set with a carved stone. Orders have been given that search be made for other antiquities.

The excavations at Metapontum, Southern Italy, have resulted in the discovery of many Greek tombs, some covered with large tiles, others with cylinders, and still others with stones. One tomb was evidently that of a distinguished person and was made of large blocks of stone covered with Greek lettering, and had inside a skeleton, intact, with vases and other objects. The tombs belong to the fourth century before Christ. Interest in the discovery has been heightened because the great Greek philosopher, Pythagoras, was buried at Metapontum about 500 B. C., and, as his tomb existed at the time of Cicero, who died in 43 B. C., it is hoped that it may be found.

The first specimens of a Christian literature in the ancient Nubian language have recently come into the possession of the Royal Library in Berlin. Prof. Karl Schmidt of the theological faculty

of the University of Berlin, brought with him from his vacation trip last summer in Egypt, the first papyrus fragments of this literature, every specimen of which had been lost, and the existence of which was known only from translations and references by foreign writers. The language of these texts, the Nubian, has not been used for literary purposes for many centuries.

Professor Marucchi, the distinguished Roman archæologist, who has recently shown almost conclusively that the death of St. Peter took place in or near the Vatican and the great church that bears his name, and not, as later tradition affirmed, on the Janiculum, where the church of San Pietro in Montorio stands, in March gave a lecture in the crypt of St. Peter's, the unquestionable site where the sarcophagus of the great apostle is to be found. The professor pointed out that the present basilica stands on the very spot on which once stood the great villa of Nero. Many pagan tombs have been found there, proving that the ground of the villa contained a burying place for the use of Cæsar's household. If St. Peter were martyred there with the other Christians who perished in the persecution of Nero, it would be extremely probable that he would be interred in the tomb of one of Cæsar's servants, since the Epistle to the Phillipians proves that Christians were to be found in the household of the emperor. This would account for the fact that no Christian cemetery grew up around the remains of St. Peter, as often happened around the resting place of an especially holy martyr. The surrounding pagan tombs would render this impossible. Professor Marucchi quoted authorities which show that from early in the second century there is a continuous and undoubted chain of witnesses to the tradition, which makes it certain that the body of the great apostle was really to be found there. St. Gregory of Tours, who came to Rome as a pilgrim, describes how he descended and saw the sarcophagus. But after the ninth century the tomb was walled up, probably in fear of the Saracens, who were then sacking the country.

The Aramaic Papyri discovered in 1904 at Assuan, on the borders of Upper Egypt, are now published in twenty-seven folio fac-simile tables, with Aramaic text as read by the editors, translation and commentary, together with introductions by Prof. A. H. Sayce and A. E. Cowley, an explanation of Egyptian proper names by W. Spiegelberg, and a bibliography of former Egyptian Aramaic papyri by Seymour de Ricci. The Assuan papyri consist of ten related documents which contain the complete register of a Jewish family in ancient Syene (Assuan) for two generations, with full information of their business and property affairs, especially settlements at marriage and agreements as to inheritances. They are dated accurately according to the reigns

of the Persian kings, Xerxes, Artaxerxes and Darius, and extend over a period of sixty years, from 471 to 411 B. C. Since each date is recorded in both Egyptian and Jewish chronology, valuable information is at hand as to the history of the calendar. These documents are important also for the history of religion, for the frequent presence of the divine name Jahu in proper names indicates that that word was still spoken. Mention of an altar of Jahu before which an oath was taken proves that the Deuteronomic law of a single sanctuary was not then in force among Jews of the Diaspora; and mention of an oath by a Jewess before the Egyptian god Sati shows that other gods besides Jahweh were recognized, as was also the case in ancient Israel. This Jewess, named Mibzachja, is mentioned in a later document as having for her second husband a certain Nathan, whose name formerly was As-hor. Since the latter name is as certainly Egyptian as the former is Jewish, the conclusion may be drawn that she was sufficiently zealous to make her husband a proselyte.

The Egyptian *service des antiquités*, or department of antiquities, has charge of all monuments in the Nile land. It is now carrying on an interesting work—keeping in repair the ancient temples, just as they were kept in repair some thousands of years ago by some pre-historic department of antiquities. By monuments the department and Egyptologists mean any ancient thing from a potsherd scratched with rude demotic or current script, perhaps seven thousand years old, to a temple whose roof stones weigh from forty to eighty tons each and are covered with hieroglyphics cut by diamond drills, for it is tolerably certain the ancient Egyptians used them. The department of antiquities has charge of all the museums which it has formed, as well as of all monuments. None of the latter can be excavated or exported without its consent. It now proposes to confine its functions to the restoration and repair of temples.

In the recent issue of *Klio* (Beiträge Zur Alten Geschichte, Band vi, Heft 3), Dr. Paul M. Meyer of Berlin has a monograph upon the legal conditions, of the existence of which we have evidence in Egypt during the Ptolemaic and Roman periods. In the course of his discussion Dr. Meyer gives classified lists of the various legal documents of the time which have been recovered upon Greek papyri, including bills of sale, loan-contracts, receipts for property, hiring agreements, deeds of security, mortgages, marriage agreements, doweries and the like, and, as in all cases, he gives full references to the publications in which the documents have appeared, his treatise will be of the greatest service to students of the legal and social conditions which prevailed in ancient Egypt during the later periods of her history.

At a meeting of the Anthropological Society of Gottingen, held the first week in April, Prof. Wagner and others discussed the theory that Ophir, the place where Solomon obtained his gold

for the temple at Jerusalem, is identical with Mashonaland, as asserted by Dr. Peters, ex-governor of German East Africa. Professor Wagner and others declared that the theory was untenable. Professor Von Lushan of the Berlin Anthropological Museum said that the architectural embellishments of the ruins found by Dr. Peters were the clumsy work of negroes. He added that the evidence on which Dr. Peters mainly relied, a little clay figure pronounced by Dr. Peters to be an image of Thothmes III, which was offered to the Berlin Anthropological Museum for \$1,000, had been declined as a forgery. The well-known expert, Heinrich Schaefer, of Berlin, also pronounced the figure a modern forgery. The latest investigators repudiate the theory that South Rhodesia is the land of Ophir. They say its distance is far too great and that in ancient times it would have been impossible for laborers from a distant land to work the mines.

Under the title *Semitica*, Prof. D. H. Muller has published as separate pamphlets a number of valuable studies contributed to the transactions of the Vienna Academy. The first of the two parts which have appeared deals principally with points in connection with the Tell el-Amarna letters; the second part with the influence exerted by the Hammurabi Code of laws upon later systems of legislation. These subjects are treated from the comparative Semitic standpoint.

HEIRLOOMS AT JAMESTOWN.

Norfolk, Va.—The patriotic associations of the country have taken the deepest interest in the Jamestown Ter-Centennial Exposition, and the Hall of History will be a post-graduate institute for students of American history. The archives of the original thirteen colonies, the private collections from the homes, historical societies and associations and museums, have been searched for exhibits in this department, pictures, documents, furniture, clothing, silverware, glassware, a varied collection, which will bring clearly to the mind of every observer the salient features of our nation's history, the pivotal events of the several eras, the factors which combining germinated the seed planted at Jamestown, until it became a colonial grove which has developed into a mighty forest of commonwealths.

The Jamestown Exposition will be more historical than any previous exposition, and as an educational factor along this and many other lines it will be unsurpassed. The construction of a fireproof historic-relic building has made it possible to secure priceless relics and heirlooms which have never before been placed on public exhibition.

From the Virginia State Library will come the portraits of Virginia's governors and many old documents and manuscripts;



AUDITORIUM AND LIBERAL ARTS PALACE JAMESTOWN EXPOSITION

from the Jamestown Island collection will come the silver service once used in the church, and from every section of the state will come colonial heirlooms and war relics of many kinds. In the North Carolina exhibit will be the valuable collection of the Guilford Battleground Company. In the Connecticut display will be an exhibit of colonial clocks, the Bishop Seabury collection of historical pictures and the Guilford Antiques, the latter comprising the rarest pieces of furniture in America, a thousand-leg table, a Hepplewhite sofa, Chippendale chairs and tables, etc. Massachusetts will contribute a fine historical exhibit of portraits, engravings, laces, samplers, silver and jewelry, books, manuscripts, autographs, furniture and china. Georgia, Pennsylvania and Maryland will each send a valuable collection of treasured heirlooms. Each of the original colonies will contribute largely to this collection, but it will not be confined to this territory by any means, for from nearly every state will come contributions to this most interesting exhibit.

Among the special historical exhibits will be the great wooden eagle which, as a figurehead, graced the bow of Commodore Perry's flagship, the Niagara; John Smith rock, upon which the head of the colonist was laid when rescued by Pocahontas; the anchor of the Merrimac, which was lost during the engagement with the Monitor, and which was but recently recovered; the Liberty Bell; a tree from which Daniel Boone once shot a bear; old cannon captured at Yorktown and thousands of other relics and historic articles.

The collections for this exhibit are being made by the Daughters of the American Revolution, the Colonial Dames, the Society for the Preservation of Virginia Antiquities, the Daughters of the Confederacy, the Society of Colonial Wars, the Sons of the American Revolution, and the various historical societies of the several states.

GRAND AND REALISTIC.

SPECTACULAR REPRODUCTION OF MONITOR-MERRIMAC ENGAGEMENT
AT THE JAMESTOWN EXPOSITION.

BY M. O. WATERS.

Norfolk, Va.- There are many people now living in the vicinity of Hampton Roads who will remember the terrible days of March 8 and 9, 1862, to the last hours of their lives. On those days the bravest of them risked the missiles of death and thronged the shores to become eyewitnesses of the most unique naval engagement in the history of the world, the struggle between the Merrimac and the Monitor; a struggle which spoke the knell of wooden vessels of war and marked the beginning of a new style of naval architecture from which the modern battleships and cruisers have been developed.

To those who witnessed this famous event, as well as to those millions of visitors from all parts of this and other countries to whom the details of the battle are familiar, as matters of history, one feature of the Jamestown Exposition will be of especial interest. This will be the spectacular reproduction of the great engagement which occurred just off the Exposition grounds in Hampton Roads, and the presentation will be given in as realistic manner as the perfect equipment of the present day will allow. The historical location so near the actual scene of the occurrence lends added interest to the reproduction, and it is sure to be one of the decided attractions of the Exposition.

The scene of the battle will be cyclorama and will be as grand a sight as the human eye ever beheld. The scene opens the day before the battle between the iron-clads, and shows the sun just setting upon the leaping flames of the burning "Congress" and the sinking "Cumberland," with her cannon booming and her crew cheering as the ship settles beneath the waves and the brave fighters going down to death rather than surrender. The victorious Merrimac is seen slowly steaming away to the shelter of the Confederate shore batteries, to await the coming of dawn, to complete the work of destruction. This sunset scene will be one of the most gorgeous ever beheld, and will be a revelation of this character of scenic effect. Twilight comes on and the lurid light of the burning vessel casts its reflection upon the waters, revealing the other vessels of the Federal fleet, to which it seemed as a forecast of their own doom on the morrow. As the darkness appears, the stars twinkle and the scene becomes tranquil. Then come rolling clouds, forked lightnings and peals of thunder and a storm bursts in all its fury. Rain falls in torrents and the scene will have every appearance of reality. After the storm has subsided the stars again show themselves and the moon appears in all her glory.

After a while the day begins to dawn and the sun peeps over the eastern horizon and the audience beholds the most beautiful sunrise that can be imagined. Out on the water they will see the Merrimac steaming down upon the Minnesota. The Confederate ironclad has been repaired after her damages from ramming the Cumberland the evening before, and draws closer and closer to the Federal ship. The Minnesota lies helplessly stranded in shallow water, but suddenly from the rear darts the Monitor. The Merrimac puts on all steam and soon the battle between ironclads is on. The cannon will be seen in action and the crack and roar of the guns will be as real as it was during the time of the great fight. The audience will be thrilled with the working of each gunboat, and every movement will be in harmony with the most authentic records of the great battle. Just at the climax



BIRD'S EYE VIEW OF THE JAMESTOWN EXPOSITION

The curtain will be drawn and the audience will be left to determine which was victor.

The engagement will be so reproduced that no exception can be taken by the visitors from any section of the country. Mr. Austin, who is the artist reproducing the spectacle, is considered the best in the world in this line of work, and he says this is his masterpiece.

The Merrimac and Monitor used in the reproduction will be made of steel, and by the effect of the new appliances of electricity they will appear to the spectators the actual size of the vessels when they were engaged in this historic battle.

BOOK REVIEWS.

THE CODES OF HAMMURABI AND MOSES. By Prof. W. W. Davis, Ph. D. New York: Jennings & Graham.

The Code of Hammurabi, though written in Babylonian script and language, was discovered not in Babylonia or Syria, but in the "Shushan" of the Bible. This was for a long time a royal residence, though its location made it a battle field of the nations. The Elamites, who were situated east or Babylonia, conquered the city, and it was probably during one of these invasions that the stela was transferred in triumph to the Elamite capital.

The great ruler Hammurabi flourished about 2200 B. C., a period about which very little is known. The surprising feature of the code does not consist in its superiority to the codes of the time, but in its inferiority to the Mosaic code, or the code which was contained in the Ten Commandments. It is true that about a thousand years elapsed between the two codes, that of Hammurabi about seven hundred years before the Tel-el-Amarna tablets, and about the time of Amraphel and Cheder-laomer, or the time of Abraham. He is supposed to be the monarch who ruled over the Chaldeans when Abraham left the city. It has been supposed by Bible scholars that at the time of Abraham idolatry prevailed in Babylonia, and that the expedition of Cheder-laomer was that of a leader of a war-like host, who controlled the nation by his supreme will. Judging from the code itself, we may conclude that society was well regulated, and that morality prevailed to a greater extent than is generally supposed. We no longer wonder that Abraham is represented as so worthy a person, for the training which he may have had even among the idolatrous people, was such that he might well be regarded as the father of the faithful, and the model pioneer of his times; but with all his symmetry of character, he had the super-added element of a faith in the personal God, and a religious character which has been worthy of admiration throughout all the ages.

The code is not so valuable in itself, but it furnishes a suitable background for the Scripture story and gives us the civil enactments, which furnish a good background for such a noble, devout and holy character as that of Abraham, even after he had become the pioneer in the land which has since been called the Holy Land.

THE OLD TESTAMENT DOCTRINE OF SALVATION. By Wm. Sear Kerswill, M. A., D. D. Philadelphia: Presbyterian Board of Publication; 1904.

This is purely a theological book of the old type. It puts the doctrine of salvation as presented in olden times, in contrast to that advocated in modern times, and says: "No matter how fascinating the treatment, we want the truth rather than exaggeration." "If the Old Testament contains a plan of salvation which was affected before the incarnation and the New Testament revelation, let us discover the meaning; not what we read into it, but what it contained. It will not do to read back the New Testament into the Old; neither will it do to judge the Old Testament to be a myth or legend or folklore."

These quotations will show the design of the book, and the method of treatment. The fault that might be found, is that the author does not seem to realize that there was a progress of religious thought and even of doctrine in the Old Testament which prepared the way for the New. This is the usual method with dogmatic theology, proof texts are taken from any part of the Bible, without regard to the contents, or the accompanying thought. The Old Testament was written at different times, and it is reasonable to suppose that there was much progress made by the writers. One of the best books is Banvard's "Progress of Doctrine in the Old Testament." It would be well if theologians would take the Bible as they do other books.

THE RISE OF MAN; A SKETCH OF THE ORIGIN OF THE HUMAN RACE. By Paul Carus. Chicago: Open Court Publishing Company; 1907.

The author says that "the idea that we are the offspring of God, is Greek, not Hebrew, but the sentiment has become a part of our religious ideas. From the standpoint of modern science, we can still insist that man holds a unique position among the rest of creation, for the distinguishing characteristic between man and brute is reason. Reason originates through language. The different soul forms represent special experiences. Truth and goodness and reason are not made of the dust."

The illustrations emphasize the contrast, for of all animals on the face of the earth, the most repelling are the anthropoid apes, which are represented on almost every page in the first part of the book. This impression does not improve when we look upon the various skulls which are represented, especially if we compare them with the beautiful picture of the Madonna and Child on page 2.

The author quotes Dr. Woodruff, who says: "In whatever direction we seek we are sure to find that remarkably clear evidence that man's brain developed to its maximum size long be-

fore the dawn of civilization, by the process of natural selection, in an environment which eliminated the least intelligent in each generation, and that civilization always checks the progress." This is hardly carried out by the facts of history, for the progress of mankind has certainly been greater than that of animals, and the animals themselves have been improved by contact with man. Reasoning from analogy we should say that it was from the exercise of faith in the higher being, whom we call God, rather than some force of nature, which we have inherited from the animals that has brought us to the higher state. Civilization has always been permeated by higher motives, and christianity has been the chief element in human progress. This is illustrated by a contrast which is presented by the author in this book. There are twenty-three large illustrations representing baboons, eighteen illustrations representing human skulls, and only one of the human face, that of the picture of the Madonna and Child, by Gabriel Max. The picture itself presents an argument for the power of faith in man's own character and light, which transforms him from a brute to a child of God, who is already receiving His image, even before he changes from this state to another.

THE STORY OF SAMPSON. By Paul Carus. Chicago: The Open Court Publishing Company; 1907.

This is a finely illustrated book, and contains pictures, which, with one exception, are attractive and interesting. The picture of Sampson pulling the pillars of the Temple away is quite suggestive. The picture of Siegfried's death is especially interesting, as well as Christ's entrance into Jerusalem; the Valley of Nazareth also is a beautiful picture. The book is certainly valuable for its illustrations, aside from the information it contains.

THE MASAI LANGUAGE AND FOLKLORE. By A. C. Hollis. Oxford: The Clarendon Press; 1905.

The Masai people represent a mixture between the Negro of the Nile and the Hamite Somali. They have a mixture of Bantu elements, and belong to East Africa. The folklore, aside from the grammar, contained in this volume, is of great interest. It relates to the hare and the elephant, the children and the sycamore tree; the caterpillar and the wild animals, the demon and the child, the dorabo and the giraffe. The following will illustrate the style of the myths and folklore:

"The dorabo looked toward the sky, and the marvel was that cattle commenced to descend with a strip of hide until the kraal was filled, and then the hide was cut, no more cattle came down. The dorabo lost the cattle and had to shoot game for his food."

for the temple at Jerusalem, is identical with Mashonaland, as asserted by Dr. Peters, ex-governor of German East Africa. Professor Wagner and others declared that the theory was untenable. Professor Von Lushan of the Berlin Anthropological Museum said that the architectural embellishments of the ruins found by Dr. Peters were the clumsy work of negroes. He added that the evidence on which Dr. Peters mainly relied, a little clay figure pronounced by Dr. Peters to be an image of Thothmes III, which was offered to the Berlin Anthropological Museum for \$1,000, had been declined as a forgery. The well-known expert, Heinrich Schaefer, of Berlin, also pronounced the figure a modern forgery. The latest investigators repudiate the theory that South Rhodesia is the land of Ophir. They say its distance is far too great and that in ancient times it would have been impossible for laborers from a distant land to work the mines.

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AUDITORIUM AND LIBERAL ARTS PALACE JAMESTOWN EXPOSITION

the names of Indian chiefs and places. It contains, also, a number of illustrations representing Indian villages. There are many references to the early French explorers and the Catholic missionaries, Turtle Mountain, and other places. The value of such a collection is, that the facts which relate to the Indian tribes, the wars, and the missions among them can be learned, and even the names of the first settlers.

CERTAIN MOUNDS AND VILLAGE SITES IN OHIO. By William C. Mills, Curator and Librarian of the State Archæological Museum of Ohio. (Illustrated.) Vol. I. Columbus, Ohio.

This is an elegant volume, with wide margins, good print, and other qualities which show care in the publishing. The information furnished by it is valuable to the archæologist, and yet it awakens curiosity.

Mr. Mills has been very careful in his explorations, and has described the villages and prehistoric settlements, and yet we are no nearer to the solution of the problem as to the Mound-Builders and the Indians. One singular circumstance that complicates the problem is the presence of a dog of the same variety as that found in the ancient tombs of the Thebes and the Swiss Lake-Dwellers of Europe, identical with the pure breed Scotch Collie. Another curious thing is that in some of the villages so many children died at six years of age; this might take place after the appearance of the small-pox, but that there should be so many deaths of children in the prehistoric times is unaccountable.

One thing is settled by this exploration: The distinction between the Mound-Builders and the Indians is not so great as it was once supposed to be. There was a difference between the Mound-Builders, for some of them seemed to have been capable of building great walls and high mounds, and others dwelt in tepees, and buried the dead beneath the surface.

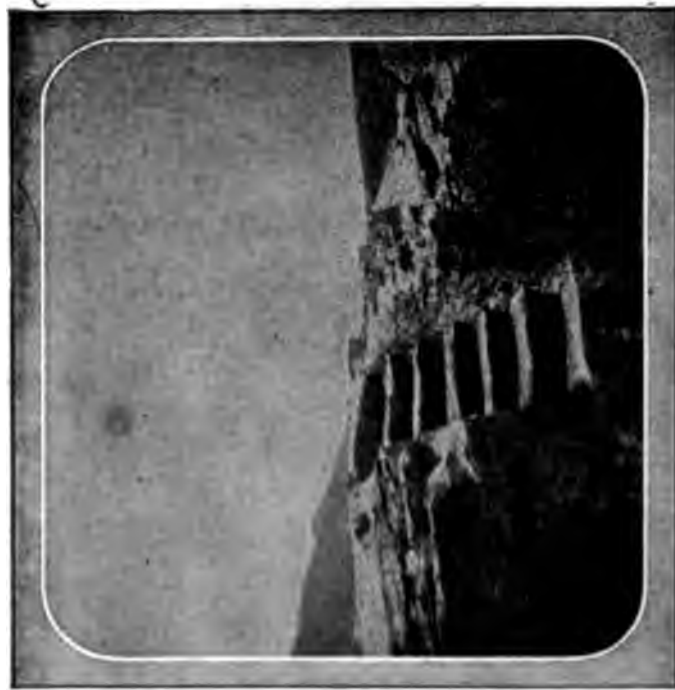
Mr. Mills has been very careful in gathering the data and describing the facts, and the book will be valued by all archæologists and should have a place in all the libraries.

KNIGHTS WHO FOUGHT THE DRAGON. By Edwin Leslie. Philadelphia: The Sunday School Times; 1899.

The grewsome facts are described in the style of fiction. The outrages which were perpetuated in the Boxer outbreak in the Chinese rebellion were bad enough to stir the emotions of all civilized people, but when described and dwelt upon in the style of a novel they are exceedingly aggravating and heart stirring. The author has accomplished his purpose: he has succeeded in writing a book which will stir the emotions of every one who reads it. There is scarcely a page which will not bring tears to the eyes; but the question is, is it the best way? The book will be read with much interest.



ROCK HEWN TEMPLE AT PETRA—HISTORIC



HIGH PLACE AT PETRA — PRE-HISTORIC

the town of Tanis, whence the earliest found sphinxes came, had been the Hyksos capital, but other specimens, possessing similar peculiarities, have been discovered at Bubastis, and also up the Nile at El-Kab, a site no Hyksos save as a prisoner ever saw, whilst it formed part of the kingdom of Amenemhat III. Why the features of the 12th dynasty monarchy differed so much from those of other Egyptian sovereigns is as yet undetermined.

For the next subject M. Capart has selected a head in the Egyptian collection at University College, London, because it provides another portrait of Amenemhat III. Unfortunately the nose is partly broken away. It however remains a splendid specimen of Egyptian sculpture, and is perhaps the most important phototype in the volume. It of course presents the same type of rayed head-dress, but in this case the remarkable arrangement of the rays in groups of three is very manifest.

Herr Borchardt believes this design to be a peculiarity entirely of 12th dynasty Pharaonic statues, and almost solely so of those of Amenemhat III. As we are unable to illustrate these remarks by the head in question it will be well to quote M. Maspero's description of the features of this monarch, in reference to a statue supposed to represent him:

"Certes, il a la figure ronde et pleine de Amenemhat (ou d'Ousirtasen I.) et l'air de famille est indéniable entre ses traits et ceux de ses ancêtres, mais on devine, dès le premier coup d'œil, que l'artiste, n'a rien fait pour flatter son modèle. Le front est bas, un peu fuyant, serré aux tempes, le nez vigourneux arqué, large du haut, la bouche épaisse et dédaigneuse presse les lèvres, et s'abaisse aux coins comme pour éviter le sourire familier au commun des statues Égyptiennes, le menton lourd et charnu pointe en avant. . . . Les yeux sont petits, étroits, clos de fortes paupières; les pommettes sont osseuses, proéminentes, les joues se creusent, les muscles, qui carrent le nez et la bouche s'accusent puissamment."

Plate 54 produces part of the cartonnage of a mummy published in this series of intrinsically much more valuable monuments, because immediately below the fine beaded or jewelled necklaces delineated in colors upon the body case, are shown two prominent mammelles quite out of perspective. This is a very unusual representation to find painted upon a mummy case and in this instance still more interesting because the breasts are shown as having been tattooed around the nipples with a series of five dots.

It may be that such drawings of the breasts were placed upon mummies in the case of death at childbirth of the mother, or for some similar reason. As the fragment dates from the 12th dynasty it is a complete proof of the practice of tattooing among the civilized Egyptians of the Nile valley.

Another plate represents to us two entirely new Egyptian styles of statuette, probably the product of some Babylonian or Syrian workshop and imported into Egypt. They represent two of those nude female figures supporting their accentuated breasts with the hands, and having the lower abdomen all incised with dots or short lines, so common at Nippur and other Chaldean sites. This type of deity is also frequently found among very early antiquities from Cyprus, Asia Minor and Syria.

Plate 58 reproduces a charming statuette of a nude negress, which, together with another photogravure of the torso of a nude female figure of best Egyptian workmanship, will be a revelation to people who are unaware to what perfection Egyptian sculptors carried the representation of the human form. The histories of Egyptian art will now be incomplete that do not include copies of these two remarkable evidences of the progress of the art of sculpture in the 18th dynasty period.

Plate 74 gives a stone relief of two evidently rapid free hand drawings by some Egyptian sculptor. Doubtless preliminary studies for producing a couple of portraits in relief. The genius with which, using the smallest possible number of lines, the facial peculiarities are delineated, is astonishing, the features being absolutely lifelike, notwithstanding the simplicity with which they are drawn.

The three most perfectly preserved monuments in the volume are statuettes from Leiden Museum. The originals are of wood and represent a trio of the Theban corporation employed to guard one of the royal necropolis there. They called themselves "Servants of the Place of Truth" and the chief members were termed "Superiors of the Guild." There is another similar statuette of one of these personages in the Louvre which has been published, and some very fine ones at Turin at present unedited. M. Capart gives the somewhat lengthy hieroglyphic texts upon these little specimens of Egyptian art.

A curious monument is illustrated in plate 86. It is the Table of Offerings of the Scribe Ken, who was recorder of the great Theban cemetery aforementioned, containing many of the royal sepulchres, the "Place of Truth." The stele bears the honorific titles of Ken, and his homage to the divinised Pharaohs upon the flat face of it, whilst all around the deep curved border are carouches of the kings.

As Professor Maspero has explained, these monarchs had all left endowments for their worship to be continued subsequent to their decease, or their surviving relatives had made arrangements for them, and Ken was a person who would have to supervise and record their due performance and fulfillment upon the appointed annual days. At his death he offers upon this his funerary food table, his last official act of worship to them all, col-

lectively instead of separately, so obviating unnecessary prolixity in the inscription. The royal list, which is one of Pharaohs of the 17th, 18th and 19th dynasties, may be considered as affording an enumeration of the royal mausoleums in this cemetery.

Plate 94 represents in its proper colors an elegant vase executed in pale green enamel, now in the Brussels Museum. The figures upon it are in extremely low relief and consist of lotus flowers and waterfowl, and rows of rosettes; also two heads of the god Bes in higher relief. These designs are nearer to Assyrian and Aegean style of work and it may be that the vase was manufactured outside Egypt, or by foreign workers in that country. It is a fine specimen of ceramic art and now that it is published can be compared with similar objects that have been discovered elsewhere.

Plate 99 is a singular statuette of a bearded deity with the body of a serpent. This, however, instead of terminating with the proper pointed tail of the reptile, has its head at that extremity. The relic is in the Athens Museum, and has been entitled a Zeus-Ammon, and a Sarapis. It bears suspended from a necklace, a pectoral ornament in the form of a tiny naos. It is probable that this statuette symbolized the Asklepios type of the deity Sarapis. The analogy of the head, and the presence of the serpent as its base, with the statues and reliefs of Asklepios with his serpent attendant, is very near. The connection between the Asklepeian Sarapis and Isis, and between Asklepios and Hygeia, is very close; Isis having raised Osiris to life, as Hygeia cured her protégés.

The last phototype is in colors and gives a fac-simile of a tapestry at the Brussels Museum. The lower three-fourths of it are worked in a pattern imitating a mosaic, whilst the upper frieze contains portrait busts, placed within a series of arched recesses. It may be a copy of the interior wall decoration of an early Christian Church in Egypt. M. Capart's book, for which the moderate price of 25 francs is asked, will, it is to be hoped, be widely circulated. The present edition being, however, limited to 200 copies, early application to secure one is necessary.

ORIENTAL DEPARTMENT

BY DR. CHAS. H. S. DAVIS

MERIDEN, CONN.

Discoveries of great interest to the archæological and scientific world have been made in the Soudan by the Chicago University Expedition. In the region of the third cataract the city of Gernaton, the religious and political capital of Amenhotep IV., the mightiest of Egyptian kings and the first monotheist, who in history belonged to the eighteenth dynasty, which reigned in 1300 B. C. The existence of this ancient sun city erected by Amenhotep to introduce his exalted monotheistic teaching into Nubia was unknown until six years ago, when a trace of it was found among some inscriptions at Thebes. The Chicago Expedition represents the first attempt since that of the German scientist Lepsius, sixty years ago, to furnish a survey of the Nubian monuments and supply the scientific world with as complete a work on Soudanese inscriptions as Mommsen's studies of inscriptions throughout the Roman world. The Chicago expedition covered during the winter about 1,000 miles of the Nile Valley from below Khartoum on the south of Halfa, at the foot of the second cataract, on the north. Complete facsimile pencil copies and unusually large photographic negatives of all the inscribed sculptured monuments were obtained. Among the new documents found was the proof that the reliefs of the temple of Sesebi are palimpsest. The operations of the Chicago expedition were much facilitated by Sir Reginald Wingate, the Governor General of the Soudan.

Prof. Edouard König writes for the June number of *The Homiletic Review* an interesting article on "Astrology Among the Babylonians and Israelites," in which he shows how superior the Israelites were to their Babylonian neighbors in their views of nature and their resultant religious practises.

During the month of May, the excavations at Pæstum have brought to light a roadway twenty-five feet wide, flanked by sidewalks. The pavement of large stone blocks shows deep ruts worn by the wheels of heavy chariots. A beautiful Doric temple to Neptune has been uncovered for a distance of 120 feet. This is a very ancient specimen of Greek art.

The excavations which are being conducted on the Palatine Hill in Rome have shown a curious and interesting circumstance.

The Necropolis has been found to contain remains of the ninth, eighth, sixth and fourth centuries before Christ. All fragments of the seventh and fifth centuries are lacking, and scientists are engaged in a close study of the field in order to find the reason.

In "Les Arabes en Syrie avant l'Islam" (Paris, Leroux), René Dussaud discusses the history of the Safaite alphabet in its relationship to the Sabrean-Minean characters to the Phœnician and the archaic Greek. M. Dussaud regards as almost certain the Greek origin of the South Arabian script and as most probable the Ægean origin of the alphabet in general. He says (p. 74) that if the Minean antiquity be conceded, they must have used the alphabet before it was invented. M. Dussaud gives an interesting account of the semi-nomad people who left behind them what are known as the Safaite inscriptions, a group of graffiti in the Safa, a volcanic plain southeast of Damascus.

The Royal Academy of Sciences and Letters at Copenhagen is reaping a rich reward from the expedition it sent in 1902 to Lindos, a small town on the south coast of Rhodes, once a great island home of Greek culture in the Ægean Sea. Since the Danes began to dig deep into its soil they have unearthed the larger part of its beautiful Acropolis, a fine temple, and ancient stairway of remarkable workmanship and an enormous amount of statuettes, vases and other antiquities. The Acropolis of Lindos was especially rich in the signatures of artists who had beautified it. Before the Danes began their work only twelve of these signatures had been found, but the Danish explorers have added seventy-four names of men, several of whom made reputations that still survive.

During excavations near Pylos, conducted by the German Institute of Athens, a vaulted edifice containing many gold ornaments and other valuables was discovered. Experts believe the building to have been the palace of the Homeric King Nestor. The discovery is attracting great interest.

Dr. George A. Reisner, formerly in charge of the University of California's exploration work in Egypt, has been appointed archaeologist in charge of excavations for the Egyptian government in Nubia. The work about to be undertaken is of great importance, involving the continuous excavation of both sides of the Nile from Kalabsche to Derr, a distance of one hundred and fifty kilometres. This is rendered necessary by the decision to raise the Assuan dam another eight metres. Professor Maspero, the head of the department of antiquities, is to have charge of the restoration of the known temples and the copying of their

inscriptions. To Dr. Reisner has been assigned the task of excavating monuments at present buried under the soil and the recording and publishing of these excavations. The work is expected to last five years.

The continued excavations on the Palatine Hill at Rome have resulted in the discovery of what are believed to be the original decorations of a temple of Asia Minor dating back to the sixth century B. C. They were found in the most ancient of the Palatine temples, that of Victory made famous by the worship of Cybele, known in Greek mythology as the "Great Mother of the Gods."

Contents of the *Proceedings* of the Society of Biblical Archaeology, Vol. XXIX, Part 4: Barsauma the Naked, W. E. Crum; The Tablets of Negadah and Abydos, F. Legge; A Hammurabi Text from Ashshurbanipal's Library, W. T. Piltner; The Folklore of Mossoul, R. C. Thompson; Notes on some Egyptian Antiquities, W. L. Nash; A Marriage Contract from the Chabour, C. H. W. Johns.

Mr. Theodore M. Davis calculates that it will require two more years to complete his excavations of the tombs of the Kings in Thebes. He has already worked three years, and, as is known, has been richly rewarded. On account of the heat and other drawbacks no work is done during the summer months, but during the other seasons an average of 150 men are employed. An alabaster mold was discovered of Queen Teie, one of the most famous and most interesting of the Egyptian queens, whose tomb and mummy recently discovered by Mr. Davis we have already referred to. This mold was found in Queen Teie's tomb, where it was placed 1800 B. C. It will be seen hereafter in the drawing-room at The Reef, Mr. Davis's home, at Newport. The alabaster portrait shows a face of remarkable beauty, at once masterful and engaging, but, apart from the lips, not possessing the characteristics of the Egyptian face. The delicate, sub-aquiline curve of the nose has been pointed out as being European rather than African. Anthropologists have measured and examined the skull and while they are inclined to the theory that the queen was not Egyptian, they are somewhat perplexed regarding her racial relationship.

Mr. Davis has called attention to a feature of the clothing of Queen Teie's mummy not before mentioned. He said the mummy was wrapped in a robe of pure gold of about the thickness of ordinary brown paper such as is used for heavy parcels. The effect of water and air on this flimsy metallic shroud caused it to crumble once the mummy was removed from the tomb. Mr.

Davis, however, was fortunate enough to find a small portion fairly well preserved.

Dr. A. Schulten, working with funds provided by the Prussian Government, has excavated the site of the old city of Numantia, which was destroyed by Scipio, and has determined the position of the forts thrown up by Scipio's beleaguering army. Dr. Schulten's discoveries will throw light on a difficult period of Roman history.

Contents of the *Proceedings of the Society of Biblical Archaeology*, Vol. XXIX, Part 3: A Hittite Cuneiform Tablet from Northern Syria A. H. Sayce; The Tablets of Negadah and Abydos, F. Legge; The Babylonian Chronicle of the First Dynasty of Babylon, C. H. W. Johns; St. Menas of Alexandria, Miss M. A. Murray; The Hittite Script from the Greek, E. J. Pilcher.

The study of ancient Semitic inscriptions has hitherto been rendered difficult owing to the expensive nature of the publications on this subject. Dr. Mark Lidzbarski of the University of Kiel, favorably known as an authority on Semitic epigraphy, has begun the publication of a useful series of texts under the title of *Altsemitische Texte* (Giessen). He proposes to issue these series in parts of from sixty to seventy pages, each part to contain selected inscriptions—Phœnician, Punic, Aramaic, Arabic, etc.—accompanied by explanatory notes. The feature of the series, of which Part I. has now been issued and seven other parts announced, is the reasonable price of only two marks for each part.

The excavations at Varapòlio Province of Naples, the site of a Greek necropolis, have resulted in the discovery of a unique drinking cup of glass and gold in a perfect state of preservation, and also a pair of earrings of gold in a shape of a ram. The excavations have been interrupted pending the arrival of a government official. Important finds are expected to follow, as the tombs discovered are so far intact.

The Expedition organized to carry on excavations in Egypt on behalf of the New York Metropolitan Museum of Art, began active work on a concession granted to it by the Egyptian Government at the Pyramids of Lisht. These two pyramids are near the southern end of the pyramid-field at a point about thirty-five miles south of Cairo. These pyramids date from the middle empire—the northernmost having been identified as belonging to King Amenemhat I. of the twelfth dynasty, and the southernmost as that of his son and successor, Usertesen I. Work had

previously been carried on at this site by Maspero in 1882, and the French Institute of Oriental Archaeology in 1894-95. The present expedition, which employs about 150 workmen, a part of them trained diggers, is carried on under the joint direction of Mr. A. M. Lithgoe and Arthur C. Mace (Oxford), with the assistance of Herbert E. Winlock (Harvard). The concession, beyond the district immediately about the pyramids, extends northward for about nine miles, and contains cemeteries of other periods which the work of the expedition will cover in due course.

The Turfan Expedition, in charge of Albert V. le Coq, has brought back a number of important manuscripts. Some of them contain portions of the New Testament written in the now extinct Soghdian language, spoken by the inhabitants of the ancient Soghdiana, between the Oxus and Jaxartes. A comparison with the New Testament is confidently expected to furnish the key for the understanding of this lost dialect. It will doubtless also explain the mysterious Soghdian documents discovered some time ago in Manichaean writing. Prof. F. W. K. Müller has discussed this new find in the reports of the Berlin Academy of Science, 1907, p. 260-270.

The German Archaeological Institute in Jerusalem, established a few years ago by the Eisenach conference, a convention representing all the different state churches of the empire, has made its announcement of the work mapped out for the coming season. Lectures are to be delivered by the head of the school, Prof. G. H. Dalman of the University of Leipzig, and by his assistant, Dr. Hugo Gressmann of Kiel, to be connected with tours for archaeological research and special excavations on the site of ancient Jericho. For this latter work Prof. E. F. M. Sellin of Vienna, who has been the leader of the German researches in Palestine, has received the necessary permission in the shape of a firman from the Sultan. The German school in Jerusalem has as its students chiefly graduates of German universities preparing themselves for an academic career, mostly for Old Testament chairs.

M. Naville writes that he hopes to finish the excavations at Dêir el Bahari shortly. Then the two temples, built at more than a thousand years' interval, will be free, and the whole of the circus-like end of the valley will be visible. Except for one-third of the temple of the Queen, whose popular name is *Hatasoo*, which was uncovered by Mariette, the clearing of the site of Dêir el Bahari, now one of the chief attractions at Thebes, is entirely the work of the Egypt Exploration Fund. This great work, which lasted more than ten years, and which added monuments of

priceless value to the Cairo Museum, to the British Museum, and to various other collections both in Europe and America, has been completely carried on by private subscription.

Dr. M. A. Stein, leader of the Indian Government Mission to Eastern Turkestan, has made important archaeological discoveries in Chinese Turkestan. On the site of an ancient village in a desert northward of the Niya River he obtained a rich yield of antiquities illustrating every-day life seventeen centuries ago, showing the predominant influence of Greco-Buddhist art and including records written on woollen tablets in the Kharoshto script. At Miram he found nearly a thousand Tibetan records. Many of the most interesting are remains which were discovered in a ruined Buddhist shrine, including colossal stucco reliefs closely related to the Greco-Buddhist sculpture of the first centuries of the Christian era.

That Greek art and Buddhist religion met at some period of history and left traces of their association has been known for some time through the bas reliefs at Gandara. These sculptures, in almost the best Greek style, are representations of the Buddha and his disciples, and the Oriental mysticism grafted on the realism of the Greeks resulted in productions of great refinement, recalling in some respects the work of the sculptors of the early Italian renaissance. It would appear from Dr. Stein's discoveries that Greek art reaches the Buddhistic Orient through Bactria and Turkestan. The region in which Dr. Stein has been working for some years was once watered by the river Nya, which now loses itself in the sands. The ancient region, with its great cities and millions of inhabitants, was overwhelmed by sand, seems to receive support from recent discoveries. The civilization of which the traces are now being found is one of the greatest puzzles remaining to historians.

The announcement that about two thousand five hundred tablets have been found at the probable site of the capital of the great Hittite empire (Boghaz-köi, about two hundred miles north of Tarsus), is exciting great expectations, says Prof. Albert T. Clay, in the *Sunday School Times*. Last summer an expedition was sent to Asia Minor by the German Oriental Society, under the direction of Professor Hugo Winckler of Berlin. On the outside of the city Boghaz-köi are the ruins of three massive structures, hitherto regarded as fortresses. In the largest of these—proved to be the remains of a palace—archives in the shape of clay tablets written in cuneiform script were found. The inscriptions are in the Imperial Museum at Constantinople. Dr. Winckler has been at work on them.

Says Dr. Clay, it is too soon for the decipherer to write in-

telligently of his find, but he has announced the discovery of a silver tablet containing the treaty between Rameses II. of Egypt, and Hattushil, the chief of the Hittites. The Hittites in the days of Rameses II. were too strong for that powerful monarch. After about fifteen years, Rameses made a rather inglorious treaty with Hattushil. From the Egyptian copies of this treaty in the temple at Karnak, and in the Ramesseum at Thebes, it was suggested about a year ago that the original was probably written in Babylonian, the diplomatic language of the second millennium B. C. The discovery of the original establishes this. The exact value of the inscriptions for the final solution of the Hittite problem remains to be determined. The tablets are written in Babylonian, and some strange language. If any of these tablets prove to be copies of others which are written in Babylonian, or if there are any bilingual texts among them, it will not be long before some progress has been made by Professor Winckler, one of our foremost Assyriologists.

There has recently been discovered in the library of the Assyrian King Ashurbanipal (668-626 B. C.) a work strikingly parallel to the Hebrew Book of Job. The Book of Job dates about 400 B. C., while the Assyrian work can not have originated later than 2000 B. C. Professor Morris Jastrow, Jr., of the University of Pennsylvania, says in the *Contemporary Review*: "While there is no evidence of any direct connection between the Biblical and Babylonian tales, the great advantage of the Babylonian parallel, taken in connection of what we now know of the wanderings of the Babylonian myths and legends throughout the East as a result of the conquests of Babylonian and Assyrian rulers, as well as through the extension of commercial relations between Babylonia and the surrounding countries, makes it quite possible that the Babylonian tale was a prototype of the Job story. This becomes more plausible when we recall that Job is not pictured as a Hebrew in the book, but lives in the land of Uz, which is probably to be sought in the region of Edom. The names of his three friends are foreign and their homes are in Arabia. The story, therefore, came to the Hebrews through their intercourse with the surrounding nations—perhaps directly from Edom; and although in adopting it they strove to give it a Hebraic flavor, its foreign stamp is unmistakable. It ought not, therefore, to be a matter of surprise to come across this tale, or a strikingly similar one elsewhere; and if the Hebrews obtained it from the Edomites, there is no inherent reason why it should not have come to the Edomites from a region still farther to the east."

Mr. N. Gordon Munro, of Edinburgh University, has written a monograph on the "Primitive Culture of Japan," which is

printed in the *Transactions* of the Asiatic Society of Japan. It is an extended study of Japanese neolithic culture. Prehistoric archæology has revealed the existence of two distinct cultures in Japan, together with traces of a third. One culture is represented by numerous relics imbedded in the soil or in shell heaps. This is the primitive culture attested by the existence of about 4,000 ascertained sites of residence or refuse heaps. These are characterized by the total absence of metal and by the presence of polished, finely-chipped and roughly-hewn weapons and implements of stone, as well as of natural stones which have been applied to various uses. Pottery is nearly always found, is usually of coarse texture, and is never turned on the wheel. The remains of the second culture are found in chambers and caves specially built or excavated. It perhaps made its appearance less than 3,000 years ago, when metal had chiefly supplanted stone in the manufacture of weapons and implements. Broadly speaking, the culture remains of the north of Japan are of a more advanced type than those of the south. The monograph is copiously illustrated with specimens of the early arts, and a map shows the distribution of the Stone Age sites and their elevation above sea-level. After many years of excavation and research, he finds two great areas of prehistoric activity—the Yamato and the Ainu. The former occupied the region west of Lake Biwa in the narrowest part of the main island; the Ainu (now known to speak an Aryan language) occupied the east and north. Mr. Munro concludes that the Mongolian element in Japan was an imported, and not an original stock.

Signor Rava, Minister of Education, has prepared a bill asking the Italian Parliament for a special appropriation of about \$5,000 yearly to excavate Herculaneum. Signor Ciuffelli, the Under Secretary of Public Instruction, said the Government intends soon to begin the work. It would have a thoroughly national character, in accordance with what the Ministers believed to be the general feeling of the country. But, Signor Ciuffelli added, the advice of foreign scientists would be gratefully accepted, and he explained the nature of the work and the ground where the excavations were to be made would not permit of extensive operations. It would be necessary to proceed gradually and thus find out the best way to continue the work, and also form an estimate of the expense which it would be necessary to incur. If the present ordinary appropriation turned out to be insufficient the Government would present a demand for further funds. It is admitted by many that the Government lacks the means and energy to expedite the work. Hence Herculaneum may remain buried for another generation.

A bill has been presented in the Italian Chamber of Deputies providing for a \$200,000 lottery, with the proceeds of which it is proposed to carry out excavations at the site of the Roman amphitheatre at Benevento, the town founded, according to tradition, by Diomedes. In the forum is Trajan's triumphal arch, which resembles the arch of Titus at Rome, and is the finest and best preserved of all the Roman structures. The amphitheatre at Benevento is lying almost intact, under a number of old houses occupied by poor people.

James T. Dennis, assistant field director of the Egyptian Exploration Fund, has recently returned to his home in Baltimore. Mr. Dennis considers that the chief discovery of the season was the finding of the tomb of Mentu-Hotep of the eleventh dynasty, about 2700 to 2800 B. C. This tomb is about three miles west from Luxor, and according to Mr. Dennis is the only well preserved temple of the early empire. It was found to be in a splendid state of preservation, and though it officially belongs to the French—that nation having the rights to all antiquities there—Mr. Dennis thinks that the tomb would probably come to this country. This year, M. Naville, with whom Mr. Dennis has been associated, writes, that no such sensational discovery of museum objects as that of last year, when the Hathor goddess and her shrine were found, has so far been made; but the excavators have discovered that Mentu-Hotep, who lived in B. C. 2700, was a King to whom special honors were paid by his successors, even as late as Rameses the Great.

Besides fragments of the body of Mentu-Hotep I. a number of models of sacred boats, wooden statuettes, a gilded sandal of the King, and parts of chairs and thrones, all somewhat deteriorated by their forty-six centuries of interment. The discoveries show that this temple is older by a thousand years than any monument hitherto found on the site of ancient Thebes. The temple is unique in architecture. It represents a period of transition between the pyramid type of interment and that of later times. The remains of a finely painted shrine to Rameses the Great, also found, show that the temple was known and revered as the last resting place of the greatest monarch Egypt ever had.

Mentu-Hotep I. was a King of the eleventh dynasty. The uncertainty of the time of his reign, which has now been definitely fixed, was due to the inaccurate interpretations made by Daressy of the inscribed blocks, now in the Cairo Museum, taken some years since from a temple of Mentu-Hotep at Gebelen, and which had been rebuilt into a Ptolemæic temple wall. The first block from Gebelen bears the Horus-name of the King, and thus identifies him as Nibhotep-Mentu-Hotep I. It represents him as smiting an enemy, bearing the inscription, "Chief of Tehenu"

THE TOWER OF BABEL AND THE CONFUSION OF TONGUES.

BY STEPHEN D. PEET, PH. D.

One of the most remarkable events recorded in the Scriptures, is the one which resulted in the confusion of tongues. The date of this event is not definitely fixed, but it evidently took place after the time of the Flood; and probably before the beginning of history. The locality is not definitely stated, yet it is supposed to have occurred in the Valley of the Tigris, in the midst of the region where many cities afterward appeared.

It was an unique event, for there is no record of the confusion of tongues to be found in any such part of the world, unless we should take some of the pictographs found in Central America as referring to this event. It is well known that there are stories about the first pair and the Garden of Eden prevalent among all the nations of the East. The story of the Flood is found everywhere, and may be considered a common inheritance to the whole human race, but if there is any story, except that which is found in the Bible, which relates to this event, it is so obscure that it has not been understood. In considering, then, the subject we shall confine ourselves to the single narrative, the one which is contained in the Book of Genesis.

I. The first point to be noticed, is the contrast between this story of the Confusion of Tongues and that of the Deluge.

It is not at all strange that there are so many traditions of the Flood among all the nations of the earth, even among those who are very remote from this locality, as well as those who are known to have lived in the Valley of the Tigris. It is true that the stories found in the old historic lands have details resembling the one contained in the Scripture, which show that they came from the same source; but others which are extant among distant nations have features which seem to have been borrowed from the local scenery. The resemblance, however, between all of the stories, wherever found, is such that every one can recognize it. It will be interesting then to compare these different stories, and to notice the resemblance between them.

The Greek legend is that Deucalion built an ark, which received him with Pyrrha, his wife. Zeus then sent a mighty rain, so that Hellas was flooded and all the people perished. Nine days and nights Deucalion floated on the water, but then landed in Parnassus, and then offered sacrifices to Zeus.

In the Assyrian tradition, Kronos warns Xisuthrus of the coming of the flood, who builds a ship and embarks with men and beasts. Three days after the rain has ceased, birds are

sent out. Xisuthrus goes out first with his wife and daughter and pilot, and they prayed and offered sacrifice, but suddenly disappeared. When the rest came to land they heard a voice sounding in the air, saying that Xisuthrus had been taken up by the gods, but they were left to propagate the race.

There is no tradition of the Flood in Egypt, but confirmations of the event are found in the custom which prevailed among the Egyptians of carrying a ship in a procession.

It is worthy of notice, however, that nothing is said about the tempter, or the evil spirit, or even the serpent in connection with the Flood, though these are prominent in the story of the Creation and of the Garden of Eden.

It is a singular fact that the landing of the ark is still associated with a certain mountain near the Valley of the Euphrates, and the tradition is that remains of the ark are still to be found there.

According to Homer, Mount Olympus was the place where the gods dwelt, but the place of offering sacrifices was quite different from the dwelling places of the gods. Among the Greeks it was Mount Olympus; among the Hindus it was Mount Meru; among the Peruvians and the Aztecs the mountains which surrounded the cities were the abodes of their gods.

In the Bible, God is represented as sitting on a throne, and is surrounded by bands of angels; though in Genesis He is represented as walking in the Garden. There were different symbols which were signs of the presence of the Divinity. In Genesis it was the tree, and the "Shekinah," or "shining place." Among the Scandinavians, the creatures of the air and the forest were supposed to be near their divinities; the raven upon the shoulder, the wolf by the side. Among the Chinese, the rainbow spanned the sky and formed an arch over the throne. Among the Navajoes, the rainbow surmounted the sky, and the priesthood of the bow was the symbol of the Divinity.

The conception of the Hindus was that Mount Meru was at the summit of the earth and was the abode of the gods, but the counterpart was beneath the earth, where the rulers of the dead remained. The Egyptians had their heaven touching the mountains to the far north; exactly opposite, in the south, was the abode of the gods. According to Homer, Ulysses and his companions descend, while the ghosts ascend to reach the meeting place in the ocean stream. Another belief was that Tartarus was far below the earth, as far as the earth was below heaven.

The Germans and Teutons imagined the earth to be a place of safety, which was covered by the arch of the sky; but around the earth was the region they call Muspelheim, which is full of gelid vapor. The god Thor was the ruler, who sat upon his throne with the raven upon his shoulder and the wolf by his side: the conception being in accord with the wild hunter stage in which the people then dwelt.

Gladstone speaks of the Olympian Deities dwelling upon the mountains, where Zeus, who was the god of the sky, presided, and where the different gods seemed to form one large family. Homer, however, represents Neptune, or Poseidon, who is the god of the sea, presiding over the deep, and at times presiding over the meeting of the gods. The different elements, fire and water, earth and sky, were under the control of the different divinities.

Among the Zunis, a high cliff was the place of safety during the time of the flood, and on the side of the cliff is a streak in the rock which shows how high the water of the flood had risen. There is no mention of an altar, but the story is that a young man and a maiden were let down the sides of the cliffs as an offering to the flood, but they were transformed into rocks which stand near the cliff, and are seen to this day.

Even among the Chinese there is a story of the Flood, and the name of their first divinity Fohi, resembles that of Noah himself, though with them there is no account of building the tower, or the dispersion of the race.

It is impossible to reduce this story of the Flood, or that of the dispersion of the race to a Nature myth, or to classify it with any of the fairy tales, and we must conclude that the event was not only historical, but occurred at a very early date in human history. Even the Algonquins and Iroquois have the story of a great flood from which their ancestors survived. Over this ocean floated a raft, upon which were many species of animals, the chief of which was Michabo, the giant rabbit. Another story is that the musk rat was sent down by the rabbit, and brought up from the bottom of the sea a portion of mud in its paws, from which the new world was created. The mud was dried by the sunlight, the solid earth was formed, twigs were placed in the mud and grew to be trees. The island grew to be the great world. The four points of the compass became personified and had names: Wabun, the east; Kabun, the west; Kabun-nocca, the north, and Wano, the south. The mighty serpent, king of all serpents, which was the cause of the flood, was overthrown. The gigantic frog, from which the waters flowed, swallowed the water and left the earth as dry as before the flood. Ioskeha, the great divinity, devoted himself to peopling the land anew; he opened a cave from which all the varieties of animals came forth and occupied the woods and prairies. These are a few of the stories concerning the Flood which prevailed among the wild tribes.

Among the civilized tribes the chief divinity, Quetzalcoatl, floated out to sea on his wizard raft of serpent skins, and his soul mounted to the morning star; that he would return was the common belief. The culture hero, Itzamna, was the one who gave names to all the rivers and divisions of the land. He invented the letters in which the Mayas wrote their books. He was a city builder, a ruler, priest and teacher, and corre-

sponded to Noah. The rainbow was the mother of the rain gods, while the four Bacabs were the gods of the winds. They presided over the streams and wells and were the divinities who ruled the four points of the compass. The belief was that Kukulcan, the chief survivor, ascended into heaven and became one of the gods.

We find the story of the Patriarch Noah everywhere, and among all nations, civilized and uncivilized. It is one of the most prominent beliefs of mankind that the first ancestor survived the Flood and established a new kingdom, and with his family re-peopled the earth; but the story of the building of the Tower of Babel has no such prominence, and yet the evidence of language is that it actually occurred.

II. The story of the building of the Tower of Babel introduces the subject of pyramid building, and calls for a com-



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parison of the early architecture of the different races and nations

The building of the tower is in accord with the testimony of architecture and the discoveries of archaeology. In the first place, we know that the custom of pyramid building appeared at a very early date, both in Egypt and in Babylonia, and there is no reason to doubt the correctness of the Scripture narrative in this respect. This does not conflict with the fact that in the early stages of society there were very rude huts which marked the first stages of progress, and that from these there grew up villages and cities as a natural result of human progress.

In this very region where the human race began anew its history, the earliest structures are supposed to have been in the form of pyramids, for the pyramid became the type which con-

tinued very late in history. We have only to go to the history of the architecture of the East to prove this, and to see the correctness of the Scripture record in regard to the Tower of Babel, which was the first pyramid to be described.

It is generally supposed that Egypt was the earliest home of the pyramid, and yet it is a remarkable fact that there is no story of the Flood in Egypt, but the story is very common in Babylonia, so common that it seems to have been the starting point of history. The difference between the pyramids of Egypt and those in Babylonia is also worthy of notice.

In Egypt the pyramid was a burial place; in Babylonia it was a dwelling place, as well as a temple. The religious motive was the cause of erecting the pyramids in both places, but this of itself shows that instead of the belief and the worship of the one God, there was prevalent a worship of the sun and the heavenly bodies, for each stage in the pyramid was devoted to a different planet.

Rawlinson says: "The Chaldean temple was a building in which the three stages were a solid mass of brick work, ascended by steps on the outside. On the third stage was a small chamber, highly ornamented, containing the image and shrine of the god. The partial use of stone in the construction was known; it was faced with burnt brick and strengthened by buttresses. The temples possessed no great architectural beauty, but in the dead level of Babylonia, the elevation of one hundred and fifty feet must have been effective. No edifices in the world are so deficient in external ornamentation.

"The flint and stone knives, axes and hammers which abound in all the true Chaldean mounds, while they are more advanced than those primitive implements found in the drift, are of a workmanship as rude as that of the ordinary stone celts. The metallurgy of the Chaldeans is of a rude character, and indicates a nation just emerging out of an almost barbaric simplicity. Iron is extremely uncommon. Bronze is the more common material. The textile fabrics were those in use among primitive people. Pieces of linen have been found attached to skeletons in the tombs. In later times Babylon was celebrated for its robes and carpets. In the time of Joshua a Babylonian garment was of so rare a beauty as to attract the covetous regard of Achan."

We have, however, a description of Nimrod, that he was a mighty hunter; he was lord of the world and lord of all countries, he was the builder of Babylon.

Now this of itself confirms the Bible story, for it shows that the custom of building pyramids appeared at a very early date, and that in Babylonia it was in the form of pyramids that temples were built. There are many localities where the remains of ancient temples are still found. Though in ruins, they are all in the shape of pyramids.

Now this shows that the Valley of the Tigris was occupied by the descendants of Noah, and that it was the starting point of human history. It has been generally supposed that the pyramids of Egypt are older than those of Babylonia, but the testimony of history and archæology disproves this.

Mr. Budge in his "History of Egypt" describes the Stone Age as appearing in Egypt long before the opening of history, and describes the people who left their stone relics in the Valley of the Nile as a very rude people, as rude even as the Cave-Dwellers and those who left their relics in the gravel beds. These people have been called by the ethnologists the "new race," but they really were the "old race." It matters not where they came from, or to what race they belonged, they differed entirely from the pyramid builders.

III. As to the particular race who built the pyramids, we find a passage in the Book of Genesis which refers us to the sons of Ham. The sons of Ham were Cush and Mizraim, and Phut and Canaan, and Cush begat Nimrod; the beginning of his kingdom was Babel and Erech and Accad and Calneh in the land of Shinar.

It is possible that the Deluge was local, and swept away only those inhabitants who dwelt in the Valley of the Tigris, and that history began with Noah and his family, while all the other races which were scattered through the world were prehistoric and transmitted their own notions and modes of life to the historic races; for in Egypt the "new," old race was still in the Stone Age, burying their dead in a way peculiar to that age, and lived in the same way as other races which belonged to the prehistoric age. The pyramid builders were really descendants of Noah, and differed entirely from this "new," old race. This gives a greater significance to the Tower of Babel, for it shows that pyramid building began in the Valley of the Tigris, long before it did in the Valley of the Nile.

Dr. A. H. Sayce has shown that there were two races in Babylonia: one was called the Accadian, and the other the Sumerian. The Sumerians were a very rude people, and are so represented on the monuments, the Accadians were more advanced, and were really the builders of the cities of Babylonia and the founders of the empire. The skill which was manifested among the Babylonians is another evidence that the building of the Tower of Babel preceded the building of the pyramids. This skill is hinted at in the story of the Flood, for Noah and the mechanics who dwelt on the Euphrates may be regarded as the first ship builders known to history, although previous to their time it is narrated in the Scriptures that the descendants of Cain went out and built a city.

The skill which was exercised by the Accadians is referred to in the old cuneiform tablets. These tablets were gathered into libraries, and have been translated by archæologists; they seem to relate to the transactions of business—barter, sale, and

the like. A few fragments of hymns, letters, and syllibaries were found.

IV. The discovery of the most ancient remains of a new form of speech, differing from the Babylonian language, confirms this. This ancient tongue resembled dialects of the Turanian family, pronounced to be decidedly Cushite or Ethiopian, though the Egyptians are supposed to have been a mixed race composed of Ethiopians, Semitics and other elements.

Dr. Hilprecht announces the discovery of a temple library, but Jastrow says that this is unsupported by evidence, for of the 17,000 tablets, the majority are documents of a business character. The conclusion is that the temples contained chiefly business archives, though there were schools for those who were to be trained as scribes and priests, and there were text books of various kinds and religious texts, consisting of hymns, incantations and omens; there were brick stamps and barrel cylinders, and other inscriptions.

In important religious centers the temples had extensive archives attached to them. The Babylonian religion was intensely practical in its character, and this would indicate that there was a unity among the people, rather than a division. There are, however, evidences of division. Jastrow says: "Until the days of Hammurabi the Euphrates Valley was divided into a certain number of independent states or kingdoms, while at one time and another different monarchs exercised supremacy, and that there was not, prior to Hammurabi any central power and control in all Babylonia. Sargon and some of the rulers of Lagash and Ur represent the nearest approach to such a power."⁶

The proof is abundant that entire series of incantations for the Ea cult were transferred to Marduk.

It is, however, remarkable that the story of the Creation and the Deluge is contained in these different documents which have been found in the ruins. Of the Creation story, at least five copies existed in the royal library, besides four copies of the Babylonian edition found at Koyunjik. The main version of the Babylonian Creation story has been preserved to us in Marduk's temple at Babylon. Numerous lists of gods, countries, cities, mountains, rivers, birds, plants, ritual texts, complicated ceremonials, for the instruction of the temple pupils, have been found. Now, all this proves that much progress had been made as early as the time of Hammurabi. This does not fix the date of the building of the tower, but gives to us a fair understanding of the condition of society which prevailed at this time.

V. The chapter in Genesis which follows the story of the Flood shows us that the earth was re-peopled after the deluge,

⁶ See Jastrow in *Journal of the Oriental Society*, Vol. XXVII.

for it constructs a general chart showing how the various races descended from the three sons of Noah, and that the names of individual men designated the different nations. Mizraim was the name which was bestowed on the two parts of Egypt; Heber was the name bestowed upon the people who dwelt in Palestine; Canaan was the name of those who dwelt in Sidon, and the cities of Sodom and Gomorrah; Javan was the name of those who dwelt in the Isles of the Gentiles; Joktan, the name of those who dwelt in Ophir. The following chapter, the eleventh, speaks of the earth as of one language and one speech, and describes the people as journeying from the east and finding a plain in the land of Shinar, and dwelling there. This fixes the locality, but does not explain the names which were given in the previous chapter, though those names show



TEMPLE OF MEYDOUM.

what nations and tribes descended from the people whose language was confounded at the Tower of Babel.

The proximity to mountains makes it probable that after the Flood, when man had increased and multiplied, the tendency would be to erect their temples in the form of pyramids. The fact that there was a division in the languages and races at an early date also confirms the Scripture account. There is reason to believe that both the Semitic and Aryan also existed early in the population of the country, for there is a mention of the four nations and four tongues and four kings in Abraham's time. There was also another ethnic division, viz.: Cushite or Taraman.

The modes of writing confirm this. One mode was called the hieratic, another the demotic, the first being the language of the priests, and the other, the language of the people. The material on which the Chaldeans wrote was moist clay in the form of tablets and bricks. Besides their writings on clay, the Chaldeans were in the habit of engraving inscriptions on gems and on cylinders.

VI. The skill of the Chaldeans as potters has been noted. The potter's wheel is supposed to have been known at this time. A number of engraved cylinders, which can be ascribed to a primitive period, have been found. Naram Sin was one of the earliest kings. He constructed a great temple. His bricks are found in the doorway of a large ruin. Flint knives, stone hatchets, chisels and spears are abundant in the ruins, but no trace of iron. Hammurabi constructed for himself a palace and repaired the great temple of the sun. His reign occurred about 1546 B. C., which was earlier than the days of Abraham, but much later than the Flood. Great progress had been made between the times of the earliest monarch and his reign.

Pictures are given by Rawlinson of stone hatchets, hammers, axes, spears, nails, arrow heads, and bronze implements. These show that considerable skill was attained, but the greatest confirmation of the Scripture account of the building of the Tower of Babel is that the style of building was in the form of a pyramid. The house was ornamented with perpendicular recesses; the walls were generally of vast thickness; the roofs were probably flat; the doorways were toward the sides; the pyramids were in tiers. There was generally a drain at their base. Long shafts of baked clay extended from the surface of the mound to the base.

Ordinarily we think of the pyramids as involving a great amount of labor and skill, but it was in reality the most simple of all structures, scarcely any mechanical and architectural skill was involved, though arched passages or chambers have been found which belong to a very early date. There was, however, this difference between the pyramids of Egypt and those of Chaldea: those of Chaldea show a system of drainage. This was required because the mounds were made of earth; while in Egypt the pyramids were made of stone and needed no draining. In comparison, the Egyptian pyramid was much superior to the Babylonian, and required more skill, for it was built of stone and generally had a casing of hard flint, but in the interior was a burial chamber, built in the strongest manner. This shows that the Egyptian pyramid was more recent than the Babylonian. Under the circumstances, it is easy to see how the descendants of Noah, even at an early date, could have erected a pyramid, for the building of the pyramid would really require less skill than the building of the ark.

VII. The history of the dispersion and migration of the races seems to prove the correctness of the story of the Confusion of Tongues. There were different races even in the Valley of the Tigris, but they separated at an early date and were found at the opening of history somewhat remote from this region: some of them in Arabia, some in Chaldea, some in Persia, others in Palestine and even in Asia Minor: all of them bearing traits and physical qualities which showed their origin and their

kinship, even when their language is unknown; but the language is the chief evidence of an early division of the race.

There are many legends among the early Greek writers, such as Ovid, Lucian, Pindar, Apollodorus, and others, in reference to the floods of Ogyges and of Deucalion; and with the story there is an account of a chest, which might be identified with the ark, and yet there are some features which remind us of the tower.

The story of the Flood of Deucalion, given by Apollodorus, is as follows: "Zeus wished to destroy the men of the Bronze Age. Deucalion, by the advice of his father, Prometheus, built a chest, placed provisions in it, and entered it with his wife, Pyrrha. Zeus then let great floods of rain stream down from heaven, which overwhelmed the greater part of Greece, so that all men were destroyed, except a few who had taken refuge on the nearest high mountain. Deucalion was driven in his chest through the sea for nine days and nights, until he landed on Parnassus. He disembarked and offered sacrifices to Zeus. Then Zeus sent Hermes to him and invited him to express a wish. Deucalion supplicated offspring, and according to the command of Zeus, he took up stones and threw them over his head, and the stones became men. Those thrown by Pyrrha, his wife, became women. From this came the name 'Laoi' for people, because they sprang from stones."

According to Ovid men sprang from giants' blood, but the story of the Flood ascribed to Ovid and to Lucian resembled the Semitic stories.

In India we find the story of the Flood, and the story of the gift of tongues as well. The story runs as follows: "A large fish was caught which seemed to have the gift of speech, and which prophesied that the flood was to come. It said: 'Thou shalt tend to me by preparing a ship, and when the flood is arisen, thou shalt enter the ship and I will save thee from it.' Manu prepared the ship, and when the flood had arisen, he entered into it. The fish then swam up to him, and to its horn he tied the rope of the ship, and by that means he passed swiftly up to the northern mountain. The fish then said: 'I have saved thee, fasten the ship to a tree, as the water subsides thou mayest descend. Manu gradually descended, and hence the slope of the mountain is called 'Manu's Descent.'"

It is claimed that this Hindu story was of Semitic origin, but it reminds us of the Greek story of Ogyges, who is described as combining the form of a fish and a man. This figure of a fish with the head of a man and with tail and body covered with scales is a common symbol in Babylonia, and shows the influence of the Babylonians upon the Hindus. In the Veda there is a story of a golden ship with golden tackle which glided down the peak of Himalaya. This may be a far off echo of the Babylonian Flood story adapted to the severe climate of Persia.

There is another story which comes from Berosus, to the effect that seven fish men, or fish gods, arose from the sea of Babylon or the Persian Gulf, who taught the people language and writing, agriculture and the building of towns and temples.

The Flood story of Isdubar is older than these. It occurs in a poem which is believed to date at least 2000 B. C. Isdubar, in search of the tree of life, has reached at last the Island of the Blessed. He is conversing with Napishtim: Isdubar asks him how he managed to escape the mortal fate, and in reply Napishtim tells Isdubar the story of his marvelous deliverance and translation. In connection with this story, which seems to refer to the Tower of Babel, it appears that Bel was the god of



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the land, while Ea was the god of the deep. Napishtim escapes from the power of Bel, and takes refuge with the god Ea. Then follows a story of the building of the ark, which reminds us of the building of the Tower of Babel. It is as follows: Ea says, "I built it in six stories, divided it seven fold; the interior I divided into nine. I provided myself with a pole, or an oar. I kept back a jar of oil needful for sacrifices, for the temple of the gods I slaughtered

oxen. I made a festival." The Babylonian ark seemed to be conceived of as a great boat six stories high, resting on a flat vessel. Within the ark were compartments or cells, made for the passengers. There are pictures which represent Napishtim in his ark, and Isdubar is given a command from his god to close the door. The ship is conceived as already landed, moored in the Euphrates, until the waters floated it.

The beautiful rainbow story that is told in the Scriptures, is found in the poem of Isdubar, which dates about 2000 B. C. Both mountains: that mentioned in the Scripture, and that in Babylonian tradition, may have been derived from the same source. This, however, does not prove anything in regard to the diversity of language. The discovery of the Tel-el-Amarna tablets has modified our ideas in regard to the languages of Babylonia. These letters were written 1,500 years before Christ. They prove conclusively that the language of Babylon was used as a means of communication in Canaan. The

Semitic language was learned by educated persons in Syria, along with the cuneiform characters. The learning of several cuneiform symbols, with their phonetic values and meanings, must have required much patience and skill, as well as learning.

VIII. The story of the Confusion of Tongues is by this circumstance shown to be correct, for the tablets show that there were different languages, and that there were those who could read them at this early date. The story is confirmed by the history of the alphabet. All scholars admit that the Hebrew alphabet was different from the cuneiform, and that was different from the Egyptians, three different forms or styles of writing having prevailed at a very early date. It is claimed that the Phœnicians brought with them from the Persian Gulf the alphabet which the Hebrews used, and afterwards the Greeks borrowed, though modified.

It is worthy of notice, that there are pictographs contained in the Hebrew alphabet which remind us of an early stage of civilization, when the people were living in tents and tending cattle, but were familiar with camels, and yet were acquainted with certain architectural elements. This is shown by studying the shape and meaning of each letter. The letter *A* signifies an ox; the letter *B*, a house; the letter *D*, door; the letter *E*, window; the letter *G*, a camel; the letter *H*, a fence; the letter *L*, ox-goad; the letter *M*, water; the letter *N*, fish; the letter *P*, mouth; *T*, a snake, the letter *V*, hand; *Y*, eye; *Sh*, tooth. The letters were originally hasty and rude representations of visible objects, but in the Phœnician alphabet the similarity of the figures to the objects signified may be seen.

The order of the letters differed from that which is now common. This, in a manner confirms the Bible story of the Confusion of Tongues. That story refers to the spoken language rather than to the written; yet it is significant that the alphabet which prevailed at an early date, contained in itself pictures of animals, houses, doors, and other objects which were common, for it shows that the people had advanced beyond the condition of savagery, and had reached a stage of civilization.

The history of the alphabet carries us back to a very early date, but it leads us to the conclusion that different races had different alphabets, though the alphabets may all originally have sprung from pictographs. This is shown by the study of the different forms of writing found in America. It is well known that pictographs were common in this country, and that they were the means of communication among the wild tribes, for the Iroquois had a complete set of pictographs which they embodied in their bark records. The tribes of the interior also had pictographs which were understood and interpreted. The same is true of those on the Northwest Coast. When we come to the civilized races of Mexico, Central America and Peru we find that the pictographs are changed to a genuine alphabet,

though each one of these races had an alphabet peculiar to itself.

The comparison between the pictographs of the wild tribes of America and those which have been found in the caves of Europe have led to the identifying of the buffalos and animals of America with those which prevailed in Europe at an early date. These pictographs have, however, no connection with the alphabets which appeared in Asia, for they have to do only with animals, and nothing to do with such objects as were common among the civilized races. Another stage of writing, or form of pictographs, consisted of arbitrary signs, which needed some interpretation to show their significance. A third stage was that in which circles and squares and arbitrary symbols were made to represent the heavenly bodies and the points of the compass, the sun and moon. There was still another stage, which would show these various symbols in combination with animal figures.

At last pictographs would appear which might present a story in which men and animals were associated; even houses were represented, and the activities of the people. Such pictographs may be seen among the Eskimos at the present day, and among the people of the Northwest Coast. These are, however, mere rudiments, and cannot be depended upon as furnishing a clew to the hieroglyphics of Egypt, or the cuneiform writing of the Babylonians. They illustrate one point: that different languages might arise among different people, even among those who had no common ancestry, and among those whose early history was unknown.

IX. There is nothing about the story of the Confusion of Tongues that is so very marvelous after all, for the people who dwelt in the same region before the Flood are described as inventors, as well as builders. One class is represented as having certain tools and weapons; another class as having to do with cattle; still another class as building cities. Three or four different grades of progress and modes of life may be referred to as prevailing before the days of Noah. The inference is, then, that after the Flood the people who dwelt in the same region were separated enough in their modes of life and their associations to have adopted different languages, but when they came together, they found the confusion of tongues so great that they were obliged to give up their undertaking.

The time which intervened between the landing of the ark and the building of the tower is unknown, but the probability is that the people who had descended from the different sons of Noah, had already through their different associations and their different modes of life reached a point where they had very little in common. For those who dwelt by the sea would naturally form different habits from those who dwelt on the plains, and those on plain the would have different habits from those who lived in the mountains; and as time went on

these differences would increase, so that if they came together they would not understand one another.

The study of the language, however, as well as the ethnical history of the people of the East, confirms the story about the Tower of Babel. It is a great error to suppose that all the people who lived before or after the Flood were highly civilized and resembled those of modern times, for no such impression can be gained from the study of the rise of nations on the earth; but on the contrary, all nations have come up from low beginnings.

Humanity, at this early period, was not exempt from the law of development, for the age of chipped stone was followed by that of polished stone; the polished stone age was followed by the copper and bronze ages, that by the age of gold. There was an age when agriculture was practiced and domestic animals were owned. Next came the age of rude stone monuments; finally men gathered into forts and on fortified heights, and at last into cities.

The different groups of mankind may be arranged in a column, the bottom of which is lost in extreme savagery, the top may be represented by the enlightened races, and the space between by the barbarian, the semi-civilized and the civilized races: though the difficulty would be to identify these stages in any particular class or race of people. Some, perhaps, would take the Bushmen and Australians as representing the lower part; the enlightened nations of Europe and America as representing the top, with its decorated and ornamented capitol; and the various races of Asia, Europe and Africa as representing the column between. This, however, does not fix the condition of the people who either built the ark or undertook to build the Tower of Babel. One often meets with men intelligent enough to admit the barbarism of primitive society, but very few can describe the exact condition of those who survived the Flood, or of those who built the Tower of Babel, whether they believe the Bible story or not. They would have us believe that the Semites, if not the Egyptians, started with high industrial and social life, and in full possession of a monotheistic belief.

The theory of a primitive unity has led many to construct a picture out of the few hints that are given in Genesis, which would equal that of the most favored family of any Christian community, and make the condition of the first pair equal, if not superior, to that which can be found in the most cultivated homes and family circles of the present time. Eve was pronounced as the "fairest of her daughters."

This tendency to magnify the virtues of our first ancestors prevails among even pagan nations which have never had access to the Book of Revelation. The religious progress was recognized:

1. The belief in superhuman beings, who intervened in the destinies of men and the course of nations.
2. Attempts to draw near to these, or to escape them, or to modify their actions by concentration or compulsion.
3. Recourse to the mediation of certain individuals, who have power, or a measure of success in ruling the people.
4. The placing of certain customs under the sanction of superhuman powers.

The story of the golden age seems to establish this point, but the diversity of primitive society is taught by the study of all nations, and even of comparative religions. Some are inclined to make an exception in the case of revealed religion, maintaining that primitive man was a holy being, who fell from an exalted state. They maintain that all the races started with a very simple life, but with pure morals and an exalted belief. Such take the Bible story as proving this, and then draw the conclusion that the same story can be applied to the early condition of all races, such as the Pelasgians, Germans, Chinese and North American Indians and negroes.

But the pictographs found in the caves and the study of the monuments of prehistoric ages prove that man began his career in a very rude condition, though he may have been innocent of any great crime; and there is no evidence that society was in a condition of harmony and unity, or that the worship of one God was as prevalent, as it is at the present time. The very mythology of the primitive races shows this, for it is full of personifications: the "scorpion of the dark," the "dragon of darkness," was the night enemy; the earth was a devourer who swallows the light; the stars were represented as swallowed by the day.

The study of primitive society everywhere shows man to have been in an uncivilized condition. The flint hatchet, the double-headed mallet are symbols of the stone age, and it took a long time for society to have passed out of that age, even into the bronze, or to pass from the bronze to the use of iron and precious metals. According to the Scripture we have evidence that there was much progress made before the Flood, and that considerable skill was exercised in building the ark. But it is probable that at the time of the building of the Tower of Babel, society was in a primitive condition, and there was very little social organization; though the differences between languages were already apparent. This is illustrated by a singular fact, which is brought out by the study of the languages of the California tribes of Indians. It appears that here some tribes of Indians settled in the valleys, and others upon the mountain sides, but in the course of time their languages became so different that they could not understand each other, and in their tribal customs and modes of life they grew apart, though dwelling in the same region.

X. The last point to which we would call attention is the distribution of this story of the Confusion of Tongues. It is well known that the story of the Flood is found in all parts of the globe, but the fact that these local freshets often make a great impression upon the minds of the people and the stories concerning them continued through many generations, make the Flood story somewhat common and cosmopolitan. This, however, is not the case with the story of the Confusion of Tongues, for there could be only one event of this kind, and that, the one recorded in Genesis.

The two events are, however, often associated together in the traditions of many nations, and this makes them doubly interesting. There is no doubt that the Genesis narrative implies some familiarity with the general conditions of ancient Babylonia, for there are several particular events described in it, such as the building of the tower, the conception of Babylonia as in a low lying plain, and of a composite population speaking Semitic and non-Semitic languages. The purpose for which the tower was built seems to have been a defiance of heaven rather than a desire to escape any threatened flood. The cessation of the work was caused by the confusion which came upon the people because of their diverse languages. The scattering of the people to different points was perhaps the most important, for this resulted in the division of the race into diverse nations.

In reference to the story as found in the different and far away parts of the world, it would not be expected that the particulars would be repeated, but it is sufficient that the one event, that of the confusion of tongues, is mentioned in every story wherever found.

The story consists of three parts: 1, The founding of the city of Babylon; 2, the building of the tower, 3, the confusion of tongues and the dispersion of mankind. In reference to the first, we find the story of the Titans common among the Greeks. The Titans attempted to storm heaven, just as the giants undertook to pile "Pelion upon Ossa."

In Hindu literature is recorded the attempt of the Asuras to imitate the great fire altar of the gods. When the altar nearly reached the sky the gods overthrew it. One story comes from Africa, another from Central America. The tradition of the Toltecs was that after the Deluge men built a Teocalli to a great height. After this their tongues became confused and they went to different parts of the world. From the regions of Arizona and New Mexico comes the story of Montezuma having built a vast house which should reach to heaven, but the Great Spirit sent an insect, which flying to the Spaniards

The most remarkable story is, however, the Mexican one of Coxcox. It appears that his children were born dumb, but a dove came and gave them innumerable languages.

NEW DISCOVERIES IN THE EAST.

Mr. James Dennis of Baltimore, an associate director of the work of excavation in Egypt conducted by the Egypt Exploration Fund, has sent a letter from Luxor giving account of some recent important discoveries. The work of the expedition this year has been confined chiefly to opening the shaft found last year that was presumed to lead into the tomb of King Mentu-Hotep, Ra Neb Hapet of the eleventh dynasty (about 2700 B. C.), and to clearing the western court of the temple built by that king at Der el Bahari, on the west bank of the Nile in old Thebes.

The opening and clearing of this shaft have now been completed. The shaft itself consisted of a long, inclined passageway cut through the solid rock, extending for nearly six hundred feet into the cliffs surrounding Der el Bahari. For about one-third of the way the shaft is roofed by cyclopean blocks of sandstone, meeting in an arch at the top. Beyond this shaft is a chamber about twenty feet long, at the end of which a flight of shallow steps leads to the tomb chamber, the entrance to which is faced with large granite blocks. The roof of the tomb chamber, which is about sixteen feet high and twelve or fourteen feet square, consists of large slabs of granite meeting in a point at the top and not curved as in the shaft. Three-fourths of this chamber is occupied by a great shrine, in which the sarcophagus containing the body was placed. This shrine is built entirely of large blocks of alabaster, except the roof, which consists of a granite monolith overlaid with alabaster; the inner sides are pierced with numerous holes, to contain pegs for holding the coffin lid, and its exterior is modelled after the style of a temple pylon. In front of this shrine was a large quantity of mummy cloth, mixed with which were found the bones of the king, some portions of the skull, jawbone, and the larger leg and arm bones; the rest had crumbled to dust ages ago.

Besides these fragments of the body of King Mentu-Hotep were found a large number of models of sacred boats, wooden statuettes, figures of persons engaged in various occupations, many war bows and arrows, the latter being of a type hitherto unknown in Egypt; two large heads in wood that formed the covers for canopic jars and one of the gilded sandals of the king, part of a gilded sceptre, several parts of chairs and thrones, and many other fragments too badly injured by their forty-six centuries of interment to be valuable.

The greatest interest connected with this discovery lies in the fact that the temple and tomb of Mentu-Hotep are older by about a thousand years than any monument heretofore found on the site of ancient Thebes, while the finding of a royal body in its tomb, though not unprecedented, has occurred only three times

in the history of Egyptian exploration. The temple itself is unique in its architecture and represents a transition period between the pyramid type of interment and that practised in later times. Many statues of the king have been found lately in front of the temple and there have been found recently the remains of a finely painted shrine of Rameses the Great, showing that from about 2700 B. C. to 1200 B. C. the temple was known and revered as the last resting place of the greatest ruler of his time and one of the greatest that Egypt has ever had.

Archaeologists are greatly interested in the announcement that Wilhelm Dörpfeld, head of the German Archaeological Institute at Athens, has discovered in the Island of Ithaca what he believes to be the remains of a Homeric city. Remnants of walls and of monochrome decorated earthenware were found, as well as a number of more elaborately ornamented vases. Three hours distant from the ruins of the city was found a cavern containing evidences of prehistoric inhabitants. Under the Convent of St. John, Herr Dörpfeld found a temple with Doric and Ionic columns.

ORIENTALIA.

I.

In the July number of *The American Journal of Semitic Languages*, Professor A. T. Clay of the University of Pennsylvania has a most interesting article on "Ellil, the God of Nippur." Professor Clay shows, from a comparison of the so-called Aramaic endorsements found on a large number of the tablets forming the Murashu Archives of Nippur, that names compounded with Bêl (^dEN) are in every instance written in Aramaic BL, while three names compounded with Ellil (^dEN-LIL) are written with MLL. From these and other facts, Professor Clay thinks "that we have conclusive evidence that in Babylonia the god EN-LIL of Nippur was known, not as the god Bêl, but Enlil, or Ellil or Illil from the earliest until the latest periods." Again after a study of the Assyrian inscriptions he "arrives at the same conclusion for all periods in the Inscriptions of Assyria as well as Babylonia, namely, that ^dEN-LIL, ^dBE (not the late period), ^dAB, and Ninnû are to be read Enlil, Ellil, or Illil, and refer to the god of Nippur; while ^dEN, or EN without the determinative, is to be read Bêl, and refers to Marduk."

"For years it has been recognized that Marduk, the patron deity of Babylon, had absorbed the titles of other gods, notably those of the Nippurian god Ellil. The general assumption, however, is that Marduk was called Bêl, which was the Semitic name of EN-LIL. This, according to the above, can no longer be maintained, and especially as there is no evidence to show that ^dEN-LIL

was ever called Bêl, except as a title. Moreover, it would appear that the Semites originally did not worship a god by the name of Bêl, but that Bêl to them meant simply "lord," as EN in Sumerian, or ilu and DINGIR in Semitic and Sumerian respectively, meant "god." * * * "When Babylonia became the capital of the great empire established by Hammurabi, and efforts were put forth to give pre-eminence to Marduk, the patron deity of that city, above all other gods, the titles of the great ELLIL were transferred to him. Hammurabi, in the opening words of his Code, explains the transfer in the words: 'When the lofty Anu, and Ellil, lord of the Heaven and earth, who fixes the destiny of the land, had committed the rule of all mankind to Marduk, the chief son of Ea, etc.' This, no doubt, appeared reasonable to those living in Babylon, inasmuch as the country of the South, over which Ellil had been dominant deity, had been held for a long time by Elam. When, therefore, Babylon, by the help of Marduk, had triumphed, and had delivered the kingdoms of Ellil (ba-u-la-ti EN-ELLIL) from their bondage, the title belonged to the victor. The transference of this title is clearly stated also in the inscription of Samsuiluna, the son of Hammurabi, who says: 'When Ellil, the king of heaven and earth, looked joyfully upon Marduk, the first-born son of Ea, and bestowed upon him the lordship of the four regions, and named him among the Anunaki with an honored name, Babylon, his city like a . . . established, etc.'"

Professor Clay would identify the 'elilim, translated "idols" in the Old Testament, with the name of the Nippurian deity Ellil. Compare also the first element in the proper name in Joshua 19: 20 and hêlil in Isaiah 14: 12. Professor Clay has made a most interesting study in philology, history and religion.

II.

Professor Clay has another very interesting article in the *Journal of the American Oriental Society*, Vol. XXVII, Part I, on "The Origin and Real Name of NIN-IB." In a discussion of the Aramaic equivalent for the Sumerian NIN-IB, he has found additional evidence in the Aramaic endorsements of the Murashû Archives (to be published in full in the forthcoming *William Rainey Harper Memorial Volumes*) for his reading given in Vol. X of the *Business Documents of Murashû Sons*, viz.: ANUST, as ever against Hilprecht's ANRSU. Clay then takes up the various readings and interpretations of Hilprecht, Zimmern, Prince, Pinches, Johns, Sayce, Halévy, Jensen, Lidzbarski and others, and proposes as his own reading Enmashtu, which he equates with En-martu Bêl-Amurru. "In other words, NIN-IB was called EN-MAR-TU, the god *par excellence* of the West land." Clay is of the opinion that NIN-IB was not indigenous in Babylonia, and suggests "that NIN-IB was originally the chief goddess of the Amorite land, and MAR-TU (or IB perhaps) the chief god,

and that later, if the theory here proposed is correct, after *SIN-IB* had become masculinized in Babylonia, the deity was considered the god *par excellence* of the Amorite land, i. e., Bêl-Amurru. When, therefore, the Babylonian language became the *lingua franca* in the second millenium B. C., the Western Semites, in writing the name of the chief deity, used the ideogram *SIN-IB*, for it is singularly striking that, while many names in the Babylonian contracts are compounded with *MAR-TU* (i. e., Amurru) in the Hammurabi and Cassite periods, and with *KUR-GAL* (also = Amurru) in the late period, and while in the Amarna letters, Dagon, Molech, Addu, Ishtara (Ashirta), *SIN-IB*, and perhaps other deities of Palestine and Syria are represented, there should not be a single name compounded with Amurru in the Amarna tablets. All these considerations lead to the suggestion that perhaps *SIN-IB* represented in these letters Amurru, the chief god of the Amorites, or rather the Bêl-Amurru, who may have borne the same name as the land, like the god Ashur of Assyria." In conclusion, Clay is inclined to think that "it is highly probable that during the reign of the dynasty of Isin, the Western Semitic elements, occurring in the nomenclature of the tablets of the first dynasty of Babylon, were brought into Babylonia." Ranke's recent article in *OLZ.* would seem to confirm Clay's theory as to the date of the introduction of *SIN-IB* into Babylonia.

III.

In the July number of the *American Journal of Semitic Languages*, Dr. D. D. Luckenbill of the University of Chicago discusses "The Temple Documents from the Cassite Period." These documents were excavated at Nippur by the Babylonian Expedition of the University of Pennsylvania and published by Professor A. T. Clay. Taking the date of Amenophis IV of Egypt, 1375-1350 B. C., as our starting point, we may date these documents at about 1375-1250 B. C. The earliest Cassite king mentioned in the dates of our texts is Burna-Buriash, a contemporary of Amenophis IV. These Cassite kings came into Babylonia from the east about 1700 B. C. and ruled the country over half a millenium. We do not know which Babylonian city was their capital, nor do we know much about their rule. These documents make it apparent that they had their representatives scattered over the country to look after their interests. The local government seems to have been left in the hands of the Babylonians, naturally such as were loyal to the foreign dynasty. Immannu and Mardukin were successively the local governors of Nippur and the surrounding country. They were doubtlessly also the civil heads of the temples. The kings of Assyria and Babylonia frequently called themselves the high-priests of the god. Doubtless they did in some instances perform the functions of the high-priest, but in most cases the title meant about as much as the title, "Defender of the Faith," of English sovereigns. There is no mention of high-priest in these documents; but from the

enormous flocks and herds belonging to the high-priestess we infer that she was the important ecclesiastical personage in Nippur at this time.

The documents represent the highest development in Babylonian bookkeeping. When compared with the tablets from earlier and later times, they are vastly superior to either in simplicity and at the same time in accuracy. We have long pay-rolls which show us that certain families were in the service of the temple for generations. Again we have lists of towns and the amount of revenues they paid to the temple—as well as the amounts still due. How exactly the account of all the property was kept is seen from a document which reads: "1 pi of corn which Ishtar-riat stole."

From one of the adoption documents we learn one of the leading motives which induced the Babylonians to adopt children. As in the case of other peoples, the Egyptians and Greeks for example, the Babylonian made provision for the hereafter. His children would perform the necessary funeral rites and make the customary offerings to or for the dead. If he had no children to do this, he legally adopted one or more. So here we have a record in which a woman adopts a daughter, and among the stipulations is one which provides that the adopted daughter "pour out a libation of water" for her mistress when she shall have died.

From the many slave documents found in this collection, as well as from the numerous laws referring to slavery in the Code of Hammurabi, it is agreed that the number of slaves in Babylonia was very large. In the documents which refer to the revenues of the temple, we have mentioned among many other kinds of offerings, the "first-fruits," "rêsh-bûshi, which corresponds to the Hebrew term rêshith.

IV.

In a recent number of the *Biblical World* Mr. R. H. Mode, Fellow in Semitics in the University of Chicago, discusses *The Aramaic Papyri Found at Assuan*. The recent publication of their contents is invaluable to all students of the life of the Hebrews, as shedding light upon a section of that life hitherto practically unknown to us. The place of their discovery is one of great antiquity. Its Egyptian name was sws. By the Greeks it was called Syene. Some scholars find trace of it in Ezek. 29: 10; 30: 6, and, by a slight emendation, in 30: 15, 16. It was a twin fortress of Yeb (now Elephantiné), situated opposite Syene on an island in the river, standing out on the southern border, protecting Egypt from the Soudanese tribes.

The papyri, ten in number, seem to have been unearthed by workmen engaged in constructing a short line of railway. In the spring of 1904 they were acquired by Robert Mond, M. A., F. R. S. E., and by Lady William Cecil, the former obtaining

papyri C, D, F, H, J and part of G, which are now in the Cairo Museum, and the latter B, E, K, and the other part of G. A and L, belonging to the Bodleian Library and procured earlier, are of the same class. All are published, with transliterations and translations, by A. E. Cowley in an admirable treatise under the editorship of A. H. Sayce.

They were found in a wooden box, in such perfect condition that even the clay seals fastening the strings round them were intact. They are dated in the years 471 to 411 B. C. In each case the day of the Jewish month is given, followed by the corresponding day of the Egyptian month and the reigning year of the Persian king. They represent the business documents of a family through three generations. Some sudden fate befell their owner and preserved them for our day. Thus we find ourselves possessed of a unique class of manuscripts coming from the fifth century B. C., unharmed by the mistakes and alterations of a succession of copyists.

It is with no little interest that we find a Jewish colony in Egypt a century after Jeremiah. According to Jer. 44:1, 15, such a colony was at Pathros in Upper Egypt in the prophet's day. The intolerable conditions at home induced the Jews to go far and wide enjoying the opportunities of trade afforded by other lands. A century has passed and the Jew is still there—a part of the community, at home in the new land, in worship independent of Zion, in business a merchant prince to the humble dwellers in Judah.

The religious evidence of these papyri is the object of chief research. However, being business documents, their religious interest is secondary. Despite this fact, they reveal a religious condition which is most instructive. The Yah element in the proper names shows that there was as yet no religious superstition concerning the pronouncing of the divine name. In E^a Mibhtahyah swears, not by Yahu, but by Sati, the Egyptian goddess—the local goddess of the cataract. Yahu and Sati seem to be a little distinguished. Yahu is the God of the Hebrews, just as Sati is of the Egyptians. We find a witness to a deed of the year 465 B. C., named Hosea, the son of Peti-Khnum (the gift of Khnum), which would bear evidence to some recognition of the Egyptian deities. The altar (which must have presupposed a chapel) of Yahu by the side of the king's road in Elephantine (B; J; E) is of commanding evidence. These Jews could not have entertained any thought of the exclusive right of Zion to Yahu's altar, such as that of the straggling remnant which came out of Babylonia. If this had been a synagogue after the manner of the eastern institution, it had created no surprise, but an altar of Yahu is remarkable. Yet is this not in accord with Isa. 19:19, and does the founding of the temple of Onias near Leontopolis seem revolutionary in the presence of this event?

In law and commerce the Jew is granted equal privileges with other races. He is found in business, possessing houses, property, slaves, engaging in finance and various pursuits. The Jew is attached to a certain quarter of the city, over which a Persian official has jurisdiction and for whose safety and order he was responsible. Woman shares in the liberty and business activities of man. Babylonian law is apparent in this regime. Testamentary power concerning property, its conveyance and alienation, penalties incurred by false claim and refusal to recognize legal obligations, all revert to ancient Babylonian law. In respect of divorce, woman held equal rights with the man. How far advanced this is on her status in the Old Testament! Each had the privilege of pronouncing a sentence of divorce, but in either case to be lawful, it must be so declared in the public "assembly." The party pronouncing divorce lost the gift brought at marriage by the other party.

These documents thus reflect for us the ordinary, everyday activities and thoughts of the exiled Jews in Egypt. The experiences which they passed through here are identical with those shared by their brethren in Babylonia at the same period. They afford us an insight into their social, commercial, and religious environment, and enable us to see against what tremendous odds the exiled Jew maintained his racial purity and faith.

V.

The following letters have been received by the General Director of The Oriental Exploration Fund of the University of Chicago from Professor James H. Breasted, director of the Egyptian Section of this Fund:

BARKAL, Thursday, December 13, 1906.

"I finished the temple of Tirharka, and in the last chamber made an interesting find, viz., the name of the city of Gem-Aton, founded here in Nubia by the great reformer Amenhotep IV as the Nubian centre of his sun-religion. I had the good fortune to discover this city in the *inscription* several years ago. The location of the city *itself* has heretofore been unknown; but its mention in the last chamber of the Tirharka temple, where Tirharka is depicted as worshipping 'Amon of Gem-Aton,' would indicate that the sun-city of Egypt's most remarkable Pharaoh was close to this place."

DULGO, Monday, January 1, 1907.

"At noon today we reached this place, the three standing columns of the temple of Sese opposite having been visible for hours before, as we drifted slowly down, against an ever increasing north wind. I went over to the temple immediately after luncheon and found that the three columns bore reliefs of Seti I, as Lepsius says they do. I noticed that in all three columns a deeply cut sun-disk penetrated through and interrupted his inscriptions. I could not fathom it, but finally conjectured it might be the work of Ikhnaton (Amenhotep IV),

which had been covered with stucco and resculptured by Seti I. No temple of Ikhnaton is known south of the vicinity of Thebes (500 miles from here), so that the conjecture was hazardous. I worked on, when suddenly behind the form of Amon and the column, I saw dimly glimmering among the rough chisel marks of intentional expungement, the lines of the well-known figure of the great heretic. A dozen other unexplained peculiarities in the reliefs of Seti I now found immediate explanations and I could discern the figure of Ikhnaton on each of the columns, worshipping the sun-disk. This meant much. It meant the first discovery of a temple of the great reformer in Nubia; it meant the sudden extension of his sun temple worship 500 miles further south; it meant the possibility of identifying this place with the Nubian city founded by Ikhnaton and known as Gem-Aton, a new reference to which I found in Barkal. New visions of the importance and power of the great reformer rose before me, as I saw his figure here emerging through the defacement by his enemies, on the columns of his first known temple in Nubia."

VI.

PALESTINE TRAVEL STUDY CLASS.

Three classes have gone out from the University of Chicago to make special study of biblical lands. The first was conducted by Professor Shailer Mathews in 1902, the second and third by Professor Herbert L. Willett in 1904 and 1907. This last has just returned after a journey covering nearly four months. Some account of the work may be of interest.

There were twenty-two members, including present and former students of the Divinity School, and others who enrolled for this class work. A preliminary course of reading and study was prepared, covering eight months. As rapidly as members enrolled they were assigned work in preparation for the journey. These studies covered the general topics of the geography and history of Palestine and Egypt, the life of the people of those regions and the researches of excavators in recent years. In addition to these subjects, some special time was devoted to the Peninsula of Sinai, a visit to which was the outstanding feature of the class program this year.

The party sailed February 2d from Boston, and after the usual Mediterranean stops reached Alexandria, February 20th. On the ocean passage two lectures were given daily, and a supplementary class hour was devoted to the discussion of topics pertinent to the work of the class. A library of about one hundred volumes was taken, covering all the more important recent works in the field under survey. A special room was placed at the disposal of the class by the officers of the ship, and this served as library and lecture room throughout the voyage.

After a brief stay in Alexandria, the class went to Cairo, where some days were devoted to the city and the objects of biblical interest in the vicinity. At the end of this period the class was divided, a part starting with Professor Willett for the Peninsula of Sinai, the remainder going under competent leadership for a journey of study and investigation up the Nile as far as Aswan.

The Sinai party, numbering nine, of whom three were ladies, left Cairo for Suez, Tuesday, February 6th, by train, arriving in the evening. On the following day the start into the desert was made from the quarantine station at Port Tewfik. The equipment consisted of about forty camels and a complete camp composed of Beduin from the four tribes from the western half of the Peninsula. The dragoman in charge was a Druse from the Lebanon, who had been over the ground many times, having made five journeys to the Monastery of St. Catherine with Mrs. Gibson and Mrs. Lewis, the two Oxford ladies whose work in connection with the publication of Monastery texts is well known.

Twenty-one days were spent in the desert, four of them at St. Catherine. On the way up the Mines of the Wadi Magharah, the inscriptions of the Wadi Mokatteb, the Oasis of Firan and Mt. Serbal, believed by many to be Mt. Sinai, were visited. On the return a day was spent at the ruined temple of Sarabit-al-Khadene, and Sue was reached Monday, March 18th. Every important site in the lower region of Sinai was visited and studied, and the biblical and classical references to the localities were examined on the ground. The traditional mountains both at Serbal and Jabel Musa were ascended, and the vexed question of the location of Sinai and the geography of the Wilderness journey of the Exodus was studied from all points of view.

The two sections of the class met at Alexandria, March 20th and proceeded to Palestine. Here five weeks were spent in field work, visiting all the important points in the land from Hebron on the South to Hermon on the North. In connection with the daily class work in camp, arrangements were made for special lectures and instruction by resident specialists, missionaries, teachers, and officials. A visit was made to the teachers at Gazer, where Mr. Macalister is excavating for the Palestine Exploration Fund. Mr. Macalister likewise visited and lectured for the class in Jerusalem, as did Professor Lyon of Harvard, the resident Director of the American School of Archaeology in Jerusalem.

The work in Palestine closed at Beirut, after a camp-trip across the two Lebanon ranges from Damascus, including a visit to the ruins of Baalbek. On the return journey a week was spent in Constantinople and five days in Athens, in addition to shorter stops in such places as Samos, Smyrna, Ephesus, Corinth, Patras, and Corfu. The work of the class closed at Naples, May 10th, some members coming directly home, but most remaining for long or short periods in Europe.

CAMBODIA AND YUCATAN.

BY C. S. WAKE

The ruined temples of Cambodia are ornamented with bas reliefs, the subjects of which are generally taken from the great epic poems of the Hindoos, the Mahabharata and the Ramayana. The divinities and the religious symbols which surround or decorate the temples do not belong to any particular sect. They recall the great temple of Jagganath in Orissa, which is religiously cosmopolitan and where each sect, each caste, says Dr. Hunter, can find its god. In certain points, the Temple of the Sun at Kanarak, about nineteen miles from Jagganath, presents still greater resemblance to the ruined buildings of Cambodia. At both alike, groups are formed of men armed with maces, griffins, warriors on rearing horses, and colossal statues of grotesque and varied forms.

The most striking sculptural motive of the Cambodian edifices is the serpent. Not only is the sacred cobra represented everywhere, but also the naga-naga or gigantic serpent which surrounds the frieze of the Buddhist temple of Amravati is frequently met with. Here as at Angkor Wat, in Cambodia, the great serpent is supported by human figures standing within its numerous folds. This same figure is represented on certain Egyptian monuments, and curiously enough it forms an important feature of the ruined cities of Yucatan, the architectural remains of which resemble those of Cambodia so greatly in certain respects that we are tempted to ascribe them all to a common origin. There are many differences in detail, due to special conditions, but if the race identity of the builders of the Cambodian monuments can be established, and the date of their erection, a key may be furnished for the elucidation of the Central American problem.

What then does history or tradition tell us as to the origin of the remarkable structures of Cambodia? Popular legend ascribes them to the Khmers, a people who emigrated from northern India and settled in Cambodia. M. Moura states that, according to the annals of the Khmer kingdom, about the year 543 before Christ, the King of the Chams, who had been shipwrecked on the Cambodian coast, imposed his rule on the inhabitants of Couth-Thloe, the ancient name of the country where Angkor stands. A century afterward, Préa-Thong, one of the sons of the King of Indrachecha, an ancient name for Delhi, arrived in the country with numerous followers. The tradition says that this Indian prince had been banished owing to his refusal to pay homage to his brother, in whose favor his father had abdicated. The exiles intermixed with the Chams, who were probably Malays, and be-

came Buddhists, but soon afterwards Pr ea-Thong quarreled with the king, and the Khmers compelled the Chams to quit the country. The Khmers appear to have allied themselves with the aborigines, who were known under the name of Nagas, or "Serpents," and according to legend, Pr ea-Thong married the daughter of the Naga king. The story relates further that the king caused to issue from the earth a palace and various other edifices to serve as dwelling places for Pr ea-Thong and his companions. This refers to Angkor-Thom, the ancient capital of the kingdom, the foundation of which is fixed by local tradition and the Khmer annals in the year 443 B. C. As there are reasons, as we shall see, for associating the Khmers with the Pandavas of the Mahabharata, it is possible that the marriage of Pr ea-Thong may be referred to in the Hindoo epic. The Pandavan prince Arjuna, in the course of his wanderings, visited Manipur and there married Ulupi, the daughter of the rajah of the Nagas. The Khmers themselves appear to have had some connection with Manipur, the natives of which are thought to be the actual descendants of the Nagas.

If the Khmers can be shown to have been allied to the Pandavas then their race affinities can be established. The principal incident of the Mahabharata turns on the rivalry existing between the Pandavas and the Kuravas, both of whom claimed the empire of Bharata. The former were compelled to go into exile for a time, and on their return they settled in the country of Kandava, on the banks of the Jumna, where they founded the city of Indrap echta. Here we have the country which the Khmer annals designate as the place of birth of Pr ea-Thong, who with his companions established himself in Cambodia. The Pandavas belonged to the Kshatrya or warrior class, and probably they are now represented by the Rajputs. The ancient bards declared that the rajahs of Bharata, of whom Pandu, the father of the Pandavas were one, descended from the moon. The present Rajputs are divided into two great families—the Tchandarbansi and the Souradjbansi. The Tchandels, who form part of the Tchandarbansi, pretend to be descended from Tchandrouma, or "the Moon," by a daughter of the Sacerdotal family of the king of Benares. According to the Mahabharata, the inhabitants of Manipur were Rajputs of the Tchandel family.

Another tribe of Rajputs of the Tchandarbansi division are the Jadou, the ancient Yadou, or Yadavas, whose chief was the noted friend of the Pandavas, Krishna. The Yadavas appear to be none other than the Jats, who are supposed to be either Rajputs who have lost their caste, or the descendants of Rajputs crossed with an inferior caste. That these peoples are intimately related, appears from the statement of Dr. Hunter that Bhartpur or Bharatpur is popularly known by the name of Brij, or "country of Krishna," and that it is the only Jat principality of any

importance in India, and perhaps the only state where the population belongs to the same race as the nobles and the princes. The better opinion as to the race affinities of the Jats, and therefore of the Rajputs, would seem to be that they represent the Aryan race which spread from the mouth of the Indus to the valley of Peshawar, which has become mixed, however, with a Mongoloid element. This element may be Dravidian, the purity of whose original type is perhaps best preserved by the Todas of the Nilghiris; but probably intermingled with some of the mountain tribes, such as the Kols, who are of Mongolian descent. Notwithstanding what has been said as to the "Caucasian" characters of the Khmers, there can be no doubt, from the description of their physical features given by writers who have lived in Cambodia, that they more nearly resemble the peoples of north-western India than the lighter European. Dr. Caldwell points out that individuals with very black skins are found among both the Jats and the Dravidas, and the present Khmers are so dark that M. Moura affirms they may be regarded as the negroes of Indo-China. In some other respects the Khmers, sometimes at least, resemble the Jats and even the Rajputs.

That the language, the religion and the literature of the Khmers are of Hindoo origin has been fully established. The fact that the stories of the Mahabharata are often represented in their sculpture, and that Krishna, the legendary ancestor of the Jats, forms one of the favorite subjects of the bas-reliefs, are further reasons for associating them with the populations of northern India. According to M. Moura, the ideas of Brahmanism predominated in the Khmer empire until the end of the sixth century of our era. After this date Buddhism acquired more and more influence, and at the commencement of the thirteenth century it had definitely replaced its rival. The temple of Kanarak in Orissa, already referred to, was built during the thirteenth century and this may point to a migration of the adherents of Brahmanism from further India, at the time that the Buddhists lost their influence on the western side of the bay of Bengal.

On the assumption that the ruined cities of Cambodia and of Yucatan were built by peoples belonging to the same stock, some evidence of migrations from India, the mother of nations, far beyond the seas, should be obtainable. That the Polynesian Islanders, including the dark peoples of western Oceanica, had their home originally in southern Asia, can hardly be questioned. Judge Fornander did not hesitate to refer the Polynesians to the Dravidian stock, but I would suggest that, as the Polynesians were preceded in most parts by a darker people than they are, the latter be referred to as Dravidian and that the later comers into the Pacific area belonged to the Jat stock with which the Khmer of Cambodia are above connected, nevertheless with some

Dravidian or Mongolian admixture. That part of northern India which became the home of the Jats saw many migrations of peoples. The Yavanas, a warlike race who dwelt west of the Himalayas, are mentioned first in the Sanscript epic poems. After the expedition of Alexander, the Greek Yavanas are said to have crossed northern India; as the archives of the temple of Jagganath mention repeated invasions of Orissa by them between 307 and 57 before Christ. These archives, however, refer to an invasion by Yavanas which occurred 538 B. C. This Dr. Hunter considers to have been in reality a Buddhist invasion, as soon afterward the term "Yavanas" was used to designate all the Buddhist invaders coming from the north. They founded a kingdom in Orissa and probably became possessed of Tambrik, supposed to have been founded by the Kshatriyas at a very early date, as in the first century of our era it appears to have been the place of departure for the Yavana colonization of the Indian archipelago. They introduced their religion into Java and to them must be ascribed the remarkable structures of this island, which vie in magnificence with those of Cambodia. The Yavanas were doubtless a mixed people, but they were probably largely Jat, as the Jats have a tradition according to which at one time their ancestors inhabited Afghanistan, the country from which formerly the Yavanas departed to invade India, and whence the Pandavas said they were derived. How and when this people, or the allied people who became known in Cambodia as Khmers, reached the American continent and there erected the temples and palaces of Yucatan we cannot say. In any case, it is very improbable that these date before the period assigned for the building of Angkor-wat, and they may be as late as the beginning of the thirteenth century, when the Temple of the Sun at Kanarak, in Orissa, was built. Probably, however, the earliest of them may be assigned to a date some centuries later than the similar structures in the Indian archipelago. The curious association between Buddhism and serpent worship which appears to have existed in northern India, supports the opinion that the Nagas formerly extended throughout the whole of that region, and that Buddhism originated among them. In this case the builders of the great temples of Cambodia may have been Nagas, or Indo-Scyths, and thus the serpent would naturally form an essential feature of their architecture. The subjects of their fresco sculptures, taken from the Hindoo epic, may thus have been mere accessories adopted in honor of the Hindoo prince who married the Naga princess. These subjects, therefore, would not be applicable to the decoration of buildings erected among people having no such Hindoo associations; and hence, if the temples and palaces of Yucatan were built by the Nagas, that is, by serpent worshippers, they may reveal the character of adornment adopted by them before being brought under the influence of Brahmanic ideas.

Ferguson speaks of the Cambodian architecture as a sort of Roman Doric, thus differing from the Hindoo-Naga temples of Kashmere, which are said to be of *Grecian* Doric. The influence of Greek art was widespread throughout the east after the conquests of Alexander. Several of its most conspicuous decorative details, *e. g.*, the so-called Greek key-pattern, have been disseminated far and wide both east and west, and it would be a remarkable thing if Greek art were found to have affected the architecture of Central America.

PAPERS OF THE SAINT JOSEPH UNIVERSITY OF
BEYROUTH.

The Saint Joseph University of Beyrouth, of whose work for the spread of education in the Turkish Empire some account was given last year in the "American Antiquarian," has now published the first volume of their professors' scientific work on "*Mélanges de la Faculté Orientale*," containing several very important essays upon Antiquity and History. Among these especially deserving notice is the paper by M. l'Abbé Louis Jalabert upon "Greek and Latin Inscriptions in Syria." In his collection there are about 60 previously unedited, most of which came from the temples at Deir-el-Qal'a. Several of the texts refer to medical men. A new text from Gebal (Byblos) proves the existence of a *Boule* there in Greek times, as at the neighboring town of Arados.

One of the longest inscriptions is a versified epitaph of a certain Tanelos from the Hauran. The poetry, however, is of the usual epigraphic variety, hundreds of which specimens may be found in the later Greek Anthology.

Père Jalabert gives a series of texts relating to the god of healing, Asclepios, several of which connect him with shrines once dedicated to the Phœnician deity Eshmoun. The mixture of the cult of these gods and their identification with each other finally is daily becoming more evident.

The most valuable part of the learned Abbé's essay is an amplification of his monograph at the Paris Academy upon the triad of deities at Heliopolis, in Syria; Jupiter, Venus and Mercury, in which he shows that the last of these gods was added to the other two at a somewhat late period, which accounts for so few monuments representing the three, or their triune emblems, having been preserved.

One of the longest articles is by P. H. Lammeus, and is a study of the reign of the Omcuigade Khalif Mo'awia I. especially referring to his relations with the Christians at Horus, under the management of Abdarrahmau-ibn Halid. The information given, all from Arabic sources, provides a full character study of the

great Khalif, and the chapter entitled "Parliamentarianism among the Arabs" gives an account of the statesmen and officials who collaborated with Mo'awia in their great work for the consolidation of Islam.

The Rev. Père Chaine edits several Ethiopic manuscripts which contain apocryphal works relating to the Virgin Mary, to which he assigns the useful title of "The Cycle of the Virgin in Ethiopic Apocrypha." The essay is but a prelude to a much larger book. Some of the passages now published are similar to portions of the "Proto Evangelium of St. James"* and others appear to be founded upon the "Book of Enoch." There is a record of Mary's visit to the sacred tree at Matarieh, or Heliopolis, near Cairo, a well-known legend, but it is not so well-known that there was a sacred tree there throughout all Egyptian history, it being the site of one of the famous Sycamores of Nut. Doubtless, as often elsewhere, the more credulous of early adherents of Christianity associated the old myths and legends with prominent personages of the new faith, just as the iconographic representation of the Virgin and Child is undoubtedly derivable through Coptic art from Isis and Horus, and Saint George and the Dragon, by the same route, from Horus and the Crocodile-Set.

A most valuable essay of the series is that by Père Mallon entitled, "Une Ecole de Savants Egyptiens au Moyen Age," whose Coptic grammar is well known.

His subject here is the valuable series of Arabic and Coptic grammars which were published in the 13th century, necessitated by the almost total disappearance of the Coptic language. It is most curious that whilst neither Greek nor Latin supplanted the native Egyptian tongue, and though in the 7th century Coptic was the language of Egypt, by the 12th century it had changed to Arabic. Also, even by the 10th century Arabic had become the language of literature; for the great Egyptian writers of that date—Severus of Athnoungeini, Eutychius, and others—used Arabic as their medium. However, for service within the churches, reading the Liturgy and the study of the Coptic fathers, the ecclesiastics still required to know the Coptic, and, therefore, contemporary with the zenith of Arabic Christian literature under such authors as Abou Saleh, Ibn al'Assal and Ibn Raheb between the 11th and 14th centuries, were produced the Arabic-Coptic Lexicons and Grammars which Père Mallon describes. The writers of these philological treatises entitled the grammatical portion a "Preface," and the vocabulary they named by a word of which "*Scala*" is the best rendering. The latter, however, was more than a mere dictionary, several of the books containing lists of the towns and Bishrops of Christian Egypt.

Some of these works were of much assistance to Champollion,

*Some fragments of this book are in papyri at Heidelberg.

he using four specimens in the Paris library. Another very important one is preserved in the medical college at Montpellier and another in Cairo in the library of the Coptic Patriarch, where it is catalogued among the philological books. This manuscript as with others to be mentioned is therefore accessible to American tourists in Egypt.



HINDOO TRINITY

EDITORIAL.

THE SYMBOLISM OF BASKETRY.

We have previously described the different kinds of baskets which were made by the various tribes of Indians, and have shown their main characteristics. We propose now to describe the baskets found in different geographical districts.

It is remarkable that the poorest baskets were made by the tribes on the Atlantic coast and in the Mississippi valley, but the best by the Plains Indians and by those on the Pacific coast. It is difficult to explain why there should be so much difference between the two parts of the continent, for the Indians in the eastern part were as industrious and as active as those dwelling in the western part. It is true they did not have as much symbolism, nor did they give as much variety to the ornamentation, and yet judging from their history, they may be supposed to have been as vigorous and more intelligent than the western tribes. It was probably owing to the sedentary habits of the Indians who dwelt in the pueblos and, perhaps, those that had their homes on the Pacific coast, that they were so proficient in making baskets.

I. The symbols which are seen on the baskets form a very interesting line of study, for they show that there was a great love of nature, and at the same time a strong religious sense. It appears that the cardinal points may be seen on the basketry. The colors as well as the forms of birds are closely imitated, but there is an esoteric meaning to the objects portrayed, which require considerable study to understand.

We propose to pass in review the basketry of the different tribes and show how this symbolism comes out. Mr. O. T. Mason says: "America was in aboriginal times occupied by different peoples. The desert was occupied by the Shoshones; in the Alaskan province were the Athapascan tribes; in California were many tribes. The home of basketry was on the Pacific slopes; while in Southern Mexico and Central America pottery was more abundant. The number of basket-making tribes was more than two hundred, besides the subdivision of tribes." One might judge from this that the basketry of this region would present a great variety in shape and ornamentation, but the variety was owing partly to the use made of the baskets, as well as to the personal taste of the makers.

The harvesting baskets among the Hopis are sometimes used as mortars for pounding grain, the lower part being of stone, and upper part of woven material. Occasionally the mortar will be placed inside of a shallow basket, three parts being used for the purpose of pounding the grain. The Tulare meal

and mortar baskets are very interesting, for they show that taste was exercised in making the household utensils. The Pomo wedding baskets are, however, more tasteful than the mortar baskets, both in their shape and ornamentation. The Pomo jewel baskets are also nicely wrought. They have a great many shapes and are tastefully ornamented. The Tulare gambling trays are generally very flat, but they are finely woven and tastefully ornamented.

It is quite wonderful that the baskets should assume so many different shapes, for there are bottle-necked baskets



TULARE BOTTLE NECKED BASKET.

among the Tulares, coiled ollas among the Apaches, ollas in the shape of jars, also spherical shaped jars among the Washoes, basket bowls among the Pimas with highly-ornamented interiors, bowls among the Tulares with patterns radiating from the center. The spherical bowls or baskets among the Washoes are very finely wrought and have symmetrical shape.

As a general thing the Chippewas are poorer artists than the tribes of the interior. The twill baskets of the Choctaws are very plain and coarse, while the Eskimo baskets are finer in their texture, but resemble bags more than baskets. The Kamschatkan twine wallets resemble a bag, but are often finely wrought. The Aleut twine basket is coarse compared with the Thlinket twine wallets. The Klikitat baskets are well

ornamented, but have a different shape from the others. The Shokomish twined wallets are awkward in shape, but are tastefully ornamented. The Modoc and Nez Perces women's hats wrought out of basketry, are ornamented with set figures resembling mountains. Wasco wallets are flexible, but ornamented with animal figures and birds. The Hopi twined baskets are flexible and are ornamented with set figures and diagonals. The Pit River baskets are more tasteful and are nicely ornamented. The Hat Creek Indian basketry presents a great variety of ornamentation. A collection owned by Mrs. H. E. Williams is shown by a plate in Professor Mason's report. This tribe lives in Northeastern California. Mr. Powers de-



BOWL-SHAPED TULARE BASKET.

scribed the tribe as the most warlike and the one most dreaded by the timid aborigines of the Sacramento valley, and yet there is no more tasteful and highly ornamented basketry than theirs. It is coveted by all collectors, for it is very beautiful. The California tribes are celebrated basket makers, and are not excelled by any other tribe; among these tribes are the Pomo, the Utes and the McCloud River. The Maidu Indians from California are very skillful basket makers also.

The form of the baskets, of course, will vary according to the use made of them. The twined jars of the Utes resemble bottles more than they do baskets, but the Pomo twined baskets resemble large bowls in their shape, the ornamentation generally being in bands which are parallel and vary in color as

well as in pattern. The coiled baskets resemble large bottles with a checkered pattern upon the outside. The twilled baskets of the Pomo Indians had a variety of shapes; some flared out toward the top, with a wide open mouth, making them suitable for carrying baskets; but others were in the shape of large bowls; still others draw in at the top, making them globular in shape, being horizontal rather than perpendicular. The Pima baskets were, on the other hand, in the shape of large bowls, with the ornamentation adapted to the shape. On these we find the suastika, or whirling cross, a common symbol, the arms of the cross ornamenting the mouth or top of the bowl. There are other Pima baskets which are flat, they show fret-work with many geometrical figures, which have become conventional and are repeated over and over again. The Apache coiled basket resembles a large jar, and is sometimes ornamented with human and animal figures; while the Tulare bowls resemble large saucers.

Baskets were sometimes used for hats, but they resemble bowls, so that one can hardly distinguish between a hat and a bowl. These are ornamented so as to represent rings and coils and stars, radiated figures and diamonds; also diagonal figures as well as figures of plants.

There are sacred basket trays among the Navajos which are ornamented with figures resembling the sun; also stepped figures resembling mountains, coiled figures resembling whirling clouds. There are many examples of basketry in the museums which are priceless in value, for they are very ancient and cannot be reproduced. There are, however, many other baskets which are modern, and on that account of but little value to the archaeologist, as they show the survival of the patterns from prehistoric times. Among them we would mention the basket shown in one of the Plates, this basket is very beautifully wrought and has some of the ornamentation which can be regarded as ancient, but the fact that it is trimmed around the edge shows that it is modern.

It may be said that there are two classes of basket collectors. One class seeks only the ornamental, or those which are finely wrought and beautifully decorated, which may satisfy a taste for fine work and a love of the beautiful; on the other hand, there is a class of collectors who care little for modern patterns, but seek only those baskets which are known to have been prehistoric and show the taste and ideas of the ancient basket makers. There is a reason for this great difference between the collectors, those who are seeking only for the ornamental have little appreciation of the skill of the traditional basket maker. It would, however, be difficult to say where the ancient basket maker is to be found. It depends, therefore, upon the eye and discernment of the collector, as well as the locality, whether a basket can be pronounced

ancient, for the distinction between the historic and prehistoric and the ancient and modern is very obscure.

The material of the baskets differs according to locality. Rushes are generally used. This plant is collected and dried. A tall, thin grass is used as a body of the coil. The bottoms of the baskets are often strengthened by twigs of the three-leaf sumac. In beginning a basket, a central foundation is laid, the rush wound about it and coiled, fastened through holes, made with a pointed stick or awl.

11. In the old days of unsophisticated savagery, there was everywhere the overseeing and guiding presence of the mythic in the practical. The old-time basket makers were under a spell



TODD'S VALLEY BASKET.

while at work. Beside the unmodified artistic motive in the designs on basketry, there still survives on the Pacific coast area a symbolism more or less connected with the Indian cosmogony. The basket maker is a sorcerer in such tribes as the Hopi. This mysterious idealism is still alive and active.

Among the Algonquin Indians, the mystic thought seems to have escaped. The Indian women of the seaside resort have little or nothing in common with the basket makers of the ancient times, the designs are changed to suit the whims of the buyers. Still, the Ojibwas about the Great Lakes preserve all sorts of ancient patterns; while the Sioux and Arahapoes retain the totemic symbolism of their tribes. The Haida Indians and

the Thlinkits also cover the surface of their baskets with symbolism, but with no mythologic significance.

There is no Rosetta Stone by which we may interpret either the ancient or modern symbols, but there is an unspoken language which will give to us the idea that there was a communion with nature, which the modern does not possess.

Mr. O. T. Mason has given a list of the objects of nature which are represented in the basketry. 1, Natural phenomena—sunrise, clouds, sky and lightning; 2, natural features—mountains, shores, lakes, rivers, plants, trees and flowers—sometimes complicated by symbolism; 3, animals and parts of animals—sometimes representing the animal in motion, parts represented by a fin or eye or tooth; 4, human beings in conventional form; 5, weapons and tools, such as arrow heads; 7, mythical personages, gods and heavenly beings. Besides these, the following activities of natural phenomena are represented in the symbolism: Lightning, sunrise, clouds and skies.

The artist alone can interpret the meaning of the patterns and symbols, and yet the imagination of the basket collector is often aroused by a close study of the figures on the baskets. The spell which came upon the basket maker resembled that which comes upon the modern artist when he takes either the brush or the chisel in his hand. There is an ideal in the mind which is equal to an inspiration, and the hand follows the thought unconsciously. It is not mere mechanical work, for the constant practice has taken away the detail, and the whole pattern, as well as shape, comes out in the end as if it were the effect of an inspiration.

It is certainly very remarkable that an untutored Indian woman should give such perfect symmetry to the form of the baskets and at the same time ornament the surface with patterns which are drawn from the works of nature, as well as the folklore which she has inherited.

There are influences in the works of nature which have come upon the basket maker, as they have upon the hunter or upon the warrior; the imagination in either case having been aroused to a degree which is rarely known by the civilized races. There have been periods in the history when tribes and nations have been inspired by their surroundings to such a degree, that their very weapons and tools, as well as their houses and boats, have partaken of the spirit which ruled. The same spell comes upon the true artist, though in the one case it is the appreciation of nature, and in another, it is appreciation of the human form; yet the charm comes from the spirit of the artist, whether civilized or uncivilized.

The significance of the basketry comes not from the number of the specimens, nor even from the variety, but from this inner consciousness. It is not merely the individual consciousness, but an ethnical consciousness, which has been affected by the scenery and surroundings through many years, and even cen-

tures. We speak of the Greek as wonderful artists, but the Scandinavians as well as the Romans, ancient Assyrians and the Babylonians were affected by the history and the scenery. The same may be said of the Americans.

Prof. Mason has given a list of collections of rarities, which will aid the student to prosecute his investigations, for to the artistic collector it is very important mission to know and to appreciate the aboriginal decorations. The student of folklore and of aboriginal art will find opportunities for studying the choice collections, which are as valuable as those who are permitted to study the paintings of the old artists, or the statues of the old sculptors.

There are ruins in America which are almost as interesting as those of Europe, though amid those ruins may be found the



TULAKE BASKET

survivors, who are still at work repeating the patterns which have come down to them from their ancestors, and who carry us back to a period of human inspiration.

A museum is just as important as a library, if properly interpreted, and the basketry which has been collected in many of these museums is as instructive as the pottery and textile fabrics, the carving, and the other specimens of aboriginal art, which have been gathered from all parts of this continent.

It is to the prehistoric art in America that we must look to understand the real spirit which prevailed on this continent before the time of the Discovery. There were many branches or departments in that art. Among them may be mentioned the art of weaving, basket making, pottery, wood-carving,

sculpturing in stone, moulding in clay, paper making, painting, and even of writing.

It is in the basketry as well as in the pictured rocks and in the religious symbols, that we are to learn the mythology and folklore of the people. There may be certain modern patterns which are destitute of symbolism and teach nothing of the mythology which formerly prevailed, but the ancient baskets are full of suggestions. In fact we may study the baskets just as we study the carved columns on the Northwest coast, and the sacred mysteries of the ancient tribes on the Great Lakes, or the codices and sacred ceremonies of the civilized tribes of the Southwest.

There is a similarity between the basketry of the Plains Indians, especially in the patterns and in the ornaments. This is owing partly to the fact that the tribes borrow the patterns from one another, and then make the form of the baskets to suit their own convenience. The most interesting fact is that the symbols partake of the scenery which surrounds the different tribes.

The ornaments and the figures may sometimes be more imitative than they are religious or sacred, and yet even these come from Nature's heart, and the imitation is very suggestive. It is on this account that the study of the mystic art of the different tribes becomes so instructive. We may go from one tribe to another and find the figures not only suggestive of the objects of nature, but also of the supernatural beings and of the Nature powers, as they were worshipped by the different tribes. These figures are found upon the ancient baskets which were wrought before the advent of the white man, and to a certain degree upon the modern baskets; and yet the interpretation of them is often obscure, even to the best of collectors. This renders the basketry a subject of study which requires a previous knowledge of the folklore and mythology.

It is not, then, the shape of the basket which calls for study, so much as the patterns which are woven into the basket, for these come from the inner consciousness of the basket maker. The shape of the baskets will naturally vary according to the use made of them. Some are flat and called trays (gambling trays); others are wide and open-mouthed, and are food receptacles, these seldom contain any symbolism upon them, but the coiled bowls and the coiled bottle-necked baskets and those in the shape of urns, have more symbolism upon them than the trays have, or the water bottles, or the ordinary carrying baskets

BOOK REVIEWS.

ANCIENT SINOPE: An Historical Account, with a Prosopographia Impression and an Appendix of Inscriptions.
By David M. Robinson, Ph. D., Associate in Classical Archaeology in the Johns Hopkins University; Baltimore; 1906.

Sinope is a province in Asia Minor; not so large as the province of Paphlagonia, in which there are many ruins and pieces of sculpture; some of which have made their way into museums. Strabo and Diodorus thought it the most notable and important of all the cities in Asia Minor. Its fortifications were renowned; its fleet dominated the Pontus. The old Hittite road, afterward the Persian postal road, and the Ephesus highway were a means of transporting goods to Greece.

The country around Sinope was formerly covered with timber, and became celebrated among the ancients. The whole district is rich in copper, iron and silver. It was a natural gateway of a vast commerce.

There is no evidence that the early Phœnicians were at Sinope, but the foundations are probably Assyrian. The code of Hammurabi was dated 2200 B. C., but in 1100 B. C., Assyrian power swept westward through Asia Minor. The name "Sinope" goes back to Sin, the Moon God. The coins of Sinope are not so ancient as in many other places, but the Hellenic civilization is in close relation to the rest of Greece. There was here a combination of Oriental despotism with Greek culture, though the priests ruled Sinope with a high hand. There was a combination of nationalities—Assyrian, Greek, Persian and Roman. The occupations are shown by the coins. The fish, the plow and the ship are recognized.

Sinope cannot boast of any noted painter or sculptor, but the finest of Mithridates palaces was at Sinope. There are no large altars there, yet the worship of Poseidon prevailed at an early date. The most prominent god was the Egyptian Isis. The head of Augustus and the inscription of Marcus Aurelius are shown. The Greek and Latin inscriptions are numerous.

The author of this book has done very thorough work. He has not read into the place its history, but he has read out of it much that reminds us of the ancient days. The days of Mithridates and the Punic Wars are recognized as showing a combination of Oriental despotism with Greek culture.

After the Romans the Pirates ruled Sinope with a high hand. Roman milestones and a multitude of inscriptions give the names of Tiberius, Marcus Aurelius, and others. The civil-

ization acquired the universal character which Rome assumed. The combination of mountain and sea imparted boldness and freedom to the people.

Steel implements and musical instruments prevailed. It was not a literary focus, though an edition of Homer is supposed to have appeared. Many deities were worshipped here. Among them was Poseidon and Serapis, which was a combination of Osiris and Apis. The christians were accustomed to meet together before it was light, to sing a hymn to Christ.

The book is an ideal one for the archæologist. Nothing is taken for granted; nothing read into the story; but the entire record of history is traced out in the ruins, and given its proper date and its natural surroundings. The book is a model which may well be followed by those who are seeking information from the ancient records. A scholar who has been trained in a school of archæology is not supposed to borrow any theory from others as a key to the book which is hidden beneath the soil. We may all sit at his feet and learn about the records of the past.

THE RELIGIOUS VALUE OF THE OLD TESTAMENT. By Ambrose White Vernon. New York: Thos. Crowell, publishers.

Prof. Vernon, the author of this book, was formerly of Dartmouth College, but is now a professor at Yale College. He has written a book which seems to contain the substance of lectures given to students, which embodied the ideas of the "destructive critics" of Germany, rather than the ideas which have been current in New England and throughout this country.

The lectures do not seem to be based on any original study of the Old Testament, or even the ancient heathen writers; but may be said to be taken second hand and put into a form of statement which to the ordinary reader seems to be more startling than profound. He says it is obvious that the educated mind has undergone nothing less than a revolution. "As the Bible lies before us, it is a misleading book both in the Old and New Testaments." "The historical framework is untrustworthy." "The ecclesiastical writers of the Bible are no better historians than ecclesiastical writers generally are." It appears then that with one sweep of the hand this "doughty" warrior, who advocates the "New Thought," would expect to annihilate not only the Bible, but all theologians and ecclesiastical writers, ancient or modern, and so make useless all those books which have been gathered in libraries during the years that have passed, including the Bible itself. The inheritance which we have received from our fathers, and which they received from the patriarchs and prophets, which has been the refuge of saints throughout all the ages is destroyed and swept away at a stroke.

Words were given out by the Greek oracles which will admit of two interpretations according to the result. If there

was victory, the words would mean that, or if there was defeat, the words seem to have predicted even that. To the young men who are gathered in our universities and colleges such "higher criticism," whether constructive or destructive, is taking the place of the old faith which made the Bible the word of God and a Divine revelation and leaving nothing in its place.

The author says further: "A God who would wipe out four cities at a word, and could tell Abraham the exact date of their destruction, could be mysterious about the advent of his son if he so selected." Is it true, that the Bible is equivocal and contains no real evidence that redemption is promised, that can be relied upon? Where is the shade of Bob Ingersoll, can it not be summoned to assist this theologian in proclaiming this new attack on the old book.

TRANSACTIONS OF THE KANSAS STATE HISTORICAL SOCIETY, 1905-1906. Vol. IX. Edited by Geo. W. Martin.

This volume contains a great variety of articles, namely addresses before the Kansas State Historical Society. Among these are: Reminiscences of Fort Dodge, of the Wyandotte Indians; Kansas Oil Producers; the History of the Desert; Early Days in Kansas; the Founding of Lawrence; Missions Among the Indians, especially Among the Wyandottes; the First School; History of the Missouri River; the Kansas River; Administration of Governor St. John and others; the Soldiers of Kansas; Santa Fe Trade.

A great deal of information is crowded into the volume. There are also the portraits of many of the first settlers, and pictures of the churches and cathedrals and monuments, as well as of the keel boats, river steamboats, bridges, and pioneer villages.

COSMOS, THE SOUL AND GOD. A Monistic Interpretation of the Facts and Findings of Science. By Chas. London Arnold, M. A. Chicago: McClurg & Co.; 1907.

Philosophy is an attempt as far as possible to know the universe as a whole. In modern times the so-called natural sciences occupy a vast portion of the ancient domain of philosophy. The physical process is first treated. Evolution forms the subject of the third chapter. The primeval cosmogony is referred to under this head. In the theory of Kant and Laplace, the process of evolution is identical with the physical process. LaPlace's theory is brought out of the rotation of universal nebulae, the throwing off of immense rings, these in turn shrink. Heat, light and electricity all unite their forces to operate. The evolution from the simple cell is described; "cell soul" predicated. The psychical universe is the cosmos, which suffers neither loss nor gain.

Primordial germs form the source from which all living creatures have been developed. "Each cell is endowed with wonderful intelligence." It is wonderful, if we only knew it, for "a cell becomes a soul!" Immortality comes in the end. God is not to be regarded as the agency, though the direction of the activity is the absolute will and wisdom of God. There is wonderful intelligence manifested in the germ cell.

The "psychical energy" does not act in the way that physical forces do—this life is a form of psychical energy. Every effort of force is a psychic fact. "Each cell has a soul" "The intelligence of muscle cell is the means of communicating intelligence from one part of the body to another. The cell soul is amazing; more wonderful than the soul of man itself."

Admiration naturally arises toward such a wonderful discoverer. We shall expect to see the soul of man as soon as the microscope is made strong enough to discover the atom in which it is contained, and learn that every man's body is only a bunch of souls.

VOYAGES OF SAMUEL DE CHAMPLAIN; 1604-1618. Edited by W. L. Grant, M. A., Brit Lecturer on Colonial History in the University of Oxford. New York: Chas. Scribner's Sons; 1907.

Several voyages were made by Samuel De Champlain, the first in 1604, the second in 1608, the third in 1610, the fourth in 1611, the fifth in 1613, and others 1613 to 1618. The descriptions are given in Champlain's own language, they include not only the account of the rivers and harbors and bays, and the localities of permanent settlement, but the coast and rivers of Norumbegue and Port Royal.

The book contains a Journal of Champlain. The description of the Indian tribes and chiefs; the arrival at Quebec, and a description of the place where Jacques Cartier stayed in 1635 occupies one chapter. The encounter with the Iroquois is also described. The second voyage resulted in the seeking out a place for settlement; the voyage of 1613 in visiting the port of the Iroquois, a description of which has become very familiar. The settlement of Tadoussac occurred in 1618.

One is impressed in reading the account of the voyages of Champlain, with the contrast between them and the voyages and expeditions of La Salle, the great explorer. La Salle succeeded in penetrating into the interior much farther than did Champlain, and his last voyage made known the character of the nations who dwelt upon the Gulf of Mexico, but the discovery brought no other effect than the conspiracies which arose among his own followers and the loss of his life amid the wilds of Texas and a nameless grave. The Iroquois welcomed Champlain but no native, whether savage or otherwise, ever welcomed La Salle. The difference was not owing altogether to

the conspiracies which arose, or the plottings of those who were interested in the fur trade and jealous of La Salle on that account. A permanent settlement resulted from Champlain's voyage. No such settlement was made by La Salle, although his journeys resulted in the discovery of the Ohio River and the Illinois River, the upper and lower Mississippi River and the rivers that flow into the Gulf of Mexico.

A feeling of admiration always arises when we read about the voyages of Champlain, but pity rather than admiration, when we read of the adventures and repeated calamities which came upon La Salle; both were discoverers and on this account were deserving of gratitude, for great benefits have followed.

HOMER AND HIS AGE. By Andrew Lang. Longmans, Green & Co., Publishers; London, New York and Bombay; 1906.

The position of this author is that the Iliad as a whole is the work of one age. It presents an historical unity—a unity of character and of customary law. Unity in its archæology, like the Sanscrit hymns of the Rig Veda, the hymns of the Maoris, the Zunis, and other peoples in the lower and middle stage of barbarism, under the care of a priesthood are one thing, but a great secular epic is another.

The author says: "Our own sense of probability leads us to the conclusion that, in an age when people could write, people wrote down the epic. Written first in a pre-Phœnician script, it continued to be written in a Greek adaptation of the Phœnician alphabet. The Iliad existed with its characteristics prior to 800 B. C. When a reading public for Homer arose, Athens was the center of the book trade. Some person or persons must have made the text; not by taking down from recitation all the lays they could collect, as Scott collected the Border Minstrelsy, but must have done their best with such statements as were accessible to them. The Iliad was rhapsodized." The rhapsodists were men of one day recitations. The local heroes as well as gods had their feasts in post-Homeric times, the rhapsodists rounded off selected passages at these feasts. The state of society is described by Homer as a loose feudalism.

The archæology of the Iliad is described in one chapter; Homeric armor in another; the bronze and iron in the ninth chapter; the Homeric house in the tenth chapter. The Interpolations of Nestor are very late.

The author says that many peoples have passed through a stage of Athenian culture as described in the Iliad and Odyssey. The Odyssey is a poem more effective and more religious than the Iliad, being a poem of peace, the Iliad a poem of war. We know little about land tenure in Homeric times, it probably resembled that of Scotland in the time of warfare.

The book is elegantly printed, is well bound, and contains three hundred and thirty-six pages, and will undoubtedly be sought for by scholars, as it gives the latest view of the Homeric question and throws much light upon the Homeric times

FERDINAND MAGELLAN. *Heroes of American History.* By Frederick Ober. New York: Harper & Brothers; 1907.

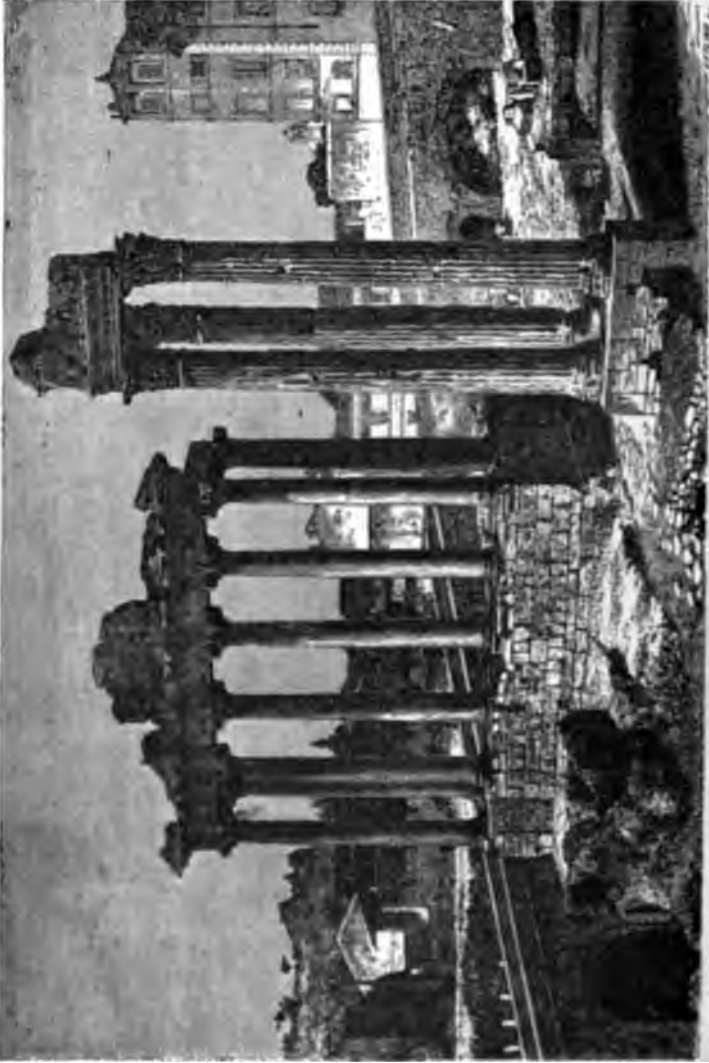
This book contains a portrait of the great navigator and several full page plates, among them one showing the ships and another the first vessel which sailed around the globe. It was a great adventure, and one which was almost equal to the one which resulted in the discovery of America. The adventures of these early navigators are told in an interesting way, though they show more of the Spanish spirit of the commander than of courtiers. The voyage resulted in the passage of the long sought strait and the crossing of the great Pacific, the discovery of the Philippine Islands, and in the circumnavigation of the globe. It was on one of the Philippine Islands that Magellan met his death at the hands of the natives.

It is singular that one so arbitrary in his command should have succeeded in bringing the natives to submit to the new religion and give up their idols. The death of Magellan took place when leading his troop in an attack upon an hostile people.

The book is written in an interesting style and is full of descriptions of adventures. Magellan discovered the Philippine Islands in 1521, less than fifty years after the discovery of America. The natives came to the vessel in boats which were sharp at both ends and carried sail made of palm leaves, lateen in shape. Opposite the sail they had a large log as out-rigger. The Island of Guam was the first to be discovered. The discovery of the Philippines followed that of Guam. The peculiar customs among the Philippines were the same as those which prevailed among the Aztecs and Mayas.



DORIC TEMPLE AT OLYMPIA



CORINTHIAN TEMPLE AT ROME:

the surface of the shaft.

Just before the capital is reached the first intended break is made in the shaft. This break consists of a deep narrow groove separating the shaft from the neck.

We now reach the distinguishing feature, the capital. It is simple in construction, consisting of a plain abacus upon which rests the entablature. Beneath the abacus is a finely moulded *echinus* and finished with a series of fine annulets.

The architrave is perfectly plain and separated from the frieze by *taenia*.

Upon the frieze a great deal of artistic skill is lavished. It consists of a series of sculpture metope separated by triglyphs.

The triglyphs are ornamented above and below by *guttae*. The



COLISEUM GREEK COLUMNS

metope are sculptured so as to convey some significance, that is, some mythical or historical scene. The metope forms the inter-columnar portion of the frieze, while the edge of the triglyph is on the axis of the column.

The crowning portion is the cornice, which consists of a square mutule band separated from the ovolo moulding by a fillet.

Thus the Doric order is simple, plain, severe and pure, but at the same time very artistic. This so-called plainness is relieved or rather enhanced by coloring. This can still be seen on the Parthenon, the most perfect type of this style of architecture.

The Romans were not creators in the same sense as were the Greeks. They borrowed, and blushed not for it. While they borrowed, yet going one step further, they adapted and modified in accordance with their needs.

The Romans used the Doric style of architecture, but altered it in several respects. The Greek Doric column stands upon the stylobate; the Roman Doric has a base consisting of a plinth and torus. The fluting is the same in both, but the capital of the Roman style is composed of three parts, the astragal, the neck, which is longer than in the Greek order, and the ovolo. The abacus is somewhat thinner than in the Greek. The axis of the column is also the axis of the triglyph. The metope is not sculptured so as to represent some scene, but merely given ornamental relief. *Guttae* are found below the triglyph, but not above, this being occupied by dentels. The cornice in the Roman type is somewhat elaborate. It consists of ovolo moulding, corona and cavetto.

While thus the Romans borrowed, yet, in many cases, they improved what they borrowed. But some critics (partial to Greece) say that the Roman orders are inferior in every respect. We are not in a position to concede this statement. The Greeks were artistic builders, they gave distinct types to the world, but what did the Romans do? Were they plagiarists in every respect? We believe not.

In Rome the theatre of Marcellus and the ground range of the Coliseum furnish us with examples of this type of architecture. The Greek examples are far more numerous, and at the same time much older. Of this type we have the temple of Corinth, the Parthenon, the temple of Zeus, at Olympia, and the temple of Theseus.

The Ionic order is more ornamental in some respects than the Doric. Its distinguishing feature is the capital. Beginning at the base, for the Ionic has a base, it consists of a plinth, a torus, a scotia, a smaller torus and a series of filets.

The shaft has twenty-four flutes separated by filets.

The capital is the remarkable feature of this order. It consists of volutes which form the termination of the capital. The abacus is thinner than in the Doric order and is moulded with an *echinus*. A second and larger *echinus* enriched by bead ornaments forms the body of the capital.

The architrave is divided into three faces slightly projecting over each other from the column upward. The frieze in some instances is ornamented and in others sculptured in relief. The architrave and frieze is separated by a series of three mouldings. The frieze has no triglyphs.

The crowning member of the cornice is usually a *cyma-recta*.

In this order ornament takes the place of the high coloring given the Doric.

The height of the column is greater than the Doric, varying from seventeen to nineteen modules. The intercolumnar distance is five modules. The Doric order gives the impression of massiveness and strength, while the Ionic gives that of lightness.

The Romans did not like this order on account of the "balus-

ter" view; so they modified it by eliminating the balusters. This was accomplished by placing the volutes angle-wise, and as a result the spiral was seen from every direction.

The frieze is the same as in the Greek model.

The frieze and architrave is separated by a series of two mouldings. The architrave is more bold and strong than in the Greek type. The column and base is the same as the Greek model.

The notable examples of this type are: the temple of Nike Apertus, Athens; the Erechtheion, Athens; the temple of Diana, Ephesus; the temple of Fortuna Viriles, Rome, and the second range of the Coliseum.

One more Greek type remains for our consideration, viz.: the Corinthian. It was later in development than the other two; the earliest of this type dating from 335 B. C. It is lighter and more ornate than the others.

The base is so arranged that it has the appearance of being double, since it consists of tori, fillet mouldings and scotiæ, each series being smaller than the one below. Of the three bases the Corinthian is the most artistic from several standpoints. It combines the mechanical principles of lightness, stability and power of resistance in such a manner as to produce an almost perfect base. This shaft has twenty-four flutes separated by fillets and terminating in a series of water leaves at the neck.

The capital is made up of three parts: first, a series of sixteen water leaves springing from the neck; above these a row of eight spinosus acanthus leaves, with a flower between each pair of leaves; second, from the acanthus leaves spring sheaths which in turn give volutes to the center of the bell and to the corners of the abacus; third, from the junction of the two volutes that turn toward the axis of the shaft spring two smaller volutes, which in turn give forth an anthemium, which reaches the top of the abacus and unites the abacus with the bell of the capital. The abacus differs from the others in that it is hollowed on its four faces and has moulding.

The architrave has three fasciæ. The frieze may be plain or sculptured in relief, there being no triglyphs and therefore no guttæ, but the cornice is dented.

The cornice completes the entablature in the other two orders, but in this there is an additional ornament placed above the cornice. This may also be said to be a distinguishing feature of this order. The antefixæ, which is the added ornament, give it a completeness and finish that the others lack. The idea was probably derived and elaborated from the ornament found on the gable ends of the Doric order.

The oldest structure of this type is the Choragic monument of Lysicrates at Athens. The Tower of the Winds, Athens, is another example.

As usual, the Romans modified this order to better suit their taste. The base is the same as the Ionic, except that it has one

more moulding. In some instances the shaft is plain, while in others it has twenty-four flutes separated by fillets. The flutings end in narrow water leaves. If not fluted the leaves spring from the groove that separates the shaft from the neck. But here again the Romans modified the type by using "mollis" acanthus leaves instead of spinosus.

The architrave has three fasciæ somewhat overlapping each other. These faces are of unequal width, differing thus from the Greek order.

The frieze is perfectly plain in the Roman order. As to the cornice the Roman type again takes a new departure, and enriches itself with "egg and dart" carvings and modillions placed at regular intervals. Thus the cornice is very rich in form and outline.

It seems to us that while the Romans did not re-cast in entirety the Greek orders, yet, in many instances, they corrected the irregularities that the Greeks overlooked. We will not deny that in some particular structures the work is coarse and will not bear close inspection, yet we must bear in mind that the people of the Tiber were builders on a large scale. The Romans strove for effect or appearance rather than technique. From the purely professional side of architectural taste Greece surpassed Rome; but Rome was practical and utilitarian; Greece ideal, metaphysical and æsthetical to a detail.

The structures of the last named order that may be seen in Rome are: the temple of Mars Ultor, the temple of Vespasian, the Pantheon and the third range of the Coliseum.

The Romans went one step further than the Greeks. They combined the Ionic and Corinthian into a composite order. The volutes are set angle-wise and the acanthus leaves modified to suit. The capital is over ornate and has not the reticence of the Greek styles. The architrave is in three parts. The frieze is ovolo and plain; the cornice dentelled and without antefixæ. The base consists of a plinth and two tori with annulets between.

While it is true that this order is too ornate as compared with Greek types, yet it deserves not the severe condemnation meted it by some critics. It suits perfectly the kind of architecture for which it was designed. This type is found in the triumphal arches of Titus and Septimius Severus.

The Romans employed one other order of architecture, viz.: the Tuscan. It was the least ornate of all the styles employed, but as no classical remains are now extant, there is no use entering into the discussion of it. All we know concerning it we must gather from literature rather than from observation. St. Paul's, Convent Gardens, is a modern example of this type.

In constructional architecture the Romans employed one mechanical principle that the classic Greeks never used. If we study the properly classical structures of Greece we find not the arch. This principle the Romans employed and perfected, thus rendering possible the mighty structure found in the Empire.

With the arch came buildings of more than one story; buildings with great and mighty domes, bridges, aqueducts and all the structures that made the name of Rome great. The Greeks were not ignorant of the principle of the arch, but from national prejudices seldom used it. The Romans got it not from the Greeks, but from the Etruscans, who were great builders before the ancestors of the Romans landed upon Italian soil. Among the oldest examples of the arch in Rome is the Cloaca Maxima, which was built by Etruscan architects.

As soon as the arch was employed the entablature and the column became useless except for ornamental purposes. It was no longer an essential part. In some instances we find the continuity of entablature broken, thus revealing the ornamental purport of it. This may be seen in the triumphal arches now extant.

From the very nature of temple construction in Greece, the gable ends must of necessity be triangular. These triangles the Roman architect used for ornamental purposes in door-ways and gateways. He did not always adhere closely to the triangle, but at times curved it. In such structures the columns are in relief. The most notable and best preserved example of this type is the Porta Maggiore.

In temple architecture Rome adhered in general to the types, since in sacred building she was somewhat limited by tradition. This is especially true of restorations in the Forum. But she never allowed herself to become limited to a very great degree in the matter of constructional architecture as did the oriental countries. In Rome religion was more a matter of politics than anything else, and therefore she never became priest-ridden.

The result of this absence of religious tyranny was perfect freedom of architectural expression.

It is to be noted that in Greek temple architecture there are no rectilinear or exactly perpendicular lines. This rule the Romans did not always observe. In this as in other things, they left themselves freedom of execution.

If we were to go into detail comparison throughout, this article would extend itself into a volume. At some later time we shall speak further concerning the architecture of Rome.

STONEHENGE AND OTHER BRITISH STONE MONUMENTS ASTRONOMICALLY CONSIDERED.

By A. L. LEWIS.

The most important publication in England during the year 1906 relating to prehistoric archæology has without doubt been the book given to the world by Sir Norman Lockyer under the above title. It would be useless to pretend that the views of its distinguished author have been universally accepted; on the contrary, they have been met with what may almost be called angry impatience by those archæologists of the school of the middle of the last century, to whom all the British rude stone monuments are sepulchres and nothing more. Feelings of this kind are sometimes aroused (perhaps unconsciously) by the fact that one author has discovered something which another has had under his nose and has not noticed, but that can hardly be the case in the present instance, for Sir Norman Lockyer's theory could only have been developed by one who was an astronomer rather than an archæologist. His new work is in truth an evolution from his "Dawn of Astronomy," the principles which he laid down in the latter from his observations and those of Mr. Penrose in Egypt and Greece and at Stonehenge being applied to other early British monuments, and found to be carried out in them; and the ruling principle is this, that in order to give time to prepare for sacrifices and other ceremonies at the rising of the sun on special occasions the motions of a star rising or setting in the north at a convenient time before sunrise were observed by means of stones placed in certain lines from the circles in which it is believed the worship or observation of the sun was carried on. In course of time the rising and setting points of the star selected became changed by the procession of the equinoxes and another would be chosen in its place, and fresh arrangements would have to be made for watching it, and by ascertaining the exact direction of the sight lines indicated by outlying stones or otherwise Sir Norman Lockyer has found the dates at which they pointed to certain stars and concludes that those were the dates of the erection of the monuments in question. To give anything like a fair account of the details of his investigations in the space at our command is impossible, and it must therefore suffice to say that Sir Norman Lockyer, having personally investigated temples in Egypt and circles and other rude stone monuments in Wiltshire, Cornwall and Devonshire, considers that this principle was applied in all of them, and, from a letter by him printed in "Nature" since the publication of his book, it appears that he also finds it in the stone circles of Aberdeenshire, widely as these differ from the English circles and from those in

other parts of Scotland. There seems to be no particular reason why his views should not be accepted, but we will in conclusion consider some of the arguments that have been advanced against them. Firstly, it is said that there are so many stars that there could be no difficulty in finding one to suit any line whatever; but as a matter of fact, there are only three or four which would answer the presumed purpose, and they were not all available at the same era, so that there is practically no choice at all. Secondly, it is said that the fact that burials are found in many circles shows that sepulture was the purpose of them all; but the fact is that in several which have been carefully explored no



STONEHENGE MONUMENT

burials have been found, which shows that not sepulture but something else was the purpose of many, and even where it may have been the principal object it would not exclude others. Thirdly, the idea that the "barbarous people" who erected the rude stone monuments, whether in the neolithic or bronze age, could have had any notion of astronomical observation is scouted as being absurd. Here it becomes necessary to consider what the very great exactitude which characterizes modern astronomical observations had any existence in earlier ages; it may even be that Sir Norman Lockyer himself, as a modern astronomer, has hardly realized this sufficiently. Astronomy, like everything the characteristics of the circle builders are likely to have been, and we must, in the first place, clear our minds of the idea that

else, has been slowly and painfully built up by the cumulative observations of many generations; the length of the year was estimated in the first place by lunar months to which intercalary days or periods were added; it was thought to consist of 360 days, and still later of 365 days, and ultimately of $365\frac{1}{4}$ days; all this had been discovered before the age of the fourth Egyptian dynasty, for at that period we find the two years of 365 days and $365\frac{1}{4}$ days running concurrently and only beginning on the same day once in 1460 years, when a great festival was held to commemorate the event. How many generations of observers must have watched and noted the movements of the heavenly bodies to have attained this amount of knowledge concerning them, and how did they get their knowledge except by such means as Sir Norman Lockyer has suggested? Their methods were no doubt rough and ready at first, but were ever becoming more and more precise as time went on. Even now the exact length of the year, if finally ascertained, has not been universally accepted, in consequence of which we have Russia using the old style and eleven days or more behind the rest of Europe. The circle builders then had not attained to great exactness of measurement, but Professor Flinders Petrie has estimated the error of workmanship in British earthworks, etc., at one per cent only, so that they were getting on, and their works show that they possessed considerable resources and aptitude for dealing with masses of stone and quantities of earth. It has been suggested that to mark the position of the stars at night it would have been necessary to move huge stones, weighing many tons, in the dark, when it would have been dangerous to life and limb to do so; if the necessity had arisen a prehistoric chieftain would have sacrificed the lives and limbs of many slaves to effect his object; but there was no such necessity; prehistoric men would certainly have had sense enough to mark the spots where the stones were to be placed by driving stakes into the ground in the dark, and to put the stones in their proper places at their own convenience in the daytime. So, too, with measuring, the proportionate distances which, whether accidentally or intentionally, certainly exist in many places, could all have been measured by very simple means. Again it has been suggested that the climate was much more foggy 3,000 years ago than it is now, and that the sun and stars were seldom seen; this was probably not the case, but if it were, it supplies an excellent reason for marking the place where the sun ought to rise with a stone, which would hardly be necessary if it were always visible at the time of rising. Finally, with regard to early man's acquaintance with the movements of the heavenly bodies, there can be no doubt that, when every one lived much more out of doors than now, and when clocks and watches and almanacs did not exist, and the sun, moon and stars were the only means by which times and seasons could be discriminated, astronomy of a practical description was far better known and used than it is now in "civilized" communi-

ties by any except more or less professional astronomers.

Perhaps the greatest difficulty in following Sir Norman Lockyer altogether is the ease with which he finds his theory to apply to all sorts of megalithic monuments (and indeed to others). If, however, Sir Norman Lockyer says that a line between certain stones pointed at a particular date to the rising of some specially brilliant star it would be rather rash to contradict him; but it may be urged that in this or that particular case the coincidence may be quite accidental and due to some other cause than the observation of the star. There seems then to be good reason to accept the theory in principle, even though every case in which it is sought to be applied be considered separately and dealt with on its own merits. If this be done a substantial advance may be thought to have been made in our ideas about the rude stone monuments of Great Britain and their builders.

THE SIX CARDINAL POINTS.

BY ALTON HOWARD THOMPSON.

The main principle of apparently all American systems of religion is that of the six points, or directions—the cardinal points, N. W. S. E.—with the addition of the Above and the Below. Around these points and this idea, everything in their lives clusters, to which everything is related and by which everything is controlled. Zuni, Mexico, Cuzco—each had the four divisions of their cities, corresponding to the cardinal points, and with parts assigned also to the zenith and the nadir. The relationship of everything in the native American's life to the six points has never been fully comprehended and appreciated by the European, and its universality recognized. This cult is universal among the native tribes of the south and west, and probably prevailed with the aboriginal tribes of the east, if it had been properly understood by the early whites. Mexican cosmogony is founded on this idea and the Spaniards blundered fatally in their misunderstanding of this commonest principle of the Aztecs. In consequence of this misconception, Cortez was looked upon by them as the lord of the east because he was of the color of the east and came from that direction. The Aztecs thought he was Quetzalcoatl, the great white culture hero returned, so they could not understand his unfriendly treatment. The Spaniards never grasped the real meaning of the sacred six points.

Dr. D. G. Brinton, in his delightful book, "The Myths of the New World," describes this principle under what he calls the adoration of the four cardinal points. He says, "The assumption of precisely four cardinal points is not of chance, for it is recognized in every language. It is derived from the immutable laws of the universe. Very early in his history did man take note of these four points and recognize them as his guides through the night and through the wilderness and call them his gods. He

adopted it as a regulating quantity in his institutions and in his arts and he magnified it for its mystic meaning. In his philosophical reveries he called it the key of the universe, the source of ever-flowing nature. The earliest divisions of territory were in conformity to this view of the four parts of the earth. The official title of the Incas of Peru was Lord of the Four Quarters of the World. Their cities, palaces and tombs were squared to the four quarters of the cardinal points. The social life, architecture, customs, rites and ceremonies were controlled by it. The spirits of the cardinal points made and governed the earth and were the leading figures in the tales and ceremonies of nearly every tribe of the red race. All feasts and ceremonies, initiations, games, dances and in fact all the movements of life, were governed by the figure four or its multiples. Travellers among the Indians always mention that an indispensable preliminary formula to all kinds of business was that of smoking; and that the first puff was to the sky and then to the four points, to propitiate the spirits of the cardinal points."

Among the Pueblos, each one of the six points had its respective color assigned to it, and consequently it was but natural that everything having one of these colors was influenced by the point to which it belonged. Thus the color of the north was yellow, that of the west blue (or green), which are alike in primitive eyes), the color of the sea in that direction; the south was red, the color of the fire and of summer; the east was white, the color of the dawn; the above was of variegated colors, as the sky is variegated by the clouds; and the below was black, as the region of the underworld is dark. The animals belonging to the six points were: to the north, the mountain lion, as it is yellow; to the west, the black bear; to the south, the red badger; to the east, the white wolf; to the above, the eagle, and to the below, the rattlesnake. Other animals were associated with the different points, or in combination, but these were the principal ones, and their fetiches were supposed to be powerful with the rain people. Thus the great bison, god of the north, brought winter and his fierce icy breath and bellowings are heard only too plainly in the storms of winter. The trees associated were: with the north, the spruce; with the west, the pine; with the south, the oak; with the east, the aspen; with the above, the cedar, and with the below, earth plants; all other plants belonging to some points, as did every thing. The clans had each the point with which they were connected, their totem being associated with that point, for the people were their breath children. Thus everything had a meaning and an association with the six points.

Mr. Frank H. Cushing, the brilliant student of Zuni mythology, writes concerning the influence of the six points upon every activity of life. He says that "The six points were arranged naturally and serially from the rising sun: first came the north, then the west, then the south and then the east. Next came the zenith as the sun rose to it from the east, and then

passed on down to the underworld, the region of darkness. The seventh was the world itself, the center of them all, where men lived. Each cardinal point was characterized by many things differentiating it from all the others. The winds of the north were cold, bringing winter; those of the south were warm, bringing summer; the east was the land of the day and of awakening and life beginning; the west was the land of night and sleeping, of death and life's finishing. The above was the land of clouds, the path of day and source of life-giving water. The below, the land of darkness, but the place of fertility and growth and of all becoming. And so it was that though one journeyed far, the position of the world remained ever the same, for the six points were ever the same in relation to it. Their phenomena were ever present, yet they were ever beyond. These must therefore be worlds or regions by themselves and must be peopled by great gods, the causes of the phenomena of life, whose representatives in our own world or the place of the middle must be animals or other objects specially resident in the six regions. The gods of the north, the north being named first, must be the elders, and therefore the masters of the gods of the other regions. Thus it was that until the gods of the north withheld their icy breath, how could the gods of the west breathe moisture over the land; and until the moisture from the west came, how could things grow in the warm breath of the summer sent by the gods of the south; and but for the warm breath of the gods of the south, how could the drying and ripening breath of the gods of the east have effect upon the grains and fruits of the earth. Now, in order that these gods of the several regions might be properly approached and entreated, wise men, the elders of the clans most nearly connected with the chief animals of the several regions (and hence named after them) must become their proto-priests. Hence the priests of the north are most powerful, with those of the west, south and east following in regular order. The number of regulations which such arrangements have given rise to with a people like the Zunis, are incomprehensible, affecting as it does all their life, ceremonies, institutions and organizations, whether religious or sociologic; whether of the tribe, the clan or the family; the town, the kiva or the dwelling."

In the Zuni creation myth described in the 13th volume of the Bureau of Ethnology reports, he also tells of the search of the people for the propitious middle place of the world, that should be in the exact centre in relation to the six points. There were long journeyings to find the midmost place and there was a division of the clans to search for it. The winter clan people were bidden to go to the northward because of their strength to overcome the spirits of the cold. The seed people and the kinties of corn and others of the summer people were bidden to go southward because they were wise and possessed the magic of the under fire. The macaw people and their children journeyed straightway eastward, and the clans of the west went to that

point. The people of the above and of the below journeyed also, and each group built cities which became the six towns of all the regions of the midmost. In spite of the earth warnings and rumblings, each group thought that they had found the place of the midmost, at least for themselves, and each continued in the place of their choice. The northern clans in their place, and so also the clans of the west, the south, east, above and below in their places. But warnings still sounded and the gods and the master priests of the people could not rest. So they called a council of men and beings—of birds, beasts and insects—of all kinds of the six regions. After long deliberation they said, "Where is the water skate; long legs has he of great extension, six in number. Mayhap he can feel forth with them to the uttermost of the six regions, thereby pointing out the very middle. Being summoned, the water skate appeared, in semblance growing greater, for Lo! it was the Sun-father himself, and he answered, "Yea, that can I do!" and he lifted himself to the zenith and extended his six finger feet to all of the six regions. Then gradually he settled down and called out, "Where my heart and navel rest, there mark ye the spot and there build the city of the midmost, to dwell therein, for there shall be midmost of all the earth." Then he descended, squatting, and his belly rested over the hill and plain of Zumi, and when he drew in his finger legs, Lo! there were six trails that led to the six cities round about, like to the staves of a spider's net. So Zumi and six cities round about were the seven cities of Cibola, which Coronado discovered when he invaded the country of the Zunis.

The importance of this principle in the life of the American Indian cannot be estimated. It colors all his thoughts and affects and controls all his life. Of course there are resemblances to the idea in the cosmogonies of all primitive people in all parts of the world; but it was carried farther and more elaborated in the religious cult of the aborigines of America than elsewhere. Failure on the part of Europeans to grasp the idea made them fail to get on the inside of the Indian's life and see the world as he saw it. Hence there was great misunderstanding and great injustice done which might have been avoided if care and trouble had been taken to understand the Indian's mode of thought and the endeavor to see the world from his viewpoint.

THE DISCOVERY OF AN OLD TEMPLE IN EGYPT.

James H. Breasted, of the University of Chicago has made a remarkable discovery in Egypt. It is no less than the discovery of the structure called the temple of Lesesebi. It lies in the most inaccessible region of Nubia, at the foot of the third cataract of the Nile. This region is separated from the north by the third cataract and from the south by the terrible cataracts of the second cataract. The temples of the ancient city appear lost in the wide plain which stretches from the Nile to the distant hills of the Sahara.

THE GARDEN OF EDEN.

BY STEPHEN D. PEET.

The story of Creation occupies the first chapter of Genesis. The second chapter begins with the description of the seventh day in which God rested from all His work, but turns at once to the description of the earth as it appeared to be after the six days of the creation had passed. In the fifth verse, the thought is expressed that every plant of the field and every herb were included in the process of creation, but there was not a man to till the ground; nor had the Lord God caused it to rain upon the earth so that the plants and herbs should grow, but there went up a mist from the earth and watered the whole face of the ground. In these passages we find a picture which corresponds to that which is given by geology and natural history, as well as by human history.

I. The work of creation consisted in separating the elements of the primeval chaos and reducing them to order, and yet the earth was a waste and an empty chaos, and "darkness was upon the face of the abyss." This was the condition which prevailed before the time of the appearance of man. The Garden of Eden was not in existence at that time; nor was man in his present condition in existence, whatever may have been his previous state. There is nothing in the Bible which either states or denies the existence of a creature who in a measure resembled man as he is now. The pre-Adamite man may have existed for a long time, and survived through many changes which had occurred in the geological period, but the being who was called the first man and who was described under the name of Adam, into "whose nostrils God breathed the breath of life, and who became a living soul," was the one which is referred to in the second chapter of Genesis. Every plant of the field and every herb which had appeared before the advent of man was entirely of natural growth, for there was no man to till the ground and the Garden of Eden did not exist.

In the sixth verse of the second chapter of Genesis, a process of nature is described which prepared the earth for the advent of man, though what that process was, remains a mystery. All that we can say is that there went up a mist from the earth and watered the whole face of the ground, and then the Lord God formed man and breathed into his nostrils the breath of life, and man became a living soul. The language is plain; there is no mistaking the meaning. There was a special act of creation when man as he is now known, appeared upon the earth. In other words, the lesson taught by revelation is the same as that taught by creation. Man became a living soul. The truth is confirmed by two witnesses. Some are inclined to set

up the record of creation as contradicting the authority of revelation, but as time goes on and the truth that is hidden in nature becomes known we find that the two records agree.

The Bible language is that of appearance, rather than that of explanation. It is the statement of fact, and not the explanation of science. The truth is hidden in both records. We do not know exactly what is meant by "God breathing into the nostrils the breath of life," nor do we know the connection between the "mist which went up from the earth and watered the face of the ground," and the appearance of man upon the earth. and yet there is nothing contradictory in the record. Science and Revelation will be found to agree, whether we understand all the processes which took place or not.

II. The soul of man is certainly different from the life that was in the plant and in the animal, though it may have come in its proper order and by an unseen mysterious process, which proves the existence of an all-wise Creator. There is nothing in these passages which is contradictory, although there are hints of a mysterious process which had gone on before man appeared, as there are processes still going on which are very mysterious, and are not fully understood by those who are following the teachings of science, nor by students of the Bible. There are allusions to a locality in which man first appeared, for we read in the eighth verse that the Lord God planted a garden eastward in Eden, and there he put the man whom he had formed. This passage does not positively state that what might be called the predecessors of man were confined to this locality, nor were they all embraced in the first pair, for the testimony of creation favors the idea that there were creatures upon the earth which resembled man, and that there were anticipations of his advent which have been recognized by science, and yet the grandest work of creation was that which occurred when God breathed into man the breath of his life and the man became a living soul.

It is stated elsewhere that man was made in the image of God, and the statement corresponds with the testimony of science, as well as Revelation. A parent looks upon a child and realizes that it bears his image. So God may look upon every human being and recognize his own image, even though marred by sin.

The creation of man, as recorded in the first chapter of Genesis, was the crowning work which has placed the dominion in one who bears the image of God, so that man in more senses than one has become a creator, and yet his first home was amid the works of nature where there was no artificial product. Whatever man was, the truth is plainly stated that his first abode was amid the scenes of nature, and no artificial products were apparent. The description given of the serpent and the tree furnishes a hint as to the existence of a supernatural being which seemed to belong to another world than

this, and entered into the form of one of the lowest and most repulsive of all the creatures which have ever existed. The description of the serpent in the tree certainly referred to an order of being which was in great contrast to the first pair, who in their innocence made their home among the beauties and wonders of creation. The contrast between the first pair and the serpent was certainly very great, and is suggestive of a mysterious power and presence which gave rise to the fearful tragedy which was to take place upon the earth. The garden of itself was evidently full of the beauties and wonders of creation. It matters not whether there were gleaming waters, or shining stars, or many living creatures or not, the very fact that it was the abode of the first pair made it a sacred place, and it was



THE STORY OF THE CREATION.

made more sacred by the presence of God, who as a voice is said to have walked in the garden and spoke to the first pair, after they had eaten the forbidden fruit. Our imagination is awakened and sensibilities are stirred when we read the story and realize its significance. There is nothing in the realm of literature that surpasses it, for it is so simple that a child can understand it, and yet so strange that no one can realize the results which were to follow.

The personal character of God is brought out by the story of the garden even more vividly than by the story of the creation itself. He is brought nearer to us, almost as near as He was to the first pair themselves. The scene is so vivid that we do not need to dwell upon it. No painting could make it more vivid, and yet it is a very strange story. There is nothing like it in all the realm of science, although there are hints which confirm its correctness and truthfulness. There are many old engravings which represent the scene; they may be correct representations, yet everyone who reads the account will naturally form a pic-

ture which, perhaps, is as correct as that given by the old artist, though it may be an aid to our imagination to study it.

There are three names used in the Hebrew Bible to represent the one being. The first is Yahveh, or Jehoveh, which may be interpreted as "the living one," or the one who has existed through all eternity, in whom we live and move and have our being. Another is, "Adonai," a word that expresses power and authority, the same as "the Lord." It gives the vowels to the word Jehoveh, which was too sacred to be spoken. The third is the word "Elohim," which is in the plural and generally regarded as a plural of excellence. Literally it would be "gods."

These names appear in the first and second chapters of Genesis, but may not belong to the earliest period, for there was certainly a progress in religious thought before the Hebrew Bible was *written*. There was a long period during which devout people called upon God, while there was no written word in existence, even among the Hebrews. The gospel of John expresses this: "In the beginning was the Word, and the Word was with God, and the word was God." Possibly the three names which were used by the Hebrews had a hidden sense, which conveyed the same thought that the beloved disciple has expressed so clearly and reverently.

The word Elohim seems to have been used in describing the story of creation. The brooding spirit is quite distinct from the creative word, but the six days of creative activity and the Sabbath of rest occur in no other ancient cosmogony, though in the Zend Avesta the cosmogony divides into six acts; and the Zoroastrian order is: sky, water, earth, cattle and plants. God is anterior to creation; there is no other beside Him; this is the key-note of the Bible.

It may be well to consider the description given in the Bible of God, whose presence was made known to the first pair by the "voice" that is described as walking in the garden. The human voice is supposed to be the expression of the soul, for it differs so decidedly from the sounds which are made by the various animals and birds that it indicates a new order of being. The voice is more expressive than the face or form, and proves the truthfulness of the record that God breathed into man the breath of His life. Man differs from all animals in this, that he has received from God a gift which is divine, but finds expression in the voice which indicates the soul. The breath of God is in the voice, just as the soul of man is made known by the voice.

The main difference between the Bible and other books is just this: that Jehovah is represented as a personal being, a father and a ruler, as well as a creator. The distinction between the natural and the supernatural is not very clearly drawn, but the distinction between the personal and the impersonal or material is very distinct. In fact, the creator is represented as a per-

sonal being, but the creation is impersonal and material; the difference between the two is as clearly marked in the first chapter of the Bible as it is in the very last chapter. The Book of Genesis and the Book of Revelations are alike in this respect. Materialism finds no place in the sacred record, but the spiritual and immaterial are clearly indicated, as well as personal. The heavens are peopled as well as the earth, and God rules over all.

It is not merely the personality of God that is brought before us by these words, for the verse represents God as speaking to others; the plural is used, and the language suggests the thought that the unseen world was peopled before the world in which we live. God is not a mere personification of nature, but is a real person. This is shown in the latter part of the first chapter of Genesis. God said: "Let us make man in *our* image according to *our* likeness, and *they* shall have dominion." And in the next verse: "God created man in His image, in the image of God created He him, male and female created He them." The change of number is very plain in both verses, but there is no loneliness either in God or man. At the very beginning of the creation the use of the plural is very significant, for God said: "Let us make," etc., but it is not Adam alone who was made; but the plural is used again: "*They* shall have dominion."

The next chapter represents God as appearing in the garden walking in the cool of the day, and talking with the first pair, rebuking them for their disobedience.

There is nothing in the Bible story of the Creation that savors of materialism. The universe is brought before us in the language as if it were peopled. Some have objected to the representation of God as speaking to others before He commences the creation of man; but the very language itself is like the opening of a window through which we may catch glimpses of an unnumbered host, and at the same time, the unity and personality of God is clearly shown.

There is a great difference between the Bible and some of the recent books on material science, for the personality of God is the key-note of the one, and the principle of life the key-note of the others. The Egyptians had a way of representing the sky as peopled with gods and goddesses. The arch of the sky is formed by the body of the goddess on which stars are gleaming, while boats filled with other divinities are represented as sailing over the arch, and human forms kneel under the arch with birds and symbols of light, and human eyes may be seen. There is a contrast also between the cosmogony of the Bible and that of other ancient books, especially the Egyptian, for the sun gods and stars were supposed to travel in boats across the firmament from one horizon to another, and they died on passing to the regions of the west, but were born again on the eastern horizon to commence again their daily course. The underworld was the abode of the dead. The

personification of nature was so strong among the Egyptians that Set, the earth, was the husband of Nut, the sky.

In another account, God divides himself and becomes half male and half female. According to the Greek notion, Gea, the earth, Tartarus, the abyss, and Eros, love, were the trinity. Out of Chaos came Erebus and Night; their children are Sleep, Dreams, Old Age, and Death. The earth itself brought forth Uranus, the starry heavens, and Pontus, the sea, which were husband and wife. Everything begins with chaos, but the gods and the world unite. The broad-bosomed, fertile earth is the principal creation. On the other hand, with the Egyptians, the Creator is an architect and a fashioner, for he forms man out of clay with the wheel. He turns the potter's wheel with his foot. In Thebes creation was ascribed to Ammon, the invisible god.

There is another view given: The primeval spirit is inseparable from the primeval waters, but his word awakened the world to life. In the rising sun, the divine soul embodied itself in its most splendid form. At last the personality of God appears, father of the gods, author of men, who has suspended the heaven and established the earth. The Egyptian cosmogony presents fewer points of similarity to that contained in the Bible than the Babylonian, especially in its monotheism. A Persian account is associated with the name of Zoroaster, and seems to refer to the two kingdoms of Light and Darkness. A struggle between good and evil is personified in the names Ormuzd [Ahura Mazda] and Ahriman. The Phœnician cosmogony is later, and said to have been written about 1221 B.C. The Semitic antithesis of chaos and spirit differs from the chaos and mud [mud], though the egg from which the sun and moon, the stars and certain animals came, is Egyptian. The Hebrew term "heaven watchers" probably refers to the constellations, but there follows a description of the winds, clouds, thunder and lightning. The first food of man is derived from the trees. It seems to correspond with the picture given in the Bible. The Phœnicians worshipped sacred trees, but the first mention of the Garden is found in Genesis.

The Babylonian story of Tiamat, the mother of chaos and of monsters and mis-shapen creatures is given in the Babylonian records. Tiamat is the mother of darkness and confusion, and revolts against the heavenly gods, but is overcome by Mardak. In this we find the old story of the Titans revolting against Jove, and the picture of the great gods dwelling upon the summit of Mount Olympus is brought before us. Strangely enough, Milton, the blind poet, draws a picture that resembles that given by the old pagan writers.

The creation of woman is described, both in the Bible and in the Babylonian account. "The woman from the loins of the man they bring forth," are the words in the Babylonian which show this.

III. There were no dwellings in the Garden of Eden, but the earliest dwellings which were constructed furnish hints as to its location. These are supposed to date back as early as 7000 B. C. Before that there had been a process of growth, which must have taken a long time, for no nation or people ever reached a stage in which towns were built and cities were established without having first passed through a state of savagery and barbarism, and reached the beginnings of civilization. Some have claimed that Europe was the original starting point, and have based their opinion upon the fact that cave dwellings were so common. Others have referred to the tree-dwellings of Africa and of India and a few have even sought for evidences of man's origin in the far North

The picture of man dwelling in huts and associated with such animals as the elephant, rhinoceros and hippopotamus, is one that can be seen even at the present time in the torrid zone; but the fact that the earliest dwellings were erected in the region which is pointed out by tradition, shows that the Scriptures are correct in placing the first home in the Valley of the Tigris and Euphrates.

There are remains of the mastodon and other animals in Siberia and in North Europe, and on this account, some have claimed that the earliest home of man was in that region.

The point of greatest interest is the one which is illustrated by the stories about the Tree in all parts of the world, some as far away as Iceland and in the various parts of North America. These stories prove either that there was at a very early period a transmission of the Bible record from race to race, or that the story itself is one of those lessons which come from the teachings of nature.

It has been claimed by some scientists that man was a cave-



THE GARDEN OF EDEN.

dweller, and because there are caves in Europe which are known to have contained skeletons, some have drawn the conclusion that this was the first abode of man, and that the Bible account cannot be regarded as the correct one. This, however, is begging the question, for a long interval of time may have elapsed between the cave-dwellers and the appearance of man as a human creature capable of transmitting any record of himself which the future generations could recognize. The question is not, then, where the cave-dwellers dwelt, but where the first man, as described in the Bible, was likely to have made his home; and when this is answered, the location of the Garden of Eden can be easily identified. The description might apply to almost any locality in the same latitude, for Egypt, India, and parts of America, as well as certain islands of the sea, are known to have had climate and surroundings favorable for the abode of man even in the earliest period. There are those who have endeavored to prove that the continent of America was the first home of man and that the migration of the race was from America to Asia, but this opinion has an air of absurdity about it, for if man had first appeared here, there is no reason why his history should not have been continuous and the dawn of civilization have occurred upon this continent, rather than upon the Asiatic continent.

We may conclude, then, that the first home of man was somewhere in the region which by tradition as well the Bible has been so definitely described.

One of the most remarkable facts about the story of the Garden of Eden is that it is found in such far off regions as North and South America, and is frequently associated with the garden spots of the continent. The early discoverers of America as they looked upon the scenery which surrounded them were charmed by it. Their imagination was aroused, and they naturally compared it to paradise. Such was the case with the earlier voyagers.

IV. Turning then to the the American continent, especially the wild tribes, we shall find traditions and stories in reference to a garden, which bear a very striking resemblance to those which are contained in the Bible, and yet, there is no evidence to prove that they came from the white men, or were transmitted by any known channel except by the traditions of the people themselves. Among the tribes of America there are many traditions which refer, not only to the tree and the serpent, but to the first pair, or first ancestors, as well as to the flood.

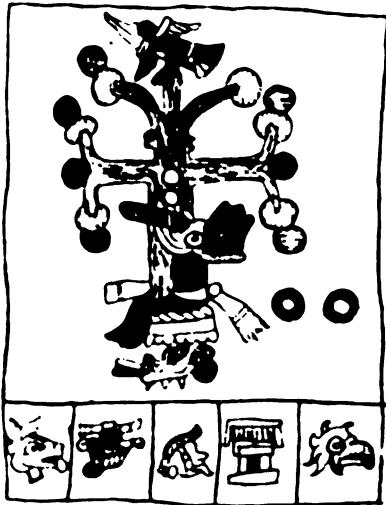
Before the time of the Discovery, Madoc reached strange lands which gave rise to a mythological geography. St. Brandon, an Irish missionary, discovered an island in the Atlantic Ocean which he called the "Isle of the Blessed." Arab geographers speak of an Atlantic island called in Arabic "the Isle of the Serpent," or Altin; the name coming from Antilla, probably meaning the Antilles.

De Leon discovered in Florida a region which was so charming that it reminded him of Paradise. Columbus described the region which he reached as very charming and abounding with beautiful scenes. He carried a letter to the Grand Khan of Cathay, as he expected to reach that land by sailing westward. He passed through the Sarragossa Sea, but he reached an island where there were various strange plants, and where the scenery was beautiful but the people were wild. Those who made expeditions to the New World after the times of Columbus entered scenes which were so delightful that they compared them to the Garden of Eden. Upon this shore, according to the popular opinion which prevailed in the Middle Ages, was located a Terrestrial Paradise from which our first parents were expelled and which has never since been trodden by mortal feet. Columbus believed himself to be close to the earthly paradise. He compared the peaceful heavens to the garden like aspect, and the graceful natives of the coast of Peru to Paradise.

Vasco de Gama and other navigators compared the lands which they reached to the Garden of Eden. They thought the Indies were a miracle wrought by the Almighty, that the prophecies should be fulfilled. The vast mass of land was regarded as a paradise, it grew in magnitude before the eyes of Europe until the people could no longer resist the conclusion that a new world had been added to geography.

The Tree of Life is mentioned in Mexican mythology,

and the tree is a very common symbol and is associated with the serpent. The remarkable feature about it is that the serpent represents the base of the tree, and the bird the top of the tree. The first pair are represented as seated at either side of the tree under the shadow of the branches. The cross finds its meaning in the points of the compass, but what is most remarkable, it was called by the Mexicans the "tree of our life, the tree of our flesh." A similar view of the tree and the cross prevailed among the wild tribes of the North. When the "rain maker" of the Lenape wished to exert his power, he retired to a secluded



THE MAYA TREE

spot and drew upon the earth a figure of a cross. The Blackfeet were accustomed to arrange the boulders in honor

of the old man who sends the winds. The Creeks were accustomed to place four logs in the center of the square, pointing to the cardinal points, thus forming a cross. They made the new fire, which was an emblem of light, in the center of the cross. The tree was the "God of the Waters" and was called Our Father. Everywhere we find the tree the symbol of the Nature powers. The cross became not only the index of the points of the compass and the four winds, but there was a common belief that at the ends of the cross were divinities whom they called Thunderers; they were the personification of the Nature powers, who sent the winds and the rains; and were regarded as the masters of life and lords of the seasons.

There are traditions in Europe that seem to have come from the far East, and have reference to the story of the Garden and the Tree. Among the Finns, as well as the Scandinavians, the story of the Sky-God contains allusions to the tree. The story of King Arthur also contains many allusions to the serpent and the tree. Owain, riding through a deep forest, finds a serpent and a lion fighting. He succors the lions and slays the serpent. After this, the serpent accompanies Owain everywhere. Owain becomes a knight errant. He enters a castle which is beset by a giant. He waits for the giant to appear, and subdues him, aided by the faithful lion. He rides hurriedly to the fountain and rescues Lunete, who has been kept against her will. He does not reveal his name, but is called the Knight of the Lion. Owain dwelt at King Arthur's court. He set forth on a journey to discover whether any man was stronger than himself. He came to a large valley where there stood a large castle, near which were two princely forests. A monster dwells in the forest, he has but one foot, one eye in the middle of his forehead, and a club of iron in his hands; a thousand wild animals are grazing around him. A tall tree, the greenest of pine trees, grows upon a steep hillside. Under the tree is a fountain. Birds alight upon the tree, but a knight upon a coal-black horse guards the tree. Owain breaks his lance, strikes the knight a fearful blow, who turns and flees to the castle, his horse is cut in half by a falling portcullis, but the knight makes his way to the palace by the aid of Lunete, who gives him a ring, which renders him invisible. He seeks lodging for the night in the castle, which is beset by a giant of the mountain. The tree defended by the Knight of the Fountain, was a great tree laden with fruit; it was a tall tree, greener than the greenest of pine trees; a lime tree, the most beautiful ever seen. In another version it is an oak tree. From this comes the mistletoe bough. Again it is a fruit tree, and a sacred tree.*

The Japanese dragon is a creature of a very superior order of being, and is identical with the Nature powers, but represents the different powers and elements. In the spring it lives in

* See Folklore for 1904, 1905, 1906 and 1907, articles by Arthur Bernard Cook.

heaven, or the sky; in the autumn, in the water; in the summer it travels in the clouds; in winter it lies dormant in the earth. It always dwells alone, and never in herds. This would lead us to the conclusion that it represents the spirit of life. Dragons have different colors, and in this respect they resemble the gods of the Mayas—they are violet, yellow, green, red and black. One dragon has nine colors to its body. There are different kinds of dragons, some are scaly, some are horned, some are without horns; some are furnished with wings and are flying dragons; others are without wings, but have legs and claws.

V. In connection with the Garden of Eden is the Bible story of the Giants. This also is remarkably confirmed by the myths of all lands. There is this difference, however, that the Bible seems to represent the giants as creatures which were entirely human, while in the pagan myths they are represented as monsters and supernatural beings. The Bible story also represents the giants as before the time of the Flood, but after the banishment from Eden. The question is, however, whether there is a reference to the myth which was so common, that the gods or supernatural beings were so mingled with men that a separate order of creatures actually came into existence. Does the sacred word teach that there were beings upon the earth which resembled the Titans of classic mythology?

The statement that there were giants in those days, does not prove man to have been any different in his constitution from that which he presents even at the present time, though it will be acknowledged that many monsters are described as having lived at an early date in the history of mankind, and paleolithic relics have been found in close connection with the bones of man; but that does not prove that the giants which are mentioned in Genesis were anything more or less than men of great stature. The giants were in contrast to Adam and

Eve, who seem to have had the same size and appearance as ordinary persons. They are, however, in contrast to the Cherubim, who were supposed to part animal and part human. They also bring a picture before us which is in contrast to that given of the Garden of Eden, for the Lord God walked in the garden at the cool of the day. It is worthy of notice, however, that no discoveries of giants have been made in Babylonia, or even in Egypt, though the gigantic animals have been discovered in different parts of the world.



FIG. 1. Tree of Knowledge.



FIG. 2. Tree of Paradise (Eden).

BABYLONIAN TREE.

The constellations in the sky represent Orion as a giant. Even the Twins are supposed to be gigantic. The serpent was so large as to stretch across the northern sky from east to west. And the

Chinese also represent their god as a great giant, who lived in a cave. There are pictures representing him hammering out from the mountain the world, which was to be peopled afterward.

On the American continent, we find that the story of the giants follows the story of the Creation and the Deluge, even the story of the two brothers, exactly as they are contained in the Scripture record, but clothed with the imagery which is drawn from the scenery. We have also the symbol of the tree and serpent, and many other symbols which represent light and darkness, winds and water, and many supernatural beings, who dwelt above the earth when it was covered with water. Ataensic was a god who dwelt above the earth. It was the daughter of Ataensic who gave birth to two sons, which cost the mother her life.

The story of the giants represents the conflict between good and evil, as well as the story of the two brothers, but is clothed with the imagery which was peculiar to American scenery; the symbol of the tree the serpent, the sky, the rainbow, as well as animals such as the turtle and the bird: the objects of Nature, as the light and darkness; the spirits of animals, exactly as they are in certain localities. They are all blended together to make American mythology. These were, perhaps, the result of personification, and were merely mythologic creatures and differed from the giants who are supposed to have been human beings.

There were, however, certain articles among the Indians which resembled those which were common in Bible lands. In each lodge was a bundle of sacred things, which corresponded with the ark which was common among the Children of Israel. It was held in the same estimation by the Pawnees as were the "Penates" of the Ancient Romans. The men of the present era were not the original inhabitants of the earth; they were preceded by a race of giants, who had no respect for the ruler. When the sun arose, or it thundered or rained, they would defy him. At length Tirawa, the chief god, determined to destroy them. He at first shot lightning at them, but the thunder bolt glanced to one side; then he sent a great rain and a deluge upon them to destroy them by drowning. Great fossil bones of mastodons and elephants were said to be the bones of the giants. After the giants had passed away, Tirawa created a new people, a man and woman like those now on earth.

It may be said of all these tribes that they recognized supernatural beings,—animals, as well as men and women. They identified the rocks on the coast of Maine as in the shape of the moose; the rocks of Dakota, as in the shape of serpents. Their gods were oftentimes represented in human shape, at the same time representative of Nature powers. One of them is named Unktaghe. He was the God of Thunder, his tent had four openings, with sentinels at each opening; the butterfly at

the east, the bear at the west, the fawn at the south, and a reindeer at the north. He is represented with arms stretched out on either side and lines falling from the arms to represent the rain; the crooked lines which shoot upward symbolized the lightning. High waters and floods were supposed to be caused by this divinity.

The contest between the Good and Evil, the story of the Deluge, the story of the Two Brothers, and the story of the Giants, resembling those contained in the Scriptures, are everywhere found among the American aborigines.

These myths which represent giants are scattered over the entire globe, but the imagery which was connected with them varies according to locality. In the far North, there are forest giants. In the lake region there were two giants, one of which scattered the stones which are found in the channels of the rivers and on the sea coast. Another was transformed by a peculiar process from a demon into a human being. At first, he looked anything but human, for his hands were like the feet of a turtle; his feet like those of a bear; his hair resembled serpents. At his transformation, seven chiefs took thirteen wampum belts to his house and began to sing songs. At the first song his attention was gained; at the second, his feet became natural; at the third, his hands came into shape; at the fourth, the snakes were brushed away from his head; at the fifth, that which was many fathoms long was brought into length; at the sixth, the mind, which was not that of a human being, was reconstructed by a song.

VI As to the location of the Garden of Eden, there are many records which have come to us from the ruined cities of Babylonia which are very valuable. These consist of the cuneiform tablets which have been recently discovered, which confirm the traditional view and supplement the mythologies which have come down to us from the ancient nations, and have been repeated by the classic writers of Greece and Rome. The cuneiform tablets assert that "before the gods had emanated from the abyss, the herbs were ungrown and plants were ungathered"; and the first chapter of Genesis declares that every plant of the field was made in the earth, and every herb as it grew, for it was by the word that these were created. The Tel-el-Amarna tablets have shown how it was possible that a word which signified god could come to designate the one supreme deity. The Babylonian kings were deified by their subjects, but the local Baalim were regarded as so many forms of one and the same deity.

As to the abode of God, the Bible represents it as in the heavens, not upon the earth, but the pagans represented the abode of their gods as upon the mountains, and so upon the earth, and yet above it. This was the conception of the Hindus and Greeks, and to a certain degree even the Egyptians and Babylonians, whose homes were in the valleys rather than upon

the mountains. There are passages in the Babylonian epic, or story of creation, which represent the house of the gods as in a glorious place, on high, which corresponds in a degree with the ideas which we ourselves have. The language is as follows: "A plant had not been brought forth, a brick had not been made, or a beam formed, a city had not been constructed. Nippur had not been built. The deep had not appeared, but Eridu made the gods and the spirits of the earth together." Marduk bound together Ahriman before the water appeared. He made the beasts of the field, lands and marshes, the he-goat, the sheep, the locust, the gazelle, the meadows and the forests. The first man was made. He was made the son of Ea.

In this respect the Babylonian story of the creation of the heavens and the earth is but a preparation for the story of the Garden of Eden, exactly as in the Bible, for the first chapter of Genesis describes the Creation. The second chapter of Genesis contains the description of the Garden of Eden, but with an introduction which refers to the seventh day, the day in which God rested from His work of creation. The second chapter should properly have begun with the fourth verse, for the title and general summary is given in it: "These are the generations of the heaven and the earth when they were created, in the day when the Lord God made the heavens and the earth." The creation of man took place before the Garden of Eden was prepared, and after the garden was planted, man was placed in it. In this respect Genesis and geology agree. The creation of man was different from the planting of the Garden of Eden, and different from the Tree, which was pleasant to the sight and good for food, and especially different from the Tree of Life in the midst and the Tree of Knowledge of Good and Evil. The perpetual verdure, beauty and vigor and fertility of the plants are fully described, but the Tree of Life was distinguished from all other plants and trees. A further description of the garden is given, but it is one that would apply to a wide district or country, with its rivers and its mines and its natural products, as distinguished from a garden which is surrounded by a fence, and with a gate for entrance. In other words, the description is one that embraces a wide region with four rivers flowing through it, and all the variety of trees and plants, and even animals.

The word "garden," is generally used to signify: first, a protected region; second, a region, a tract of country, a delightful spot; and third, a piece of ground appropriated to the cultivation of herbs or plants. Either of these definitions would apply to the region which tradition has fixed upon as being in the valley of the Tigris and Euphrates, rather than in any other spot; a region in which are rivers which were well known, and in which were plants and trees and verdure of all kinds, and around which were the mountains, which served in a degree for protection. A river went out of Eden to water the ground

and was parted into four heads. Eden was so large a tract of country that the river, or rivers, flowed out of it, which in their course ran through the Paradisaic enclosure.

VII. The following comes from the mythology of Scandinavia: The ash is the greatest and best of all trees; its branches spread over the whole world and even reach above heaven; it has three roots very wide asunder. Under the root that stretches out towards the Frost Giants is Mimers' Well, in which wisdom and wit lie hidden. A third root is in heaven. Underneath it is the holy Urdar Fount. It is here that the gods sit in judgment.

This reminds us of the story of the tree in the Garden of Eden. It is followed by the story of Baldur, who is said to be the best, and all mankind are loud in his praise. The sons of Bor believed that they were gods. They took the body of Ymer and carried it into the midst of Ginungagap, and made of him the earth; of his blood they made the seas and lakes; of his flesh, the earth; of his bones, the rocks; of his teeth, the stones and pebbles; of his blood they made the ocean. They made the ocean as a ring without the land; they took the skull of Ymer and made of it the sky, and raised it over the earth's four sides, at each corner they set a dwarf, which represented the points of the compass—the east, west, north and south. They gave resting places to all fires, and set some of them in heaven. They used the giant's eyebrows as a defense against the giant races, they took his brains and cast them into the air and made clouds from them. As the sons of Bor went along the sea strand they found two trees, they made men of them, gave them spirit and life, reason and power of motion, speech and hearing and eye-sight; and gave them clothes and names. The man they called Ash, and the woman, Embla. This was the golden age, and describes the first creation. The tree figures conspicuously in the picture. There is another deity, whom some call the Culumniator of the Gods, the contriver of all fraud and mischief; his name is Loki.

The beginning of the tale is, that Baldur was one whom neither weapon nor tree could hurt, for all things had taken an oath to spare Baldur. West of Valhalla there grew, however, a little shrub called the mistletoe. This shrub was so humble and insignificant that all the other plants had forgotten it; they had taken counsel together and decided that they would shield Baldur from all kinds of harm, but the mistletoe was left out. It was this humble plant that Loki used as a weapon against Baldur. He persuaded Hoder to take the mistletoe and shoot at Baldur; the dart pierced him and he fell dead to the ground. When Baldur fell, the gods were struck speechless.

The one peculiarity about the myths, is that human beings are mingled with animals and are monstrous in size. In this they differ from the Bible stories, but they remind us of the classic story of the Titans.

The divinities of the civilized tribes in America may be

compared with the giants. The Mexican Quetzalcoatl assumed the human shape, and is supposed to have sat upon a throne. He was the personification of the wind. Tlaloc was the god of rain; lightning and thunder were among his weapons. His character was as fierce as the war god. Children were sacrificed to him. His statues were cut in green stone, the color of water: in one hand was a sceptre, the symbol of lightning; in the other, a thunderbolt. He had crimson teeth; he was a cyclops, and had lost one eye. His offspring were the clouds. His wife was named Chalchihualticue, the soft green jade stone. His priests flung themselves into the ponds, imitating the action and notes of the frog.

The ancient Peruvians had divinities which remind us of the giants. Japanese mythology is full of stories about the giants. The double-headed throne shows, however, that society was further advanced in America, than it was in the far East, at the time giants lived. The throne with two leopard's heads and the figure wearing a necklace of pearls from which is suspended a small medallion containing a small face. Another is a figure of a woman sitting with crossed legs, richly dressed, presenting an offering in which is seen a gorgeous plume. Stevens says this bas-relief was superior to any in Palenque.*

The Sagas of the Scandinavians describe a gigantic race called the Jotuns. When the more enlightened people from Asia, who knew the God of the Universe, and worshipped Him as the All-Father, entered Sweden, there arose between them and the Jotuns a war, which continued for many centuries; and as David slew the giant Goliath, so they overcame these giants of the mountains.

Huldra was a supernatural being that dwelt in the forests and mountains of Norway. She appeared like a beautiful woman. Her song was said to be hollow and mournful, but very fascinating. Thor and Odin, who were the Scandinavian divinities, had to contend with the earliest inhabitants of the land, who were called giants, from their dwelling in mountain caves and dens.

* For further information about the giants in America, see *Prehistoric America*, Vol. V., "Myths and Stories," or "Aboriginal Religions," by Stephen D. Peet.

SOME STRANGE ERRORS IN THE EARLY HISTORY OF NORTH AMERICA.

BY W. D. PROWSE.

We are all agreed that history should be interesting, but above all accurate. It should breathe the very atmosphere of the age it describes. Without the essential element of truth, however, it becomes mere romance and a vain thing. In dealing with the early annals of our continent some American historians have shown a want of perspective, and a lack of that sound historical judgment and moderation which are the most important qualifications for a good historian.

It is mainly owing to this want of sound judgment and moderation that so many blunders have been made about the early history of our continent. Historians are now agreed concerning the discovery of Greenland by the northmen five centuries before Columbus. It is an undoubted historical fact proved by the records and the remains of their buildings on the west coast of Greenland. The only point in dispute is the extent of their discoveries. A glance at the map will show us clearly that, having once reached Greenland, the finding of Labrador and Newfoundland was certain to follow. A northeasterly gale on their frequent voyages between their new home and Iceland would be sure to land them on the Labrador coast, and the finding of Newfoundland would follow as a matter of course. All this is clear, and the best informed and more moderate of American historians admit that beyond this point all is mere conjecture, and the evidence of their further voyages beyond Newfoundland is vague and on the whole negative. Enthusiastic American writers are not satisfied with these plain facts. They have described the voyages of these barbarians as if they went about in fast steamers instead of open row boats. For such frail craft twenty to thirty miles would be a good day's work in the calm summer time. We must bear this in mind when we are discussing their adventures. Out of this enthusiastic desire to extend the northmen's voyages to Boston and Rhode Island some very comical blunders have arisen. I suppose most of my readers may remember the episode of the Norse baptismal chapel at Newport, R. I. How both the Americans and the Danish Society of Northern Antiquaries agreed that this old circular building was an ancient baptismal chapel not later than the fourteenth century, and how it turned out to be an old stone grist mill built by a former governor of the State. The Royal Geographical Society of England made a similar mistake about the remains of old mill stones and coins found in Conception Bay, Newfoundland. I will candidly confess that I was one of those who also believed in the Norse remains. I discovered, however,

later on from the English records that they were the work of John Guy's colonists, and the buildings were destroyed by his enemies, the ship fishermen from Devonshire. So far there has not been found a solitary trace of the northmen's occupation of North America beyond Greenland. All these errors are ludicrous enough, including the so-called Norse writings on the rock, which were clearly shown to be the work of North American aborigines. The crowing absurdity of all that puts all the other blunders into the shade is, however, Professor Horsford's statue of Eric Raude, erected in Boston to commemorate the visit of this interesting barbarian to the Hub. It is comical enough for the cultivated American to set up the monument of a murderer. Our first information about this truculent Norwegian nobleman is that he was banished from his native country for the savage killing of another Jarl.

As fighting and savage frays was the ordinary business of these fierce marauders—duelling an every-day occurrence—we may be sure that there must have been something atrocious about Eric Raude's offense or it would not have received such a severe punishment. The humor of the monument is still further increased when we realize that Eric's visit to Boston is as fabulous as Lucian's trips to the moon. There is not a little of evidence to prove the fact, and there are overwhelming proofs to show that the Northmen never reached the southern mainland of North America (now the United States). On the most southern exploration the Sagas describe their encounter and battle with the skrellings or dwarfs (the savage eskimos in their skin boats). Now all American historians are agreed that there is not a trace of an Eskimo further south than Newfoundland. In confirmation of this view, we may cite the map of the Icelander Stephanius, 1570. It is not exactly contemporary evidence, but it sows Vinland as part of Newfoundland, and proves clearly that Newfoundland was then recognized as the southern limits of the Northmen's explorations in America. Further, the description given to the locality where the encounter with the Eskimos happened, corresponds in every minute particular with St. George's Bay, on the west coast of Newfoundland. The sandy dunes, and the splendid salmon river flowing in at the head of the arm, the profusion of berry bearing shrubs and wild fruit, give a faithful picture of this beautiful country, now so well known to American tourists.

American historians have at last recognized this point. They realize that the presence of the Eskimos puts a complete barrier to their imaginative flight about the Northmen's visits to Cape Cod and their sojourn in Boston. To get over this tremendous difficulty, some recent writers on American history have tried to prove: First, that the Northmen were not acquainted with the Eskimos, and secondly, that these savages in skin boats (all the other aborigines using birch bark canoes) came much further

SOME STRANGE ERRORS

South and frequented the shores of the American Continent. Now, if we consider for a moment the long extent of littoral coast in Greenland traversed by the Northmen, and the wandering habits of the Eskimos on the coast, a meeting between them was inevitable. Not only did the Northmen know them, but they had given them a name, "the Skrellings," or dwarfs with skin boats. They are so described in the Sagas. They must also have met them in their exploration of the Labrador coast. To get over this difficulty about the Eskimos which puts a definite limit to the Northmen's voyages in America, another set of writers declare without the smallest show of authority that the range of the Eskimos extended a long way south of Newfoundland. The whole body of American historical opinion is opposed to this view, and all the evidence is against it.

One of the most absurd blunders about our North American history is concerned with the period from John Cabot's discovery in 1497 to the arrival of Sir Humphrey Gilbert in 1583. In nearly all extant works on this subject it is stated that the English were at this time absent from Newfoundland, the great trans-Atlantic codfishery being carried on entirely by the French, Portuguese and Spaniards. How this ridiculous error crept into history is clear enough. There is no notice of an English fishery in the new island in the current records, or it is only mentioned in such a casual way that the superficial observer fails to understand the facts or to appreciate their importance.

The absence of information about the new island is in all probability due to Henry VIII's fear of offending Spain, who claimed the whole western world, and the King's support of the new enterprise was therefore kept secret. We can see proof of this in the Spanish warning to Henry not to have anything to do with Cabot. Henry, we know, was then intent on an alliance with Ferdinand and Isabella.

The Bristol men who went with Cabot returned to their home port in the beginning of August, 1497. They were interviewed on their arrival by a humorous Italian named Soncino, who has given us an account of their voyage and their views about the new island. "The sea is full of fish," they said, "and we can bring so many fish that the Kingdom will have no more business with Iceland" (then the great resort of the English codfishery), "and that from this country there will be a very great trade in the fish they call stock fish" (dried cod).

Would any man who knows the West Countrymen, and one who appreciates their boldness, their obstinacy and their intense love of money and adventure, believe for one moment that all this was a mere empty boast, that having found this island all their own, a veritable gold mine, they would at once abandon it to the foreigner? Anyone could see that the idea is absurd. When we come to examine the contemporaneous records we can realize

how the business was carried on.

The whole story as revealed to us is really one of the most interesting episodes in Tudor history.

To understand it we must breathe the atmosphere of the time. We must understand the arbitrary tyrannical power of a King like Henry VIII.--

There was absolutely no protection for the subject or his property. The King could take his person or his ships whenever it suited his royal will and pleasure. Under such a state of tyranny the natural course for humble people was to hide their possessions and conceal their treasure.

This is exactly the course taken by the Devon men about the Newfoundland fish and barter trade. The business was immensely profitable. It was not only of fishery, but a great barter trade. The famous Sheffield cutlery, West of England cloth still celebrated, Bridgport cordage, etc., were exchanged for the wine, oils and preserves of Spain and Portugal, for the Lyons velvets, French linen, etc. It was absolutely free trade in the new island without the interference of Kings or Customs Houses. There are several lists of ships made during the reign of Henry VIII. In none of them do the West of England ships appear, although it was then the great maritime center of England. The whole business was a gigantic smuggle, all the country side were engaged in it. How the trade was so cleverly concealed comes out clearly when we examine the records. The Custom House officers of that day (called officers of the Admiralty) were miserably paid. By bribes of money and doles of fish and goods the fishermen kept them silent for fifty years. By the time Edward VI came to the throne (1547) they had grown so strong that they had the brazen audacity to attack their friends, the corrupt officials. A petition was sent to the King complaining of the way the poor toilers of the sea were robbed by these officers of the Admiralty. The result was the act passed in the first year of the young King's rule, setting forth the facts of the Custom House officers taking bribes and doles of fish and inflicting dire penalties on them for such offenses in the future. The trade at last became free of all tolls and dues. It had become in Raleigh's words the mainstay of the western countries. There are abundant proofs of its existence. An act of Henry VIII which has escaped the notice of historians mentions the English Newfoundland fishery. There was an immense increase in the dried cod brought into England, whilst the Iceland fishery in which the West of England had been leaders practically ceased to exist in Devon, Somerset, etc. We have also the notice of English lack ships. Fish carriers to Spain and the little fishing vessels were quite unable to transport all their fish to market. In this brief paper I cannot bring forward all the proof for my statement, but I can say that all the best English authorities on the Tudor Age are agreed that I have proved my case about the early

trade of Newfoundland.

To fully appreciate my case requires in the first place a full understanding and comprehension of the Tudor Age and its rulers, and secondly, the character of the daring West countrymen. Only a mere handful, not more than fifty small ships, they ruled the big fleet of foreigners in Newfoundland and levied contributions from them with as absolute authority as Bluff King Hal ruled England. An old Tudor writer mentions this rule of the English fishermen as the regular and natural order of things in the new isle. Old Anthony Packhurst, 1578, after describing the great fleet of foreigners, over 330 ships and of much larger tonnage than the little English boats, says: "Nevertheless the English are commonly lords of the harbor where they fish and use all strangers' help in fishing it need require, *according to an old custom of the country making all foreigners supply boat loads of salt, etc., in return for protection from pirates.*" It struck me at once how could this be an ancient custom if the English were not present in Newfoundland all this time.

THE OLDEST BOOK IN THE WORLD

BY A. H. SAYCE

"Prisse Papyrus" of the eleventh dynasty, which is the oldest book in the world, was written in the reign of King Seankhara, who lived about twenty-five hundred years before Christ. The characters that appear in this book are pronounced by the highest of philologist authority to be prototypes of the letters afterward copied by the Greeks from the Phœnicians and by them transmitted to the Latins. Thus Egypt is not only the cradle of the alphabet, but may be considered the mother of literature.

The records upon the tombs and monuments, beginning with Mena, the King of Egypt, who founded Memphis and built one of the great pyramids 6,300 years ago, show that the people were seldom governed by a man of their own race. Egyptian history for nearly 5,000 years tells of a series of conquests by aliens who ruled the country for centuries at a time until they in turn were overcome and driven out by other invaders—Semetic, Ethiopian, Assyrian, Persian, Greek, Macedonian, Roman, Saracen and Turkish. There is scarcely a representative of the Egyptian race in all of the long list that has been preserved to us. Nevertheless, during all those cycles of foreign domination the people have preserved their individuality and racial features, their peculiar customs and other national characteristics—an ethnographical, ethnological phenomenon that is equally marked with the Jews.

The story of Egypt, as written in hieroglyphics upon the walls of monuments, palaces and tombs, is not open to dispute. The kings who built the pyramids erected monuments that cannot perish and have not been removed. There is, however, a difference of opinion as to exact dates, caused by variations of interpreta-

tion. Some scholars claim that King Menes reigned 5,867 years before Christ, which would be nearly 8,000 years from now, but others bring the date down to 4,400 years B. C. Taking the latter estimate as accurate, we have at Sakara, twelve miles from Cairo and nine miles from the great pyramid of Cheops and the Sphinx, in what is known as "the Step Pyramid," near the ruins of the ancient City of Memphis, the oldest structure of human hands. That we know because of inscriptions of which there is no doubt. It was built by King Tchesor of the third dynasty in the year 3900 B. C.

ANCIENT PHOENICIAN BOWLS.

In the museums of London and Paris may be seen a number of bronze and silver-gilt bowls, chased and embossed with delicate



and intricate decorations. One of the most famous was found at Palestrina, not far from Rome, and is preserved in the Etruscan museum of the Vatican. The center figure is an Egyptian scene, as manifest by the face and hair. A frieze of horses in motion is ranged around the next circle, with the vacant spaces filled in with birds. In the upper part of the picture, starting from a tiny fortress, a king, apparently an Assyrian, goes forth in his chariot to the hunt, driven by an Egyptian charioteer. The king dismounts, and takes aim with a bow at a stag standing on a mound, the stag is slain and falls. Next, in the shade of a palm-tree, the Egyptian is feeding the horses, while the king proceeds to hang up and divide the stag, part for his feast, and part for sacrifice to the gods. We see the king seated before an altar under the

winged disc of the sun-god. In front of the king a hideous ape looks out from a cave in a hillock, watching to slay the pious king unawares. The next scene shows the ape standing upright with a stone in his hand, but the goddess appears from heaven, and catches up king and chariot in her protecting arms. The king returns to earth again, tramples his enemy under foot, and returns in triumph to the palace whence he went forth.

Another bowl said to have been found at Curium, on the south coast of Cyprus, during the excavations made there by General Cesnola, has in the center medallion a scene more obviously Assyrian than any shown by the Palestrian bowl. A winged deity, half god, half monster, contends with a lion. The spaces around are filled by two protecting hawk-shaped genii. The interpretation of this design as a whole is by no means clear. The next circle shows some curious scenes—animal contests, a lion trampling a hunter, men come to his rescue, one with a bow, another thrusts a spear into the lion's mouth, etc. A king, bearing on his head a symbolic crown, manifestly Egyptian, is slaying his foes; he grasps them by the hair, he kills them literally at a blow; beside him stands a hawk-headed sun-deity, Ra, with the solar disc on his head. At intervals along the bowl are formal designs like trees with monsters planted heraldically on either side. A fusion a king from Assyria, a charioteer from Egypt, and an ape from Africa? Why was the cup found in Italy? Why do its designs reappear on pottery that is Hellenic? And lastly, how came the Curium bowl so far from the land which created the art it represents?

glance at the Assyrian relief shows how oriental they are. These curious bowls suggest several problems: With respect to the preceding one, how came the artist to combine in such strange con-

THE NAMES OF THE STATES.*

BY ANNABELLA STANFORD.

When the Congress of 1784 assembled, Virginia ceded to the United States the Northwest Territory. The district lying north of the forty-fifth parallel, and between that and the Lake of the Woods, comprising that portion of Minnesota and Wisconsin north of the latitude of St. Paul, was to be called Sylvania. That from the forty-fourth to the forty-fifth parallels, and west of Lake Michigan, in or near which are now situated Oshkosh, Eau Claire, Winona, and other important towns, was named Michigan. The peninsula of what is the present state of Michigan was given the name of Chersonesus.

A fourth district, comprising a part each of northern Indiana, Illinois and Iowa, extending indefinitely to the west, was designated Assenisipia, while south of that the valley of the Illinois River and a large but ill defined extent of country east was to be Illinois; and to Northern and Central Indiana and Northern Ohio was assigned the name of Metropotamia. A territory com-

prising portions of Central Ohio and Indiana was designated Saratoga, and to the remainder of Ohio, that part adjoining Pennsylvania, the name of Washington was bestowed.

The lower end of Illinois and the western tip of Kentucky, comprising the territory surrounding the junctions of the Wabash, Cumberland, Tennessee, and Ohio, was marked off as Polypotamia, and an indefinite district to the east of this, lying along the Ohio River, was called Pelisipia.

Of the names suggested, two in a modified form, Michigan and Illinois, remain; the romantic Sylvania was never adopted; Chersonesus and Metropotamia were rejected as savoring too much of Europe; the name of Saratoga came near adoption in memory of the famous victory; Polypotamia and Pelisipia were dismissed from consideration as fanciful and inappropriate; and the personal opponents of Washington succeeded in preventing the use of his name at that time, and many years elapsed ere it was revived, first as proposed for Minnesota, then adopted in the far West.

New York indicated a personal compliment to the Duke of York, who converted the Dutch colony into an English possession; but by the change of ownership we missed New Amsterdam. New Jersey, too, savors of the personal. The Dutch called it New Sweden; but after the English conquest Nova Cæsarea was the ponderous name with which it was loaded by command of Charles II., for Carteret valiantly held the channel island of Cæsarea for the King against the Parliament. Most of the inhabitants of this island would not even then have recognized it by its official title; for after struggling with the Latin name for two or three hundred years they finally determined that the easiest way to pronounce it was Jersey; so Jersey it became, and, when the name crossed the Atlantic with a prefix, Jersey it remained.

New Hampshire was first called Laconia, or Lacedæmon, a scholar among the New Englanders remembering that the Peloponnesus, the home of the Spartans and Argives, was mountainous; so was a portion of New Hampshire, hence the propriety of the name. John Mason, however, who held a patent for the district, called it New Hampshire after his native country in England, and then the name Laconia was transferred to the hilly district surrounding Lake Champlain.

We missed another picturesque name on account of the desire of Charles I. to pay a personal compliment to Queen Henrietta Maria. When Lord Baltimore drew up the papers for patent for the new colony, he called it Crescentia; but the King insisted that it should be Terra Mariæ (Mary's Land), and Maryland instead of Crescentia it has remained. There was some talk of calling it Terra Henriettæ.

William Penn's intention was to call his colony New Wales, it was said, on account of his friendship for several Welsh gentlemen, and his desire to pay them a compliment. However, he

changed the name to Sylvania, and the prefix was added to distinguish his Sylvania from another proposed Sylvania in North Carolina and Tennessee.

When West Virginia was separated from the older State in 1863, there was a spirited discussion in Congress regarding the name. Kanawha was the favorite, and would have been adopted but for the fact that the people of the new State did not care to give up a name that had come down to them from colonial times; so West Virginia was chosen. There had always been a distinction made by the Virginians themselves between that portion of their State lying east and that to the west of the Blue Ridge. The East Virginians were the aristocrats, and regarded the mountaineers to the west as little better than savages. The West Virginians were poor, there were few towns of importance in their section of the State, the cabins in which they lived were on small holdings, widely separated, and trails, unworthy of the name of roads, were rough and rocky, the mountain districts being almost inaccessible during the inclement season. But the mountaineers had a sturdy independence. Like their neighbors east of the Ridge, they were proud of being Virginians, and almost unanimously rejected the proposition to convert them into Kanawhans.

When Louisiana Territory was purchased by the United States, there was on the Red River a colony of Acadians, who by one or another means had found their way from the various English colonies, among which they were distributed, to the French province west of the Mississippi, and when Louisiana was admitted as a State a strong argument was made in favor of Acadie or Acadia as a name for the new State.

The Mormons desired to call their territory Deseret. The name was that given by them to their original colony. The word is said to signify "honey bee," and was a self-complimentary allusion to their own industry in converting the sandy valleys and arid plains of an inhospitable region into fertile farms and pastures green.

When the territory of Minnesota applied for admission, several names were suggested, among them being Itasca, Chippeway, Jackson and Washington. Nevada narrowly escaped the name of Sierra Nevada (snowy mountains), that bestowed on its most prominent range to the west of the State line, and borrowed from the name of a similar range running through Andalusia south of Granada. After the purchase of Alaska, several names were suggested for the new possession, among them Walrussia, American Siberia, Zero Islands and Polario. The name now used was proposed by Charles Sumner, who stated it to be that bestowed by the Indians themselves and given to Captain Cook with the information that it signified "The Great Land."

The original name of Arizona was Arizuma, a Zuni word sig-

nifying "silver bearing," and presumably referring to the mines worked for their precious metal even before the discovery of America.

Colorado, as everyone knows, was named from its great river, and the name of this is a Spanish word signifying "ruddy," for the stream, ordinarily clear, becomes at flood seasons of a ruddy color tinted by the clay it bears along; but the State narrowly escaped the name of Coronado, that of the famous Spanish explorer who traversed, or is supposed to have traversed, a portion of its territory.

Several names were suggested for the Territory of Idaho, that finally selected being given the preference, not only on account of its euphony, but because of its poetic significance. It is a Nez Perce word signifying the "silver gleam on the mountains."

A recent illustration of a lost name is Sequoia, strongly favored by a large portion of the population of Indian Territory, and but for the union with Oklahoma the name of the inventor of the Cherokee alphabet would probably be now included in our list of States.

A TABLET FROM BABYLONIA.

Rev. R. W. Miller, of Chicago, has brought back from his travels in the East a brick from the palace of Nebuchadnezzar in Babylon.

The tablet, which is 2,500 years old, is thirteen inches long, three inches thick and weighs thirty pounds. The brick bears a stamp in the ancient cuneiform script as follows:

"Nebuchadnezzar, King of Babylon; restorer of Azida and Esaglia, first born son of Nobopolassar." The brick was taken from the ruins of the palace which are being excavated by the noted German archaeologist, Dr. Keldeway, who has been at work there with a force of 200 men for eight years.

Mr. Miller said that Jerusalem is now undergoing a building boom. There is a trolley line in process of construction at Damascus, and there are other small signs of the awakening of the East.

THE IBERIAN RACE.

BY HENRY PROCTOR.

They were spread through Spain as far south as the Pillars of Hercules and as far to the northeast as Germany and Denmark. The skulls from Basque cemeteries possess exactly the same characteristics as those from Neolithic tombs and caves, and there is no doubt that the Neolithic inhabitants of Britain belonged to the same non-Aryan race as the Basques—a race which formerly inhabited the whole of Europe until displaced by the present Aryan populations.

This is further demonstrated by the fact that when the Romans invaded Britain they found in it two races of men physically very distinct. There were the Turanian Silures which are identified with the Iberians, and the Aryan Celts. The first were of feeble build, short stature, long skulls and dark complexion, who buried their dead in long barrows or mounds, with interior chambers or passages; some as much as forty feet long. In these are found no trace of metal and but little pottery.

The Silures were the builders of the cromlechs, dolmens and other megalithic structures, so common in various parts of the old continent. Their type survives to-day in the small, dark people of parts of Wales, of the south and west of Ireland and the Hebrides.

The Celts on the other hand were tall and muscular, and of light hair and complexion, and were the builders of the round barrows. Their language was of the Aryan family, while that of the Silures was of the Turanian.

We have said that Australia formed part of the lost continent of Lemuria.

The proof of this fact is found in the character of its fauna, which differs but little from that of the Early Eocene. For nearly all the animals of Australia are pouched as *all* of the animals of the Early Eocene were, and it was during the Eocene period that the placental mammals (allied to existing forms) made their first appearance. Australia therefore did not form part of the continent of Atlantis on which the remains of placental mammals are found, but of a continent which must have been submerged during the Eocene period before the placental mammals had made their appearance. We also find there the nearest approach to a missing link that is found anywhere. It has the body of a mole, the bill of a duck, and it is the only known animal which lays eggs, so that it possesses characteristics of bird, reptile and mammal. So that we have in Australia probably the oldest forms of animal life now existing on the earth, and possibly the most primitive kind of man, as they are certainly among the lowest and least advanced in civilization. Nevertheless they had one invention which was totally unknown in any other part of the

world, namely, the boomerang, a weapon which returns to the sender.

The inventions of the savage races as a rule present a dead-level of sameness, but the fact that this unique invention was totally unknown elsewhere when Australia was discovered, goes to prove that the Australian race was indigenous to the soil, and has survived together with his country from the Tertiary period. The Miocene or Mid-tertiary man, according to La Beauce, already knew the use of fire, and worked flint. However rough and rudimentary his instruments may have been, he had even then an industry, and according to all appearance fed partly upon cooked food. He possessed scrapers for preparing skins, and awls which perhaps served as needles.

Of Quaternary man we have more precise information than we have concerning many existing races. We have more than forty different skulls from as many different places, especially in Western Europe. He was the contemporary of the mammoth, the woolly rhinoceros, the cave bear and the cave tiger.

It is easy therefore to discern how all the races which now inhabit the earth have risen successively at different geological epochs. The older races as we see are dying out, and some are swiftly disappearing from the face of the earth, while the later races are increasing by leaps and bounds and filling the face of the world with fruit. This is in the order of providence guiding evolution that the lower races should be gradually displaced or absorbed by the higher. So the red and brown races are dying out. So will the black and yellow races eventually disappear, or become assimilated to the Caucasian, who is now taking possession of their land. Africa, the home of the Negro race, is being overrun and possessed by the white race. The yellow race, although so numerous in China, possesses only a fossilized civilization. They seem incapable of making any great progress, and the inevitable end appears to be the division of their land among the Great Powers. To the decadence of the yellow race, Japan is the only exception, and this nation may be the very latest offshoot of the Turanian race. For each of the five root-races are five branches, or sub-races, and it is the destiny of each sub-race to succeed and supplant the previous sub-races. This is illustrated in regard to the Aryan race. The Hindoo is of the Aryan race, just as much as the Anglo-Saxon, who now dominates his immense dominions. But the Hindoo is of the *first* sub-race, and the Anglo-Saxon of the *fifth* sub-race. What is true of the root-race is true also of each sub-race, viz., that it rises by degrees to the zenith of its power and glory and then declines before the later race, which makes greater progress and reaches a higher state of civilization. The mixture of races tends to produce new and higher races, as Martin de Moussy says of Brazil, that "mixed races of every origin increase and form a new population, always becoming more similar to the white type, which, according to

what takes place in the whole of South America, will in the end absorb all the rest," and from the fusion of existing races a sixth root-race will be formed possessing a sixth sense, and becoming as much superior to the present races as man is now to the lower animals—a God-like race, worthy to have dominion of the whole creation.

Dr. Tafel, a German explorer, has succeeded in obtaining an audience with the Dalai Lama at a monastery of Gombum, near the Chinese town of Siningfu. The Dalai Lama received Dr. Tafel in the largest chamber of the monastery, a low roofed room containing many pillars draped in cloth. The Dalai sat on a stool forty inches high. He is described as a dark little man, slightly built, with Tibetan features, dark eyes, a thick black mustache, and covered with pock marks. He wore a priest's robe and a richly embroidered undergarment. The explorer received a present of a scarf for good luck, which was woven of silk and wool. A grotesque ceremony was the examining of candidates for the priesthood. There were three candidates, and one hundred priests were present as spectators. Priests and candidates prostrated themselves on the ground face downward and lay thus before the Dalai Lama throughout the examination. The Dalai paced up and down and put questions to the prostrate candidates. When a candidate gave an unsatisfactory answer the Dalai Lama placed his right hand on the offender's mouth and held it tightly. When Dr. Tafel prostrated himself before the Dalai Lama on taking leave the latter appeared pleased with the respect shown him, and he touched the explorer's head with his right hand.

Consul William C. Magelssen, writing from Bagdad, in Asiatic Turkey, calls attention to a vast irrigation programme in that arid country and to the present demand for pumping plants. He says: "In ancient times, when the whole of Babylonian Mesopotamia and the greater portion of the country lying between the Tigris River and the mountains of Persia and Kurdistan were artificially irrigated, these parts held the principal granaries of the world. The luxurious growth of grain upon these alluvial flats excited the wonder of the Greek travellers who visited the East and, according to Herodotus, the soil yielded commonly two hundred fold and sometimes three hundred fold. Herodotus would not tell the whole truth for fear that his veracity might be doubted. When the Chaldeans peopled the delta of the Tigris and the Euphrates they constructed vast irrigation works, which turned the whole land from a desolate waste into one huge garden. The whole plain was studded with prosperous and populous cities, set in the midst of engirdling areas under wheat; for it is from this region that wheat, at first found in a wild and uncultivated state, was

taken and gradually transplanted all over the world. In those days the land was protected against the inundations of the rivers and watered in seasons of drought by a stupendous system of dikes and canals, which at the present day, in a ruined and sand-choked condition, cover like a network the face of the country. Once the crown of the possessions of the powers which swayed the East, it is now a barren waste. The irrigation works of the ancients perished because the country was so torn asunder by strife that they ceased to keep them in repair. The scene of the sudden destruction which overwhelmed the cities of the plain is still visible. The River Tigris burst its bonds and temporarily engulfed a great area, and from that day to this desolation reigns supreme around ancient Opis."

Professor Ronald M. Burrows, in a recent report on the excavations in Crete, describes the uncovering of the Palace of the Minoan kings at Knossos. Here is a specimen of what he has to say about the finds of the excavators: "Besides the Throne and the Cupbearer, there were the long corridors, with the rows and rows of huge Aladdin's jars, twenty in a single storeroom, many of them still standing in position and intact, as when once they held the oil or wine of King Minos. On the walls were frescoes of 'his minions and his dames,' in garden or on balcony 'viewing the games'; The men close-shaven and with flowing hair, the women with puffed sleeves and flounced skirts, *frisées et décolletées*, altogether ladies of fashion and the Court, of whom the French savant might well exclaim, 'Mais ce sont des Parisiennes.'"

In the winter of 1905 M. Jean Capart purchased in Egypt some fragments of a decorated funerary chamber of the period of the Sixth Dynasty and in due course they were incorporated, as the gift of Madame Errera of Brussels, the Egyptian collection of the *Musées Royaux du Cinquantenaire*, where they are now preserved. Egyptologists will now be interested to hear that M. Capart has now issued a monograph upon his find, entitled *Chambre Funéraire de la Sixième Dynastie*. The chamber belonged to the tomb of an official named Maru-Bebi, who lived in the time of Mer-en-Ra, that is to say, towards the end of the Sixth Dynasty, about 3500 B. C., according to the current chronology, or about 2500 B. C. according to Meyer's chronological system. The deceased describes himself as a friend of the king, superintendent of the royal forests, and scribe of the royal boat. The chamber is a fine specimen of its class, of which there are not many examples in the Cairo Museum or in the Museums of Europe. Brussels is therefore to be congratulated on having obtained this example through the generosity of Madame Errera

and the energy of M. Capart. His description of the monument makes a very attractive volume, and special mention must be made of the five photographic plates included, which give excellent reproductions of the walls of the chamber.

The second volume of the "Catalogue of Hebrew Manuscripts in the Bodleian Library" (Oxford: Clarendon Press), by Adolph Neubauer and Arthur Ernest Cowley, contains the additions to the collection since 1886, including the great mass of fragments from the Geniza of the old synagogue in Cairo. The work was begun by Dr. Neubauer, the editor of the former volume of the Catalogue, and, after the failure of his health, was completed by Mr. Cowley. The whole number of manuscripts described in the volume is 316, of which 166 (containing 2,675 pieces) are from Cairo. The identification and detailed description of these mutilated and often half-obliterated fragments have been the chief task of the cataloguer, which has been fulfilled with unsparing pains. Full indexes do all that can be done to help the student find what he is seeking in this mass of material.

In the *Journal of the American Oriental Society*, xxviii, pp. 176-189, M. Jastrow, Jr., discusses the question of the existence of Babylonian temple libraries. Three important mounds have thus far been pretty thoroughly explored; namely Tellah, Abu Habba, and Nippur; and a fourth site, Babylon, has been under investigation since 1899. In none of these mounds has anything that can properly be called a temple library been discovered. All that has been found in connection with the temple has been either records connected with the temple administration, or business documents of a private character, stored there for safety, or tablets for use in the temple schools. Among the latter, mythological and ritual texts, which served as writing exercises for the children, have occasionally been discovered, but nothing which indicates the preservation of literature in the narrower sense. The Babylonian temples were halls of record rather than libraries, and the only library which has yet been discovered is that found in the palace of Assurbanipal at Ninevah.

The Rhind Lectures in Archæology, which Professor Sayce delivered at Edinburgh last winter, have now been issued in volume form under the title "The Archæology of the Cuneiform Inscriptions." The lectures themselves take up six chapters of the book, and an essay on Canaan in the century before the Exodus, contributed in 1905 to the *Contemporary Review*, has been added as a seventh chapter. Prof. Sayce claims that his book represents a first attempt to deal with the archæology of cuneiform decipherment, and it is certainly true that, while we

have abundance of epigraphic material for study, our archaeological knowledge of Babylonia and Assyria is miserably defective. His volume deals in turn with the decipherment of the cuneiform inscriptions; the archaeological materials for study, with special reference to the excavations at Susa, and our knowledge of the origin of bronze; the Sumerians; the relation of Babylonian to Egyptian civilization; Babylonia and Palestine; Asia Minor, and early Canaan.

In the *Ephemeris für Semitische Epigraphik*, Vol ii, pp. 125-139, M. Lidzbarski discusses the origin of the names of the letters of the Semitic alphabet, and comes to the conclusion that these names are of genuine Semitic origin and that the alphabet must have been invented by a Semitic people. It is possible, however, that it is based upon some foreign phonetic or acrophonic system. This may have been one of the varieties that have lately been discovered in the eastern Mediterranean. It is impossible that the Greek alphabet was original, and that the Semitic was borrowed from it. In *Hermes*, Vol. xli, pp. 540-561, A. Gercke discusses the origin and development of the Greek alphabet. After considering many details, he concludes that the supplementary signs were developed before the foundation of Cumae (ca 730 B. C.), and that the origin of the Greek alphabet cannot be placed later than the beginning of the ninth century, as the Lycian and Carian alphabets, which imply the Greek, originated before the end of that century. In any case the invention of the alphabet is far later than the Dorian occupation of the islands.

Classical Philology for July, has an article by Prof. Edgar J. Goodspeed, on "Field Museum Inscriptions." Says Prof. Goodspeed: "The Field Columbian Museum has recently received from Mr. S. L. James, of Chicago, a collection of Egyptian antiquities (Accession 955). These objects were secured by Mr. James's father in the course of a visit to Egypt made some years ago, and were sent by him to Chicago, where they remained stored away until his death in 1903, when his heirs turned them over to the Field Museum. From certain tickets and papers accompanying the collection it appears that it was formerly located at Sidi Gaber, between Alexandria and Ramleh, where it was exhibited in connection with a reputed Tomb of Cleopatra. Doubtless some woman of that name was buried there . . . The chief treasure of the collection is a superb stone sarcophagus of the first century after Christ. Among the objects included in the collection three or four are of interest for Greek and Latin epigraphy."

ORIENTAL DEPARTMENT

BY DR. C H. S. DAVIS
MERIDEN, CONN.

The New York Museum of Natural History has recently received a collection of some of the rarest fossils ever brought to this country from Northern Egypt. The museum will now have the largest and most complete collections of fossils in the world. The exploring party left New York on January 5, under the direction of Prof. H. F. Osborne, vice-president of the museum, and Walter Granger. Arrived in Cairo a month later, the explorers engaged twenty Egyptians to assist them, and the next day the expedition started for the Fayum Desert seventy miles away, arriving there on February 19. Professor Osborne outlined the work for his men and stayed there a month and then left his assistants to complete the exploring while he came to New York. Mr. Granger and Mr. Olsen then explored the desert until May 27, when having completed the collection they started for home. The collection was put into twenty-seven packing cases and shipped on a freight steamer.

The main object of the expedition was to seek the ancestor of the elephant. A very important find was that of the ancestral elephant known as the *Palaeomastodon*. The skeleton is not complete, but the skull, the lower jaw, leg and feet bones and several vertebrae were found. A thorough search was made for the missing bones, but with no success. According to Mr. Granger this animal dates back more than a million years. Another important fossil found was that of a skull of an *Arsinoitherium*, which takes its name from Queen Arsinoe, who reigned 316 B. C. The skull, which is very rare, is the only one in this country, and there are only two in the world. They are in European museums. The bones of the body and legs of this animal have never been found. Among other fossils in the collection are the bones of the Ungulates and Rodents. It is the first time that the fossil rodent was ever found in Egypt, but many have been found in other parts of Africa. Several skulls of the ancient crocodiles were found, their heads being from three to four feet long. Judging from the size of the skulls, according to Mr. Granger, the bodies must have been from twenty to twenty-five feet long. Speaking of the ages of the fossils, Mr. Granger said geologists hold that where the bones of animals are not complete and cannot be made complete they must have lived two million years ago.

Says Mr. Granger: "Seeking the ancestor of the elephant is a hard task. With the mammals a wonderful change takes place

Egypt from the foundation of its monarchy, the greatest city of the most ancient culture on the Mediterranean. The splendor of its four great temples, even in their decadence, struck the Greeks with awe. The sites of those temples lie plainly before us amid the ruins of the city, and we can begin directly to uncover them, and to trace their long history of six thousand years, without needing any preliminary research. We appeal in the interests of art, as the Memphite school was the finest known; in the interests of Mediterranean history, as the foreign quarter was the emporium of the ancient world; in the interest of archæology, as this city was the richest and oldest in the land.

Y. L. Heiberg, professor of philology in the University of Copenhagen, made an important discovery at the Convent of the Holy Grave at Constantinople a few weeks ago. While studying old manuscripts at the convent he discovered a number of palimpsests, which, in addition to prayers and psalms of the twelfth century, contained copies of works by Archimedes, the Greek mathematician, who was born about 287 B. C. The manuscript was a copy made about the year 900 by a monk and afterward conveyed to Constantinople. The Turkish authorities would not permit Professor Heiberg to remove the manuscript. He was permitted, however, to make a copy of it, and this will soon be published.

The Paris Academy of Inscriptions and Belles Lettres publishes a description of the inscribed stones recently unearthed beneath the Villa Sciarra, on the eastern slope of the Janicule, in front of the Aventinus at Rome, in course of the construction upon that site of the new residence for Mr. and Mrs. George W. Wurtz, of New York. The stones enable archæologists definitely to settle several disputed points in classical topography. Among the excavations is a marble altar, decorated with marks of satyrs, birds and bucranii, bearing an inscription in Greek showing it to be dedicated, by command, to the goddess Artemis, to Kupris the Sidonian Venus, and to the Nymphs Furrines. The Academy of Inscriptions regrets that, owing to the absence of Mr. Wurtz from Rome, the excavations, promising considerable archæological interest, were not made before his new house was built, thereby closing them up under solid masonry.

In anticipation of the fact that the temples of Philæ and other Egyptian remains on that island of the Nile just above the Assouan Dam will be obliterated owing to the contemplated elevation of the dam, Dr. Reisner, who has been in charge of the German excavation works at the Pyramids for some time, has been commissioned by the Egyptian Government to collect all

the data concerning the ruins of Philae, transport to Cairo all movable objects, and make complete architectural and artist drawings of the monuments as they now are. The work will be begun in September and Egyptologists may, therefore, rest assured that, if the temples of Philae are never again to rise above the waters of the Nile, they will, at least, have complete records and views concerning them.

Word has been received from Dr. M. A. Stein, who is engaged in archæological investigations in the Lop or Tarim basin of Chinese Turkestan, where he has carried on excavations at four chief sites. At the most western of the sites, Dr. Stein cleared nearly thirty dwellings in addition to those he investigated in 1901. Large numbers of wooden tablets were found in the Kharosthi script peculiar to the extreme northwest of India not far from the beginning of our era, and introduced thence, apparently, into Chinese Turkestan. Sanskrit documents were also obtained, together with Greco-Roman intaglios and Chinese seals, showing that influences from far to the south, the west, and the east had penetrated to the very center of Asia seventeen centuries or more ago. Further east at Endereh (Tuholo) Dr. Stein's work brought to light a still further collection of Kharosthi records on wood, which clearly belong to the close of the third century of our era. At the time of his earlier visit he discoursed epigraphical records in the Tibetan language, dating from the beginning of the eighth century. At the other sites were brought to light Kharosthi documents on wood and numerous paintings and stucco reliefs showing the influence of Indian art on the one hand and of Greco-Roman art on the other. A complete clearing of a large ruined fort brought to light nearly a thousand Tibetan records. Nearly a hundred miles north of Miran, where the above discoveries were made were found the earliest human relics consisting of flints and crude pottery dating from an unknown but very early period. Dr. Stein's investigations, to the old Egyptian palace and the new University of Chicago—a most remarkable coincidence.

The most remarkable feature is a *deeply cut disk* and the *farrows*. Those of the rear hall have disappeared. In the first hall three columns are standing.

An interesting discovery of papyri was recently made at Edfu, Upper Egypt, near the site of an old Coptic monastery, and the parchments have been brought to England, where there is some disposition to regard them as a valuable addition to the "Sayings of Christ" found by Grenfell. At Edfu recently a native accidentally laid bare a small tomb-like receptacle. In this were found a number of parchment manuscripts bound in thick papyrus

covers. The native sold them to an Arab dealer for a few dollars, and the Arab resold them to a Copt for \$2,500. Then the find came into the hands of Mr. De Rustafjaell, a well-known explorer, who brought it to England.

The parchments have already been identified as unique Coptic Greek ecclesiastical manuscripts of the ninth and eleventh centuries of great archæological importance, with about a dozen rolls of sixth century Greek papyri. Among them are twenty-five leaves of apocryphal sayings of Christ in a Coptic translation of the lost Greek original, of which previously only thirteen leaves were known, twelve in the National Gallery in Paris and one at Berlin. The discovery also comprised parts of the Gospels of Matthew, Mark, and Luke in Greek, a Coptic Apocalypse of St. John, a Coptic history of miracles of Cosmos and Damien dated in the sixth century, a sermon by St. Pisenthios in Coptic, and a unique manuscript in the Nubian language dealing with the life of St. Menos and the canons of the Nicæan Council. Only fragments of manuscripts in the Nubian language have been discovered hitherto. There are very few scholars in the language and scarcely any published literature.

Egypt has also yielded another find to Mr. De Rustafjaell's researches. In the desert in Upper Egypt, on the left bank of the Nile, he found among the remains of palæolithic flint factories a number of crude, weather-beaten limestone vessels. He holds them to be of the Palæolithic age. They are certainly older than the Neolithic age, which covered a considerable period in Egypt before the advent of the first dynasty in B. C. 4000.

Prof. Charles Waldstein, who attempted to interest the Italian Government in excavating Herculaneum, has made public the following: When in April, 1904, I had succeeded in gaining the support of the chief Italian authorities for my plan of an international excavation of Herculaneum, in conjunction with and under the direction of the Italian archæologists and under Italian laws, the matter was settled in its first stage by the warm assent of the then Minister of Public Instruction, Signor Orlando. He supplied me with my credentials, which were to show the world that I was acting with the cognizance and the direct encouragement of the Italian Government, by giving me, at my request, the letter which has already been published (see *American Antiquarian*, Jan.-Feb. 1907). In this letter he recognized all the difficulties which lay before me in this *iniziativa mondiale* before I could secure the co-operation of the civilized world for such a colossal and ideal task, and expressed the hope that I should not meet with insuperable difficulties. I therefore began my propaganda for the international enterprise in Europe and the United States, and carried the first stage almost to completion, in

a manner which was as satisfactory to me as it was surprising.

When, however, in January, 1905, from utterances in the Italian press, and from a speech made by Signor Orlando in the Italian Chamber, it became manifest that the Italian Government was no longer prepared to support my scheme wholeheartedly, I wrote as follows in a letter in which I also insisted upon the competence of Italian archaeologists. "Compare," I urged upon the reader, "the appropriations made by the Italian Government for archaeological, scientific, and artistic work with those of our own budget, and our admiration of the Italian sense of intellectuality as a factor of national life may not exclude a sense of shame as regards our own national attitude in such matters." The letter ended with the following passage: "Should the Italian nation object to such international work and excavate Herculaneum themselves I shall not regret the efforts I have made for the wider plan. Herculaneum will be restored to light, which is the most important matter. But at the same time I shall regret that Italy does not also seize this opportunity of making itself the center for a great work in which all civilized nations will unite in harmony on the very soil upon which the essence of their common civilization rests. This would be the type for other similar enterprises in science and art, and would confirm *de facto* what the peace conference and the treaties of arbitration are establishing *de jure*. One thing remains certain, that without the cordial and unqualified assent, nay, the positive encouragement, of the Italian Government, the Italian people, and my Italian conferees, the work on which I am engaged cannot proceed."

What I said then in 1905 was meant in all sincerity and applies to the present moment. Herculaneum must be excavated as soon as possible, because of the quite exceptional character of what we have every reason to expect to find, because of the increased difficulties and cost which every year and every week of delay entail, and because of the advantages to the living and the coming generations which the results will yield and of which they ought not to be deprived. On this all who have any right to an opinion—from Beulé and Gaston Boissier to Reinach and Prof. Dall'Osso of the Museum of Naples, the greatest authority on such matters in the present day—are agreed.

Contents of the *Proceedings* of the Society of Biblical Archaeology, Vol. xxix, Part 5: Barsauma the Naked (con.). W. E. Crum—Hittite Inscriptions: The Method, Verification, and Results of my Decipherment of them. A. H. Sayce—The Exodus of the Hebrews. J. Lieblein—Coptic Bone Figures. C. L. Woolley—Nabu-Shum-Lilur, King of Babylon. L. W. King—A Hammurabi Text from Ashurbanipal's.

A student of Buddhism and a translator of the Pali texts, Mr. Albert J. Edmunds of Philadelphia, says: "The world is beginning to realize the cosmic importance of these texts. The epoch of Gautama (Gotamo) in India was one of the four greatest upheavals in the history of the spirit of man. The other three were the age of Socrates in Athens, of Christ in Capernaum, and the thinkers who engendered the American and French revolutions. It appears that when Buddha was born, the angels were the first to receive him, the mortals afterward.

"When Paul was standing before Nero, Buddhism was officially welcomed into China. Cashmere and Ceylon were the homes of two ancient sects of Buddhists. From the greater part of India all traces of Buddhism, except ruins, have been swept away. The Moslems obliterated the traces of the lost version of the Sutras. The gospels are original documents, deriving their inspiration from the life and words of Jesus. East Indian archæology confirms the trustworthiness of the Pali texts. There is a chain of Greek art reaching all the way from the Adriatic to the Ganges. The coins of all the Roman emperors from Augustus to Hadrian are in the museum at Madras. Christian and Buddhist romances are founded on the facts of ancient life.

Columbus, when he was making his first voyage, which resulted in discovering America, was made aware that he was approaching land by the birds which came flying in the air. Up to that time he had traveled under the guidance of the stars. He was, however, anticipated by the islanders of the Pacific. The Maori tradition is that in the voyage of one of the canoes from Hawaiki to New Zealand the captain liberated two pet birds that they might fly towards the land. The custom prevailed in ancient times, for the Babylonians and the Phoenicians carried pigeons on their voyages in ancient times for the same purpose.

In the Bible we learn that Noah let loose the dove from the ark before he had seen any signs of land, but she returned, and then he waited seven days and loosed another which brought back the olive leaf. After seven more days he sent forth a dove again, which did not return. This shows the extent of the deluge. The raven did not return because it fed upon carrion.

From the brick tablets discovered we learn the Babylonian account of the flood. The good man, named Chasis Adra, saved by the gods, sent forth from a ship for the first time the dove, second a swallow, third a raven, but the raven did not return.

The custom prevails among the Polynesians at the present time. The coincidence confirms the Bible story of the flood in its details.

BOOK REVIEWS

JOUTEL'S JOURNAL OF LASALLE'S LAST VOYAGE, 1684-7, with notes and index by Henry Reed Stiles, M. D., to which is added "A Bibliography of the Discovery of the Mississippi," by Appleton Griffin of the Library of Congress.

Edition limited to 500 copies, 1905. Net \$5.00. Joseph McDonough, Publisher, Albany, N. Y., 1906.

Joutel was familiar with the tragic scenes which occurred just before the death of LaSalle. The fatal error of LaSalle was that he passed by the mouth of the Mississippi River without recognizing it, and spent the last years of his life in almost aimless wanderings through the forests and grassy plains of Texas until nearly all the voyagers who accompanied him in his vast expedition had perished one after the other. It would seem that his followers had become desperate, except the faithful Joutel, who was always loyal to him.

The treacherous Duhaut conspired against him but spared those who were by his side. He fired his piece and shot LaSalle through the head so that he dropped without speaking. The conspirators stripped the body to the shirt and vented their malice in vile language. Even the Sieur Liotot said in scorn several times, "There thou liest, Great Basha." They dragged the body, naked, among the bushes and left it exposed to the ravenous beasts. The murderers returned to the camp where they found Father Anastasius and the brother and the nephew of the commander whom they had murdered and made them acquainted with the tragic end of their chief, but enjoined silence, though they expected every moment to be called to the sacrifice. The murderers seized upon all the effects while the friends of LaSalle were full of fear and made no opposition. Duhaut having all the effects in his possession, gave some axes and knives to the friends of LaSalle so that they could barter for Indian corn and horses. The tribe of Indians called the Cenis were peaceable, so that the followers of LaSalle made their way to the villages and saw the elders coming out to meet them, dressed in goat skins, painted in several colors, belts on their shoulders, plumes and feathers on their heads. They saw several cottages at distances, the field lying about the cottages fit for tillage. They were inhabited not by a private family but by fifteen or twenty, each having a corner, nothing in common but the fire which is in the midst and never goes out. The tillage consists in breaking up the soil with a wooden stick instead of a plow.

The book gives the details of the facts and on this account is

exceedingly valuable.

Mr. McDonough, the publisher, deserves great credit for issuing this volume in such elegant form. It is a delight to read the book, and the engravings representing La Salle, as well as the maps, add great interest to the narrative.

HISTORY OF MEDIEVAL AND OF MODERN CIVILIZATION TO THE END OF THE SEVENTEENTH CENTURY. By Charles Seignobos. Translation edited by James Alton James, Ph. D., Professor of History, Northwestern University. Charles Scribner's Sons: New York; 1907.

This book commences with the invasion of the Germans. They were divided into about forty tribes. Like the Hindoos, Persians, Greeks and Romans, they were a people of the Aryan race, who once dwelt in Asia as shepherds. They had no strong cities, but lived in villages surrounded by stockades. Each family had its house, its field and meadow, but the woods, pasture lands and streams were common property. The warriors thought only of fighting. When not at war they spent the time hunting. They left the care of the houses and fields to their wives. They united themselves to a chief. In the third century federations appeared, called Alemanni, on the Danube; Franks on the Rhine; Saxons between the Rhine and the Elbe. The migrations of the peoples were really invasions. The Huns and Vandals invaded the cities and razed many of them to the ground, so that they were never rebuilt.

After 476 there were no emperors in Rome. Ancient civilization came to an end. The barbarians introduced neither new beliefs nor new inventions. The religion of the Germans was like that of the Romans in that they represented deities under human forms, but the divine family inhabited Walhalla instead of Mount Olympus. In the depths of the earth was Nifheim, the dwelling of Loke. Loke was conquered by Odin, was stretched on three sharp rocks, and resembled Prometheus. The Ash Tree Ygdrazil, which sustains the world, was to be shattered. The Germans had no idols and built no temples. The Visigoths of Spain, the Ostrogoths of Italy, the Burgundians of Gaul, the Vandals of Africa, and the Lombards, were Aryans. The Franks were converted in the sixth century by Benedict, a noble Italian; the monks renounced the world. They wore the robe of rough woolen cloth and the hood of the peasants. They built granaries, tilled the soil, wove garments, copied manuscripts. Their monastery was a model farm, a workshop, a library and a school.

Irish missionaries prevailed, and their land was called the Isle of the Saints. The Irish church was founded by Asiatic Christians. Columba was a saint, but in his day the people adopted the Roman customs. Irish monks began the work of evangeliza-

tion, but Winfred, an Anglo-Saxon, was called the Apostle of the Germans.

This covers only a small part of the history which is embraced in the volume. The main part has to do with the middle ages. The mediæval civilization follows the conversion of the pagans. The period is called the Dark Ages, but it was not so dark as has been represented, for art and architecture both continued, and letters were known to the monks if not to the people. During the middle ages the European merchants went to Syria and Egypt for the merchandise of the Indies. The thought of looking for the route to India by way of the west began to dawn on the people before the time of Columbus.

As a summary, this book is very valuable and will certainly save the reader from wading through the tedious volumes of Gibbons' Rome.

JOURNAL OF THE HOUSE OF BURGESSES OF VIRGINIA, 1766-1769.
 Edited by John Pendleton Kennedy. Richmond, Va.

This is an elegant volume, issued in a limited edition. It contains the Journals of the House of Burgesses for the period stated. It includes the missing journals which were found in the British Record office. The Journal of 1768 was located by B. F. Stevens and Brown. The repeal of the Stamp Act was acceptable in Virginia as a guarantee of the inherent rights of men. A bill was introduced to erect a statue to George III, but he, regarding it as a fatal compliance with the popular demand, repented of his action in repealing the act, and determined to hold absolute authority. Parliament determined to make an example of Massachusetts, but George III promised to extend the jurisdiction of the colony to the Tennessee River. Virginia had no idea of deserting Massachusetts. This is an interesting incident and worthy of commemoration by a volume containing the proclamation and the various enactments.

OUTLINE FOR REVIEW GREEK HISTORY, INCLUDING ORIENTAL NATIONS. ROMAN HISTORY TO THE TIME OF CHARLEMAGNE.
 By Charles Bertram Newton, A. B., and Edwin Bryant Treat, A. M. American Book Company.

These books begin with the pre-historic age and the earliest written history. The stone age and the metal age are pre-historic, but contain the elements of civilization in the most primitive state. The division of the human races has been based upon language, the monosyllabic, agglutinative and inflected indicating the progress towards civilization. The early conditions of the Chinese go back to 3000 B. C., but early traces of the Accadians and Chaldeans go back to 4000 B. C., Egypt to 5000 B. C. The Hebrew history begins much later. The Phœnicians were Se-

mitics. The Roman history began later than the Greek and lasted much longer.

The books are valuable for the summary given, and will prove useful.

THOMSEN, PETER: *LOCA SANCTA*. Vol. I. Verzeichnis der im 1.-6. Jahrhundert nach Christi erwaehnten Ortschaften Palaestinas mit besonderer Beruecksichtigung der Lokalisierung der biblischen Staetten. Vol. I. With a map. Mk. 6.— (\$1.50). Rudolph Haupt, 156 Fifth Ave., N. Y.

The book is the first to offer in form of a lexicon a compilation of all the information on places in Palestine (with the exception of Jerusalem) found in the old writers of the after-biblical time up to the Arabian conquest of Palestine. An astonishing abundance of material has been compiled, and is illustrated by a map. Carefully arranged indexes facilitate the use of the book from all important points of view. Thus the work is to all interested in the holy traditions or in the general utilization of old intelligence on Palestine a reliable guide and source of information.

THE VIRGIN BIRTH OF CHRIST.—Lectures delivered under the auspices of the Bible Teachers' Training School, New York, April, 1907. By James Orr, M. A., D. D., Professor of Apologetics and Systematic Theology in the United Free Church College, Glasgow, Scotland, with appendix, giving opinions of living scholars. Charles Scribner's Sons: New York.

BRITISH NORTH AMERICA. By C. Hill-Tout. Archibald Constable and Co. London.

This book is the first of a series dealing with the uncivilized races of the British Empire. The series is designed for the general reader rather than for the technical student of Anthropology, but a bibliography is placed at the end of each volume for those who desire to follow up the subject.

The life history of the Salish and Déné, as they are found in British North America between the shores of Hudson Bay and the Pacific Ocean, is given in this volume. The author gives credit to Father Morice of the Oblate Mission at Stuart's Lake for much of the information regarding the Déné, and the reader is assured of the accuracy and reliability of what is written. The author has himself been in close and friendly contact with the Salish for the past fifteen years.

The habitat and natural surroundings of these stocks are clearly presented as the background of their life history, the various groups of the two stocks are differentiated, and types and characteristics indicated. Dress and personal adornment, food

and cooking, social organizations and social customs, are interestingly treated. The arts and industries of these stocks show a marked development of skill. The ethical sense is keen, as the precepts of the Salish show. "It is bad to steal," "it is bad to lie," "it is bad to be lazy," "it is bad to commit adultery," etc. In each case the reason follows the precept in the teachings. Selected folk-tales and myths illustrate the general ideas and conceptions of the natives. The final chapter outlines the life of an average native boy and of a native girl from cradle to grave.

POMPEII AS AN ART CITY. By E. V. Mayer. The Langham Series of Art Monographs. Charles Scribner's Sons, 1907.

This primer of sixty-four pages has thirteen full-page halftones, and one wood-cut. The decorative value of walls is illustrated. The middle ages saw walls hung with weapons and armorial bearings. The Gobelins followed these, then comes the modern wall paper. These are contrasted with the walls of Pompeii, which illustrate not only history, but mythology, and classic art. The sculptured columns of the Herculaneum gate, the arches, the colonnade of the Temple of Apollo, and the vestibule of the house of Pansa illustrate another style. The mural decorations and the paintings of Ares and Aphrodite another. And the statue of Narkissos which is represented in the frontispiece, shows the skill in statuary.

THE HISTORY OF CIVILIZATION, which includes a History of Life and a History of Ideas, with more than 550 illustrations. By Julian Laughlin, member of St. Louis Bar. Published by the author. First edition, 1904.

This book is elaborately illustrated. The illustrations represent the early plant life, the animal life, domestic animals, the Australian huts. These are followed by maps showing the migrations of the different races. The pictures following these represent the Asiatics, the Egyptians, the races of India, and the American Indians. The four races of men, the white, brown, black and yellow, are also represented, including Hindus, Arabs, Africans, Mexicans, Syrians. Following these are the instruments, the boomerang, the fire drill. The constellations come next but they seem to be mingled with Architecture, Buildings, Boats and Statuary. The nature divinities are represented on one page and sandals on another. This is followed by the water-clock, and a picture of Apollo and the Nine Muses, and a statue of Father Nile. The paintings of Raphael are also represented. These are followed by the statue of the Venus de Medici as contrasted with one of the most ancient statues from Egypt, and the oldest wooden statue. Pictures of the Trojan war follow, of Pharaoh, of Antio-

chus, and the sacred city of Benares. The illustrations in the latter part of the book represent Nymphs, the Bacchantes, Venus and the Modern Magdalen, which may be contrasted with the portraits of Isaac Newton and Charles Darwin. One of the last pictures is The Temptation of St. Anthony. This is contrasted with Hermes. The book contains 526 pages, nearly everyone of which has at least one illustration. Some have two or three.

HISTORY OF BABYLONIA AND ASSYRIA. Hugo Winckler. Translated by James Alexander Craig. New York: Chas. Scribners' Sons; 1907.

The earliest date of the Babylonian kingdom was about 3000 B. C. The Semitic period began then. The inscriptions of the Kings of Lagash date about this time. Wars were waged with the barbarians on the north. The names of Sargon and Naram Sin are linked with the golden age. The stele of vultures is a relic from this period. Numerous monuments evince technical skill. The first dynasty was Canaanite, and was associated with the god Marduk. The discovery of the Hammurabi code of laws throws light upon this period, for there were fragments of laws which antedated the age of Hammurabi. The Kassites appeared about 1700 B. C., the Elamites about 1000 B. C., the Chaldeans were later. The new Assyrian empire commenced about 745 B. C. A land system prevailed in which the land was divided into small tracts, cultivated by tenants, and irrigated. The story of the Tower of Babel is connected with the Temple of Bel and Merodach. The temples are the most excellent examples of Babylonian architecture. The inscriptions of the oldest period have not appeared in Babylon. In the Mesopotamian period the rule was changed from the Babylonians to the Assyrians. The kings of Mitani are described in the Tel-el-Amarna letters. The second advance of Assyria commenced about 1200 B. C. Tiglath-Pileser lived about 1100 B. C. The decline commenced about the time of Sennacherib's reign. The New Babylonian kingdom commenced about 560 B. C.

The general view of the history of Babylonia given in this book is very instructive, though one who expects to find a description of the earliest period will be somewhat disappointed. The creation myths of Babylonia are the patterns after which the Biblical are composed. The doctrine of a coming deliverer seemed to exist.

BUDDHIST AND CHRISTIAN GOSPELS, AND BUDDHIST TEXTS IN JOHN. By Albert J. Edmunds. Philadelphia.

These pamphlets aim to show the resemblance between the Buddhist Texts and certain passages in the Scriptures, especially

in the New Testament. The resemblances are not so striking as the differences, for the Gospels make known the future life and give a hope to those who accept Christ as a Redeemer. On the other hand the Buddhist teachings are all based on the idea of Nirvana, which is in reality annihilation. In the New Testament we have the gospel of hope, but in Buddhism the abandonment of hope, for there is certainly no hope in Nirvana or annihilation. The moral teachings of Buddhism resemble in some ways those of the Gospels, but the incentives to self-denial and morality are very different in the two systems.

THE BLUE BOOK OF MISSIONS. Compiled by Henry Otis Dwight, D. D., LL.D., of the Bureau of Missions. Funk & Wagnalls Co. New York and London; 1907.

This book takes a wide field. Beginning with Africa, America and Asia, it takes in also nearly all the islands, and embraces the missions of all denominations, Methodists, Baptists, Congregational, Christian, Friends, Unitarian, Presbyterian, Lutheran, Episcopalian, United Brethren. The most of these missions have been established since the American Board. They have been the means of making the heathen nations acquainted with the tenets and practices of the Christian people, and they have also made Christians acquainted with the condition of the heathen, though the history of heathenism as such is yet to be made known. This is the next field of research, and one which will prove of great interest. It is a question whether Christianity will prove to be merely the latest development of human thought or the result of a divine revelation which gives it great superiority over all other systems. The very fact that so many missionary societies are in existence shows the strength of the belief that heathenism is erroneous in every respect, and is to be overthrown by Christianity or the world is lost. This conviction has continued to the present day. If it is given up, missions will ultimately be given up. Agnosticism, if it prevails, is sure to cut the nerve of missions. The array of societies and organizations that is presented in this book shows how deep-seated is the belief that Christianity is the only remedy for the evils and errors of heathenism wherever it prevails.

THE REFORMATION. By George Park Fisher, D.D., LL.D. Chas. Scribners' Sons; 1906.

The author of this book is well known and his name is sufficient to secure the confidence of the reader and lead him to not only examine it, but to place it on the shelf for permanent reference. The revival of learning took place before the dawn of the Reformation. There was a period which seemed to be

like the breaking of the long night of darkness and superstition, marked by a transition of thought that was made by Duns Scotus, by Wycliffe, and Huss, also Occam; the downfall of scholasticism. The Scriptures of the Old and New Testament were brought out in the original tongues and the newly-invented art of printing, and the manufacture of paper, opened the way for familiarity with the sacred books. Before this time, the names of Greek and Roman heroes were associated with those of the Apostles and Saints and of the Saviour himself. The new learning led to the desire to examine the writings of the fathers and to study the Scriptures. Reuchlin prepared a Hebrew grammar and studied Greek, and lectured in the universities, while the Dominicans thought to destroy Judaism by destroying all Hebrew literature, Reuchlin, aided by Von Hutten, vanquished the monks. Erasmus, by his editions of Cyprian and Jerome, and his translations from Origen, Athanasius and Chrysostom, gave access to Biblical theology. It was, after all, the old Bible which had become familiar to the people that gave rise to the Reformation. This fact is important, and especially so at the present time when there is a tendency to pull this book to pieces and then bury it under the mass of destructive criticism which has not yet been able to put anything in its place. This fact alone ought certainly to give all serious men an argument for a defense of the Book which brought so great a reformation in Europe. The discovery of America occurred not long before this event. The civilization which passed over the sea, and began to be planted on the new continent, was one which came as much from the familiarity with the Bible as from any source. The darkness of native paganism was dispelled by the light of the Word, and the entire continent of America has been filled with a people whose civilization and religion are largely owing to the work of the Reformation.

If the Bible is to be torn to pieces and the fragments thrown into the grave, which ignorance and an irreligious socialism combined, are digging, what will be the condition of American society in the next generation?

The wheel of progress rolled over in the middle ages, and almost buried the civilization which had existed before. The question is whether the discoveries in material science are going to give us a substitute for the Word, or is it to supplement that Word by revealing the infinite personality which is hidden in creation and gives life to the entire universe. The answer to this question will determine the character of the next step in human history.

THE UNIVERSITY OF CALIFORNIA.—The new building for the library of the University of California promises to be one of the noblest and largest of its kind. It is to cover a space of 200 feet square. It will have room for 500,000 volumes. It is to have a

colonnade of Corinthian columns with an imposing doorway. Its material is to be white marble. Special quarters are to be given to the Bancroft Library which came into its possession two years ago.

BOOKS RECEIVED

THE END OF PAGANISM AND THE CLOSE OF THE DARK AGES; THE CHURCH AND THE CHANGING ORDER, by Shailer Mathews, New York, Macmillan Co. \$1.50 net.

CANADA, painted by T. M. Martin, described by Wilfred Campbell. New York, Macmillan Co. \$6.00 net; seventy-seven paintings of Canadian scenery.

THE COPPER MINES OF THE WORLD, by W. H. Weed, Hill Publishing House.

THE SAMARITANS. Prof. J. A. Montgomery, of Philadelphia Divinity School, is studying the history and origin of the Samaritans. The text of the Samaritan Liturgy in the British Museum fills 2,000 quarto pages.

A SHORT HISTORY OF COMPARATIVE LITERATURE FROM THE EARLIEST TIMES TO THE PRESENT, by Frederick Lolicc, New York, G. P. Putnam's Sons. \$1.75.

JAPAN IN DAYS OF YORE, by Walter Denny, Methodist Publishing House.

JAPAN AS IT WAS AND IS, by Clement McClurg, Chicago.

WALLACE'S LONG LABRADOR TRAIL, Outing Publishing Co.

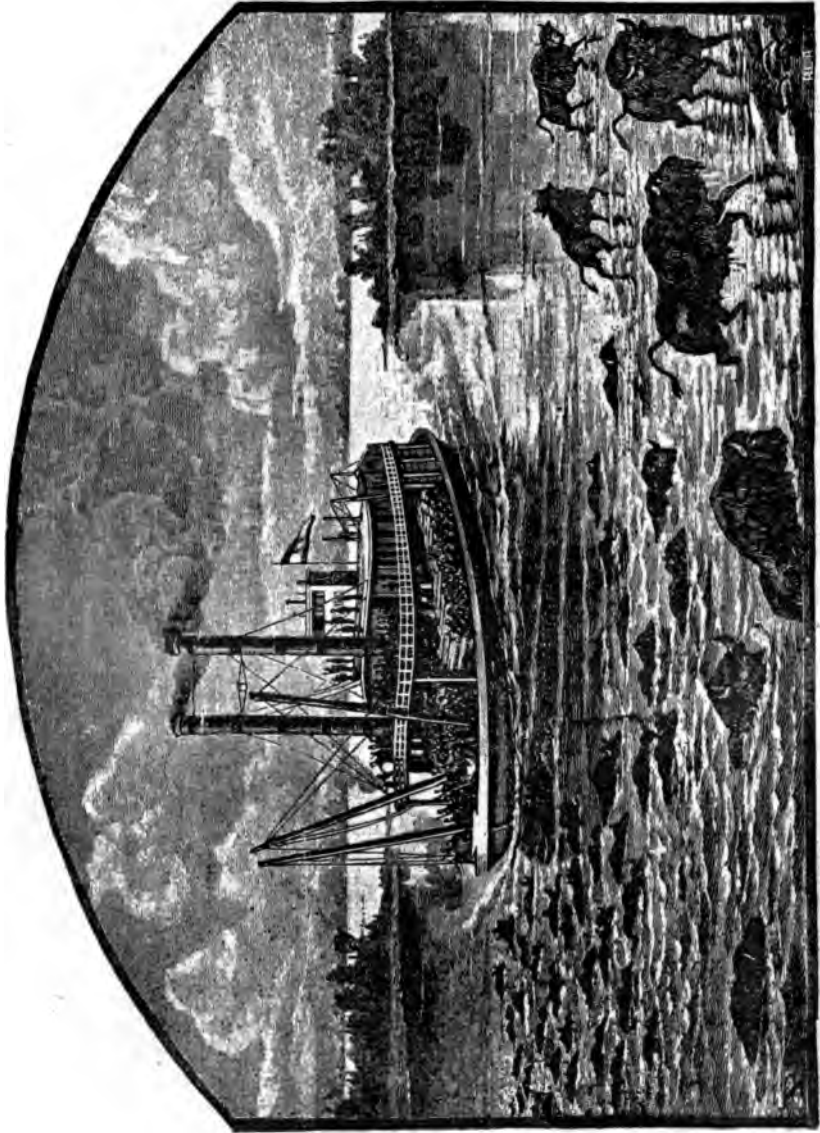
MEDITATION OF MARCUS AURELIUS.

LITTLE FLOWERS OF FRANCIS ASSISSI.

CAPT. JAMES COOK, THE CIRCUMNAVIGATOR, by Arthur Kelson, E. P. Dutton & Co., New York. \$4.50 net.

THE IMPERIAL GAZETEER OF INDIA, Clarendon Press. Vol. I to IV, \$2.00 each.

POMPEII AS AN ART CITY---By E. V. Mayer. Charles Scribner's Sons.



BUFFALO AND STEAMBOAT ON THE MISSOURI RIVER



BUFFALO AND INDIAN HUNTERS. (DEBRY).

THE
American Antiquarian

VOL. XXIX

NOVEMBER AND DECEMBER

No. 6

THE MIGRATIONS OF THE BUFFALO.

The Bison or Buffalo is one of the most remarkable animals which has ever come to the knowledge of man. Classed among the Herbivorae and allied in some respects with the Buffalo of the far east, it may be regarded as a creature which was peculiar to the American continent.

It is true that pictographs have been found in the caves of Europe which seem to indicate that an animal resembling the Bison once lived on that continent and was associated with the cave bear and with other animals of the kind, and yet it is unknown at what time he migrated from that region or by what route, and yet this very fact suggests the history of the animal, and leads us to realize something of his migratory habits, and to emphasize the fact that he is and was one of the most migratory of all animals.

There are pictographs on the rocks of the far west, which represent Buffaloes with dogs and horses and beasts of burden, with white men on horseback. These were evidently traced after the advent of white men. This illustrates the survival of the Bison. The length of time which the Bison lived on the continent is unknown, but the record is still left within the mounds and on the rocks.

These cave drawings may have been pictures of the Aurochs rather than of the Bison, yet they show that the ancestors of the Bison prevailed in Europe at a very early date. It should be said that there were different species of Buffalo on the American continent, one having prevailed in the arctic regions in the British possessions, another the ordinary American Bison on the great plains.

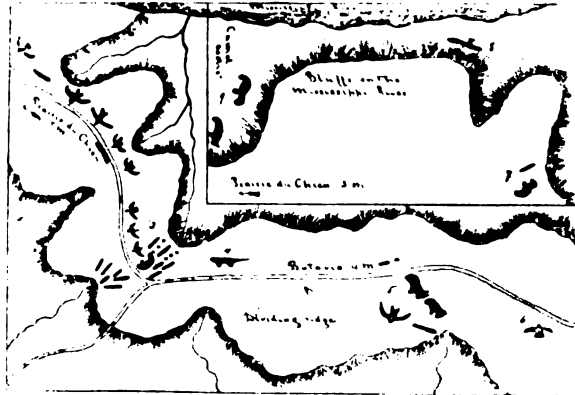
The figure of the Buffalo is also found inscribed on the side of a cave near La Crosse. Father Marquette was the first one to describe the Buffalo, for he saw in his voyage from Green Bay to the Mississippi River a Buffalo, of which he made a picture.

The most important point is that the Bison was once spread over all parts of the American continent and was formerly very numerous, yet through the rapacity of man and the heedlessness of this nation has been in danger of utter extermination. Those

who were familiar with the scenes which transpired on the great plains about the time that the Union Pacific Railroad will remember what terrible slaughter was made of these creatures and how soon the vast herds disappeared. It would seem that there was no end to the slaughter until the vast herds had been destroyed and their feeding places were left desolate.

De Bry is one of the earliest to depict the Buffalo. An engraving which is presented shows not only the shape of the animal but the form and dress and weapons of the natives who at that time hunted the Buffalo.

The vanishing of the wild animals is one of the results of the progress of civilization and the occupation of the western continent. In some localities this has been gradual, but in the United States it has been rapid. Among all the animals which have disappeared, the Buffalo, or Bison, is the most worthy of notice.



BUFFALO EFFIGY MOUNDS

It will be remembered that the early explorers who followed Ferdinand de Soto across the gulf states came in contact with these animals in the Cherokee country, and at the same time they found a peculiar kind of dog, which had been domesticated. The Buffalo, however, was wild, and was rarely seen.

The range of the Buffalo in America at the time of the discovery was as far east as the Alleghenies, and as far west as the Rocky Mountains. Their range extended indefinitely to the North and Northwest, and south to the Gulf of Mexico. That they were common in Wisconsin is shown from the fact that the effigies of the Buffalo were frequently seen mingled with the effigies of elk, deer, and other grazing animals frequently associated with wolves, foxes, and other prowlers as well as birds, eagles, swans, pigeons and other birds.

Wisconsin, in pre-historic times, was the paradise of hunters, especially for those seeking large game, as the game drives were

very numerous in the territory before it was settled by the whites. The number of the Buffaloes which abounded on the great plains as late as the great migration to California after the discovery of gold, was so great that whole railroad trains were stopped by the herds, and hunters would stand for whole days while the great herds were passing them. Hunting buffalo was so profitable that it became a business with many, but as there was no game law to prevent wholesale slaughter they soon became decimated and rapidly disappeared.



It is to be noticed that the Indian tribes were acquainted with the Buffalo and had their regular seasons for hunting them, but they never carried out any wholesale slaughter; but after they had their supply of Buffalo skins



and of Buffalo meat they returned to their villages and left the plains to the animals as their rightful possession.

Catlin, in his interesting book on the manners, customs, and conditions of the North American Indians, describes the vast herds which prevailed. He also describes the dances in which the Indians wore Buffalo heads for masks and strips of the buffalo skins hanging on the back, buffalo tails dragging on the ground, the dancers carrying shields and spears and war clubs,

and bows and arrows in their hands, with tufts of buffalo hair upon their feet, the dancers imitating the various attitudes of the Buffalo.

Catlin says: "The dances continue in the Mandan villages two or three weeks at a time without stopping until the Buffaloes make their appearance, and so they never fail to think the dances have been the means of bringing them in. Every man in the village is obliged to keep the mask of a buffalo hanging on a post at the head of his bed, which he can use on his head whenever he is called upon by the chiefs to dance for the coming of Buffaloes. The mask is put over the head, and generally has a strip of skin hanging to it, of the whole length of the animal with the tail attached to it, which, passing down over the back of the dancer, is dragging on the ground. When one becomes fatigued of the exercise, he signifies it by bending quite forward and sinking his body upon the ground; when another draws a bow upon him and hits him with a blunt arrow, and he falls like a Buffalo; is seized by the bystanders, who drag him out of the ring by the heels, brandishing their knives about him; and having gone through the motions of skinning and cutting him up, they let him off and his place is at once supplied by another, who dances into the ring with his mask on; and by this taking of places, the scene is easily kept up night and day, until the desired effect has been produced—that of "making Buffalo come."

The cuts represent the Buffalo herds which were described by Catlin as running over the bluffs of the Missouri River and as swimming through the water, even in the vicinity of the steamboats. All of these herds passed away under the attacks of the white hunters, who were only seeking their hides but left their carcasses to rot on the plains. The writer has found many game drives on the banks of the Rock River and on the bluffs between the Kickapoo and the Mississippi River, and near which the effigies of Buffalo were seen. There is a rock near the Illinois River which is called the Buffalo Rock. It is a precipice over which the Indians were accustomed to drive herds of Buffalo.

These facts show that Buffaloes or Bisons were very numerous in the United States as well as in the Canadas, but they have nearly all disappeared.

The Buffalo have become very scarce, though the Buffalo park near Banff in Canada has a large corral of 2,000 acres in which is a magnificent herd of 56 Buffaloes and calves, the last remnant of the countless thousands of Bisons which once roamed the adjacent plains.

The Buffalo, or Bison, has so far diminished that it is an actual curiosity, as much so as the gray wolf and coyote. While the wolf is increasing the Bison is diminishing, and were it not for a special effort that is now being made, the species would become entirely extinct. To the Indian, the Bison has hitherto been indispensable as an article of food and for the many uses

to which its hair, skin, and horns are applied.

There are, to be sure, Buffalo herds still remaining in certain parts of Canada, but with the rush for new lands which has recently set in it is more than likely that these will soon disappear.

It is, however, fortunate that a movement is on foot to restore so far as possible the Buffalo to his own habitat.

The Buffalo herd of the New York Zoological Park has for a long time been one of the finest sights of that great home for wild animals. Originally planned to contain twenty head, it numbered previous to this shipment forty-five as handsome Buffaloes of all ages as ever were brought together. Ten lusty calves have been born this year.

But notwithstanding the fine condition of this herd, the officers of the Zoological Society know that the only sure way by which the American Bison can be preserved in full vigor for the next



BUFFALO ROCK INSCRIPTIONS

200 years or more is by establishing herds under national or state ownership, on public lands, in ranges so large and so diversified that the animals will be wild and free. Under such conditions Dr. Hornaday declares that no ill effects from inbreeding ever need be feared.

The herd for Oklahoma is composed as follows: Six breeding cows, one big bull, "Comanche," 5 years old and master of the herd; one bull three and one-half years old, two bulls and one cow in the third year, one bull and one cow in second year, and one pair of calves, male and female, six months old.

In this collection four different strains of blood are represented, and there will be nothing to fear from inbreeding.

The idea of a southwestern national herd, founded by a gift from the New York Zoological Society, originated with Dr. William T. Hornaday, director of the Zoological Park, and from its earliest mention it was warmly indorsed by the executive committee of the society. The offer was made to the Secretary of Agriculture, who immediately accepted it, and invited the society to select a site for the new fenced range that would be necessary. Forthwith the society dispatched a special agent, J. A. Loring, who went to the Wichita reserve and with Supervisor E. F. Mor-

rissey, carefully examined the whole available territory.

A location was agreed upon and duly mapped out. Mr. Loring submitted to the society an elaborate and thorough report which was transmitted to the Department of Agriculture, and to Congress. Secretary Wilson secured a special appropriation of \$15,000 for the erection of a wire fence to inclose twelve square miles of range, and to erect corrals, sheds and a hay barn.

This work has been proceeding, and will soon be completed, under the direction of the Forestry Bureau of the Department of Agriculture, whose officers have from the first been keenly inter-



EXTERMINATION OF THE BUFFALO

ested in the undertaking. All the improvements were planned by Mr. Hornaday, and the animals for the nucleus herd were carefully selected by him.

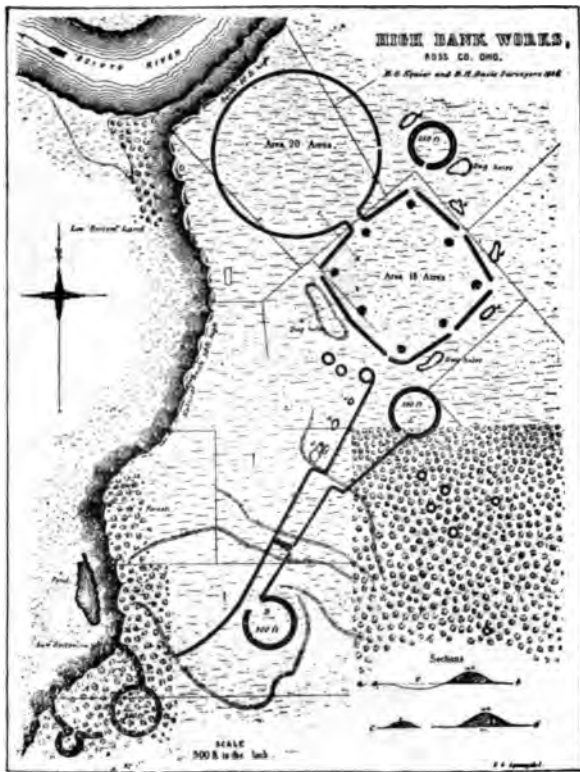
The Buffalo herd presented to the national government by the New York Zoological Society last year to form the nucleus of a great southwestern herd has just been transported to the new range of 7,680 acres prepared for it in the best portion of the Wichita forest and game preserve, southwestern Oklahoma.

Fifteen fine animals, the pick of the splendid herd of forty-five head in the New York Zoological Park, were crated for shipment October 10, each in roomy and comfortable crates, and sent to Cache, Okla.

THE DISTRIBUTION OF SUN CIRCLES.

The prevalence of sun circles throughout the world at a certain stage of progress is an interesting subject. It should be said here that the circle is everywhere a symbol of sun-worship, and is in contrast to the serpent, which was used as a symbol of another form of worship, which is also common throughout the globe.

There are many earthworks in Ohio and elsewhere which are in the shape of perfect circles with a ditch inside a circular wall, and a level circular platform inside the ditch, all of them inclosing

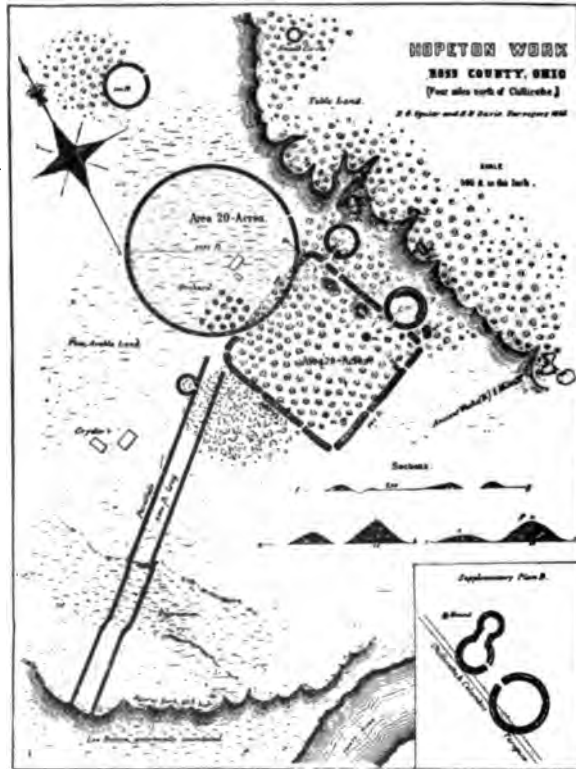


SUN CIRCLE IN OHIO

a hemispherical or conical mound. Some of these are near complicated earth walls and village sites, but many of them are situated on the hilltops adjoining the village sites and overlooking the valleys. The supposition is that these were sun symbols, and were the work of sun-worshippers. This interpretation has been advanced in the book on the Mound-Builders,

and has not been up to the present date disputed. The question which the editor would put before the explorers is whether there are any other evidences which confirm this theory. Earth-works have been destroyed within a few years to such an extent as to take away the proofs and yet those who are exploring in the region may perhaps find other evidences which will confirm the supposition. Among these explorers no one has been more persevering than William C. Mills of Columbus, Ohio.

The same practice was described by De Bry as existing among the Southern Mound Builders. Here there was, in addition to

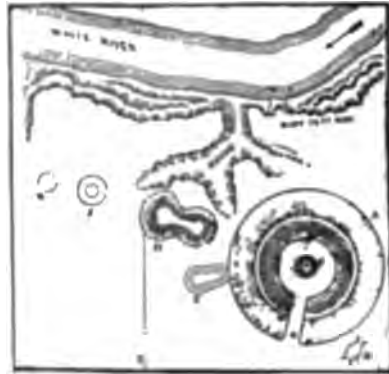
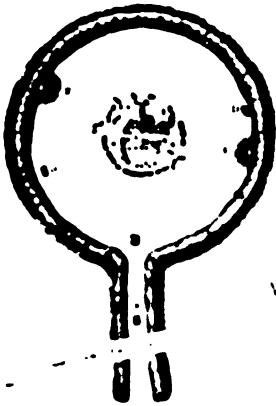


CIRCLE AND SQUARE IN OHIO

the circle and the conical mound, a semi-circular platform or pavement which suggests the idea that the moon was also used as a symbol. Village sites in Ohio were generally near the larger streams and overlooked the bottom lands. They were surrounded by fields, very much as the Southern villages were. There were also parallel embankments which led from the village inclosures to the rivers and to the fields, some of them to the dance circles, situated on the bluffs at a distance from the inclosures.

Examples of these village inclosures and so-called covered

ways and conical mounds, have been found at Newark, Ohio, at Highbank, and at Chillicothe. The supposition is that the Mound Builders of this region were sun worshippers and lived in villages, but were surrounded by hostile tribes, and that the earthworks were designed for defense. Mr. A. L. Lewis has described the circular works in Great Britain and is still following up the study of them. These circular works are generally formed by standing stones. His opinion is that they were built by sun worshippers, and that orientation prevailed. The interest shown by the English and American Archaeologists ought to extend to those who are studying the ancient works of Greece, Asia Minor and regions farther east, so that the stages of progress through which sun-worship passed may be ascertained, and the various systems which have prevailed in pre-historic times throughout the world may be recognized. Archaeology is not to be held to narrow limits, if it is to do its full work. The editor would call attention to this point, and would ask those



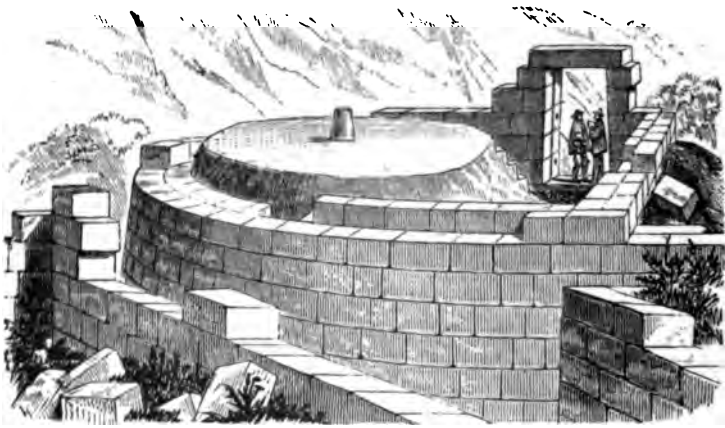
EARTH CIRCLES IN OHIO

who are living in remote regions, such as Australia, India and the various parts of the Asiatic continent to furnish information.

The Megalithic circles, chambered tumuli, stone cists, dolmens, underground houses, ancient camps, the fortified buildings of England, may prove the connecting links between the ancient works of Great Britain and those farther east and south. Prof. Nilsen speaks of the Balhur stone as being six or seven feet high, oval in shape, and thinks that it was a sacrificial place. This is important for it suggests the idea that human sacrifices were offered by the Mound Builders of Ohio. Cup stones have been found in Ohio, some of them near Altars, which were situated upon high points of land. It is possible that these were used as the socket for the stone fire-drill, and were used for starting

the fire on the altar which was to consume the sacrifices. One such altar was visited a few years ago by the writer, and the cup-stone was picked up near it. The altar was on a high hill, which overlooked the extensive works of Newark. It might be called a High Place, as appropriately as those which have been described as existing in Palestine and regions farther east.

In connection with the subject of sun circles, it may be well to speak of the monuments of Peru. The open air temples have been described in the "Book on Ancient Monuments and Ruined Cities." These were devoted to sun worship and the temple itself symbolized the sun, as a stone pavement laid in diagonal lines



SUN CIRCLE AT PISAC

ran around the circle, which is made up of standing stones. Inside of the circle near the center were two standing stones which were designed to show the time of the equinoxes, as they cast no shadow when the sun was at the equinox. This circle reminds us of those which are still found at Stonehenge and Avebury in Great Britain. These are called open air temples, but that at Stonehenge resembles the earthworks which were formerly common among the Mound Builders, especially those at Portland, Ohio, as they were connected with what were called "covered ways."

The best representation of the sun circle is that found in Peru near Pisac. It is made up of a circular wall with a door at the entrance and a flat-topped mound in the interior, circular in shape, with a sun-dial at the center of the mound.

These remind us of the Chinese temples, which were generally built in a circular form with conical roofs and were surrounded by platforms or terraces, concentric circles with carved

marble balustrades.

It is worthy of notice that the circular temples are found among Pagan nations all over the globe, and were generally used



SUN CIRCLE IN PERU

as places of sacrifice. They were open air temples, and it is supposed that sacrifices were made in them to the sun. Temples or sacrificial places have been found on the summit of the mountains in North Arabia not far from Mount Hor.



CIRCLE AND CRESCENT

The distribution of these sun circles, taken in connection with their localities and the structures surrounding them, show how widespread sun-worship was and how prevalent it was at a certain stage of social progress.

ARCHÆOLOGICAL NOTES.

STONE HAMMERS.

In a previous chapter we have spoken of the stone ax and other edged tools, but have thus far said nothing concerning the hammer. It is evident, however, that the hammer was used in pre-historic times, as well as the ax, the arrow, the spear, drill, knife and flesher. There were several different kinds of hammers. Mr. J. D. McGuire says there were three.

The first are generally called thumb and finger stones. They are round, flattened on the sides, with a depression in the center as finger holes. The periphery is often beveled on the edge and flat on the sides, so it could be used either as a hammer or as a rubber or grinder, and would admit of many and varied positions when used.

The second differs from the first in that the spherical form has given place to an oblong, and yet the ends and sides are rounded; no sharp edge is presented. The third type is the grooved hammer, which was intended for hafting. This grooved hammer is generally oblong in shape, but its ends and sides are rounded, and it might be considered a flattened form of the spherical hammer. Nearly all the hammers are of a size suitable for hand use in stone pecking, rather than chipping. Nuts and bones could be cracked with either form of hammer, but paint and grain could be ground with the circular hammer better than with the oblong.

The implement which was used in chipping flint arrow heads seemed to have been different from the ordinary hammer, and yet there were so many uses for the hammer that it was absolutely necessary—as necessary as the arrow or the ax.

The hammers were made out of any hard stone that could be obtained, diorite, quartzite, porphyry, or any tough material which was gritty, and which could be used for grinding or breaking, chipping or pecking.

BANDED COLUMNS IN YUCATAN

Edward H. Thompson has described those from the cave of Tol Tun. He has described temples and palaces at Chultunes and has shown the sculpture which abounds in them. The palaces have heavy cornices which are decorated with banded columns placed close together. The serpent figure constantly recurs in the ornamentation. The buildings are generally low and long, but have chambers within in which are angular arches.

(See Archæological Researches in Yucatan by Edward H. Thompson, Cambridge Museum, 1904.)

THE HITTITES.

The Hittites seem to have been familiar with picture writing, and often placed figures on the rocks. Among other figures are bull's heads, ram's heads, hare, serpent, tortoise, and two-headed eagle. There are terra-cotta seals, representing a dog, a man, a pegasus galloping with wings outspread.

It was the Babylonian culture that the Hittites carried with them to the west. The Mycenaean art shows the most evidence of the Hittite influence. The Hittites, however, carried the time-worn civilization of Babylonia to the farthest boundary of Asia, and even farther west.

In the gray dawn of European history the religion, ritual, art and commerce of Babylonia penetrated by degrees the mixed population of Northern Syria and Asia Minor, whether Semitic, Turanian or Aryan. They dominated Cyprus, and in a lesser degree Crete and Mycenae. It is at present impossible to lay down the exact proportions in which the Egyptians, Phoenicians and Hittites blended with the native substratum in making up a civilization like that of Mycenae.

Still the Hittites were a literary people. In the art of Troy, Tiryns, Mycenae, Crete, Cyprus, we see the Greek gems, shields, vases of the Hittites. On the coins we find the ox, the tortoise, the ear of corn. These represent the articles of general commerce, whose barter the coins replaced. The constellations bring before us subjects which appeared early in Greek art, as well as the Pre-Hellenic art. Also, the Phoenicians and Etruscan coins contain objects which were familiar to art. Although Herakles does not, like Orion, appear in Homer, in the phases of the sun god, or in the constellations, yet the presentation of him makes the double form in the Iliad. He is the hero who captures Troy, is persecuted by Hera, and fights with a sea monster. He appears in the under world as a phantom. He wears a gleaming belt of gold, whereon are wrought bears and wild boars.

Hercules recognizes Odysseus and speaks of the hard adventures he had on earth, and the hardest task was to lift the dog Cerberus out of Hades. Aryan and Accadean had a remarkable horror of darkness, as in the Vedic and Accadean hymns we see glimpses of a period when the primeval chaos prevailed. The night and the gloom, and confusion of the infernal abyss, were closely linked together.

See Wright's "Empire of the Hittites."

THE THUNDERBOLT.

In a pamphlet of sixty pages, with four plates, entitled "Der Blitz in der Orientalischen und Griechischen Kunst," Dr. Paul Jacobsthal considers that Babylonian and Assyrian art invented closely related symbols for the thunderbolt, adapting for the purpose the conventional means of expressing fire. One of these

symbols was taken over by Greek art about the seventh century B. C., and was at once variously modified under the influence of the conception of the lightning as a flower. Of the new forms thus created three belong to Ionia and the adjacent regions of Hellas, two to Greece proper. With the fading-out of the flower-notion further modifications set in. Wings were sometimes added, flames were naturalistically represented, and, above all, the notion of the thunderbolt as a weapon became dominant. These are illustrated by the accompanying plates.

EGYPTIAN VOCABULARY.

Before the Berlin Academy of Sciences, Prof. Adolf Erman reported the progress made on the Dictionary of Egyptology. The material gathered in the last nine years has been sifted and is now ready for editing. Prof. Erman declares that it is not his aim to produce a finished book similar to "Thesaurus Linguae Latinae" for Egyptian philologists. The object of the new dictionary is to enable the student to translate Egyptian texts without being compelled to depend upon guesswork. Much has been accomplished toward formulating a grammar during the last three decades, and it is hoped that similar results may attend the attempt to define and classify the vocabulary. It is a mistake, however, Prof. Erman continues to indulge in false illusions. Just as the grammar offered a comparatively limited knowledge of the rules governing verbal expression, so the vocabulary must of necessity leave much to be desired. There are a million words, some permanent, some transitory, in many forms and expressing many shades of meaning, the true definitions of which can only be reached by infinite comparison aided by an endless process of exclusion.

TOHUNGA OF THE MAORIS.

The journal of the Polynesian Society for June, 1907, has an article on this subject by Lieutenant-Colonel Gudgeon. It appears that the great god Tangaroa was similar to Poseidon of the Greeks, but the Tohunga, or witchcraft had the greatest power over the Maori people. One of the greatest Tohungas was a priest of the learned tribe and a wizard. He was able to make a dry leaf fresh and green, and he used the lizard as a sort of a charm. The Tohunga was useful in insuring peace between the opposing gods that led the tribes to war.

The Wizard of the North is described in the Scandinavian mythology and is repeated by Walter Scott. The Tohunga of the Maoris corresponds to the Wizard. He pretended to have the gift of prophecy and second sight. This superstition seems to have prevailed in different parts of the world, but with variations.

This same number has an article by Elsdon Best on the Vigesimal system in the Maori numeration.

THE CLASSIFICATION OF MANKIND.

By C. Staniland Wake.

Any anthropologist reading carefully Professor G. Sergi's highly suggestive work on "The Mediterranean Race," can hardly refrain from considering what effect the theory propounded, must have on views previously entertained in relation to the general classification of the peoples comprised within the human species. This point is important, and I propose to state the case, as it appears to me, and to see what conclusions may be legitimately drawn from the facts, particularly as to the physical characters of the leading branches of mankind.

The subject may properly be introduced by an extract from Professor Sergi's work. He writes (p. 241): "The stock, originating in Africa, which I call Mediterranean, because in the Mediterranean it developed its aptitudes and civilizations, contributed without doubt, from primitive times till the late quaternary period, to the population of the whole Mediterranean and of many other regions of Europe, as I have shown in the preceding pages. Its evident traces are found in the dolmens and caves of France, in the Long Barrows of Great Britain, at Casa da Moura and Mugem in the Iberian Peninsula, in the neolithic graves of Switzerland, in many tumuli in Russia, and even as far as the Canaries. All these have yielded typical skulls showing the characters found in the Mediterranean populations, whether Iberian, Ligurian, Pelasgian, or Egyptian, and allied to those of East Africa. Moreover, there still exist whole Mediterranean populations which, in spite of mingling with other peoples and historical vicissitudes, still preserve their primitive race elements." Professor Sergi continues, "Toward the end of the neolithic period, and after the first and pacific appearance of the Asiatic tribes which insinuated themselves in the midst of the early inhabitants, a great anthropological change took place in Europe, affecting even the Mediterranean, although in a slight degree. A new and different stock, strong and numerous, advanced from the east, and spread through the centre, west and south of Europe, overflowing the primitive stock, in many regions succeeding in displacing it, in others subjugating it." These invaders, whom Sergi calls *Eurasiatic*, owing to their Asiatic origin, "weré savages, inferior to the neolithic Europeans. whose civilization they in large part destroyed, replunging Europe into barbarism, also introducing the new burial custom of cremation, together with other customs which it is not necessary to investigate here, and transforming the existing languages into their own, which was a flexional language. To-day this new anthrop-

ological family, which also constitutes a zoological unit, bears three chief names, indicating three characteristic linguistic groups—that is to say, Celts, Germans and Slavs." (p. 263). The physical characters of these intruding peoples differed largely from those of the Eurafricans, their skulls belonging to the brachycephalic type. Sergi refers their origin to Asia, "since Ujfalvy has found in the Hindu-Kusch the same types that are found in Europe, and since their cephalic forms are all Asiatic, and are found not only among the so-called Aryans of the Hindu-Kusch, but among the Mongols and others."

The light-haired Finns are supposed by Professor Topinard to furnish the link between the Mongolian peoples of Asia and the broad-headed peoples, also fair of hair and complexion, who introduced the Aryan speech into Europe; which up to that epoch had been populated by long-headed tribes of the Mediterranean stock. How far eastward this family of peoples extended is doubtful. Professor Sergi refers to it the primitive population of Egypt, as well as the Nubians and Bejas, the Abyssinians, the Galla, the Somali, and even the Masia and the Wahuma. There are reasons for referring even the Hottentots of South Africa to the same stock, and with equal reason it may be said to embrace the Asiatic Ethiopians of ancient writers, and thus to extend through southern Asia as far as the Indian Peninsula, unless these Ethiopians are to be classed with the Dravidians of India.

Within the Asiatic area, however, we are brought into contact with peoples, similar in some respects to those classed by Professor Sergi as "Mediterranean," and yet which he does not refer to, although they are now represented on European soil. The Todas of the Nilgiri Hills in western India are associated by Professor Topinard, in respect to certain characters, with the Ainos of Japan, whom he speaks of as belonging to the European group. In their prominent eyebrows and abundant growth of hair with full beard, they resemble the aborigines of Australia, who also, therefore may be referred to that group. These widely separated eastern peoples have much in common with the peasant class or Moujiks, of Russia, and they are not without representatives in western Europe, particularly in the British Islands. Such must be said of the full-bearded Welsh type, and a similar type was probably common in Ireland at one time, if it be true, as was affirmed by Professor Huxley, that the ancient Irish skulls resembled those of the natives of Australia. This long-headed, hairy type of people are thus found, more or less sporadically, throughout the whole breadth of the Euro-Asiatic continental area, and the question arises as to what is its relationship to the Eurafrican or

Mediterranean stock of Professor Sergi?

The Todas belong to the Dravidian race of India, with whom Professor Topinard and other anthropologists seem inclined to class the Australian aborigines. There are evidences that the Dravidas at one time occupied the region northwest of India, and possibly they may have been the race referred to by ancient writers as Asiatic Ethiopians, who seem to have occupied southwestern Asia between the Red Sea and the Indus. Southern Arabia is sometimes spoken of as the land of Punt, referred to in early Egyptian inscriptions, but Professor Sergi does not accept this view, agreeing with Mueller and Brugsch in locating Punt in Africa, on the coast of Somaliland. Nevertheless, it cannot be questioned that there was a relationship between the ancient inhabitants of southern Arabia and those of the African coast of the Red Sea, both of these people belonging to the Hamitic race, which is supposed to have formed a branch of the great Mediterranean stock.

The external features of the people belonging to this stock are: "brown colour of the skin, eyes (chestnut or black iris), hair, beard, and the hair on other parts of the body;" and the consanguinity of the red, brown and black African Hamites is accepted by Professor Sergi through their cranial and facial characters. According to his view the Mediterranean stock is "a brown human variety, neither white nor negroid, but pure in its elements, that is to say, not a product of the mixture of whites with Negroes or negroid peoples." But may it not be the product of the mixture of negroid peoples not with whites, but with a darkish complexioned people such as that above referred to, and which may perhaps be termed Scytho-Dravidian? Such a case would explain the fact that the full beard and whiskers which distinguishes the latter peoples are comparatively rare among the Mediterranean stock, which has rather the comparatively short beard of the modern Berbers and the ancient Egyptians. Moreover, in the former the superciliary arches are more fully developed than in the latter, a characteristic noticeable still among the inhabitants of Britain. (*e. g.* See the portrait of Darwin.)

How far the view thus propounded is consistent with the facts of craniology, I cannot say, but the wide extension of the Scytho-Dravidian stock would lead to the conclusion that it was very ancient, and moreover, it includes peoples, such as the Australian aborigines, the Melanesians, and the Papuans, who are generally regarded as among the most primitive now existing. Darwin, in his "Descent of Man," refers to the fact, first mentioned by Agassiz, that "the different races of man are distributed

over the world in the same zoological provinces as those inhabited by undoubtedly distinct species and genera of mammals." He adds, that this is manifestly the case with the Australian, the Mongolian, and Negro races of man. Now the marsupials of the Australian continent represent the oldest mammalian forms, and for this reason we might be tempted to see in their human associates the most ancient representatives of mankind.

However this may be, on the assumption that the Scytho-Dravidian peoples belong to the most primitive long-headed, hairy stock of mankind, then we shall have in the Mediterranean race the result of the admixture of that stock with the native African peoples to the south; as to the north their mingling with the Mongolian race gave rise, according to Professor Sergi, to the Celtic, German and Slavic Aryans, many of whose special physical characters are thought to have been derived from the Finns. Professor Topinard supposes the Finnish type to form the point of union between the blonde type of Europe and the Asiatic types. We thus have three principal stocks, lying almost side by side, the Scytho-Dravidian between the Mongolian and the African, to the south, with the Mediterranean race as the result of their intermingling; and the Mongolian to the northeast, with the Aryan race as their joint product, between. With the Mongolians must be associated the Tibetans, the Malays and the Chinese, who would seem to be intimately related, and in whose admixture with members of the Scytho-Dravidian stock probably originated the brown peoples of the Pacific area. Possibly to an early mingling of Malays, or allied peoples, with the Negro stock, at a time, it may be, while yet Africa was united with southern Asia by the lost Lemuria, the short-headed dwarf peoples of the tropical area originated; unless, indeed, they are to be regarded simply as representing the early Mongolian stock.

Whether a similar explanation can be given of the origin of the native population of the great American continent, including the Eskimo, is doubtful, although the cases are analogous. For in America, as in the old world, short-headed peoples are distributed throughout one side of the continent and long-headed peoples throughout the other side; while in the arctic region, allied peoples of the Mongolian type chiefly are found on both continents. The Eskimo of America occupies a somewhat peculiar position; for, although, as Professor Topinard points out, his head presents the same general character as the very brachycephalous Kalmuck, and facially he belongs to the yellow race, yet he is the most dolichocephalous of human types. This looks as though he was the product of a mixture of a Mongolian people with a people of the

long-headed stock. Professor Topinard finds that the Patagonian skull from ancient graves closely resembles that of the Eskimos, and he suggests that they show the crossing of an intruding Asiatic brachycephalic type with the native American dolichocephalous race. If so, then the long-headed peoples of the eastern part of the American continent may be regarded as on the whole autochthonous, and the short-headed peoples on the west will represent the intruding Mongolian stock. This is not an unreasonable view to take, particularly as it will explain the Mongolian features observable with many of the western Indians, in both North and South America. Some of the carved faces seen among the ruins of Central America are quite Japanese in character.

But the long-headed race of the American continent is not autochthonous in the sense of having originated there. It is shown by Darwin that, assuming the descent of man, or "ascent" if this term be preferred, from a lower animal form, man cannot have originated in the New World, as the most important characters in which he approaches the apes are not possessed by the Platyrrhine or New World monkeys. Darwin affirms that "man unquestionably belongs in his dentition, in the structure of his nostrils, and some other respects, to the Catarrhine or Old World division" of monkeys. The probability is that the earliest long-headed American peoples were derived from the Pacific area, and thus could be explained his possession of his prominent nose, a feature in which, as Professor Topinard remarks, he agrees with the Polynesian Islanders; although the Polynesian Islanders are themselves doubtless a mixed race, the foundation of which was a long headed type, on which a shorter headed type was imposed. The French anthropologist says it is almost impossible not to see a relationship between the Polynesians and the natives of South America, but he also insists on the fact that the Malays, who are usually spoken of as having given the Polynesians their language, are of two kinds, the short-headed and the long-headed. To the latter belong, among other peoples, the Dyaks of Borneo and the Macassars and the Bugis of Celebes, and as they are somewhat bearded they are unlikely to belong to the true Malay race. They are said by some anthropologists to possess European characters, and probably they were derived originally from Further India, or at least they possess an element derived from thence or from India itself. The head hunting propensity of the Dyaks, which is known also to the Naga tribes of Assam, would ally them to the Indians of North America, whose scalping custom was most probably a relic of head taking; as the cannibalism formerly ascribed to many of the American tribes would associate them with the Polynesians

in general. The oldest existing representatives of this stock appear to be the peoples of the Micronesian branch, and it may be that their progenitors furnished the earliest members of the long-headed race to settle on the North American continent. The Melanesian culture has much resemblance to that of the coast tribes of British Columbia, however, that an Oceanic element has doubtless been introduced on to the American continent from that area.

The American aborigines are thus allied, not only to the Mongoloid peoples of Eastern Asia, but also to the races more or less long-headed of the Oceanic stock, and as when discovered by European explorers they were practically still in the stone age, the migrations of the former, who were its latest comers, must have taken place while still the Eastern Asiatics were unacquainted with the use of iron. At a more recent period the North American continent must have been visited, judging from the language of Plato, by explorers from beyond the Atlantic; for in the *Timaeus* the Greek philosopher refers distinctly to the existence of a continent surrounding the "real sea," in which he placed the great island of Atlantis and the other islands lying beyond, toward what Plato says "may be most truly called a continent." Those early European explorers, if not Phenicians or Greeks, belonged at least to the Mediterranean stock, of which the ancient Egyptians were the first historical representatives, and it is not improbable that they left their impress on the native population of the Atlantic side of the North American area. It is quite possible that these long-headed intruders from the Atlantic met with allied peoples from the Pacific, as the Somali, who are classed by Sergi with the Mediterranean race, are said to much resemble peoples of the Asiatic archipelago.

Judging from what has been said above, the existing races of mankind belong to seven chief stocks—that is: African or Negro, Mediterranean, Aryan (European), Scytho-Dravidian, Mongolian (Asiatic), Oceanic, and American. Of these the Mediterranean, the Aryan, the Oceanic, and the American, appear to show the blending of two or more of the other stocks, leaving the African, the Scytho-Dravidian, and the Mongolian as the primitive stocks of mankind. Of these the African is the typical long-head of the south, while the Mongolian is short-headed and belongs to the north. Both are beardless, but one is lank-haired and the other is frizzly, a character which, like the dark color of the skin, is probably due to the action of climate and soil. The Scytho-Dravidian also is long-headed, but otherwise he differs largely from both the African and the Mongolian type, so much so that it is difficult to suppose that he could have sprung from them by any degree of

intermixture of the two. It has been suggested, from the light color of the new-born African child, that the Negro originated from the Mongolian stock, but it is questionable whether such a derivation is consistent with the differences of skeleton and skull presented by the two types.

The lighter color of new-born children as compared with their parents is referred to by Darwin in connection with the question of sexual differences between man and woman. The male and female characters usually appear only some years after birth. He also says that "as the young of closely allied though distinct species do not differ nearly so much from each other as do the adults, so it is with the children of the different races of man. Some have even maintained that race differences cannot be detected in the infantile skull. From this fact we are justified in assuming, perhaps, that the various races have had a common human progenitor." Darwin is clearly of this opinion, for elsewhere he remarks: "When naturalists observe a close agreement in numerous small details of habits, tastes, and dispositions between two or more domestic races, or between nearly allied natural forms, they use this fact as an argument that they are descended from a common progenitor who was thus endowed; and consequently that all should be classed under the same species. The same argument may be applied with much force to the races of man."

If the monogenistic view of the origin of man is accepted, then among the three chief existing primitive races—the Mongolian, the Negro, and the Scytho-Dravidian—the last named is entitled to take precedence of the others, owing to its possession of bodily hairiness and full development of the beard. The former is characteristic of the apes, to which he is more closely allied than to any other of the lower animals. Mr. Darwin remarks that "from the presence of the woolly hair or lanugo on the human fœtus, and of rudimentary hairs scattered over the body during maturity, we may infer that man is descended from some animal which was born hairy and remained so during life." The loss of hair on the body he ascribes to sexual selection, and adds that, "as the body in woman is less hairy than in man, and as this character is common to all races, we may conclude that it was our female semi-human ancestors who were first divested of hair, and this occurred at an extremely remote period before the several races had diverged from a common stock." As this character has been preserved by the peoples belonging to the Scytho-Dravidian stock, as a general state and not sporadically, but so as to be truly racial, they are more likely to represent the primitive type of man than the Mongolian or African peoples; whose special characters must be explained as due in great part at least to the action of sexual

selection, which, as stated by Mr. Darwin, "has acted on man, both on the male and female side, causing the two sexes to differ in body and mind, and the several races to differ from each other in various characters, as well as from their ancient and lowly organized progenitors."

AMERICAN MYTHOLOGY COMPARED WITH ORIENTAL.

One of the most remarkable features of American Mythology is that there are so many myths and traditions which resemble those common in the far east. Among these traditions are those which refer to the four quarters or the points of the compass, the tree of life, the sacred mountain, the story of the deluge, and the future state.

One American myth was that there were four tortoises at the four quarters of the earth, who vomit forth the rains, send forth the winds; and like gigantic caryatides sustain the heavens. This myth prevailed extensively among the Indians of the Mississippi Valley, but it resembled that which prevailed among the Pueblo tribes of the interior, but with this modification: There were two other points. The zenith and the nadir were added, which with the center added made seven, a sacred number. These myths are important, for they throw light upon the ideas and customs which were common not only among the ancient tribes and nations of Europe, but those of the far east, and illustrate the manner in which Oriental traditions and bible stories came into vogue.

Another Quiche legend tells of four men who were first created. The great spirit gave them wives who were mothers, whose names were The Falling Waters, The Beautiful Water, The Water of Serpents, and The Water of Birds.

The Thibetans believe that on the sacred mountain grows the tree of life, and that four streams flow to the four quarters of the world from it.

Mythology has given the primitive meaning of the story of the tree of life, for it was derived from the method of fertilizing the palm tree. There are monuments on which Genii are seen holding a cone towards the branches of the trees as though it were a symbol of fertilization. This is however very different from the

meaning given to the tree Ygdrasil.

The notions entertained by the red race on the resurrection are peculiar and stand apart from any other. They did not look for the second life to be better or worse than the present. They regarded it neither as a reward nor a punishment; nor is there any evidence that they connected the future with a moral or physical event which affected their destinies hereafter. Their views



HUMANIZED RAINBOW

were in contrast to those of the Greeks and Romans, and especially the Israelites, but on the whole their thought of the future was hopeful rather than fearful.

The tradition among the Esquimaux was that the future condition was to be an improvement upon the present. In the course of time the waters will overwhelm the land, will purify it of the blood of the dead and melt the icebergs, sweep away the rocks, make a new land which will be peopled by young seals. Then the one from above will blow upon the bones of the dead men. They will at once start into life and lead a joyous existence.

ORIENTAL DEPARTMENT

Edited by Dr. CHAS. H. S. DAVIS.

The commission appointed to prepare the programme for the coming Interational Archeological Congress next spring in Cairo has sent out from the Egyptian Museum of that city the preliminary announcement. The experience of the last Congress, held in Athens in 1905, convinced the majority of the participants that the work has been too minutely divided. Accordingly, the next Congress is to have only six groups: (1) Pre-Classical Archeology; (2) Classical Archeology; (3) Papyrology; (4) Christian Archeology; (5) Numismatics and Geography, and (6) Byzantine Archeology. This arrangement, however, does not meet with universal approval. The Munich *Allgemeine Zeitung*, for example, while expressing pleasure that the new science of Papyrology has attained to the dignity of a separate section, regrets that Inscriptions has been assigned to a subordinate place; as also that the Christian Archeology has not been united with Byzantine Archeology.

Cav. Tapparelli, who has charge of the excavations in the old Etruscan cemetery, at Vicenza Italy, has made a remarkable discovery, which shows that Etruria was first settled from Asia Minor as far back as the fifteenth or fourteenth century, B. C., but also reveals the Hittite origin of the Etruscans themselves, whose already discovered remains have not dated further back than 1000 B. C.

During Cav. Tapparelli's excavations many interesting relics of the Roman-Christian period have been unearthed, together with a number of Latin sarcophagi and three brick tombs of undoubted Etruscan workmanship. Under one of these tombs was found another inclosing a lead coffin in perfect condition, but which when opened revealed a handful of dust and a remarkable terra-cotta cylinder about two inches in height and three inches by two and a half in diameter. The excavators at once recognized the cylindrical seal common among the Assyro-Babylonians, for in the British museum there are no fewer than 660 of them, all brought from Mesopotamia. These seals were used to give official or private indorsement to writing on clay, wax, or papyri pulp. Others of later origin have been found on the Island of Crete and in Minorca.

By comparing photographs of the seals already discovered

with his find at Vicenza, Cav. Tapparelli was enabled to fix the approximate date of the latter. On the top of it is a small self-cylinder about an inch in length and evidently bearing the symbol or autograph of the owner. It is a male figure with wings and the head of an eagle. Around the cylinder itself are clustered a number of figures consisting of priests and cattle, revealing a sacrificial or scene of adoration, of which some exalted deity is the object. These figures, besides their literal significance, have, of course, a symbolical meaning, which has not yet been deciphered.

After an eight months' sojourn abroad, Prof. Randall MacIves, curator of the Egyptian department of the University of Pennsylvania, has returned to Philadelphia, bringing a large assortment of rare and valuable additions to the museum which he obtained in original excavations in Nubia. Prof. MacIves says that he is highly gratified with the results of his investigations, which he believes will add much to the knowledge of ancient Egypt. He became connected with the University last January, and was at once sent out to make explorations and excavations in Nubia, a part of ancient Egypt about which very little is known. He spent four months in that country and unearthed treasures of great value. Many of these he has been permitted to bring to America, and they will enrich the museum, which is already recognized to be the best in the United States so far as relics of old Egypt are concerned. After finishing his work in Nubia, Prof. MacIves spent some time in Greece, and then went to Oxford, where he has held for seven years a fellowship in one of the colleges.

Says Professor MacIves: "I regard my Nubian excavations as of immense importance to science. Just what significance they will have it will be hard to say for several months, as we have unearthed tablets bearing a language different from the general run of Egyptian inscriptions. Dr. Max Muller is hard at work translating these from photographs sent to him, and we hope to decipher them in time. Nubia has been disturbed comparatively little by modern excavators. I worked between the first and second cataracts, near the towns of Amadah and Anibeh. At Amadah there is a fine temple, which is very much in ruins now. We also found what might be called a fort, built in the time of Thothmes III. At Anibeh we came upon nine brick pyramids of the twentieth dynasty. They are the only brick pyramids known of that period. Their existence was known, but no scientific research concerning them had been made. The most valuable

article which I obtained for the museum is a very large engraved stele covered with inscriptions. I have also found much that will throw light upon the early Coptic church."

An appeal is being made for funds to undertake the great task of excavating the ruins of Memphis. It is expected that England will now do for Memphis what the French government has done for Delphi and the Germans for Olympia. The sites of the four great temples are plainly marked, so that exploration can begin at once. This mass of ruins covers 100 acres; as much as the whole of the site of Karnac, and it is estimated that \$15,000 will be needed annually for fifteen years to accomplish the work. Important material is believed to lie within a few yards of the surface, so that results should be reached promptly.

Prof. E. Sellin of the University of Vienna, who has had charge of the archeological researches made by the Germans in Palestine in recent years, and under whose direction the German Archeological School at Jerusalem began its work on the site of the biblical Jericho, has recently sent his preliminary report to the Vienna Academy of Sciences. The excavations are being made by about one hundred natives at five different places near the Elisha fountain. In the northern section were discovered the ruins of an old castle, which consisted of a tower twenty feet high, and a structure of four stories, connected with stone steps. In three of the rooms were bake ovens. Utensils of various kinds were discovered, as also reliefs of fleeing gazelles pursued by a lion. Another structure, with utensils of various kinds, was laid bare in another portion of the grounds. In still another some remnants of the old city wall of Jericho were unearthed, at one place a section of a brick wall as much as forty feet thick, built on a foundation of hewn stone two feet high. At another place, the searchers found private houses in different strata, built one upon the other, evidently representing different stages in the history of this famous city. Most of the houses belonged to the old Canaanitish and prehistoric age. Among the finds are lamps, plates, needles, handmills, and the like, some of clay, others of bronze. Prof. Sellin will continue his researches next season.

Important additions to the art treasures of the world are being made frequently as the result of the excavations which are continually going on in Italy. Last spring the Roman forum and the Palatine held the public interest, but now it has been turned toward ancient Paestum, where stand three of the most beautiful Greek temples in the world. Up to a short time ago the presence

of an entire city at Paestum was only dimly suspected. Nothing had been done in the way of excavations, partly because of the exceedingly unhealthy malarial conditions there. These conditions, through modern medical science, have been much moderated, and it is quite possible to excavate without danger to the health of the workmen. Until the work of excavation was begun it always had been supposed that the temples were all that remained, but Prof. Spinnazola was convinced that underground would be found a city, and he has proved himself right. He began by finding a few meters below the surface a perfect street, thirty feet wide, well paved, showing, as those of Pompeii, ruts worn by the heavy wheels used in ancient times. These ran past the temples called the Basilica and the temple of Ceres. At the back of the Basilica he found a terrace belonging to it and on the opposite side a grandiose semi-circle and three steps, forming a magnificent entrance. No one can have an idea, without seeing it, of the grandeur which this gives to an already almost perfect temple.

The professor has also unearthed a vast number of objects of stone, bronze and iron, which are of great interest as illustrating the customs of ancient times. These objects comprise knives, daggers, buckles, rings, chains, brooches, and a variety of utensils. An ancient Greek tower, which rises on the banks of the river Salto not far from the excavations, has been given by its owner to the State for a museum, it being particularly appropriate to that use.

In Rome another precious Greek statue has been found. It is particularly interesting, as it is pronounced to be an original, while most of the celebrated statues there are antique copies of originals. The new statue represents a market woman with chickens and fruit. The arms are missing, and the face is damaged, but otherwise the statue is perfect. As it was found in the Via Monte Caprino, it probably was a guidepost pointing in the direction of the market, which was near Monte Caprino, at the side of the Tarpeian Rock.

Owing to the decision to raise the Assouan dam twenty-three feet, an expedition has been appointed by the government of Egypt to survey the whole of both banks of the Nile from Kalabshi to Derr in Nubia, a distance of 150 kilometers. The known temples will be strengthened, their inscriptions copied, the monuments at present under the soil will be excavated and descriptions recorded and published. The work is expected to occupy five years.

In an interesting and profusely illustrated volume entitled "Mehr icht," recently published in Leipzig by Heinrichs, Prof. Friedrich Delitzsch of Berlin, author of "Babel and Bible," derives the medieval witchcraft delusion from Babylonian sources. That similar beliefs and practices prevailed among the Babylonians and Chaldeans is proved by the discovery and decipherment of the cuneiform inscriptions on a series of clay tablets, called Maglu (burning), belonging to the library of Asurbanipal. These records show that the Babylonians attributed to witches a mysterious and malign influence, which could be counteracted only through the agency of fire, but as this end could be obtained by burning them in effigy, this punishment was free from the horrors connected with witchcraft persecutions in Christian countries, where it has been estimated that this superstition has caused nine million innocent persons, of whom the great majority were the noblest and most intelligent of their day and generation, to be tortured on the rack and to be burned at the stake.

It is only about eight or ten years since the Turkish government has given the necessary firman to excavate in Palestine. The different nations of the West have harmoniously co-operated in this work, especially the Germans, Austrians, English, French and Americans. The Germans have been engaged chiefly near Mt. Carmel, under direction of Prof. Sellin of Vienna, and more recently have begun work on the ruins of old Jericho, in immediate charge of Prof. G. Dalman. Dr. Bliss and Prof. Flinders Petrie have investigated historic sites in the southwestern parts of Palestine, and the chief result of this work has been the demonstration of the fact that civilization and culture did not begin in Palestine with the advent of the Israelites, but that, antedating this period, an older type of civilization, chiefly along Babylonian lines, was widely spread in this historic land. Strata reaching back centuries before the era of Joshua have been found, even a few cuneiform inscriptions, proving still more fully what has already been seen from the Tel-el-Amarna letters, that in pre-historic times the Babylonian was the international language of diplomacy throughout western Asia and northeastern Africa. An excellent account of what has been accomplished is found in the recent work of P. Hugnes Vincent, "Canaan d'Apres l'Exploration Recente." (Paris, Victor LeCoffre.)

Prof. Koldewey has been busily engaged in excavating in Babylon. His most interesting find has been a building from the period of Artaxerxes, ornamented with many-colored enamelled brick. In Egypt, the German Orientgesellschaft has continued

its researches in the pyramid field of Abusir Er-Rirah, near Cairo, and reports among other things a group of large and beautiful reliefs from the fifth dynasty. The full account of the society's excavations at the pyramid and the temple of King Ne-User-Re, in so far as they belong to the old kingdom, has now been published by Heinrichs of Leipzig, as the seventh volume of the Scientific Reports of the Orient Society, prepared by the leader of the Egyptian expedition, Prof. Ludwig Borchardt.

The German Evangelical Institute in Jerusalem has now published two issues of its annual reports, "Palestina Jahrbucher," edited by the leader of this school in Jerusalem, Prof. Gustav Dalman of the University of Leipzig. This Archeological Institution is entirely independent of the German Palestine Association and its *Journal*, having been founded by the representatives of the different German state churches as these meet biennially in the Eisenach conference. The institute is modeled after the classical schools in Rome and Athens, the purpose being largely to equip young university graduates for an academic career in the Biblical departments at home. These two volumes contain reports of researches made by the members of the institute in different parts of Palestine. Most of these papers are geographical, topographical and archeological. The publishers are Siegfried Mittler und Sohn, in Berlin.

Memphis, whose history extends over the whole course of Egyptian history, has never yet been excavated. It contained the finest school of Egyptian art, and in antiquity and wealth it was unrivalled. The Egyptian Research Account has now undertaken this work, and it will necessarily be a great undertaking, like that of France in the clearing of Delphi or of Germany at Olympia. The clearing of the site of Memphis, with gradual exchanges as land is required, will occupy many years, and it is estimated that an expenditure of about fifteen thousand dollars annually for about fifteen years will be required to excavate the temple sites, apart from the city. As half of the discoveries will be granted by the Egyptian government, this clearance is certain to yield a considerable return for those who undertake the work.

The work of the Egyptian Research Account under Prof. Petrie during the past season has been more successful than usual in the discovery of objects, and has added to our archeological knowledge. The first, second, and third dynasties have been tracked at Gizeh, and the civilization soon after the founding of Memphis has been proved to have been exactly equivalent to that

of the south at Abydos. Many vases of stone, and objects in ivory and flint, have been obtained of this remote time, centuries before the pyramid builders. A large funeral chapel of the XXVth dynasty was also found, containing four chambers; it was built for a commissary named Thary, and it has been left in place and earthed over again by the Department. A large amount of Anthropological material of the later times has been brought to England for study. At Rifeh, near Asyut, a very fine tomb equipment of the XIIth dynasty was found, of the best work and in perfect condition; the two coffins covered with painting, the canopic box, two boats, and five statues are of the first quality. A long series of pottery soul-houses have been recovered which explain this curious development of religious thought, and explain the appearance of the actual dwellings of the peasantry in the Middle Kingdom, with the details of construction and of furniture. This is the first time that this interesting subject can be regularly and completely studied. Much else was discovered of this age and of later times; and early settlements were excavated which yielded stone inscriptions and carvings, papyri, leaves of parchment MSS., and various other remains. It is intended to carry on some work in this same region this winter, before the ground is sufficiently dry to work at Memphis. The whole results are published in the double volume each year (given to all subscribers of ten dollars and upward), and a smaller edition gives most of the material of general interest for subscribers of five dollars. Subscriptions can be sent in this country to Rev. Dr. Wm. C. Winslow, 525 Beacon Street, Boston, Mass.

No more interesting works of excavation have been carried out in Palestine than those that have brought to light so much of the ancient city of Gezer. These excavations have been undertaken by the Palestine Exploration Fund, and an illustration lately published tells something of the splendid results of their labor. They have unearthed houses built of rough, undressed stone set in mud, direct successors of the primitive cave-dweller; stones upon which the Canaanites sacrificed children to their gods, and the sockets in which were erected the "Asherah" that the children of Israel were commanded to destroy. The palace of Simon, the Maccabee, has also been excavated, and a bath house furnished with drains and a furnace has been discovered. The fortifications, of which considerable traces remain, demonstrate even today the high strategical importance that Gezer possessed in the days when it was a flourishing city, founded, according to the authorities, 5000 years ago.

The American Museum of Natural History, in New York, re-

ceived from Egypt in October, twenty-seven cases of rare fossils, about six hundred specimens in all, comprising forms new to science, exceedingly valuable fossils of the ancestral elephant and of an extraordinary beast, the *Arsinoitherium*, which is not closely related to any living form or any extinct group. It is conservatively estimated by geologists that these animals existed more than a million years ago. These fossils are the product of an expedition financed by Morris K. Jessup, president of the museum, and sent to northern Egypt by Dr. Herman C. Bumpus, the director, to Prof. Henry C. Osborn. (See *Soc. Ant.*, Vol. XXIX, p. 186.)

The first report of the Cornell expedition to the Assyro-Babylonian Orient has been received by Prof. Sterrett, its organizer. The party consists of A. T. Olmstead, B. B. Charles and J. E. Wrench. The report says that the principal sites of the region explored have been fixed astronomically for the first time, disclosing many defects even in the best maps.

All the Hittite sites west of Raisarive and Konia have been visited, the inscriptions collated and many new readings have been secured. At Boghaz-Keui, at the suggestion of the German excavators, the Hittite inscription, one of the largest known, and generally considered quite illegible, was studied, and as a result of two and a half days' work the greater part of the inscription was recovered. A considerable number of classic and of Arabic inscriptions have been copied, many of which are new. St. Angola and Boghaz-Keui cuneiform tablets were also obtained, and one Hittite seal.

At Giaour Kalesi, a well known Hittite site, the palace was planned and found to be of a distinctly Mycenaean character. The classic sites of cities in Asia Minor are fairly well established, but very little has hitherto been known concerning the exact location of their earlier representatives. Over fifty sites have been carefully examined and proved to be pre-classic, and of these a considerable portion can be connected with an already known classic locality. The pre-classic site of Iconicum, the most important city of southeastern Asia Minor, has been found. Much of the pottery found there is similar to the early type found at Troy, and a better site for excavation has not yet been seen by the expedition. Over three thousand potsherds have thus far been collected and studied. Most important are the various shreds of Mycenaean character, showing connection with the Greek world of the time of Homer. In the light of the material collected it seems almost certain, says the report, that some of the most widespread views in regard to the earlier people of Asia Minor and

their connections must be modified or abandoned. A marble idol of a type hitherto found only in the Greek islands in pre-Mycenæan settlements was secured at Angora. This link between the early inhabitants of Greece and of Asia Minor is of very great interest.

M. de Morgan, in his report of last winter's excavations at Susa, speaks of the discovery of numerous and important inscriptions concerning the history of Elam and Chaldea, "the cradle of our civilizations." Among the art objects there is an elaborate statue of King Manichtusu, with its date (4000 B. C.), practically authenticated by an inscription. There is also a superb specimen of painted ceramics of the same century, found at the depth of twenty-five meters amid the ruins. M. de Morgan believes this, with the ante-historic pottery of Egypt, to be the forerunner of the potter's art in the Mediterranean countries.

At a recent meeting of the Paris Academy of Inscriptions and Belles Lettres, M. Maspero, who read a report to the Academy, announced that the barrage for the irrigation of the Nile had done irreparable damage to the ancient monuments, which have been submerged, and especially to the famous Temple of Philæ, which was flooded by water from mid-December until April. The new irrigation scheme, in his opinion, will do even greater damage yet, for the Temple of Philæ will be submerged twenty-five feet. The Egyptian government has entrusted to him the work of carefully copying all of the inscriptions on the famous temple. "But," says M. Maspero, "the temple must be considered lost forever, seeing that the foundations are saturated like a sponge and the land is undermined. In thirty years at most the temple will have disappeared."

We have already called attention to the first installment of the valuable account of the excavations carried out at Nippur, by the Babylonian expedition of the University of Pennsylvania. The work, which is published under the title "Excavations at Nippur," deals with the excavations carried on during the years 1889-1900, and describes them particularly from the architectural or archeological side. The descriptive text is by Mr. Clarence S. Fisher, one of the architects of the expedition, and he supplements his narrative with numerous plans, detailed drawings and photographs. Part I was devoted to a topographical survey of the mounds marking the city and their general contents. Part II, which we have now received, gives a detailed description of the various walls and buildings which have been mentioned in the

first part. The enclosing walls are first dealt with, then is considered the fortress, and the temple which it covered. Part II contains 49 pages of text with eleven plates.

Some two years ago Toronto University commissioned Charles T. Currelley to proceed to Egypt and collect antiques for the college museum. Mr. Currelley returned to Toronto in October, and was followed soon after by some fifty large cases of ancient ceramics and curiosities unearthed by himself and his helpers. During his work he attracted attention by his discovery of the great statue of the goddess Hathor, and a magnificent shrine of alabaster in the subterranean tomb of Mentu-Hotep, who died 2700 B. C. The shrine is ten feet by twelve feet on the floor and ten feet high. The shrine could not be taken away. On the floor were found bones, sacks of mummy linen, a gold-plated sceptre, bowls and fragments of wood from the Sudan. Plunderers had been there thousands of years ago. The great king had contrived to have his body buried with his treasures in the very bowels of the earth—six hundred feet below the crest of a granite cliff. Ghouls had tunnelled for his resting place, and had covered their tracks with earth and fragments of rock. The dead king had been sealed with his riches far enough, it was thought, from molestation by man. But he was not permitted to rest in peace. The treasure was too tempting.

Mr. Currelley has been burrowing for twenty months in the high granite rocks of the valley of Deie el Bahari, near the ancient city of Thebes. This valley was the home of the greatest deity of the Egyptians, the goddess Hathor, whose residence was thought to be in these cliffs. Sixteen years ago Professor Naville of the Egyptian Exploration Fund began excavating at the granite gateway of the Temple of the eighteenth Egyptian dynasty—about 1500 B. C. Up to the present time he has unearthed two fine temples, which have taken a force of 400 workmen several years to clear away.

The house of Heinrichs in Leipzig begun, under the general title of Vorderasiatische Bibliothek, to issue a series of transliterated and translated texts from the literatures of western Asia that promises to furnish the student of history, theology and literature with rich material from the ancient Orient. These texts are accompanied chiefly by explanations of their pre-historical importance, the philological data being subordinate. The whole series is to fill perhaps three hundred sections, octavo, each of sixteen pages, to cost fifty pfennige; one each year and being about twenty-five sections. As elaborated so far, the work will

furnish inscriptions under six heads, viz: Old Babylonian Kings; Assyrian Kings, Neo-Babylonian, the Achimenes and Later Rulers, South Arabian, and North Semitic. There will also be Chronicles, Leases and other Property Documents; Letters, including those of Tel el Amarna, Legal Texts, and Mythological Texts. Most of the material is more or less old, but unpublished texts are also promised. The first volume of the series has appeared as a volume of 275 pages, entitled "Die Sumerischen und Akkadischen Königsinschriften," edited by Fr. Thureau-Dangin. These inscriptions are arranged under twenty-one heads, evidently chronologically. An appendix follows, together with a list of abbreviations, signs, and proper names. A second volume is to follow in the near future, "Die Amarna Tafeln," in eleven monthly installments. The series is not intended exclusively for specialists, but for scholars in general anxious to get as near as possible to primary sources.

The theory advanced by biblical students that the early Jewish patriarchs were not historical characters, but tribal myths, is attacked by Dr. Olaf A. Tofften, of the Western Theological Seminary, in a book just published in Chicago. He, for example, identifies Joseph with the mighty Sesostris III, and he believes that he has made clear the much vexed subject of the chronology of the Judges.

The Italian government is planning to found an archeological institute at Athens, after the model of the German archeological schools in Rome and Athens. France, Germany, England, America and Austria have all along been represented, and Italians will no doubt welcome the opportunity for archeological research in Greece which such an institute will afford them.

ETHNOLOGICAL NOTES

AMERICAN ANTIQUITIES.

Two noteworthy steps have been taken this year concerning the antiquities that are scattered over the semi-arid region of our Southwest. Congress passed a law in June prohibiting the excavation or appropriation of any prehistoric ruins on the public lands without special permit; and this month the Government has issued the first of a series of concise bulletins designed to supply fuller information about these antiquities than has hitherto been published.

A growing evil has been the extensive traffic in relics from the pueblos in Arizona, New Mexico, Colorado and Utah. Irresponsible persons have pulled to pieces cliff houses, cave dwellings, pueblos and many other objects while collecting relics. The real value of these relics has been almost wholly destroyed because they have been scattered far and wide without accompanying scientific records. Hereafter these objects may be collected only for permanent preservation in reputable museums and educational institutions.

Most publications of the Bureau of Ethnology dealing with these prehistoric remains are now out of print, though the demand for them still continues. The new series of thin, handy volumes will, in a measure, take their place. The first is on the antiquities of the Jemez plateau, New Mexico, where prehistoric pueblos and cliff dwellings are very numerous. Several of these bulletins are now being prepared by the best authorities on the areas of which they treat.

This work of preservation and study is to be highly commended. Enough has been learned about some of these districts to show that their former inhabitants lived at least six to eight hundred years ago. Their migrations have been traced to some extent and in a few cases their relationship to modern tribes has been traced.

A GLIMPSE OF THE UNSEEN WORLD.

By the REV. J. MORRIS WHITON, Ph. D.

I. Nearness of the invisible world. Seeing it makes it no nearer; not seeing, no farther off. We have no reason to believe that there is great distance between us and our beloved dead, but only a thick curtain impervious to sound or sight, which

is both for our comfort and our health.

II. An accomplished resurrection. Moses and Elijah appear in glorified bodies as in the resurrection state. Had they alone risen from the dead? Christ was the "first fruits" of the resurrection, the beginning of our positive knowledge of it. The reality had existed before. Here is also an accomplished judgment. They have entered into the fruits of a godly life on earth. Divine judgment belongs to no one time, but continues through all time. When we die out of this life we rise into another, and experience our judgment as we enter on our inheritance of good or evil.

III. Moses and Elijah were widely separated in time and character. Christ is their bond of union, as He is of all in the city of God.

IV. The glorified dead share the interests of those on earth: the advancement of God's Kingdom, all movements towards truth and brotherhood, even the smaller things which are inseparable from the greater. Is not their blessedness impaired by the wickedness and wretchedness they behold? It does not depend on their ignorance, but on their faith in God and His processes of salvation.

What sympathy have we with this heavenly fellowship? Is our main interest, like theirs, the advancement of God's kingdom, or is it in lower, selfish aims? On this depends our future destiny and fellowship.—*Expository Times*.

GOBELIN TAPESTRY.

How many people know that since 1791 no tapestry produced by the famous Gobelin looms has been sold? Several wonderful creations have been presented by France as gifts, but these famous works belong to the state, and a private individual may not buy, no matter how much money is in his purse.

Louise XIV. bought this great establishment in 1662, and ever since, with but short intervals of rest, their famous looms have been producing priceless treasures. A tapestry is designed to be a background and is in reality a picture woven in cloth, though not to be judged as a painting, as there is only a suggestion of perspective, the pleasing effect being in the marvelous harmonizing of colors.

Ten years is often consumed in producing a single piece, the cost being in the neighborhood of \$50,000. Each tapestry is a complete picture, and there are no "set" patterns.

NATURE DIVINITIES.

The Chinese Divinity named Panqu came into being in great

haste, but his beginning was unknown. In dying he gave birth to the material universe. His breath was changed into the wind and clouds. His voice was the thunder. His left eye became the sun, his right eye the moon. The retirement of the sun goddess to the rock cave gave great consternation to the heavenly deities. They met in the dry bed of heaven and took counsel how they should entice her out from the cave. By the advice of Omoikone, the counsellor deity, the long singing birds of the eternal land uttered their prolonged cry before the door of the cave, when she made her appearance.

The Tree of Heaven.—The ancestors of the Nakatenise dug up the roots of the five-hundred-branched tree of heaven and hung on its branches strings of jewels and numerous pieces of cloth.

SACRED BOOKS OF JAPAN.

In Japan the ancestral deity was a remote, mythical personage, who to all appearances had never been a human being, but a divinity of the mythical world, to whom his worshippers were no more related than the Heraclidæ were to Hercules. With the Japanese, as well as with the Chinese, the sun god was produced from the left eye and the moon god from the right eye.

The sacred books of Japan are called Kojike and Nihongi. They belong to 712 A. D. They contain record of ancient matters. They have been translated by B. H. Chamberlain, in Reports of the Society of Japan, Vol. X., 1882.

Cuchallen and Emir, like Sigurd and Brynheld, represent the nature powers, the sun fighting the mists and darkness. The bulls are confined to dawn cows, the storm cows of the Hindoos.

The Egyptian myths are for the most part symbolic veils under which the story of astronomical progress, calendar corrections and theological changes were hidden away by the Priests and Scribes. They were more ancient than the sacred books of Japan, though in that country the mythical period comes to an end in 660 B. C. There is no country in the world where the regulation of the calendar was of more importance than in Ancient Egypt. The coincidence of the overflow of the Nile with the rising of Sirius must have been observed at a very early date and served as a fixed point in the calendar.

INDIAN TRIBES IN MICHIGAN.

News of the death at Gros Cap, a settlement on the north shore of Lake Superior, west of Goulais Bay, of Peter Cogiosa,

probably the oldest Indian resident of the district, has been received.

For the past two years Cogliosh has lived at Gros Cap. When the Lake Superior corporation took over the island he and the others of the Bachtawana tribe who had been living there were moved up the lake, where new homes were made for them. He was 82 years of age and was born on the island that was his home for so long a time.

Peter was a sub-chief of the Batchawana tribe, and was very fond of the number of medals which he possessed, and which on festive occasions always decorated his breast. Some years ago Sir Frank Smith presented to the Batchawana Indians a flag which was delivered into Peter's hands at a public celebration.

In 1819 Gen. Cass set out from Detroit with a large party for the Saginaw. It was a journey on horseback and the territory north of what is now Flint was an almost trackless wilderness. Only twelve years before Governor Hull, at Detroit, had treated with the Indians for the territory now composing the southern part of the state. Cass went as the agent of the government to secure the land to the north. Jacob Smith and Louis Campau, of Detroit, had established trading camps along the Saginaw some years before, and to Campau was given the task of building a council house for the coming of Cass.

Walpole Island, as most people in this part of Michigan know, is the seat of a Canadian Indian reservation. In addition to the Indians there are now residents of the island an Indian agent, Joseph McDougal; a British customs house officer, William Hennigan; and an Episcopal clergyman, Rev. Simpson Brigham, now temporarily absent, having gone to New Mexico for his health some time ago. A Methodist clergyman also resides on the island, as does also William Wright and another white man, both of whom have married Indians. Aside from these and their families the inhabitants are all of more or less mixed Indian blood.

There are three churches upon the island—Episcopal, Methodist and Catholic, the spiritual needs of the last congregation being supplied from Wallaceburg. For his long pastorate of thirty-one years, beginning with the Episcopal church in 1845, Rev. Andrew Jamieson is held in kindly remembrance. There are also three schools upon the island, and these are taught by Indians. In addition to the adherents of the churches the census reports show that there are seven pagans or persons who do not believe in any orthodox creed.

The American Antiquarian and Oriental Journal has reached its 30th volume, and will continue as heretofore to give informa-

tion as to all recent discoveries in Babylonia, Egypt, Palestine, and other countries of the far East. It will also contain many articles and notes of the prehistoric races and antiquities of this continent. It is well known that the aboriginal races are rapidly disappearing, but they have left their names upon the waters and their records on the monuments. It has been and will continue to be one object of this magazine to describe these.

A comparison will be drawn between the relics and races of this continent and those of Europe, Asia, Africa, and Australia; the correspondence from persons in these countries having greatly increased. It is the design of the Editor to put the magazine on a broader basis, and to seek contributions on Archæology, Ethnology, Mythology and Early History, especially such as may throw light on the religions, customs, and traditions of primitive peoples.

Articles may be expected from those who are following special studies and who are well qualified to furnish information, many of whom are distinguished scholars and writers.

Among those who have been regular contributors are the following: Prof. A. H. Sayce, D. D., LL. D., Oxford, England; Joseph Offord, Henry Proctor, A. L. Lewis, London, England; Lieut.-Col. Mackinlay, British Army; R. H. Matthews, Australia; Prof. R. F. Harper and Prof. Frederick Starr, University of Chicago. Dr. C. H. S. Davis, former editor of *Biblia*, will continue his valuable notes. Contributions on American Archæology will be furnished by Prof. W. E. Gunnison, President Normal University, Las Vegas, New Mexico; Prof. Kinniman, Benton Harbor, Mich.; Wm. C. Mills, Columbus, Ohio; Warren Upham, Minnesota Historical Society; and others. Correspondence in reference to discoveries may be expected from missionaries in foreign lands.

The magazine will continue to be illustrated with original material.

The address of the Editor-in-Chief is 438 East Fifty-seventh Street, University Quarter, Chicago, Ill.

THE ANTEDILUVIAN AGE.

The list of antediluvians in Genesis seems to be based on the idea of a twofold line, the one in the line of Cain succession through Ham, the other the line of Seth through Shem. Seth was the ancestor of Israel and of Moses and the Messiah. Ham's chief residence was in Phoenecia. The earliest divinities seemed to have had their homes in the mountains, but the later divinities dwelt in the temples. Ishtar was the presiding deity of Erich and had a celebrated temple, Eanna. There were four centers

or quarters of the city Shurpula. The country, rich in trees of every spices, sent them to Shurpula. The ships were laden with all sorts of trees. From the mountain of Borsippa cedars and other trees were brought to Telloh. The list of divinities was as follows: Ana, the sky god. Bel was the lord of the mountains, where the seat of the gods was placed as well as the habitations of the dead. Bel was father of the gods. Belit was the mistress of the mountain, the wife of Ellillu, or the mother of the gods. Ea was the god of the earth. Sin, the moon god, was the eldest son of Ellilu. The list arranges the divinities in three generations. In the first came the four great gods, including a goddess. Next to these are placed the sons and the daughters. The god which had a temple at Eridu was called the Divine Father. Nin-Girsu was a solar god. The sun ruled in the clouds, like Apollo, the huntsman; the avenger and the Saviour. Bou was termed the mother, mistress of abundance, resembling Demeter. Later, in the days of Tiglatte-Pileser, a sun divinity was worshiped at Nippur who came to be regarded as a sort of "Chaldean Herakles." He was a "god of light," "the revealer" and "the hero." He was identified as one of the primeval gods. The sun god rises from the divine days, and was identified with one of the primeval gods of Accadia, and became the son of the "home of the firmament." The elementary spirits of the old Accadian fathers passed into the Semitic belief, but were resolved into symbolical representatives of the primordial elements of the world.

THE MYSTIC SYMBOLS OF THE PLANETS.

Cabalistic astrology conceived the universe as consisting of ten concentric spheres. First, the sphere of the zodiac, or Saturn, Jupiter, Mars, the Sun, Venus, Mercury, the Moon, the Mundane Sphere. The spheres of the seven planets were of the greatest importance to mankind. There are magic squares composed of three columns of three each, making nine squares in all. The planetary square of the Hebrews had seven squares each way. It is a remarkable fact that there are medals which have the same symbol resembling a star, made up of triangles, both as to rays and body, the rays consisting of eight triangles and the body of four triangles around a central square. The same method of making a star of triangles was common in America before the time of the discovery, and the wonder is how it came to be. Does it imply contact, or did this form of star originate on the two continents separately? This figure is found everywhere, just as the cat's cradle. The five-pointed star is Cabalistic in

the Orient, but it is uncertain whether it was used as a symbol on this continent. The circle with the cross and the Nile key were common symbols in Egypt, but are not found in America. The giving of life was symbolized by the Nile key. Water is symbolized by the wavy line, as the stars by interlacing lines, the sun by a circle, the moon by a crescent, the earth by a square or a darkened circle.

There are hieroglyphics in America, but they differ from those in Egypt in the following respects: In the first place, the symbol of the bird, of the eye, the half-closed hand, the ibis, the owl, the tent, the flag, the mummy, are common in Egypt and not found in America.

THE HAGUE CONFERENCE.

During the proceedings of The Hague conference a student of Chinese history discovered in the archives of that venerable empire the record of a similar conference held in China more than 2,500 years before Christ. The circumstances surrounding the two assemblies were similar. The intention of the ancient conference was to abolish war and secure peace among the various tribes and provinces that constitute the great Chinese Empire, which, then as now, spoke different languages and were separated by local prejudices and resentments. Time has softened the animosities to a certain degree, just as it has obliterated boundary lines, although racial rivalries still perplex and endanger the Manchu dynasty at Peking. And even to-day it is necessary for the tranquility of the empire to divide the authority and the honors between the Manchus, the Mongols, the Tartars, the Cantonese, the Chinese and other races as equally as possible.

Forty-four centuries ago a conference was called at one of the central cities of China and delegates came from all directions attended by splendid retinues of wise men and warriors. They were so suspicious that they refused to enter the city and encamped outside the walls. After the delegates had assembled and each, as was the case at The Hague, had proclaimed the most profound assurances of his peaceful desires and intentions, it was accidentally discovered that one of the mandarins wore armor and carried an arsenal ready for action under his gorgeous robes. This provoked the indignation and reproaches of all the rest until it was disclosed that every one of them was armed and armored in the same manner.

This was about the situation at The Hague, and that is the principal reason why the conference did not accomplish more practical results.

PAPER OF THE ST. JOSEPH UNIVERSITY OF
BEYROUTH.

The St. Joseph University of Beyrouth, of whose work for the spread of education in the Turkish empire some account was given last year in the *AMERICAN ANTIQUARIAN*, has now published the first volume of their professor's scientific work on "*Mélanges de la Faculté Orientale*," containing several very important essays upon antiquity and history. Among those especially deserving notice is the paper by M. l'Abbe Louis Jalabert upon "Greek and Latin Inscriptions in Syria." In his collection there are about sixty previously unedited, most of which came from the temples at Deir-el-Qala. Several of the texts refer to medical men. A new text from Gebal (Byblos) proves the existence of a *Boule* there in Greek times, as at the neighboring town of Arados.

One of the longest inscriptions is a versified epitaph of a certain Tanelos from the Hauran. The poetry, however, is of the usual epigraphic variety, hundreds of which specimens may be found in the later Greek Anthology.

Pere Jalabert gives a series of texts relating to the god of healing, Asclepios, several of which connect him with shrines once dedicated to the Phoenician deity, Eshmoun. The mixture of the cult of these gods and their identification with each other finally is daily becoming more evident.

The most valuable part of the learned Abbe's essay is the amplification of his monograph at the Paris Academy upon the triad of deities at Heliopolis, in Syria; Jupiter, Venus and Mercury, in which he shows that the last of these gods was added to the other two at a somewhat late period, which accounts for so few monuments representing the three, or their triune emblems, having been preserved.

A most valuable essay of the series is that of Pere Mallon, entitled "*Une Ecole de Savants Egyptiens au Moyen Age*," whose Coptic grammar is well known. His subject here is the valuable series of Arabic and Coptic grammars which were published in the Thirteenth century, necessitated by the almost total disappearance of the Coptic language. It is most curious that whilst neither Greek nor Latin supplemented the native Egyptian tongue, yet though in the Seventh century Coptic was the language of Egypt, by the Twelfth century it had changed to Arabic. Also, even by the Tenth century Arabic had become the language of literature: for the great Egyptian writers of that date—Severus of Athmounein and Euty chius and others—used Arabic as their

medium. However, for service within the churches, reading the Liturgy and the study of the Coptic fathers, the ecclesiastics still required to know the Coptic, and, therefore, contemporary with the zenith of Arabic Christian literature, under such authors as Abou Saleh, Ibn-al' Assal and Ibn Raheb, between the Eleventh and Fourteenth centuries were produced the Arabic-Coptic lexicons and grammars which Pere Mallon describes. The writers of these philological treatises entitled the grammatical portion a "Preface," and the vocabulary they named by a word of which "Scala" is the best rendering. The latter, however, was more than a mere dictionary, several of the books containing lists of the towns and bishoprics of Christian Egypt.

Some of these works were of much assistance to Champollion, he using for specimens in the Paris library. Another very important one is preserved in the medical college at Montpellier, and another in Cairo in the library of the Coptic Patriarch, where it is catalogued among the philological books. This manuscript, as with others to be mentioned, is therefore accessible to American tourists in Egypt.

Among the thousands of Assyrian portent tablets is one relating to what will happen "if a man sees the wrath of his father," but this was not necessarily an apparition during sleep.

The subject of ghosts of deceased persons, as illustrated by cuneiform, is treated of in the "*Revue Semitique*" for January, 1900. The prohibition of these malpractices by the Hebrew prophets is now proved to be most *apropos*, and confirms the view that the Old Testament writings bear internal evidence of the dates at which they are stated to have been composed.



RELICS IN THE NATIONAL MUSEUM.

A visit to the United States National Museum has revealed some rare specimens.

In one case there are forty-three bird-shaped objects; seventy-two chunky stones; eighty-three stone gorgets, or what might be called wristlets. Eleven large plates engraved with sun, serpent, and hand symbols. These are most of them from the southern states. The pipes varied according to locality. One hundred stone pipes in tube shape from California; other pipes from Kentucky, Illinois, Missouri, Arkansas, Florida, Delaware, Pennsylvania, West Virginia, Tennessee, North Carolina, Texas and Ohio. Some of these are bird-shaped. All of them are imitative of some animal, and are nicely polished. The most common specimens were the pestles, many of these from New York, but they are quite widely distributed from Maine to California.

The large axes were somewhat numerous, some of them from Michigan and Wisconsin, and some from Pennsylvania and New Jersey. There were one hundred and fifty-three axes from Michigan, but of different sizes.

There were a few chipped effigies, resembling animals, among them the one with claws, such as the beetle and the crawfish are known to have. The diminutive relics are somewhat numerous. The spoon-shaped relics which have elicited so much attention are found here. The stone pendants are quite numerous; pestles and mortars from different states, New York and Kentucky. Carved animal figures from Mexico, one representing a wolf lying down; another a toad; another a coiled dragon with claws. The ancient pottery from the Island of Marajo, collected by E. M. Brigham. A large vessel about three feet high and about three feet in diameter from the West Indies. Obsidian relics; one case full of an assortment of jade and jadette. One case full of copper spears; another case full of engraved stones. Alaska is well represented; also Mexico and Central America, by specimens of jade. The Mississippi tablet is represented by a cast; the original is at Columbus, Ohio. It was taken from a mound near Lafayette Bayou. Nearly all of these relics have been described by Prof. Mason, Dr. Wilson, and others, so that they are familiar to archeologists. A large number of relics from foreign countries are in the Museum. They are from Ireland, England, Naples, Etruria, Egypt, Samoliland, East Africa, Madras, Cambodia, Japan, and Corea. There were some specimens which seem to have been very widely distributed. The stone collars from the West Indies have been described and are very curious.

The textile fabrics were interesting. It was not difficult to recognize the difference between the specimens gathered in this country and those gathered in foreign lands, but it was more difficult to trace the grades of progress which are supposed to be exhibited in prehistoric relics. It may be said that very large collections of textile fabrics may be found in Pennsylvania and in the museum of Central Park, New York. This museum is arranged in an interesting manner. The most attractive relics, and those which show the most advanced stages of progress, are to be found in the lower story, the first to be reached. The ruder are to be found in the upper stories. This meets a popular demand, but does not quite represent the order of progress, or the stage of development.



POTTERY PORTRAITS

The progress of the human race may, however, be traced as clearly in the archeological relics as in the books which have been written, and in a more satisfactory way.

The pre-historic progress is seen perhaps as clearly in the museums of America, and especially in those which have been able to gather large collections from the two continents. The Archeologists of Boston, New York, Philadelphia and Washington have the advantage over those who are dwelling in the interior, but great progress has been made, and the various collections in all parts of the continent are becoming very interesting and valuable as sources of instruction.

NEBRASKA LOESS.

ROBERT F. GILDER

WHILE pursuing archeological research in the Valley of the Missouri River in Douglas county, Nebraska, during the month of October, 1906, it was my fortune to discover what scientists have been pleased to term the Nebraska Loess Man—the most important contribution to anthropological knowledge which I have made. The whole valley of the Missouri river seems a veritable storehouse of the remains of primitive peoples, but before I had begun a systematic research three years ago very little field work had ever been done there. Of the Loess Man comparative anatomists and anthropologists unite in declaring that it stands in cranial development as much above the celebrated Neanderthal Man as the latter does above the Pithecanthropus Erectus of Dr. Dubois—but at that the Loess Man is assuredly a very primitive individual.

When the discovery was made I was attempting to prove a theory of my own relative to the occupancy of numerous deserted dwelling sites broadcast over the neighborhood. My belief was and is that they were made by Mandan Indians. I opened a small mound on the crest of a hill two hundred feet above the river bottom, hoping to find the remains of Mandans and, in reality, did find two—I also found two crania and skeletal parts of modern Indians, which had been buried intrusively in the mound.

Owing to erosion the original center of the mound had changed, and, instead of my finding the more modern remains at first I really found the frontal bone of what is now known as Nebraska Loess Man No. 5. I ran a trench from east to west through the hilltop and crossed this by one from north to south, securing eight fractured crania and numerous bones. The fourth day's work brought to light skulls numbered 1 and 2—those of the Mandans. In all, I secured twelve crania—two modern Indians, two Mandans and the sadly battered and fragmentary parts of eight of the more primitive type, the latter being scattered through the earth to the depth of from four and one-half to six and one-half feet in a space eight feet square. The fragments were disassociated, but they have been found to be portions of the eight primitive type and have been articulated with little trouble.

The facts of the discovery were brought to the attention of Dr. Henry Fairfield Osborn, curator and vice president of the American Museum of Natural History, New York city, by my brother, Richard Watson Gilder, editor of the *Century* maga-

zine. Dr. Osborn came at once to Omaha, making a trip of three thousand miles for the purpose of comparison of the material, also making drawings of the skulls and accompanying skeletal parts. Dr. Osborn's visit was made at a period of the work when but five crania had been secured. His deductions were published in an article in the January number of the Century magazine.

Acting upon the suggestion of Dr. Osborn, I asked Prof. Erwin Hinckley Barbour, state geologist and curator of the University of Nebraska Museum, to assist me in the further work at Long's hill, where the skeletons were found, the result being that he assumed charge of all further operations. Dr. Barbour's first day's work resulted in the determination that the primitive remains were deposited when the hill was formed, and that the other bones in the hill had been buried here.

Putnam's Monthly for January contained articles on the Nebraska Loess Man by Dr. Barbour, by Dr. Henry B. Ward, professor of Zoology at the University of Nebraska and dean of its medical department, and myself. These articles were written before completion of the work of last year.

In a monograph on the subject of "Evidence of Loess Man in Nebraska," published in the Nebraska Geological Survey, Vol. II (2), Part 6, Dr. Barbour says:

"Unconsciously or otherwise, an investigator is often influenced to see that which seems confirmatory rather than that which is contradictory to his conceptions and beliefs. But in conducting the search for evidence of human remains in the pleistocene the writer has striven against this psychological tendency and has aimed to be severely critical and exact. After continued investigation, he stands ready to give notice of the occurrence of human remains in the loess, and unhesitatingly and unconditionally announces his belief in the discovery of Nebraska Loess Man.

"A road leads from the base to the summit of Long's hill by a rather steep grade, and incident to the wear of travel and guttering by rain the roadbed has been lowered rapidly and runs in a sort of canyon with inclosing walls ten to twelve feet high—constituting a section from base to top. It is a hill of erosion and no discoverable land slip has complicated its simple geology. The summit of the hill, as measured by a surveying aneroid, is 200 feet above the river level and about 150 feet above the valley out of which it rises. The hill is conical and its apex would naturally be chosen by the mound builder as a slightly spot for burial. Further than this, there is no discoverable relation be-

tween certain human remains found in the upper layer and those in the lower. * * * *

"In brief, the conclusion is that in the case of the upper bone layer there was burial in the lower deposition. Those in the loess doubtless antedate the hill itself, while those in the upper layer are subsequent to it. That archaic burial could have taken place in loess without detection is altogether improbable. Of necessity, there would result a mixture of black with light soil and a breaking up of the lithologic structure, which certainly would be detected. The loess structure and color is perfectly preserved, and there are present the vertical lime tubes, concretions and shells characteristic of the loess precisely as is customary. Out of the evidence at hand the writer concludes that the bones of this layer are strictly synchronous with the loess formation in which they occur, in substantiation of which comes the fragmental nature of all bones, their water-worn condition, their wide range of distribution and disassociated parts.

"One would scarcely think of such conditions being possible in the case of human burial, besides it is improbable that a primitive race would dig graves to the depth of twelve feet. Should a people without tools and appliance perform such an improbable feat, would they bury water-worn fragments, and would they scatter them so widely as not to exceed five or six bits to the cubic yard? How could they replace the earth in the grave in such order and regularity that there would be perfect gradation of structure and color from soil to subsoil?

"It should be noted that few whole bones were found excepting a few phalanges. Instead, they are bone chips and splinters, with an occasional section from a limb bone, and many of the fragments are pitted or etched.

"By far the most interesting and instructive single specimen found was a skull completely disarticulated, broken and scattered over a space five by five feet. The skull wall measures as much as nine millimeters, or three-eighths of an inch in thickness. This was taken out in blocks, and while the reconstruction of a nearly complete skull seems possible, no attempt will be made to remove the bits from their original position, the intention being to keep everything in such condition as to facilitate the detection of inaccuracies and errors.

"The evidence in the case is greatly strengthened by the harmony of testimony from anatomy and geology. The anatomical arguments can be but briefly presented here, since the present paper is concerned with the presentation of geological facts, and a prospective paper dealing with anatomical facts is in prepara-

tion. Suffice it to say that the skulls are of the Neanderthal type, with thick, protruding brows, low forehead, devoid of frontal eminences, large parietal eminences, narrow temples, thick skull walls and small brain capacity. They are higher in the human scale than the Neanderthal Man, but lower than the Mound Builder. They resemble the Man of Spy. * * * *

"Owing to the many factors to be reckoned with, the question of age can be discussed intelligently only after continued study. The chief point is that human remains have been found in the loess. As the writer unhesitatingly announces, this, if a fact, as believed, carries man in America back to glacial times. Whether this is the very oldest or newest loess seems a secondary consideration."

Omaha, Neb.

MAGNIFICENT JEWELRY OF ANCIENT GREECE, NOW IN NEW YORK.

Jewels that were worn twenty-four hundred years ago are indeed worth more than passing study! And some of these have just come to New York. They have been purchased for the Metropolitan Museum of Art from the Rogers Fund and are now to be seen in the magnificent gold room of the museum. They are among the choicest in that collection of gems, for the workmanship is as fine as any by modern hands, and no one knows how many thousand dollars would be needed to buy these splendid specimens from the Museum. In fact, they are beyond price, for they could not be duplicated, and any society belle would be safe in wearing these, as no one could or would match them.

Other Greek jewels have been found here and there, but none in any museum in the world, not even in Greece, are any finer, if as fine, as these now in New York. All were found in one grave, but for certain reasons it is not stated when or where they were found. The laws of Greece are very strict about the exportation of antiques, and it would not do to say when or where these were found, as the Greek government might apply for the return of the jewels. And they are too valuable to surrender. This collection was buried with some dame of high rank of ancient Athens, probably at her special request, because her jewels were most precious and she did not like to think of any other woman wearing them after she was dead and buried.

The jewels are well preserved and show that the ancient Greeks cared little for precious stones, but preferred instead artistic forms of pure gold. These jewels include a diadem, a neck-

lace, a pair of earrings, a finger ring, seven rosettes in the form of a flower, and nineteen beads from a necklace. They are all of the yellow gold which the Greeks used for their finest jewels. It is certain from their style and workmanship that these splendid specimens of the goldsmith's art date from the fifth century B. C., when Greece was at her best artistically, when Pericles was ruler, and Phidias and his school set up miracles of art that the world has never since equaled, much less surpassed.

The diadem is a very thin plate of gold fourteen and one-half inches long and two and one-eighth inches wide in the center. Its decorations are entirely of repousse work hammered into carefully modeled low reliefs. In the center the youthful Dionysos and Ariadne are sitting back to back, their faces turned toward each other. Each holds a staff with a pine cone at the top, the thyrsos, which was the sacred emblem of Dionysos and his followers. They are seated on a conventionalized design of *akanthos* leaves, from the center of which a large flower rises. Large scrolls run to the ends of the diadem, terminating in the honey-suckle pattern, and between the scrolls are small female figures seated on the stalk of the vine from which the scroll springs.

These small figures, five on each side, are beautifully modeled, no two being alike, even the features differing. It is possible that these are meant to represent the Muses, those on the two sides being considered duplicates. On each side the first is playing upon the small Greek harp, the second holds a pair of pipes, the third plays a lyre, the fourth sings from a scroll, and the fifth is playing a lute. There are flowers among the scrolls, three birds on the ground, and even grasshoppers are to be distinguished on the flowers.

The necklace consists of a closely woven braid of fine gold wire, from which the pendants hang by intertwined chains, with rosettes at the point of attachment. There are three rows of pendants in the shape of amphora, pointed at the bottom. Those in the upper row are quite small, linked directly to the ornaments below the braid; those of the middle row are somewhat larger, and hang on small chains, with a tiny disc where chain and pendant join; those of the lowest row are much larger and most elaborate in design and finish. In this row each pendant is hung by two chains, and the chains are fastened by rosettes to both the pendant and the braid above.

The rosettes are marvels of workmanship, each being double, consisting of a large five petalled flower with another smaller flower wrought on top of it. Although the flowers are so small and close together, there is a very fine gold wire around the edge of each petal delicately soldered to it. It is probable that these

leaves were originally beautifully enameled, but this has long since worn off. Still finer than the flowers and so small that a strong glass is needed to study them are the foreparts of winged griffins. These are excellent examples of the Greek devotion to art for art's sake, for the griffins add so little to the general effect that they seem hardly worth all the trouble. These little animals are modeled by hand, not stamped or cast. The two clasps are exceedingly artistic, and the whole is remarkably well preserved. The necklace is only twelve and five-eighths inches long, so it could not have been worn loosely, but must have been worn like a collar, close to the neck.

The earrings are as remarkable as the necklace for design and execution. They are three inches long, and consist of three parts. At the top is a disc decorated with an elaborate filigree rosette; from this hangs a crescent, and from the crescent hang three rows of pendants like those of the necklace, with the double rosettes and winged griffins where they are attached. These are notable for extreme and unusual detail, the pistils and stamens being represented exactly after nature. As a whole, this collection of jewels is equaled in few museums and surpassed by none, even in Greece itself. If a society belle of our day could only purchase a necklace and earrings like these she would proudly show them as of greater artistic value than any gorgeous diamonds worn by others of her set, and her jewels would be quite as costly, for these command high prices on account of their antiquity as well as their intrinsic value.

THIRTY YEARS OF ARCHÆOLOGY.

It was in connection with the centennial at Philadelphia in 1876 that a great impetus was given to the science of Archæology and Anthropology in America.

At that time there was no journal on this continent devoted to the subject, but in the year 1879 *THE AMERICAN ANTIQUARIAN AND ORIENTAL JOURNAL* was established, and the history of the journal has kept pace with the progress of Anthropology ever since.

The thirtieth volume will commence with the year 1908, and the effort will be to make it the most valuable of all.

The following gentlemen are expected to contribute to its pages during the coming year: Dr. Chas. H. S. Davis, former editor of *Biblia* and now associate editor, Meriden, Conn.; Professors H. L. Willett and Robert Harper, of the Semitic Department of the University of Chicago; Professor Frederick D. Starr, celebrated for his explorations in Central America and in

Africa; Dr. A. H. Sayce, the celebrated professor at Oxford, England; Mr. R. H. Matthews, of Australia; Mr. Stanisland Wake, formerly of London, now connected with the Archæological Department of the Field Columbian Museum; Mr. Joseph Offord and Mr. Henry Proctor, of London, England.

The scope of the magazine will be very broad, including a comparison between the Prehistoric Archæology of America with that of Europe, Asia and Africa. Especial attention will be given to the subject of Biblical and classical Archæology, and articles will be published showing the harmony of Science and Religion. Arrangements have been made by which information will be furnished in reference to all new discoveries whether in this country or the lands of the far East, and especially Bible Lands.

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STEPHEN D. PEET, *Editor*,
438 Fifty-seventh Street, Chicago.

ANCIENT BOWLS.

In the museums of London and Paris may be seen a number of bronze and silver-gilt bowls, chased and embossed with delicate and intricate decorations. One of the most famous was found at Palestrina, not far from Rome, and is preserved in the Etruscan museum of the Vatican. The center figure is an Egyptian scene, as manifest by the face and hair. A frieze of horses in motion is ranged around the next circle, with the vacant spaces filled in with birds. In the upper part of the picture, starting from a tiny fortress, a king, apparently an Assyrian, goes forth in his chariot to the hunt, driven by an Egyptian charioteer. The king dismounts, and takes aim with a bow at a stag standing on a mound; the stag is slain and falls. Next, in the shade of a palm-tree, the Egyptian is feeding the horses, while the king proceeds to hang up and divide the stag, part for his feast, and part for sacrifice to the gods. We see the king seated before an altar under the winged disc of the sun-god. In front of the king a hideous ape looks out from a cave in a hillock, watching to slay the pious king unawares. The next scene shows the ape standing upright with a stone in his hand, but the goddess appears from heaven, and catches up king and chariot in her protecting arms. The king returns to earth again,

tramples his enemy under foot, and returns in triumph to the palace whence he went forth.

ANCIENT PHOENICIAN BOWL FROM CURIUM.

Another bowl said to have been found at Curium, on the south coast of Cyprus, during the excavations made there by General Cesnola, has in the center medallion a scene more obviously Assyrian than any shown by the Palestrian bowl. A winged deity, half god half monster, contends with a lion. The spaces around are filled by two protecting hawk-shaped genii. The interpretation of this design as a whole is by no means clear. The next circle shows some curious scenes—animal contests, a lion trampling a hunter, men come to his rescue, one with a bow, another thrusts a spear into the lion's mouth, etc. Notice the scene in the right-hand upper corner of the outside frieze of the bowl. A king, bearing on his head a symbolic crown, manifestly Egyptian, is slaying his foes; he grasps them by the hair, he kills them literally at a blow; beside him stands a hawk-headed sun-deity, Ra, with the solar disc on his head. At intervals along the bowl are formal designs like trees with monsters planted heralddically on either side. A glance at the Assyrian relief shows how oriental they are. These curious bowls suggest several problems: With respect to the preceding one, how came the artist to combine in such strange confusion a king from Assyria, a charioteer from Egypt, and an ape from Africa? Why was the cup found in Italy? Why do its designs reappear on pottery that is Hellenic? And lastly, how came the Curium bowl so far from the land which created the art it represents?

BOOK REVIEWS.

A LITERARY HISTORY OF THE ARABS. *By Reynold A. Nicholson, M. A., Lecturer in Persian in the University of Cambridge.*
Published 1907: Chas. Scribner's Sons, New York.

The Arabs were Semites and belong to the same stock as the Babylonians, Hebrews, Phœnicians. They may be divided into two races according to their situation, the Northern and the Southern, for a trackless desert separates them. The Southern spoke the Himyritic language. The Labian inscriptions in this region date back to 8,500 years. The Queen of Sheba was evidently an Arab princess, or in other words a Labian. The Himyrites belong to the same stock. There are inscriptions which date back to 800 B. C. These were discovered by the celebrated Niebuhr. Some of them were deciphered by Rodger. Halvahr cop-

ied 700 inscriptions in 870. Glaser discovered others. They have been described by Max Muller.

There are castles in Yemen which rise from solitary heights and are very ancient. The literature of the earliest period may be classified into poems and legends. Labian caravans with costly merchandise passed from the Red Sea to the Mediterranean, reminding us of the Queen of Sheba, who came with her jewels and astonished Solomon with all his glory. The year of the Hegira, 622 A. D., marks an epoch in Arab history. Before this time there were war songs, hymns to idols, and the metre varied according to purpose and spirit. It is claimed that even in this remote region poetry and the arts of civilized life had already dawned before the time of Mohammed. There was no written code. No religious sanction but traditional sentiment, custom and tribal government prevailed before the time of Mohammed. A form of knight errantry, the devotion of men and the divinity of women marked the period. It is probable that there was far more purity in the homes of the Arabs before the days of Mohammed. This author states that the heathen Arab was fully equal to the Mohammedan Arab, for virtue was hereditary. Professional musicians prevailed; bands of troubadours passed from one region to another. The oldest poems date from the fifth century. There were oratorical displays and athletic sports, but there were also tribal feuds. The Arabs were virtually Pagans long after the days of Christ. Mohammedanism, notwithstanding its oppressions and lusts, was perhaps better than the Paganism which prevailed before. The prophet pretended to have received revelations which were preserved on palm leaves. These were collected and handed down. The Koran was very different from these. It was supposed to be a revelation. It was written in rhyme but seems to us to be mere doggerel. The following is an illustration:

"Say God is One,
 God was ever thus,
 Without Father, without Son,
 And hegeth to the Father none"

There is something original in Mahomet's revelation. His parable was a hell full of convulsions of nature. Mahomet shot his revelation off against the Bible and began to stir up the Jews who were dwellers in the desert. Me-drah became the Jerusalem, the Koran their Bible, but the two systems were in great contrast. We have nothing but praise for the book. It is very important, and after one gets into the subject he will be loth to put the book down until finished.

The dawn of the Golden Age of Arabian poetry coincides with

the first decade of the sixth century after Christ, and the Arabian Homer or Chaucer must have condescended to prose. The composer of odes began by mentioning the deserted dwelling places and the relics and traces of habitation. The germs of Arabic prose may be traced back to an earlier period, about the middle of the third century. Two Arabian dynasties sprang up in Syria. The Pre-Islamic culture attained its highest development about that time. The townsmen formed the most influential element of the population. The rival dynasty on the Euphrates ruled the country around Damascus and Palmyra. Under the quickening impulse of Hellenic culture the aspects of civilization appeared, though the history of the Bedouins is mainly a record of wars, or rather guerillas. More than any man who ever lived, Mohammed shapes the destinies of his people. Though they left him far behind, they looked back to him for guidance and authority at each step. The author of this book says: "I feel convinced that he was neither a shameless impostor nor a neurotic degenerate, but a sincere religious enthusiast, as truly inspired as any prophet of the Old Testament. Pre-Islamic poetry was the natural expression of nomad life. The inevitable reaction in favor of new poetry was hastened by various circumstances. There was no organized book trade. Poets were usually dependent for their livelihood on the bounty of the caliphs. The old Bedouins praised a man only for that which was in him, and drew their images from nature. The influx of Persian and Hellenistic culture transformed thought and style."

LIGHT ON THE OLD TESTAMENT FROM BABEL. *By Albert T. Clay, Ph. D.* Second edition. Philadelphia: The Sunday School Times Co.: 1907.

This is a very interesting book and one that throws much light on the Old Testament History. The great antiquity of man is referred to in the second chapter, the Babylonian creation story in the third, the deluge story in the fourth, the Tower of Babel in the fifth, Babylonia in the days of Abraham in the seventh, the Code of Hammurabi in the eighth, the Amarna letters in the eleventh, the temple records and Babylonian inscriptions in others.

The illustrations are numerous and valuable, for they bring before the eye the stage of art which prevailed as well as the form of writing and the style of building. Hammurabi had his capital at Babylon. Dr. Theophilus Pinches offers a translation of fragments which some hold may refer to the King Chederlaomer, or Kudur Lkagumal. It appears that the bronze age had been reached at this time, for bronze canephori have been found which prove this. Babylonia in the days of Abraham was certainly much more

advanced than in the days of Noah, but if one reads the Bible between the lines he will conclude that the metal age had been reached before the time of the flood, for the building of the ark shows this. A very rapid progress must have been made between the days of Noah and the times of Abraham.

. A portrait of Thothmes III is given in this book, which shows great skill in sculpture, in fact as much skill as prevails even at the present time. There were temple records 2,000 years before Christ. The cylinders and stele of Nabonidus and Asshurhanipal show both an advanced stage of writing and of sculpture. The obscurity which has so long rested on these early periods has been dispelled, and we find now most remarkable confirmations of the Old Testament History. The name Jahweh, which is the same as the Jehovah of the Psalms, is often met with in the cuneiform literature. In 1890 Dr. Peters discovered a large collection of thoroughly baked tablets, the ruins of an ancient palace were explored, and temple records were found dating 2,000 years before Christ. The Biblical Merodach-Baladan lived at a later date, the time of Hezekiah, and the sculpture that belonged to his age shows an advancement beyond the time of Abraham. The Hebrew cherubim, which may be identified with the Assyrian Bull Colossi, showed that much skill existed in the time of Sargon, 3800 B. C. The contrast between the days of Ashurbanipal, 628 B. C., and the days of Hammurabi is very marked, as can be seen from examination of the cuts aside from the inscriptions. In fact art and literature followed parallel lines as closely in the so-called Bible lands as they did later on in the classic lands of Greece and Rome.

The bird's-eye view presented by the Bible is very correct, but the details which have been brought out by recent explorations about ancient Athens and the ruins reveal the glory which has departed and which confirm the Scripture record in a most remarkable way.

GREECE AND THE AEGEAN ISLANDS. *By Philip Sanford Marden.*

Boston and New York: MDCCCVII.

This book is splendidly illustrated, and gives by its illustrations an idea of the scenery and the architecture of Greece and the Aegean Islands, though ruins prevail upon every side. The frontispiece represents the Acropolis, with the propylæ. The Temple of Nike is also one of the ancient buildings. The Vale of Delphi is shown by a double engraving. The Agora Mycenæ is also represented. An outpost of Arcady gives a view of a bridge which is a wonder, same as the entrance of the Stadium at Olympia.

The grotto of Apollo at Delos carries us back to a very early date. A sculptured tryreme on a rock at Lindon gives us an excellent view of the style of vessels which were common. The scenery departed, but leads us to realize something the style of architecture and of art which prevailed. Greek mythology was embodied in the art and in the architecture. This perhaps would account for the contrast between the ancient and the modern architecture. The book will be sought for on account of its engravings. Other books will be found as instructive with reference to history, but this brings the art and architecture before the eye.

ANCIENT HEBREW LITERATURE. By *Rev. Bruce Taylor*. Vol 1, 2.

This series of books commences with Genesis and goes on through the Old Testament. The introduction is by Rev. E. Bruce Taylor. They contain a brief summary of the different books of the Bible written in a familiar style.

The series really amounts to a new translation of the Old Testament, and contains nothing particularly new, not even commentary. The books are grouped according to chronology, rather than topics. The dates given are 1300 B. C. for Moses, and end with 160 B. C., the end of the prophets. The series may be a substitute for the revised version of the Old Testament, but there is nothing new either in substance or style.

THE GREAT PLAINS, A ROMANCE OF WESTERN EXPLORATION, WARFARE, AND SETTLEMENT. By *Randall Parrish*.

Mr. Parrish has shown in previous publications his knowledge of the regions beyond the Alleghenies. The present effort lies in the category of his "Historic Illinois." It is history in a lighter vein; history adapted to general reading. It makes no pretence to a source basis; it is not free from minor inaccuracies; it has little attraction for the close student; it bars footnote references; and it collects the authorities in a brief "note of acknowledgment" following the Introduction. This list of authorities includes for the most part neither official document nor original narrative, but secondary descriptions like those of Hough, Chittenden, Inman, Bowles, Richardson, and Lummis. Mingled with these, however, will be found occasional excerpts from more serious writers—from Castenada's Journal, from H. H. Bancroft, and from Parkman.

The volume is best described as a collection of border stories and traditions, with running commentaries on contemporary conditions from the Spanish exploration to about 1870. The choice of material is commendable, the weaving skillful, and the interest

well sustained. There is an excellent characterization of the stages of Western development.

The material chosen by Mr. Parrish falls naturally into three groups. In the first group appear Coronado and his Spanish fellow-explorers, Lewis and Clark, the fur-traders, and the Santa Fe trailers. The second division embraces the stage coach, the pony express, and the border warfare following the Civil War down to 1870. Under the third head come the struggle for Kansas, the cattle kings, the Pacific railroads, mushroom towns, outlaws, and scouts. The volume has some spirited and interesting illustrations, presumably reproductions, for the most part, from some older work.

BOOKS RECEIVED

- EVERY MAN'S LIBRARY. Edited by *Ernest Rhys*.
- ANCIENT HEBREW LITERATURE, being the Old Testament and Apocrypha. Arranged by *Rev. R. Bruce Taylor*. Four Volumes.
- RELIGIONS, ANCIENT AND MODERN. The religion of Ancient Scandinavia. By *W. A. Gragie, M. A.* 70 pages.
- JOURNAL OF THE TRANSACTIONS OF THE VICTORIA INSTITUTE OR PHILOSOPHICAL SOCIETY OF GREAT BRITAIN. Edited by the Secretary.
- A LITERARY HISTORY OF THE ARABS. By *Reynold A. Nicholson, M. A.* Published by Chas. Scribner's Sons. 500 pages.
- ANNUAL REPORT OF THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION for year ending June 30, 1906. Government Printing Office.
- LIFE IN THE HOMERIC AGE. By *Thomas Day Seymour*. New York: The Macmillan Co. London: Macmillan & Co., Ltd.
- JOHNS HOPKINS UNIVERSITY STUDIES IN HISTORICAL AND POLITICAL SCIENCE. Edited by *H. B. Adams, 1882-1901*. *J. M. Vincent, J. H. Hollander, W. W. Willoughby*, Editors.
- MARYLAND DURING THE ENGLISH CIVIL WARS. Part 2. By *Bernard C. Steiner*, Ph. D. Associate in History, Johns Hopkins University, Baltimore. Johns Hopkins Press. Published monthly, April, May, 1907.
- THE SATAKA; or Stories of the Buddha's Former Births. Translated from the pali by various hands under the editorship of Professor E. B. Cowell. Vol. VI. Translated by *E. B. Cowell, M. A.*, formerly professor of Sanskrit in the University of Cambridge, and *W. H. D. Rouse, M. A.*, Litt. D., Univer-

- sity teacher of Sanskrit and Headmaster of Perse Grammar School. Cambridge, at the University Press. 1907.
- UNIVERSITY OF CALIFORNIA PUBLICATIONS: AMERICAN ARCHEOLOGY AND ETHNOLOGY. Contribution to the physical anthropology of California, based on collections in the Department of Anthropology of the University of California and in the U. S. National Museum. By Ales Hrdlicka. Berkeley. The University Press. June, 1906.
- THE WASHO LANGUAGE OF EAST CENTRAL CALIFORNIA AND NEVADA. By *A. L. Kroeber*. University Press, Berkeley, September, 1907.
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- VORTEX PHILOSOPHY; or The Geometry of Science, Diagrammatically Illustrated. By *C. S. Wake*. Chicago. Published by the author. 1907.
- EGYPTIAN EXPLORATION FUND: ARCHEOLOGICAL REPORT, 1905-1906. Comprising the work of the Egyptian Exploration Fund and the Progress of Egyptology during the Years 1905-1906. Edited by *F. D. Griffith*, M. A. With illustrations. London.
- ANALES DELL MUSEO NACIONAL DE MEXICO, SEGUNDA EPOCA. Tomo IV. Number 7. Mexico. Imprenta del Museo Nacional, 1907.
- THE FORMATION OF THE NEW TESTAMENT. By *George Hooper Ferris, A. M.* Philadelphia. Griffith & Rowland Press, 1630 Chestnut Street.
- FATHER PIERRE FRANCOIS PINET, S. J., and His Mission of the Guardian Angel of Chicago. A. D. 1696-1699. By *Frank R. Grover*, vice-president of the Evanston Hist. Soc. A paper read before a joint meeting of the Chicago Historical Society and the Evanston Historical Society in the Chicago Historical Society Bldg. Nov. 27, 1906.

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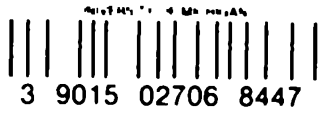
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