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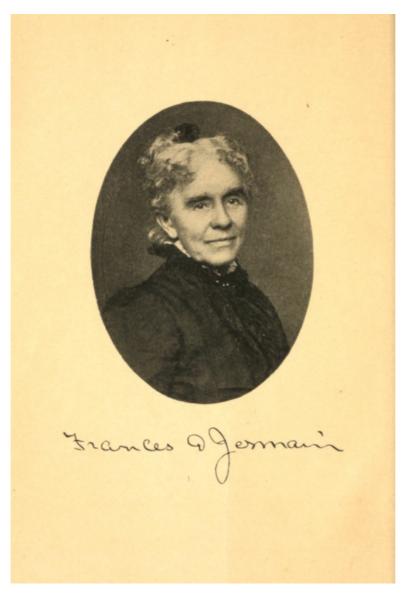
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IN THE PATH OF THE ALPHABET.



'Frances D Jermain'

IN THE PATH OF THE ALPHABET

AN HISTORICAL ACCOUNT OF THE
ANCIENT BEGINNINGS AND EVOLUTION
OF THE MODERN ALPHABET

BY FRANCES D. JERMAIN

FORT WAYNE, IND.
WILLIAM D. PAGE, PUBLISHER
1906

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PREFACE.

In one of the closing days of August, 1905, the author of this work, Frances D. Jermain, received the summons of her Maker to join the Silent Majority. The call came suddenly, finding her in the full possession of her ever remarkable intellectual powers, and with the ambition for much yet to do.

For nearly twenty-five years, she had been at the head of the Toledo Public Library, in the upbuilding of which she was ever the inspiration and the guiding spirit.

With more than the ordinary capacity for organization and the practical, she planned and carried out the working details of all notable improvements, in that thoroughly modern library.

Others, who took up the work from which she retired about a year before her death, will carry it forward with that devotion and capacity which it should inspire; but they will but build additions to the edifice which she reared.

Her death brought forth a remarkable outpouring of voluntary tributes to her worth and work. From these has come the realization that by her death Toledo has lost one whose influence upon its intellectual life was the most potent and far reaching of any citizen it has ever lost.

Living and working nobly in public as in her ideally perfect domestic life, her loss is profoundly felt.

Political administrations came and went, party triumphs and party defeats lived out "their little day" and are long since forgot; but year after year, until a quarter of a century had nearly gone, this brave and learned little woman ruled, with gentle power and kindly wisdom, the destinies of the Toledo Public Library.

In the growth and development of this notable public institution, selecting its contents, the literary advisor of lawyers, journalists, educators and students, she acquired, with her discriminating judgment and retentive memory, a remarkable knowledge of the contents of books. A subject practically never arose upon which she could not at once give, either the needed reference or the full information required, and the library contained seventy thousand volumes!

In this reference work, she became deeply impressed with the need of a concise history of the beginnings and development of our modern alphabet.

The information on the subject was widely scattered and very great. It was found nowhere in a condensed and yet adequate form. She knew from experience what the value to libraries, educators and students generally, a concise history upon the subject would be.

This she undertook and finally completed. Not confining her account to information gathered from works already published dealing with the subject, she kept in constant correspondence with the leading archæologists carrying on researches in both Egypt and the valley of the Tigris and Euphrates.

Thus she literally walked with these great scholars "In the Path of the Alphabet," and her work took on that original and valuable character based upon those most recent and wonderful discoveries which have forever silenced the voice of "The Higher Criticism."

This work, which we now reverently give to public print, is therefore based upon her broad and deep knowledge upon the subject—from original sources; a work of patient labor; of a profound Christian faith; a work begun and finished in that spirit by which alone the best work of God's laborers needs must be done.

Upon her behalf, grateful acknowledgment is here made to Professor A. H. Sayce, Professor H. V. Hilprecht, Professor James A. Craig and Professor C. R. Condor, who walked with her "In the Path of the Alphabet."

S. P. J.

Toledo, Ohio, December, 1906.

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In Memorium

From the loving hands of those to whom her life was an inspiration which shall abide.

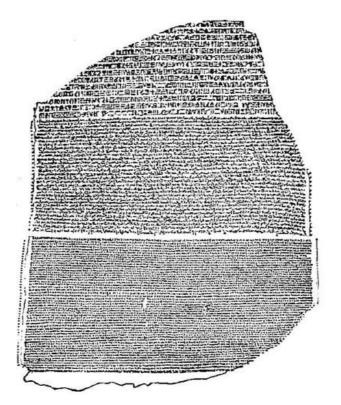
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THE ROSETTA STONE.

F all the splendid achievements of archæological research during the present century, there are none of more universal interest and importance than those which are revealing the origin and history of letters; this, not alone for the historic values of these discoveries, for their illumination of a past of which hitherto there was but a faint conception; but also for what letters have to tell us in explanation or confirmation of Biblical narrative, of their bearing upon our most sacred beliefs.

At the beginning of the present century the great mass of testimony now laid open before us was an apparently impenetrable mystery. Egyptian hieroglyphics and cuneiform inscriptions yet remained, for the most part, but confusion of ornament and meaningless signs. Some little advance, it is true, had been reached during the latter part of the eighteenth century, as to the signification of certain hieroglyphic characters, but these were as yet but conjecture; a groping in the dark, with no means to verify, uncertain, unassured.

With the opening of the present century two events occurred which were to place in the hands of scholars the keys to these mysteries. The first in date of these discoveries, though not in results, was the finding of the Rosetta Stone in 1799.

This was an outcome of the French scientific expedition to Egypt under the first Napoleon. At this date, a French artillery officer, named Boussard, while digging among some ruins at Fort St. Julian, near Rosetta, discovered a large stone, of black basalt, covered with inscriptions. This tablet, now known as "The Rosetta Stone," was of irregular shape, portions having been broken from the top and sides. The inscriptions were in three kinds of writing; the upper text in hieroglyphic characters, the second in a later form of Egyptian writing, called enchorial or demotic, and the third was in Greek. No one of these had been entirely preserved. Of the hieroglyphic text, a considerable portion was lacking; perhaps thirteen or fourteen lines at the beginning. From the demotic, the ends of about half the lines were lost, while the Greek text was nearly perfect, with the exception of a few words at the end.

The immediate inferences were that these three inscriptions were but different forms of the same decree, and that in the Greek would be found some clew for the decipherment of the others. It was first presented to the French Institute at Cairo where it was destined not long to remain.

The surrender of Alexandria to the British, in 1801, placed the Rosetta Stone, by the terms of the treaty, in the hands of the British Commissioner. This gentleman, himself a zealous scholar and keenly alive to the importance of the treasure, at once dispatched it to England, where it was presented by George III to the British Museum.

A fac simile of the inscriptions was made in 1802, by the "Society of Antiquaries," of London, and copies were soon distributed among the scholars of Europe. When the Greek inscription was read, it was found to be a decree by the priests of Memphis in honor of King Ptolemy Epiphanes; B. C. 198;

That, in acknowledgment of many and great benefits conferred upon them by this king, they had ordered this decree should be engraved upon a tablet of hard stone in hieroglyphic, enchorial and Greek characters; the first, the writing sacred to the priests; the second, the language or script of the people, and the third that of the Greeks, their rulers.

Also, that this decree, so engraved, should be set up in the temples of the first, second and third orders, near the image of the ever living King.

It might be supposed that with this clew the work of decipherment would be readily accomplished. On the contrary, many of the most distinguished scholars of Europe tried, during the twenty following years, without success.

The chief obstacle in the way was the prevailing opinion that the pictorial forms of Egyptian hieroglyphs were mainly ideographic symbols of things. In consequence, the absurd conceptions read into these characters, led all who attempted the decipherment of these far away from the truth.

It is true that Zoega, a Danish archæologist, and Thomas Young, an English scholar, each independently, about 1787, had made the discovery that the hieroglyphs in the ovals represented royal names, and were perhaps alphabetic; but the signification of these characters were never fully comprehended by either of these great scholars.

The claim made by the friends of Mr. Young as the first discoverer of the true methods of decipherment, rests upon the fact that he gave the true phonetic values to five of these characters in the spelling of the names of certain royal personages, and in 1819 published an article announcing this discovery. He seems, however, to have had so little confidence in this conception that he went no farther with it, and still later, in 1823, lost the prestige he might have gained, by the publication as his belief, that the Egyptians never made use of signs to express sound until the time of the Roman and Greek invasions of Egypt.

The real work of decipherment was reserved for Champollion, who, born at Grenoble, in 1790, was but nine years old when the famous stone was discovered which later on was to yield to him the long lost language of the hieroglyphs.

Among the characters on the Rosetta Stone, in the hieroglyphic text, were to be found certain pictorial forms enclosed in an oval. It had hitherto been suggested that these ovals contained characters signifying royal names. Were these symbolic signs, or how were they to be interpreted? Champollion concluded that some of these signs expressed sound and were alphabetic in character.

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Thus, if the signs in the cartouche supposed to signify Ptolemy, could be found to be identical, letter for letter, with the Ptolemaios of the Greek inscription, an important proof would be obtained. It so happened that on an obelisk found at Philæ there was a hieroglyphic inscription, which, according to a Greek text on the same shaft should be that of Cleopatra. If, then, the signs for P, t and l in Ptolemaios corresponded with the signs for p, t and l in Cleopatra, the identity of these as alphabetic signs would be confirmed. The comparison fully justified his theory, and further confirmation was supplied by further comparisons, until he finally came into possession of hieroglyphic signs for all the consonants.

Again; certain indications convinced him that these characters appearing in proper names must be also initial letters or initial sounds of Egyptian words of which these signs were the pictorial representations. If this was so, the sign for the letter L, which in the royal names was the picture of a lion, must be the beginning of some word signifying "lion," which in old Egyptian would begin with the letter or first syllabic sound of L.

The pictorial sign for the letter R was the mouth. The word for mouth, then, in Egyptian must begin with the letter or syllabic sign for R, and so forth.

The early opportunities which Champollion had enjoyed for the preparation of his great work were peculiarly significant. He was educated by his elder brother, a man of great learning, professor of Greek in the Academy of Grenoble, whose companionship early influenced the direction of his younger brother to linguistic studies. In addition to this, the intense interest aroused throughout Europe by the vast collection of antiquities brought thither by the men of letters and science who accompanied Napoleon's army in Egypt, had compelled the attention of scholars to this special field of research as never before.

With this guidance, and moved by the spirit of the times, Champollion's studies in ancient Greek led him to an early acquaintance with the Coptic language. It is said that, as a result of this study, at the age of sixteen he read a paper before his academy, maintaining that the Coptic was the language of the ancient Egyptians. This is not now a spoken language, having been supplanted by the Arabic since the seventeenth century, A. D. It, however, survives in the service ritual of the Coptic churches of to-day, and, though written in old Greek characters, the ancient language is still heard, though but few understand it.

As Champollion made use of his hieroglyphic alphabet for the spelling of other words than proper names, his satisfaction may be imagined when he found that these were Coptic words. Thus, the sign for "mouth" for the letter R, was the initial letter or syllabic sign of the Coptic word Ro, signifying mouth. The picture of a lion for the letter L also represented the initial letter or initial syllable of Lavo, the Coptic for lion. The picture of an eagle, representing the sign for the letter A, is also the sign for the initial sound or letter in Ahem, the Coptic for eagle, and so on.

The language, then, of the Hieroglyphs was Coptic, or rather in the Coptic we have a survival of the ancient Egyptian, the language of the pyramid builders. More correctly speaking, it is the Egyptian language of the Ptolemaic period, corrupted with Arabic and Greek idioms, but still including the language of old Egypt.

It was, indeed, a thing which might have been expected, that the language expressed by the ancient Hieroglyphs should bear a resemblance to Coptic, but that the resemblance should be as close as it has proved could scarcely have been expected.

Again, of special interest in this connection, is the fact that in the Greek the writing and language of Egypt should be thus preserved.

[1] "The romance of language could go no further," says Mr. Butler, "than to join the speech of Pharaoh and the writing of Homer in the service book of an Egyptian Christian."

At this point, a brief reference, bridging the centuries from the decline of the use of hieroglyphics to the later appearance of the language in its Coptic and Greek forms, should have a place.

The extensive use of Phœnician and Greek alphabets in Egypt and throughout the Orient, for some centuries before the Christian era, had affected the Egyptian script as a social and commercial medium. The hieroglyphics, however, held their own with the priesthood, for sacred and secular uses, until the time of the Emperor Trajanus Decius, 249-252, A. D., which is the latest period in which we find them employed for monumental purposes.

A little over a century later,—with the spread of Christianity, the decline of paganism, the destruction of the Egyptian temples and the dispersion of the priesthood under the Emperor Theodosius,—the interpretation of the hieroglyphics was gradually lost, not again to be read and understood until the discovery and interpretation of the Rosetta Stone.

In 1822 Champollion announced the results of his studies to the "Academy of Inscriptions" of Paris, and followed this by the publication of his work on the "Hieroglyphic System of the Ancient Egyptians," in which he discussed the proofs that the phonetic alphabet was used in the royal legends of all ages and is the key to the whole hieroglyphic system.

It will be remembered that those who before Champollion had undertaken the decipherment of the Egyptian hieroglyphics, had based their efforts on the theory that these signs were mainly ideographic. With this as a working theory, all advance was impossible. Champollion, on the contrary, finding the Egyptian system including a phonetic structure, made this a basis for research, achieving a brilliant success. He never fully recognized the composite character of these phonetic signs. From these he constructed an alphabet of nearly two hundred signs, to which his pupil, Salvolini, added one hundred more, thus producing an alphabet of nearly three hundred characters. As Lepsius was to show a little later, while these signs are all phonetic, only a small

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number—thirty-four in all—are alphabetic, the remainder representing syllables.

It is impossible, in this brief survey, to refer to the special advancements made by other distinguished scholars in this field of research. Since the death of Champollion the work of decipherment has progressed steadily on until the life, the literature and the language of the old Egyptians are open pages which all may read.

There are, however, many things not yet fully understood. Of the Rosetta Stone, two of the texts may now be said to be fully translated; namely, the Greek and the hieroglyphic. This has not been possible until recently, in consequence of the mutilated condition of the tablet, a considerable portion of the hieroglyphic text and part of the demotic, being included in the fragment broken off and lost. Not long ago, however, another stele was found at En Nobeira, near Dammamour, containing a duplicate copy of the Rosetta texts in perfect condition. This is now in the museum at Boulak.

The demotic text has never yet been fully translated. This writing is a cursive script, developed from the hieratic to express the vulgar dialect spoken by the people. As hieratic bears the same relation to hieroglyphic that ordinary writing does to printing, so the demotic, which is a further abridgment of the hieratic, is compared to the latter as bearing the same relation which short-hand does to writing. Some of these latent signs have been identified, but not all.

The first five lines of a Papyrus (containing 75 lines), being the beginning of an ancient hymn addressed to the Deity, are added in the original Hieratic, with the transcription in Hieroglyphic characters. The Hieratic is read from right to left, the Hieroglyphic from left to right. The dots in the middle or end of the lines, written in red ink in the original manuscript, indicate that this is a poetic composition.

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HIERATIC AND HIEROGLYPHIC WRITINGS.

1. Ancient Coptic Churches of Egypt. Vol. II. P. 47.

CHAPTER II.

HE other event referred to, which was to open to scholars another field of research, in interest and importance equal to the Egyptian discoveries, was the work of Grotefend, early in the century, in the decipherment of cuneiform inscriptions.

In many parts of Persia, there are to be found engraved upon the native rocks, or upon ruined temples, inscriptions in peculiar characters. These characters are called cuneiform, because they are made up from combinations of a single sign resembling the head of an arrow or a thin wedge. This sign was formed in three ways, either horizontal, —; vertical, I; or angular, —. From these primary signs, a great variety of combinations appear, either in groups or forming single characters.

In the latter part of the eighteenth century, fragments of these inscriptions, and copies of others, had found their way to Europe and into the hands of scholars. Although some of the most powerful intellects of Europe had attempted their interpretation, but little, if any progress had been made until the beginning of the past century.

In the year 1802, Grotefend, then a young student in the University of Bonn, announced to his colleagues his success in the decipherment of a trilingual inscription copied by Niebuhr from the ruins of a royal palace at Persepolis. It will be remembered that this young scholar had no Rosetta Stone, with an inscription in a known language to indicate either subject or language; simply the strange combinations of these singular signs.

The inscriptions were in three different systems of assortment of the elemental signs, evidently representing three different languages, and as they were placed side by side, it was also evident that they were three versions of the same decree, or record of the same event. One of the versions, which always came first, was simpler than the others. This consisted of about forty signs, while the others were more complicated and numerous. Again, in this version the groups of signs, which evidently formed words, were separated, each from the other, by a slanting wedge which did not appear in the others.

Grotefend also observed that each inscription usually began with a certain group of words. One of these words, on different inscriptions, varied, while the other words of this group remained the same. By a happy guess, he conceived these groups to be royal names and titles, the words which varied on the different inscriptions to be names of different kings, while the words which always continued the same in these groups were their titles. Upon this basis he began his work.

It was known to scholars that certain Achæmenian princes—Darius and his successors—had erected some of the monuments from which copies of the inscriptions were taken. Turning then to the older Persian language, of the time of Darius, for the spelling of the name of this king, he gave alphabetic values to certain of these signs which he supposed might spell the name of Darius. Also, to the words which he supposed represented the titles of this king. These alphabetic values were based upon the spelling of the name and titles in the ancient Zend. In this way he obtained supposed values of six letters in the cuneiform. He then turned to another royal name which might be Xerxes. The name of Darius, in old Persian, or the Zend, is spelled: D-A-R-H-E-A-U-SCH.

Again, the name of Xerxes, in Persian, is KH-SCH-H-E-R-E. Now, if the third sign in the spelling of the name of Darius was the same as the fifth sign in the spelling of the name Xerxes, in the Zend, this must have the phonetic value of R. The comparison proved the correctness of his conception. And again, further confirmation appeared in another royal name, Artaxerxes, where the latter part of the name was the same as the second royal name, and the sign for the second character again corresponded with the letter R.

Thus he compared letter by letter, and sign by sign, until he had found agreement in signs and sound for the names of these kings and their titles.

Grotefend never succeeded much beyond this discovery, which was confined chiefly to the Persian inscription. The language of the others was unknown, and the characters peculiar and more numerous. They each evidently represented more ancient forms of writing, with complications not found in the simpler Persian version. Other scholars have however, carried forward the work begun by Grotefend, some of these reaching the same results independently, as in the case of Sir Henry Rawlinson, who applied the same processes to the other trilingual inscriptions, quite ignorant of Grotefend's methods, and with further success. Still, to Grotefend is due the honor of first discovering the clew to the cuneiform system, and he it was who first laid a basis for future labors, which, wherever adopted, has reached the most satisfactory results.

As rightly conjectured, the other texts of the trilingual inscriptions are copies of the same decrees, addressed to other peoples of the realm, speaking different languages and possessing different systems of writing. As a Persian ruler of to-day publishes an edict in Persian, Arabic and perhaps a Turanian dialect, so that it may be understood by all his subjects, so the ancient Persian kings put theirs into the languages and systems of writing peculiar to the principal races or people inhabiting the country.

It was not, however, until the discovery and translation of the inscriptions at Nineveh, that the full story of these Persian inscriptions was distinctly revealed. It was then found that the two other texts were addressed, the one to a Semitic people of Persia, the other to a Turanian people, descendants of the primitive inhabitants of the country. The close relations of these two systems of writing to the two similar systems found in Assyria and Babylonia, were in evidence of the kinship of these separate races.

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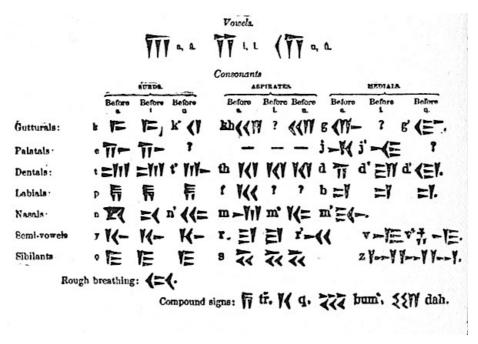
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Through the systematic arrangement of the vocabularies of the Semitic and Accadian people, found in the Ninevite remains, the secret of the Persian trilingual inscriptions came to light, revealing the extensive use of the cuneiform writing among the various people of western Asia.

A significant fact in the early history of the decipherments of hieroglyphic and cuneiform characters, are the coincidences in these narratives. Thus the keys to both interpretations came through the sound and spelling of the royal names. Again, the clew given by the Coptic to the sounds of the old Egyptian, was also afforded by the ancient Zend, the sacred language of the Parsees.

Notwithstanding the fact that alphabetic signs were the key to each of these systems of writing, we are not to find that either the hieroglyphic or cuneiform systems were founded on the alphabet. We are to find that alphabetism and a pure alphabet are not identical. We are also to find that before the simplicities of an alphabet are reached; the art of writing in all systems is a series of bewildering complications.

Subjoined are illustrations of cuneiform vowels and consonants as written:



Cuneiform Vowels and Consonants

HILE yielding to the charm of some master of language, who of us gives a thought to the fact that the grace and flow, the flexibility, the mysterious eloquence of written speech is largely due to the invention of letters. Only twenty-six simple signs, yet what marvels of simplicity and power! In the readiness of these for new combinations, their varied adjustments and readjustments in the formation of words, we find the life and growth, and practically unlimited expansion of language; the rhythmical melodies of verse; those inherent powers which render them so adaptive to the wants of man; and withal, so easy to be acquired. Yet writing without an alphabet is quite possible. In fact, the history of the past is revealing great nations and people in possession of systems of writing and of extensive literature, not founded on an alphabet.

We are nevertheless to find that writing without an alphabet is a difficult and complicated matter. So serious and difficult, that comparatively few could acquire the art, and that though in great measure this was confined to special classes, as the scribes who devoted themselves to the practice, and the priesthood who were invested with the power, yet the art of writing was understood and in common use to an extent incomprehensible when the difficulties of its acquirement are considered. The results were nevertheless to limit the extensions of knowledge, proving in all directions a barrier to progress.

Truly has it been said that "The history of our alphabet is the golden thread which entwines itself with the long story of man's civilization;" that "It is the greatest triumph of the human mind;" and again, as "The most wonderful of intellectual achievements." For we are coming to know that letters are an invention, not spontaneous productions or miracles of language, and that evolution, as in other directions of human inquiry, has much to say upon their origin and history.

Though taking us to a past so remote, the record for the greater part is singularly distinct and clear. The story is, however, but a recent revelation, not even as yet fully told, gathering only sufficient coherence within the past forty years to make the telling intelligible or possible. A fragment of inscription here, a roll of papyrus there, illuminated by the inspirations of genius, and the ages which have so long withheld from us the story of our alphabet, are slowly yielding the secret.

To give in brief review the leading facts in this story is the simple purpose of this history.

Before entering upon our narrative, however, we can best understand the obstacles in this path of research—perhaps best understand letters themselves—by a brief survey of the principles upon which the origin and development of graphic representation are said to depend; perhaps we may see more clearly how scholars groping in the dark in their study of these unknown characters came to perceive first one fact and then another, until the great story of letters was revealed.

We are thus first directed to the fact that at different periods of time, in various parts of the globe, different races of men, each in their own way, have invented methods of communicating with the absent, and for the record of events.

Independently of speech, or the art of writing, other methods employed by primitive man of communicating with his kind should first be noted. Thus, the ancient gesture language, common to all races and people, whereby facial expression, attitudes or gesticulations, sorrow, hatred, love, confidence, regret, all emotions were expressed; that picture action which we find appearing in picture writing.

Again, objects representing ideas which were used as message bearers. In illustration of this we have the story told by Herodotus^[2] of the King of the Scythians who sent as gifts to Darius when about to invade Scythia, a bird, a mouse, a frog and five arrows. When the Persians asked of the messengers the meaning of these gifts, they would not explain, but told them they should discover for themselves what these things signified. The interpretation suggested by Darius was, that since a mouse is bred in the earth, and a frog lives in the water, the Scythians gave up land and water. The bird signified their speedy flight, and the arrows the surrender of their arms to the Persians.

"Not thus," said Gobyas, "should you interpret this message. It means, O Persians, unless you become birds and fly into the air, or mice, and hide yourselves beneath the earth, or frogs, and leap into the lakes, ye shall never return to your homes, but be smitten with these arrows."

Akin to objects as message bearers, is the knight's glove sent as a challenge to combat, the pipe offered by the North American Indian in token of amity, the rosemary sent in remembrance, or the rose as a token of affection.

Other methods employed for sending messages are of curious interest as commonly used by people far removed from each other in time and place. [3]As the knotted cords of the Chinese, or the quippas of the Peruvians, which by their numbers, the style of knotting, or the distribution in groups, were used as message bearers to all parts of the country. In the same category also are the notched sticks of the North American Indians, the tally sticks of the Danes, the English and other people.

But while in different parts of the world human beings have invented ways of communicating with the absent without the art of writing, to depict an object instead of conveying an object, would result as a simpler and more lasting method of expression.

Thus, in simple pictures of objects, we find the earliest beginnings of the art of writing. How these may be employed as message bearers or for the record of events we have abundant illustration in the picture writings of the North American Indian on the bark of trees, or inscribed on rocks, metal and stone.

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In the same way, in rude carvings with flint chips on bone and ivory, records of the chase have come down to us from that far off time when paleolythic man hunted the hairy rhinoceros, the mammoth and the hyena in the forests of Europe.

Though hardly attaining the art of writing, pictorial representations in kind were the earliest human attempt in this mode of expression. Later, when pictures became the symbols of ideas, as the picture of a bee to symbolize royalty, of an eye to indicate seeing or knowing, two legs to signify walking or going, or a sparrow for cruelty or inferiority, we reach a higher stage of progression—relics or reminiscences often of the old gesture language, or objects sent as symbols of ideas.

These two first stages in the development of the art of writing are known as ideograms, where signs, symbols or figures suggest the ideas of objects without expressing their names. To construct a sentence in this way with the various parts of speech, is impossible.

The next advance was phonetism, the representation of the sound of words. Thus, the picture of a lion or a camel will be understood whatever the language of the picture-maker may be. Perhaps, also, symbols for things, as the sun for light, or an eye for seeing. "But how," says Hereen, "can the names of persons, as Henry, Lewis, and the like, be distinguished by symbolic pictures?"

This is true also of many other words without the adoption of signs or characters to represent sound, or the names of things, any adequate expression of facts or ideas is impossible. It thus came about that when pictures of objects or symbols of ideas obtained a fixed and permanent sign for the sound in any language phonetism began.

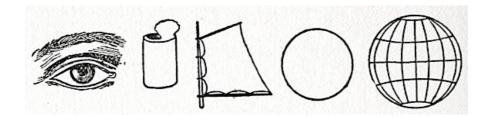
Among the confusions which appear at this stage are the homophones; relics of that primitive stage in speech, the monosyllabic, when few sounds were used to express many things. As an example in modern English, we have such words as pair, pare and pear; or rite, write, right and wright; words so like in sound, so unlike in meaning.

In our language, these homophones for the greater part are defined by the variant spelling, but as without an alphabet there could be no variant spelling, other devices were necessary to indicate the various meanings of words having the same sound.

Of these ingenious devices, numerous, clever, though cumbrous, yet so essential before letters appeared, more hereafter.

In the meantime, we find the same sound sign thus came to be used for words differing widely in sense and signification. These sound signs were still picture writing. In no sense were they letters or alphabetic characters, but pictures of objects which were used to express sound. This first stage in phonetism is therefore often called by philologists the rebus stage.

A distinct illustration of this method of sound representation is given in the rebus form of the sentence, "I can sail round the globe." Thus, the pronoun "I" is expressed by the picture of an eye; the verb "can" by the picture of a can; "sail" by the picture of a boat or ship's sail; "round" by a circle, and the word "globe" by a student's globe.



In this first stage of phonetism we find that pictures of objects do not represent these special objects as in the purely ideographic stage, but the sound. Again, that writing had reached the point where signs and symbols stand for entire words.

For a monosyllabic language this might suffice. The necessities of a polysyllabic language, however, suggested a further advance. This was to syllabism, the second stage in phonetism, and here signs are used to represent the separate articulations of which words are composed.

In an advanced stage of syllabism not all of the articulations of polysyllabic words were thus represented. Some sign attached to the word as a whole came to be used as the sound value of the initial syllable of the word.

This use of signs for the initial syllable of the word is one of those tricks of abbreviation to which the human mind inclines. It is however scientifically known as an application of the acrologic principle; viz: the use of a sign primarily representing a word to denote its initial syllable, or the initial sound. Thus we have the use of the letters "C" for century; "A. D." for Anno Domini, and other familiar examples. Also, the signs for the Phœnician words Alph, Beth, Gimel, etc., which came finally to appear as the initial letters of these words.

At the same time we are to remember that at this stage these simple signs are as yet representing syllables. They do not as yet separate the vowels from the attached consonants, denoting both together by a simple sign.

Nor at this stage of writing was there any conception of such a division. The vowel seems to have been regarded as inhering in the consonant. As yet no way had been devised to express the vowel sounds.

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We can, however, readily perceive that any attempt to treat pure syllabic signs alphabetically would be impossible. The power of the sign for Ne is not "n;" the sign for Ro is not "r;" Se, Si and Su are not "s;" nor is Tu "t."

The selection of a number of such signs representing initial syllables of words is termed a syllabary. Its formation occurred when all, or a greater part, of the unions of single consonants with vowel sounds in a language had received each its phonetic and characteristic sign and was thus used independently of any previous signification of the word from which it was derived.

Selections of these signs could be used almost as the alphabet is used to form words. That they were not entirely depended upon by many intelligent nations that possessed a syllabary is one of the curiosities in the history of written speech.

The influence of the syllabaries which developed under different conditions in various languages is an exceedingly interesting study, sometimes so increasing the simplicities of written speech as to nearly approach the powers of the alphabet; again, increasing the extraordinary complexities writing had assumed at the syllabic stage.

Thus these syllabaries have been at once the despair and the illumination of scholars, who, attempting to decipher these unknown characters as letters, could make nothing of them, but when finally recognizing their syllabic values, a wonderful period in the history of letters was revealed.

Syllabic systems, wherever found, are a study of special significance; so nearly alphabetic, yet so remote; always suggesting the greater simplicities to be, and yet so oblivious of these simplicities.

But one step further and alphabetism is at hand. Instead of the use of the sign for the phonetic power of the syllable, the use of this sign for the phonetic power of the letter was all that was necessary.

To many nations such an advance was inconceivable. For this, the conception of the elementary sounds of which words are composed is necessary; the vowels and the consonants, the consonant being the chief power in this development.

It has been suggested that this advance when reached was the result of the prominence of the consonant in the syllable. For instance, the phonetic power of the consonant in the syllables sa, se, si, so, su, is constant while the vowels are variable.

The consonants thus appeared to be the substantial elements of words while the vowels were complementary and inconstant. In this way the sign for the syllable came finally to be the sign for the consonant, with the vowel understood. In confirmation of this we find that the first appearance of alphabetic writing—that is where letters only are used for the formation of words—was consonant writing. The earliest, nearest approach to a pure alphabet, was an alphabet of consonants.

The Semitic languages differ from all other idioms in structure. The original roots of Semitic words are tri-consonantal, consisting of three consonants.

Out of a language so constructed it is easy to understand the development of such an alphabet. The confusions of its use are also manifest. Thus, in the changes of signification of the Semitic root word, *k-t-b*, signifying "write" we have, when spoken, *ka-ta-ba*, "he has written," *ku-ta-ba*, "it has been written," *ka-ta-bu*, "writing," and *ka-tu-bu*, "written." In script, however, whatever the signification, in ancient form we have simply *k-t-b* with the many meanings supposed to be explained by the context. In early Semitic script there was no notation for vowel sounds, nor did these appear until a comparatively recent date.

From this source, as well as from the similarities which these consonantal signs assumed, have arisen many embarrassments in the translation of Hebrew, and curious evidences in textual criticism.

With the Semitic letters, however, we have reached the first alphabet; not the first appearance of letters, or alphabetic characters, but that stage in the evolution of letters where these were used independently to express words.

At this point, surveying the course from its beginnings, we find the tendencies of progression are, first, simple pictures of objects; again, these simple pictures representing ideas, then as denoting sound or the names of objects, later on as syllabic signs, and finally as letters.

Along this line of progress there are, however, certain curious phenomena which record the historical course of writing as distinctly as do the successive deposits of geological periods.

While the tendency of all systems of writing is from ideographism to alphabetism, not all reached this latter stage; some gradually reached phonetism, where they stopped. Others advanced to syllabism and there remained.

Another singular circumstance is that this progress in phonetism is always without giving up ideographism; that every stage is still picture writing.

Again, we find each stage of progress including previous steps of advance, until at last, as in the Egyptian hieroglyphics, we have the full series of pictures of objects and pictures for sound with a formidable array of determinatives and other special signs and significations. This order of progress has been found so constantly true with all original systems of writing among all races, near and remote, that it may be regarded as a natural, universal law.

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VALUABLE COMPARATIVE EXAMPLE OF HIEROGLYPHIC AND HIERATIC FIGURES.

- 2. Herodotus. Melopemene, IV 131-133.
- 3. Confucius states, in the famous historical work, Gih King, that "In great antiquity knotted cords served them (the Chinese) for the administration of affairs; and that later, the saintly Fou Hi replaced these by writing."

ANY eminent philologists suggest a time in the history of human speech when language was monosyllabic, when by a few simple utterances human beings were able to express many things, indicating by gesture or tone which of the words having the same sound was the thing expressed.

Later on we find language developed by the connection of two or three of these root words, agglutinated, or stuck together as one word, by which this obtained a broader meaning. This is the first stage in polysyllabism, and is known as the agglutinative stage. Later, human speech passed into the inflectional stage, where these agglutinated words having coalesced or melted into one, became so changed in time by phonetic corruption that finally it becomes impossible to determine which part was the original root and which the modifying element of the earlier stage.

Of the monosyllabic stage in language, the Chinese is a distinguished example. This language is referred to by many eminent philologists as the most primitive in structure of any living tongue. It is a language of monosyllabic roots, limited in number, these roots possessing neither inflections nor parts of speech. Each word is a root and each root is a word, which in turn may be used, according to its place in a sentence, as a verb, a noun, an adjective, a participle, or some other grammatical form.

In speaking, the Chinese express these homophones by varying tones and gestures. In writing, their meaning is ingeniously explained by the use of two characters. One of these is a phonogram, which gives the sound of the word; the other is an ideogram or picture form, that explains which of the words having this sound is the one indicated. These ideograms are styled "keys," and later on it will be observed are identical with the determinatives of the Assyrian and Egyptian systems. As an instance of the Chinese use of these keys, is the phonogram, ha. This has eight distinct significations. Thus, it may denote a banana tree, a war chariot, a scar, a cry, or any other of its various significations according to the key associated with this phonogram.

Thus this language, possessing but a limited number of root words, is so expanded by the varying combinations of phonetic signs and ideographic characters, that its acquisition for reading or writing is a formidable achievement.

Some of the recent dictionaries of the English language record a vocabulary of two hundred thousand words. To write any or all of these one needs only to learn the twenty-six signs of our alphabet. To write a common business letter, or to read an ordinary book in Chinese, it is necessary that the scribe or student should know familiarly from six to seven thousand of these groups of characters by which to express the forty or fifty thousand words in the vocabulary of the Chinese.

Again, many of these characters are so similar in form that to write them accurately requires intense concentration, and acute powers of memory. Notwithstanding this, China has been a center of culture and intellectual activity from her first appearance upon the stage of history.

From the earliest period, the social and political system of the Chinese has been based upon educational qualifications. All political dignities, honors and preferments, by unalterable law and usage depend upon the educated abilities and scholarship of candidates for office.

The rank of mandarin comes by no hereditary right, nor by favor of a sovereign, but through severe intellectual effort. If in some cases this is obtained through corruption and bribery of some clever scholar who sells his literary privileges to some richer competitor, this does not alter the case; honors still go to scholarship.

It is said of these successful men, the true students, that it would be difficult to parallel them in any country for readiness with the pen and retentive memory. If they are not highly educated, it is due to their false system of educational merit, which consists in an undue exercise of the memory at the expense of the thinking powers. It is also due to the fact that it is a stereotyped system, based upon an ancient usage and custom, concerned with the past and ancient tradition rather than present or future progress.

The early history of this people is specially interesting in the light of recent discoveries. These suggest, and the suggestions are confirmed in the ancient literature of the Chinese, that at a period about B. C. 2500, these people made their first appearance in China from some locality south of the Caspian Sea, in western Asia. This is supposed, from certain historical correspondences, to have been Susiana, and that their emigration was the result of political disturbances occurring throughout western Asia at that date. That, driven from their early home, they wandered eastward, finally settling in the fertile districts of Shansi and Honan, near the Yellow river. About the same time, other families of this people settled to the south in Annim, from whence these kindred people finally spread over all China.

When they first came into the country, they found there aboriginal tribes of various races. In their historical annals the most important of these primitive inhabitants are referred to as the "Kwei people." It is said of these that they practiced the art of writing and possessed a literature which is referred to by the Chinese as the "Kwei Books," which included a treatise on music. M. de Lacouperie conjectures these primitive people to be of the Aryan stock, of whom remnants are to be found at the present day in Cambodia.

When the Chinese came into the land they had a culture of their own. They were advanced in the industrial arts and they possessed a system of writing and a literature.

They date the origin of writing with them to a mythical emperor, Hwang-le, who invented the art,

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selecting for this purpose objects in the air, and on the earth, and in the world around, substituting these representations or symbols of things for the knotted cords then in use.

Modern Chinese writing gives but a faint suggestion of a derivation from ancient pictographs. These, however, can be traced by referring to archaic forms of these characters.

Again, in Chinese words formed by two characters, the one representing the sound, and the other the key which indicates the sound, these two characters are so imposed, the one upon the other, as in a modern monogram, or are so closely associated, that to the uninitiated they appear as one character

When, however, these characters are separated, they bear often distinct resemblance to objects, and in the archaic forms of these characters their picture origin is distinctly apparent.

Dr. S. W. Williams, in his work "The Middle Kingdom," Vol. I, has illustrations, showing fine examples of archaic and modern forms of Chinese characters that are in evidence of the pictorial origin of the Chinese system.

The references to the mythical emperor, Hwang-le, who, according to Chinese annals, invented their system of writing, seems to have antedated the appearance of this people in China. In their historical literature, his name is written Nak-hon-ti, and he is so nearly identical in name, character and works to the Susian deity, Nak-hun-ti, that the two are evidently the same. This correspondence suggests the early association of the Chinese with the families of the same race who inhabited Susiana in primitive times, which continue in the names of other heroes common to Accadian legends and the annals of the Chinese.

Again, the accordance of the Chaldean and Chinese chronology in astronomical and other scientific data cannot be regarded as accidental.

Among many remarkable parallelisms in the literature of both races are the astrological chapters of the "She King," the most ancient of the dynastic histories of the Chinese, and an astrologic chapter in an Accadian document. These have been translated by Professor Sayce, from the cuneiform, who finds constant occurrence of the same expressions in both records relating to particular forecasts, connected with certain planets, as "Soldiers arise," "Gold is exchanged," and many others.

Again, the division of the Chinese empire by the Emperor Yaou into twelve portions, governed by twelve "Pastor Princes," in imitation of the feudal system of ancient Susa, is another evidence of the former association or close contact of these distinct people.

In the literature of the Chinese there is a work for which they claim the highest antiquity. Until recently no clew had been found for its interpretation. This was the "Yih King," or "Book of Changes," which has been a sealed mystery to the ablest Chinese scholars of all ages, including Confucius. Its interpretation has, however, been accomplished by M. de Lacouperie who finds this work to be a collection of syllabaries such as are common in Accadian literature. These are interspersed with chapters on astronomical and astrological lore. Others again, refer to the ethnology of primitive inhabitants of the country; all of these, however, taking the form of vocabularies only possible to interpret by recognizing their syllabic character.

The appearance of this work in ancient Chinese literature is explained in two ways. Prof. Douglas regards this as an evidence that in by-gone ages this language was polysyllabic. He points to the fact that certain words indicate a former polysyllabism and from this infers that the language as it now appears is an example of phonetic decay. Others, on the contrary, see in the occasional but rare evidences of agglutination, the influence of contact with other races speaking an agglutinative or polysyllabic tongue, and of which the above example in their ancient literature is perhaps a literary remains.

It is incredible that a race so advanced in polysyllabism as evidenced by the "Yih King," or "Book of Changes," could revert to so pure a monosyllabism as is now presented by the Chinese language. Phonetic decay is possible to many words in a language, but so general a reversion to primitive conditions is scarcely possible of a whole language.

Reference has been made in the Chinese system of writing to their use of picture forms or ideographic signs, in association with the phonograms to explain the meaning or particular use of these signs.

This principle, so often referred to, is by no means a special invention of the Chinese, but as we shall see, occurs in all original pictorial systems of writing with the development of phonetism. This is, that when phonetic values begin to attach themselves to the primitive ideographs, these are retained and attached to the signs expressing the primitive sound.

"As if," says Prof. Sayce, "to assist the memory in remembering the meaning and pronunciation of a particular word."

In this way evidently the "keys" of the Chinese system had their origin, as also the determinatives of the cuneiform, the hieroglyphic systems of the Egyptians, the Maya or Mexican, and other pictorial systems.

Among the many advantages obtained from a purely syllabic, or purely alphabetic system of writing is the easy adjustment of these signs to various forms of speech. This is eminently true of alphabetic systems. On the other hand the application of non-alphabetic characters to other than the original language to which these were adapted is by no means so simple and manageable in results.

We have seen how the Chinese, by the simple use of the phonogram and the ideogram, were enabled by the structure of their language to retain this form without variation through the ages.

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The tendency in polysyllabic languages after reaching the phonetic stage, was to greater complexity and an increase of explanatory signs in systems of writing. Sometimes the transmissions of these primitive systems from one race to another, led to simpler methods.

It, however, not infrequently happened that these transmissions led to greater complexity. This depended somewhat upon the diversity between the languages spoken by the authors of the primitive system of writing and those who adopted it.

While speech and mode of writing are distinct and independent, the one of the other, the influence of language structure in the evolution of graphic systems is conspicuous. Thus a sentence of English speech might be expressed by Chinese characters or Egyptian hieroglyphics. In the Tel Armana tablets, more than one language appears in the cuneiform. We have seen how the so called Hittite characters were found on occasion yielding Greek words, and the use of the Roman alphabet for French, German, Italian and other languages, are every day examples.

The fact however remains, that in the process of the development of primitive systems of writing, before the use of an alphabet, the influence of language structure upon the systems of writing is an important factor in the case.

A curious phenomenon in the history of human speech is the preference shown by certain families of language for special combinations of vowels and consonants. The simplest combination is of a single vowel with a preceding consonant in the formation of syllables. For instance, such words as Ho-no-lu-lu, Mi-ka-do and others.

The Japanese form their syllables only in this way. The same is true of Polynesian dialects and also certain families of language in Africa south of the Equator.

Some distinguished philologists suggest this relation of consonant and vowel as survivals of the original elements of speech; an example, perhaps, in language, of "the line of least resistance." It is easier to utter sa than as, ta than at, and so on. However this may be, it is a notable fact that certain families of speech form their syllables only in this way.

Again, the Semitic languages are alone in their use of three consonants in the formation of root words; three consonants with their complementary vowels and no more.

Other languages form their syllables with every possible combination of consonants and vowels, some showing a preference for the consonants, others for the vowels, while again others combine their syllables as the case may be, showing no decided preferences for special combinations of vowels and consonants.

These conditions have had their influence on the development of graphic systems. In the simplest combination of a consonant and vowel, as sa, se, si, so, su, if the combining power is only one way and never another, as as, es, is, os, us, the number of syllables that can be formed in such a language are few, and the number of signs to express these are consequently limited. But when the combining power is both ways, the number of possible syllables increases with every increase of these combinations of vowels and consonants, and the number of signs correspondingly.

The transmission of the Chinese system of writing to the Japanese, which occurred about the third century, B. C., indicates this influence of language structure towards simplicity. The Japanese language is polysyllabic. No syllable contains more than one vowel, with a single preceding consonant.

In the adoption by the Japanese of the Chinese characters in the Ka-ta-ka-na syllabary, a certain number of phonograms were selected which would give the sound of the unions of consonants and vowels in the Japanese language. As spoken, this includes five vowels and fifteen consonants. As these combine only in one way there are but seventy-five possible combinations of vowels and consonants in this language. As some of these possible combinations never occur, the use of forty-five of these syllabic signs are all that is necessary to form any word in the Japanese language, with the Ka-ta-ka-na syllabary.

In the formation of this syllabary the ideographic characters of the Chinese system were found unnecessary and were rejected. The result has been one of the best syllabaries that has ever been constructed.

The Japanese have another syllabary, the Hi-ra-ka-na, derived from a cursive script of the Chinese. This syllabary, however, is more complicated, including with the syllabics a greater number of signs as variants, and homophones, in all nearly three hundred; a marked contrast to the simplicity of the other. It is, however, one among the many instances we have in the evolution of letters, where the simpler way seems so easy and evident, but yet is not recognized.

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TRANSLATION OF INSCRIPTION ON ANCIENT EGYPTIAN TABLET

Lines 1 and 2 read in the original from right to left! Below lines 1 and 2 the god Osiris is represented as sitting on his throne, and the inscription of these two lines refers to him. Below lines 8 and 9 we find Amen-neb, the dedicator of the tablet, kneeling, and below line 11 his wife Hûi kneels.

Transcription: (1) Usar heq zeta nuter â (2) suten ânxu (3) mer ârât en Amen Amen-neb zedef (4) anez hirek qa amenti heq nefer (5) neb zeta iu ena xerek (6) seka-ut sûshu (7) nefer-uk duk hotepa (8) em ast ent neheh set hesu (9) amen hâti-a nen ger (10) amef (11) himtef nebt per mertef Hui zed nes.

Translation: (1) [This is] Osiris, the god of eternity, the great god, (2) The King of the living. (3) The chief of the store-house of Amen, Amen-neb says: (4) Hail to thee, ruler [literally: 'bull'] of the Lower World, gracious god, (5) lord of eternity, let me come before thee, (6) let me extol in praise (7) thy beauty. Give me peace (8) in the abode of eternity, in the country of praise [i. e. Hades] (9) that will hide my heart. There is no de- (10) ceit in it [i. e. the heart]. (11) His wife, mistress of his house, his beloved, Hui, she [also] repeats [this prayer].

HE path of our alphabet seems to be taking us far afield when we turn to Chinese systems of writing and to the origin and development of cuneiform. Nevertheless, it is in this course that some of the richest developments have appeared and the greatest rewards have been obtained by scholars in this special direction of research.

In the narrative given of the decipherment of cuneiform writing reference was made to the three distinct combinations of the arrow-headed or wedge-shaped characters in the trilingual inscriptions at first deciphered.

It was found that these three distinct combinations of cuneiform signs represented three languages of three distinct races of men, the Persian, an Aryan people speaking an inflectional language; the Assyro-Babylonians, Semitic people who spoke a language related to the Hebrew, and the third a Turanian people who spoke an agglutinative language, allied to that of the modern Turks or Finns.

It was some time after the decipherment of the Persian version of the cuneiform texts before these facts became fully understood. The Semitic text presented unusual difficulties, while the language of the other version remained for a time unknown.

The discoveries of Mr. Layard, shortly after, on the site of ancient Nineveh, were to throw more light upon the subject.

With the unearthing of the royal palace of Assur-bani-pal, at Keyunji, the remains of the great library founded by this monarch were discovered beneath the ruins.

These remains consisted of more than twenty thousand bricks, tablets and cylinders, some of which were in fragments, but a greater part entire, and the inscriptions thereon as distinct as when first impressed in the soft clay.

This was a fine, tenacious clay of the region which had been moulded into bricks and cylinders of various sizes, upon which when moist the cuneiform letters had been impressed by a wooden or metal stylus. They had then, for the greater part, been hardened by a slow fire, and were thus made practically indestructible. These cuneiform books were soon distributed in the great libraries and museums of Europe, and thus became accessible to scholars.

Among these literary documents were found a large number which consisted of translations, either interlinear or in parallel passages, from a non-Semitic language into Assyro-Babylonian.

It appeared in two dialects, the speech of the early people of northern Babylonia—the people of Accad—and the speech of the primitive inhabitants of southern Babylonia—the people of Sumir or Shinar.

The close alliance of the peoples of Accad and Sumir in race and language has led to the general application of the name of Accadians to both families. A closer distinction in general terms now adopted by scholars is Sumerian.

Further discoveries rapidly following the unearthing of the Ninevite tablets, confirmed the evidences that these people were the inventors of cuneiform, and that the Sumerian dialect represented the most ancient of the cuneiform scripts.

In the oldest inscriptions which have yet been found the characters are hardly as yet cuneiform. The lines are straight and simple, resembling somewhat the strokes and dashes appearing in words spelled by the electric telegraphic code.

The arrangement of these is pictorial, forming picture hieroglyphics, and these were found to be ideographic and not phonetic.

By degrees the wedge-shaped and arrow-headed characters appear, the pictorial forms are not so distinct and these characters express sound as well as ideas.

The story revealed by these older inscriptions was a genuine surprise to scholars. It not only presented the remoter occupation of Mesopotamia by a hitherto unknown people, but also that while to Mesopotamia is to be accorded the distinction as the "mother land" of the arts and sciences, it was not to its Semitic inhabitants, the Assyrians and Babylonians of history, that this is due.

Here, long before the appearance of a Semitic people in the land, scientific applications to the industrial arts were abundant. An extensive system of irrigation and canals were in use in the arid regions and drainage for the low lands near the sea. The arts of metallurgy were practised. Mathematics and geometry were applied to structures, and astronomy to measurements of time and planetary movements.

They were builders of cities. As we have seen, they had invented a system of writing. In certain cities they had schools for scribes, and they had libraries where the literature thus developed was collected.

When we learn that this testimony takes us back to a date older than the pyramids and to the earlier Egyptian dynasties, we may well exclaim at the astonishing facts archæology is presenting.

Until recently there were no evidences of a civilization in Babylonia which approached the antiquity of Egyptian monuments.

In 1883, Dr. Taylor placed the earliest dates from the cuneiform at between 2700 and 3000, B. C. Recent discoveries, however, refer back to a period, according to Prof. Hilfrecht, at least three

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milleniums earlier, and point to a civilization distinct and original with the Turanian races of Asia preceding that of other races and people in these regions.

Mesopotamia, "The land between the rivers," is a tract of country extending about seven hundred miles from its northernmost boundaries, near the mountains of Armenia, to the southernmost limit, the Persian Gulf. A range of hills crosses this region near the center, running east and west, from the Euphrates to the Tigris. North of these hills the country is the ancient Assyria, with its capital, Nineveh, situated on the Tigris. South of these hills to the Persian Gulf, is the ancient Babylonia, or Chaldea, where, on the Euphrates, its later capital, Babylon, was situated.

In the more ancient records Assyria appears as "Accad," or "Agade;" the southern portion, or Babylonia, as "Sumir," or the land of "Shinar," and later as Chaldea.

For the greater portion, this region is a dead level, its monotony unbroken but for the rich verdure of the lands bordering upon these great rivers, and the long lines of slightly elevated embankments marking the course of ancient, or more recent canals, and the solitary mounds rising here and there from the plain.

These are the sites of ancient temples and cities and are sometimes very extensive. The mounds of Warka, the ancient Erech, are nearly six miles in circumference and in some places rise to the height of one hundred feet.

The great mound of Koyunjik covers an area of over one hundred acres in extent, and is ninety-five feet high at its most elevated point. That of Nippur, with the ruins of the great temple of Bel, rose over one hundred feet above the plain. Others are smaller, and sometimes were intended to support but one palace or temple.

These mounds are artificial, their foundations consisting of earth mixed with burned bricks in alternate layers, the whole encased by a wall of bricks cemented with bitumen, or as in Assyria, where stone could be obtained, by a facing of stone masonry.

Upon these artificial hills or mounds, the inhabitants of Mesopotamia, from the most remote to later times, built their cities, their palaces, their temples and other important structures.

The heavy rains of the winter season coursing down these declivities for so many centuries, have in places worn deep ravines in the mounds, through which the torrents have carried the crumbling debris far out upon the plain. In this way many valuable relics have come to light; bits of pottery, inscribed bricks, seals and cylinders, the form and style of the inscriptions upon some of these indicating great antiquity.

These indications of greater antiquity include inscriptions on bricks for building purposes as well as those used for record and literature. They include also the form and character of the inscriptions, whether archaic or later cuneiform, and again the use of bitumen or cement in masonry.

In primitive times the first bricks which succeeded the mud wall were sun-dried and were laid up with reeds and plastered with soft mud or bitumen. This bitumen was applied hot and adhered so firmly to the bricks that it is almost impossible to break them apart to obtain the cement and is one cause why the masonry consisting of sun-dried bricks has in many cases withstood the ages. Later the sun-dried bricks came to be used only for interior walls, while for the outer walls bricks were made from selected clay and were carefully prepared and burned, forming bricks of superior quality and strength. So well have these withstood the ravages of time that some of the mounds, notably those of the later Babylonian period, are veritable quarries of building brick.

It is stated that the bricks of which the temples and palaces of Babylon were built, have for the past two thousand years supplied cities of the surrounding region with the material used in the construction of public and private edifices, and that certain families of the Babili tribe, who claim to be direct descendants of the Babylonians, are exclusively employed in quarrying them.

As has been stated, bitumen was used for laying the masonry in the remoter times long before Babylon was built. Of this substance an abundant supply was to be obtained at various places in southern Mesopotamia, near the Arabian desert, notably in the neighborhood of Ur, now Mugheir, "the bitumened," so called from the bitumenous springs of the vicinity. In time, the use of this for masonry gave place to a fine white mortar made from a peculiar calcareous clay, found near the Arabian frontier to the west of the Euphrates in southern Mesopotamia, which for lightness and strength has never been surpassed.

These evidences, including also the inscriptions originally stamped upon the bricks, with the name of the king or ruler under whose orders they had been prepared, furnish indications of their time and place in history.

It thus came about that explorers following the work of Botta, Layard, George Smith and others, found their way to sites more ancient by many centuries than the beginnings of Nineveh or Babylon, and have obtained from these records of great historical importance.

The more ancient of these sites are in the southern portion of the country, in that region anciently known as Sumir, or Shinar, and later as Chaldea.

This was on the lower courses of the great rivers, the Tigris and Euphrates, towards the Persian Gulf. This region abounds with the ruins of ancient cities as yet unexplored. The most important of the cities of this region were Eridu, the most ancient and sacred, now marked by the mud heaps of Abu Sharein; the city of Ur, now Mugheir, once a maritime and commercial city of these earlier times, and of special interest as that "Ur of the Chaldees," the early home of Abraham; Nippur, or Neffur, the seat of older Bel; Tel-Loh, the ancient Sirgulla, and Larsa.

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The sites of Ur and Eridu, once near the sea, are now far inland. Eridu, formerly directly upon the shores of the Persian Gulf, is now one hundred and fifty miles distant, while Ur, once situated at the mouth of the Euphrates, is now about one hundred and fifty miles distant from the sea, and about six miles to the west of the present course of the Euphrates on the western banks of the older bed of the river, nearly opposite the point—though six miles away—where the Shat-el-Hic enters the Euphrates from the east, as it approaches from its source in the Tigris.

It is estimated that the alluvium brought down by these great rivers has encroached upon the Persian Gulf by the formation of land about sixty feet annually, creating a delta at the head of the gulf of ninety miles in three thousand years.

These deposits have been more rapid in later times than anciently. The great cause of the difference between ancient and modern Chaldea is the neglect of the water courses. In ancient times, a well arranged system of embankments and irrigating canals held these great rivers in their courses by distributing the superabundant waters of the great flood times to all parts of the country, thus enriching the soil with abundant water supply at all seasons.

In the present neglected condition of this region the floods as they come down from the mountain sources of the Euphrates are liable to wash away the banks, sometimes changing the course of the river, and overflowing large tracts at slightly lower levels, which have become unwholesome marshes, while other large tracts which are never inundated, in the fierce heats become parched and desolate sand wastes. It is said that such is the spread and waste of the Euphrates in its lower course, that, except in flood time, but a small proportion of this great volume of water reaches the sea

These conditions do not so seriously affect the Tigris, which for the greater part of its course flows over a rocky bed, between high embankments, and which, though a narrower, is a deeper and swifter stream than the Euphrates.

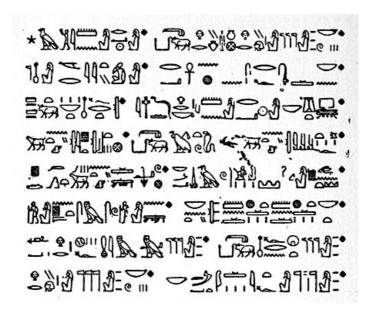
Within historic times, the Tigris and Euphrates entered the sea by separate channels nearly thirty miles apart. At the present time, and for many centuries, these two rivers have been united, forming the great river, the Shat-el-Arab, through which, in a course of about one hundred and twenty miles, their united waters reach the sea.

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HIEROGLYPHIC TEXT AND TRANSLATION.

Hieroglyphic Transcription.



A free Translation of the above.

Praise ye Amen-Râ,—the mighty one who dwells in Heliopolis, great above all the gods!—A gracious god is he to those who love him.—His rays of life enlighten—All his grand creation.—Hail to thee, oh Amen-Râ, whose seat is Egypt's double throne!—Thou art the prince in Southern Thebes,—Grand sovereign in thy realm.—Thou goest through the Southern land,—And nations call thee lord, Arabia calls thee prince.—Thou Ancient One of Heaven, and Oldest One of Earth,—Who didst produce existences and govern things, doest still support creation.—Thou art unchangeable amid the changes of the gods.—Thou art benign, a ruler of the heavenly cycle,—Yea, lord of all the deities,—The prince of truth and sire of the gods.

CHAPTER VI.



HE immense antiquity suggested in the maritime conditions at Ur and Eridu is again emphasized by the astronomical tablets. At this remote date it appears that these ancient Turanian Chaldeans had traced the yearly course of the sun among the stars.

The twelve constellations forming the signs of the zodiac had also been established by them, with the significations which have continued to the present day.

They had divided the year into twelve months, and the first month of their year—which began with the vernal equinox—was named for the constellation, or zodiacal sign, which opened the year.

This was Taurus, whose figure appears in these ancient calendars as leading the months at the beginning of the year. At the time this was prepared the sun was in Taurus at the vernal equinox. About 2500 B. C., the sun entered Aries at this period of the year, while the date when the sun entered Taurus at the vernal equinox was 4700 B. C.

Other evidences from these principal cities of southern Mesopotamia, present, in the remoter times, this land of Sumir as a populous, fertile, well watered and cultivated country.

It was divided into small states, each surrounding a city containing a temple devoted to the service of certain astral divinities, as Ur, the city of the Moon God; or Larsa, with its Temple of the Sun.

Near these temples, and accessible from them were the Zigguratas, the temple observatories for astronomical and astrological studies.

They had also priestly colleges, schools for scribes, and libraries as at Erech, which was known as the "City of Books."

These small states with their cities, were in the earliest times each governed by "patesi," priest-kings, corresponding to the "pastor princes" of ancient China, or the Horsheshu, of ancient Egypt. Later on as certain of these priest kings became more powerful, the neighboring states and cities came under their domination, until finally we find all southern Mesopotamia ruled by kings of Sumir, and northern Mesopotamia by kings of Accad.

Of the explorations which have been undertaken of these older cities of Chaldea, the most extensive are those which have occurred on the sites of the ancient Nippur and at Tel-Loh, the ancient Shirpulla.

The former excavations, which have been conducted under the auspices of the University of Pennsylvania, since the year 1888 to the present date, have recovered the most ancient remains as yet discovered of these older civilizations, dating, as estimated by Prof. Hilfrecht, from a period about 7000 B. C.

This includes the enormous structure dedicated to the older Bel, which had been rebuilt by successive monarchs, its later ruins rising to a height of over one hundred feet above the plain, while its lower foundations reach as great a depth below.

From this and other great buildings in the vicinity were obtained sacrificial vessels, marble and silver vases, objects in gold and bronze, stone door sockets and over thirty thousand clay tablets.

These include remains from the earliest periods of civilization to the latest Babylonian history, from the earliest primitive Sumerian rulers to the latest Semitic kings.

They give records of powerful kings as rulers of Accad during the two milleniums preceding the reigns of the great Sargon and his son, Naram-Sin.

Of these two monarchs a great number of inscribed objects have been obtained, some of the most important relics as yet discovered verifying inscriptions found elsewhere of the extent of their power. Remains were also found here of later kings of Ur and other cities of this region, whose names elsewhere appear as great builders or restorers of ancient temples.

Of this earlier period, that of the "patesi," or priest kings, some very wonderful records have been discovered by M. de Sarzec at Tel-Loh. The group of mounds of which Tel-Loh is the chief, is the site of a very ancient city in southern Mesopotamia, the ancient Zirgul, or Sirgulla. It is situated between the Tigris and Euphrates, near the junction of the former river with the Shat-el-Hic, a small river which flows southwesterly to the Euphrates, connecting the waters of these two great rivers.

The mound of Tel-Loh, "The Mound of the Idol," formed part of the royal quarter of the ancient city, rising at this point forty feet above the plain.

It was in this locality that, in 1880-1881, M. de Sarzec, French consul at Bagdad, who was carrying on excavations in this region under the direction of the French government, came upon ten statues in the ruins of a very ancient structure.

This proved to be the royal residence of an ancient king of Zirgul, the patesi, or priest-king Gudea, whose date is fixed by various authorities at about 4800 B. C.

The statues were nearly life size, and all were headless. Two heads soon after were found in the ruins, one of them turbaned and the other uncovered and shaved, supposed to represent the king as priest.

The type of feature reproduced in these finely sculptured heads is unmistakably Turanian, of the Tartar branch of this great family, while the turban, another characteristic indication in costume, might serve for a copy in sculpture of the head dress worn by some living representative of this race

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in central Asia at the present day.

All these statues were inscribed; nine of them with memorials of Gudea, and the tenth of Urbahu, an earlier king who ruled in Zirgul before Gudea.

The ruins of his palace were found by M. de Sarzec below the palace of Gudea, and also the foundations of an ancient pyramid temple first erected by Urbahu and rebuilt by Gudea.

The inscriptions were in very archaic cuneiform and were incised upon the robes of the figures. Upon the principal statue of Gudea were inscribed three hundred and thirty-six lines of writing, divided into nine columns. About one hundred and thirty characters are used, and these texts represent the longest of the ancient cuneiform writings found.

The material of the statues is a peculiar variety of granite, a dark green diorite, one of the hardest of stones. This was nowhere to be found in Mesopotamia. So far as known, it only appears in the peninsula of Sinai.

Again, the facility and skill in the manipulation of the material has indicated that the tools used for the work must have been of the hardest metals. They are supposed to have been of the hardest bronze. But this presupposes an amazing antiquity for the practice of metallurgy.

The replies to the question, from whence the bronze? are now abundant, and come from a variety of sources, but the testimony from the inscriptions of the statues is the most direct and ample, opening before us a commercial intercourse between nations and people of these regions scarcely suspected of such very remote dates.

There are indications that even in these early days tin from Cornwall was exported to these far off regions.

The inscriptions relate chiefly to the building of a pyramid temple by Urbahu, and on the Gudea statues to the rebuilding of the temple by this later prince.

Referring constantly to himself as patesi, or priest-king, he says that for this purpose his God, Nin-Girsu, has opened the way for him "from the sea of the highlands,"—the Persian Gulf—"to the upper sea," the Mediterranean.

"I," says Gudea, "made the lordly temple of the God who enlightens the darkness; of costly woods I made it for him; with wood from Lebanon (Amanus); wood of seventy and fifty cubits. I raised its roof twenty-five cubits high."

From the copper and silver mines of the Taurus, near "the great pass," "the gate of Syria," copper was brought for the great pillars. Marble also from the "Mountain of Canaan," (Tidalum), in Phœnicia, for the foundations. He sent ships to upper Egypt, where gold was obtained for the porch of the temple. "To the country of Gubi and to the country of Nituk which possesses every kind of tree, vessels to be laden with all sorts of trees for Sippara I have sent."

Sippara, "The City of the Bright Flame," was another name by which Zirgul was known. Reference to this comes in the inscriptions concerning the "God who enlightens the darkness."

Then of his statues he says: "Strong stone being brought from Magan (Sinaitic peninsula) I made an image therewith that my name may be remembered gloriously."

Again of this statue he says: "Neither in silver, nor in copper, nor in tin, nor in bronze let any one undertake the execution. An image yielding none of these no man will demand as spoil; made of hard stone may it remain in the place thereof, forever."

These statues thus had a peculiar religious significance. Placed in the sacred temple, always before the god to whose service they were dedicated, they were supposed to represent the king constantly in life, and like the "Ka" statues of the Egyptian kings, to be the residence of the soul of the departed prince which was thus ever reverently before his god. Thus we can understand the terrible curse pronounced by Gudea upon whosoever should remove this statue from its place.

This and the companion statues from Tel-Loh, were nevertheless sent to Paris and placed in the Louvre, where they will receive more distinction than has been accorded them for ages. Perhaps this, and also the fact that the inscriptions on them could not be read until they were placed where competent Assyriologists could have access to them, may induce the Ka of Gudea to revoke his maledictions should they threaten this later disturber of his repose.

However this may be, the view thus given of this far off time, of which we have no trace in history, is one of the most interesting archæological discoveries of the century.

Here, long ages before the time of Hiram, king of Tyre, the friend of David and Solomon; long ages even before the days of Abraham, the ships of Gudea were navigating the seas from the trading ports of Ur and Eridu, then at the mouth of the Euphrates on the Persian Gulf; coasting down the shores of the Arabian peninsula, which they circumnavigated, into the waters of the Red Sea; sailing northward to Magan, "the enclosed port," on the peninsula of Sinai, where the diorite for the statues was obtained, and perhaps copper also from the Wady Magarah, "the land of bronze;" then to various trading ports of the Egyptian coasts, for gold from Meroe, and for timber from Ethiopia, and then for the return voyage.

Other confirmation of the trade communications of southern Mesopotamia with the peninsula of Sinai appears in the beautiful statue of Kephren, the builder of the second pyramid, now in the Boulak museum. This statue was recently exhumed from the sands of the desert near the great Sphynx in Egypt, and is of stone so similar to the diorite of the Tel-Loh statues that it is evident they were both obtained from the same source.

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We know in this connection, that Seneferu, a predecessor of Kephren, had conquered and held in possession the Sinaitic peninsula with a strong garrison of Egyptian troops, which were maintained here during his reign and the reign of his immediate successors; that under this protection the fine stone of this region was quarried, and that at Wady Margarah the rich mines of copper, turquoise and other precious stones were worked.

Another evidence of the contact of Gudea with Egypt is the fact that on the lap of the principal statue of Gudea the plan of the city is carved, and the scale of measurement used is the "pyramid inch," instead of the Babylonian or Chaldean.

Aside from this, the finish, detail and workmanship of the Tel-Loh statues is so similar in style and character to the statue of Kephren that they all suggest the same influence and the same school of sculpture.

There are many evidences from other sources of the commercial intercourse between the Babylonians and Egyptians at these early dates, and it is probable that the cities of Eridu and Ur may have maintained the same relations in the prehistoric commerce of the Persian Gulf which obtained in later times with Tyre and Sidon on the Mediterranean. The commercial horizon thus opening before us is a broad one but is constantly extending.

The natural depressions of the Mesopotamian valley extend from the Persian Gulf northerly and northwesterly, thence through the Orontes valley to the Mediterranean. In prehistoric times and for long ages this was "the highway of nations," by the great rivers, the Tigris and Euphrates, from sea to sea, the chief trade route between India and the western coasts of Asia Minor.

Solomon is said to have founded Tadmor in the Desert for the extensive trade from the Euphrates, by Damascus to Jerusalem, whence the rich stuffs and spices from India were conveyed.

Later on, Nebuchadnezzer established the port of Teredon, on the Persian Gulf, for the commerce brought from the southern seas destined for the great waterways, the Tigris and Euphrates, northwards.

These facts are comparatively modern history to Gudea and his days, when the waters of the Persian Gulf washed the shores at Eridu, while ships from India, Ceylon and the different trading ports on the Red Sea unloaded their cargoes on the docks of the great maritime city of Ur of the Chaldees.

The city of Ur, then not far from the mouth of the Euphrates, was situated upon its western shores, and was at this time, and later, a city of great commercial and political importance, and the first capital of the kings of all Chaldea.

As in all maritime cities trading with distant countries, people of various nationalities were gathered here. It is not improbable that the name of "Ur of the Chaldees" may have reference to certain families of foreign stock, the "Kaldai" or "Kaldi" who inhabited the regions round and about Ur, perhaps nomadic tribes from Arabia. Other authorities, however, speak of these "Kaldai" as a priest class, magicians and astrologers, possessing strange learning and speaking a peculiar language; as representatives also of the primitive inhabitants of the country, filling a sacred office and consulted by the king on all religious subjects.

The divinity of this city was Hurki, or Sin, the great Moon God, and here may be seen at the present day on the mounds of Mugheir the remains of an ancient temple dedicated to this deity, rising to the height of seventy feet above the plain. This was founded by Urukh, or Ur Gur, one of the earliest known of the kings of united Sumir, who exercised dominion over the greater portion of southern Mesopotamia.

The remains of temples built by him are found in all the larger of the ancient cities of this region and the enormous proportions of these and their number have won for him the name of "The Builder." It is evident that this king had at his command vast resources in human skill and industry.

The Bowariyeh mound at Warka is described as two hundred feet square and one hundred feet high and that above thirty million bricks must have gone into its construction.

Other structures on a similar scale, the remains of which are found at Erech, Larsa, Calneh, Ur, Nippur and other cities in this region, show the magnitude of his resources and the extent of his authority. These buildings are, for the most part, temples dedicated to the tutelar divinity of each special locality, as at Larsa, where he erected a temple to the Sun God, and at Calneh to Belus.

The distinguishing features of his structures which were continued in the later Babylonian temples, are the rectangular base, the peculiar orientation of these with their angles to the cardinal points, the rise in receding stages, the sloped walls, the buttresses for increased strength, the drains for the ventilation of the walls, the external staircases for ascent and the ornamental shrine crowning the whole.

The temple founded by Ur Gur at Ur, was originally of great size. It rose in three receding stages to a vast height, where, upon the final platform, the temple was placed, containing the statue of the Moon God, which was thus visible to a great distance from the surrounding plain.

The lower stages of this structure were built of large bricks laid with bitumen. In the upper stages the masonry is cemented with mortar.

It appears that this was the work of two monarchs, Ur Gur, and his son, Dungi, who as his successor, completed here, as elsewhere, the buildings unfinished by his father. The names of both kings are inscribed upon the bricks in the structure, and on the signet and clay cylinders found in the ruins.

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These kings, are, however, of later date than Gudea. In their day the priest kings of one city had become kings of many, gathering various localities in Sumir under their dominion.

Among the discoveries obtained during the explorations at Nippur, by the Babylonian expedition of the University of Pennsylvania, there are many relics of Dungi and Urea, or Ur Gur.

At this time, there are evidences of an organized priesthood in whose hands were placed the religious interests of the king and the people, who proclaimed to them the will of the gods as observed in the relations of the planets and the stars.

In more primitive times the religion of this people was pure Shamanism, a worship of demons and the evil influences of nature, a religion common to all Turanian people even at the present day.

Very early, however, in the history of this people, a recognition of the benign influences in nature is apparent, and while the older belief never became entirely extinct, yet the propitious influences were regarded as attributes of the higher gods.

The sorcerers and magicians held a power of their own, but they were subject to the greater divinities by whose influence their mischiefs could be averted.

Whether this religious development was brought about by contact with another race possessing nobler religious ideals, or was a development through their scientific applications of astronomy to astrology, it is impossible to say. However this may be, these higher religious conceptions had developed very early into a cult which became the inheritance of later races that came into contact with them.

The peculiar and distinct civilization of these primitive Babylonians must have continued through long ages. Their system of writing had developed from the simple pictorial lines into the cuneiform and these signs had become phonetic, expressing sound as well as ideas. They had also developed a syllabary.

Finally, there are evidences of the gradual increase among them of another race of people. This was a Semitic people who seem at first to have established themselves in northern Babylonia in the kingdom of Accad, finally becoming supreme in the land.

About 3800 B. C., the kingdoms of Accad and Sumir are found united under Sargon I, a Semitic king. There are indications of Accadian or Sumerian kings who ruled over the separate kingdoms of Accad and Sumir at earlier and later dates, but the main course of testimony after Sargon I tells of Semitic kings as rulers in northern Babylonia, or Accad, and a Semitic influence dominant there.

The influence of such close social contact brought about material changes in the life, literature and language of both people.

In Accad, which came first under Semitic influence, the old language rapidly declined. In Sumir, or southern Mesopotamia, which continued much longer under the ancient rule and influence, the old language held its own down to comparatively recent times.

The Semites, however, seem to have received from the Accadians more than they gave. The arts and sciences and civilization of this ancient people became the arts and sciences and civilization of the Semitic Assyrians and Babylonians.

They appropriated the religion and gods of these early Chaldeans. They became heirs of their literature and they adopted their system of writing.

The most curious instance in these various adoptions of the Semites was the Sumerian syllabary.

Now in applying the syllabary of one language to the uses of another, it might be expected that the signs expressing a certain syllabic sound in one language would be used to express the syllabic sounds in the other. This however, was not the case in this instance. When the Semites adopted the old Accadian syllabary they used these signs quite as often to express the Semitic sounds of the original ideographs as for syllabic signs.

As an instance of this curious example of polyphony, Mr. Taylor gives the cuneiform sign which in the primitive pictorial form represented an ear. The name of ear in Accadian is pi. This sign had another syllabic value, signifying a drop of water. When the Semites adopted this sign to their uses they retained the phonetic value of the sign as pi. They, however, used this sign also to express the sound of the Semitic words, "eznu," an ear, and "giltanu," a drop of water.

This use of signs is the reverse of homophonism, where by the use of one sign many words having the same sound are expressed. It is an instance of polyphonism where one sign is used to express words having different sounds. The result was, however, the same. It led in both cases to the increase of determinatives, and other explanatory signs to indicate the word to be expressed by the sign.

The use of ideographs as determinatives was evidently suggested by the Sumerian syllabary, but the language of the Sumerians was simple, requiring fewer signs to express sounds. On the contrary, the Semitic language was more copious, possessing a greater variety of syllabic utterances.

It will thus be seen that when the decipherment of the Assyrian cuneiform was first attempted, scholars could not for a time master the curious complications they found.

The Assyrian syllabary could only be explained as a foreign importation, not as an evolution from a Semitic speech. As Professor Sayce says: "Like the discoverers of the planet Uranus, they had to presuppose another language to account for its origin and appearance."

The decipherment of the older cuneiform soon after, and the discovery of the bilingual texts, where

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copies from the old Sumerian originals were placed side by side with the Semitic translations, soon explained the sources of confusion, the original values of these signs and their application to another language.

F the great rulers in Mesopotamia, both Turanian and Semitic, who stand out most distinctly in the records of this remote past, are the Turanian prince, Gudea, about 4800 B. C., the great Sargon I and his son, Naram-Sin, Semitic princes, both to whom the date 3800 B. C., is accorded, and the Arabian prince, Khammuragas, or Hammurabi, the founder of the city of Babylon and contemporary with Abraham. The date now given for Sargon I, is 3800 B. C. Long before this date various families of Semitic race had evidently made their appearance in the land; Phœnician traders from the Persian Gulf, or nomadic tribes from the Arabian borders, Semitic families, attracted hither by the rich fertility of the Mesopotamian plains. These were Sabeans, perhaps, with a faint, far-off remembrance of the One God, ruler and creator of the universe, but now worshippers of the stars, the abodes of ministering spirits.

At this time in Sargon's reign, long before the date accorded to Urea, The Builder, in the new empire arising in Accad, we find the early beginnings of the Assyrian people. There was as yet no Assyria or Assyrians. The ancient Turanian capital of Accad was named Aushar or Asshar, signifying "watered plain," but this had not yet given its name to the region or country.

Sargon's new capital was Agane, or Agade of Accad, while Nineveh, "the mighty" of the coming kingdom, was as yet but a collection of fishermen's huts on the swift-flowing Tigris.

As yet there was no kingdom of Babylonia, and no city of Babylon. This region was situated in the northern portion of Sumir, south of Accad, and was at first designated by the Turanian name, "Gar Dunyash," or "Kar Dunyash," the "Garden of the god, Dunyash."

The site of the future great capital was then called either by its more ancient Turanian name, "Tin-Tir-ki," signifying The Tree of Life, or its later Accado-Sumerian name, "Ka-Dimmirra," Gate of God. In later times this name translated into Semitic was Babilu—Babylon—which finally became the name of the whole of Sumir south to the Persian Gulf, as Babylonia.

At the date of Sargon, of Accad, Sumir, or southern Mesopotamia, was chiefly Turanian. The displacement of the Mongol peoples by the Semites in this region had not at this time obtained. That fusion of races which so distinctly distinguished the Babylonians of the later era from the more purely Semitic Assyrians had scarcely begun.

The Babylonians, as a distinct people under this name, do not make their appearance on the stage of history until over fourteen centuries later than Sargon, in the time or a little earlier than Hammurabi, or Khammuragas, about 2300 B. C., at the date accorded to Abraham.

It is probable that Semitic people had settled in this region long previous to the reign of Sargon, but it was not until the period of Hammurabi, who at first was simply king of Gar-Dunyash that the Semitic element dominated in Babylonia.

This powerful prince, who became in time master of all southern Mesopotamia, was the founder of the city of Babylon, from which the country and people received the names Babylonia and Babylonians.

Returning to Sargon, we find in the Ninevite remains that in this earlier time he had founded one of the most famous libraries of ancient Mesopotamia. This was at his new city of Agane, or Agade. The literature of this library was entirely based on that of ancient Sumir. It consisted completely of translations of these older books into what we may call Assyrian, or were copies of the older books in the old language of Sumir.

This older language was to these Semitic Assyrians the language of the learned, the classic tongue of the time, bearing the same relation to the Assyrian as do Greek and Latin to modern literature. It was then even more important to the Semitic student as it included all of learning which in Mesopotamia had as yet obtained literary form.

These ancient texts were copied on clay tablets with translations from the language of Sumir into Semitic, either between the lines or the text in the old language in one column and the translation opposite.

For further aids to students, vocabularies were compiled, giving the Accadian word and the Assyrian translation; also, syllabic forms, and it is by these wonderful literary aids, especially wonderful when we consider their antiquity, that scholars of to-day are able to read this ancient Turanian speech as readily as the Semitic Assyrian language of Sargon's reign.

The systematic methods adopted in this library are also remarkable. Doubtless Sargon's librarians introduced ideas of their own in the arrangement of this literature, but they had evidently adopted methods long in use in the more ancient libraries of Erech, Larsa and other cities of southern Mesopotamia. As instances of this literary undertaking the great work on astronomy and astrology called "The Observations of Bel," which long ages after Berosius translated into Greek, was by order of Sargon compiled for his library. It consisted of seventy-two books, and a certain place in the library was set apart for this. These tablets were arranged and numbered according to the subject. A catalogue of these was also prepared, giving the number of the tablets as arranged under the subjects.

Other literary documents from this collection are The Story of Creation, in prose and verse; The Deluge Story, and Adventures of Izdubar, the famous Nimrod of Hebrew tradition.

When the student wished for any special tablet or subject, he was required by the librarian to consult the catalogue and to write down the number of the book he wished for, when it would be

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given to him. The librarian of to-day, to whom the same system and methods are so familiar, can scarcely claim these as modern improvements, but may well exclaim with the philosopher of old, "there is no new thing under the sun."

Another great work, prepared for the library of Sargon, of Agade, was a theological collection in three books and two hundred tablets. This consisted of magical texts and incantations from the primitive religion of Turanian Chaldea, which still held power and influence as magic and divination. It included also the literature of the later development of the Sumerians into higher spiritual conceptions.

This literature of the later period comprised hymns of praise, invocations to the gods, and penitential psalms which in spirit and form bear a remarkable resemblance to the confessions of the later Hebrew psalmist.

Perhaps we may trace in this a contact with Semitic thought and influence long before the Semites appear as an established people in the land.

There are two distinct periods in the religious development of the Turanians of Chaldea, the era of Shamanism or demon worship, and later Sabeanism, the deification of the planets and the stars or the benign influence of nature.

As early as Gudea they had entered upon this later period of religious development, and now, under the influence of Sargon occurred a blending of these systems with Semitic conceptions which continued the established religion of the Assyrians and Babylonians to the latest times.

The latent tendencies of the Semitic mind seem to have been towards monotheism. While this did not prevent their recognition of the gods of the nations with whom they came in contact, and their frequent adoption of these as objects of worship, this tendency is yet manifest.

With the later Assyrians, they united in the adoption of their national deity, Asshur; with the Moabites, in Chemosh; with the Hebrews, in Elohim, or Yahveh; and with them all, the Supreme One who united in Himself the great attributes of all the gods, the Creator of all things, the Arbiter of all human events.

The Turanian Chaldeans, on the other hand, were unreserved polytheists. Their gods were as the sands of the sea for number. Each city, with its surrounding locality, had its special god, and the greater the city the greater the god, the more magnificent the temple dedicated to his worship, and the more powerful its priesthood.

This was the case in the city of Ur, where Hurud, or Sin, the Moon God, was the local divinity. There were other moon gods in other localities, each worshipped in a special way, but the Moon God of Ur was greater than all.

Thus it was with the worship of Ea, the god of the deep, the local god of the more ancient city of Eridu; and again of Anu, the Sky God of Erech.

This organization of the Chaldean Pantheon by Sargon was simply the orderly arrangement of these into greater and lesser divinities, the blending of these separate local cults into one general system.

At the head of this pantheon was placed the Semitic Illu, or El, signifying God, and whose name is the root word of the Hebrew Elohim and the Arabian Allah.

Next in order, was a triad of great gods, Turanian divinities, consisting of Anu, the Sky God of Erech; Bel, or Mul-lil, the local god of Nippur, the Lord of the lower world, and last in this triad, of Ea, of Eridu, the god of the great waters, and creator of the Accadean race.

The position of these gods in this triad is explained by local circumstances. At the time of this new arrangement of the Chaldean deities Erech was a prominent city of southern Mesopotamia. It had a richly endowed library, perhaps the greatest collection of literary treasures at this time known in the ancient world. This was greatly enlarged by Sargon, who, perhaps from motives of policy towards his Chaldean subjects, thought it wisest not to enrich his library at Agane at the expense of this the oldest of the libraries of southern Mesopotamia.

It is also possible that some of the literary treasures obtained by him in other decaying cities of this region may have been placed in the library at Erech for the same reason, as it offered better opportunities for the safe deposit of these ancient documents. At any rate, we find that when Assurbani-pal founded his great library at Nineveh many centuries later, and the ancient cities of Chaldea were ransacked for their literary treasures, it was at Erech that he reaped his richest harvest.

As suggested, Erech was at the time of Sargon's reformation of the gods of Chaldea, a populous and wealthy city. It possessed a powerful priesthood devoted to the service of Anu, the Sky God, the local god of Erech, who, for these reasons, was placed first in the trinity of gods, before the more ancient and sacred divinities of Turanian Chaldea.

Nippur, the second capital of Chaldea, was also at this time a wealthy and populous city. Here was located a temple to Belus, the older Bel, identical with Mul-lil, the Lord of the lower world, and as the local god of Nippur, Bel became the second god in the trinity.

The most ancient and sacred of all the gods of ancient Chaldea, Ea, the god of the great waters, the local divinity of Eridu, was not to be ignored, and was thus placed in the trinity of great gods.

The triad thus formed represented the gods of the heavens, the lower world, and the great waters. Below this was another triad, consisting of Sin, the moon; Samas, the sun, and Vul, the atmosphere.

Then followed other gods, representing visible planets, and still below these a host of lesser nature divinities. The transformation of some of these gods under Semitic influences, and their gradual

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absorption of the attributes of the older deities is a curious study in Chaldean mythology.

It is of special interest as we find in these many familiar deities of Syria, Palestine, Egypt and other countries, who had their origin in ancient Chaldea.

A prominent instance of this is the rise of Bel-Merodach, the great Baal, from a lesser to one of the greater gods, and whose cult extended with the increase of Assyrian and Babylonian power. When Bel-Merodach comes first distinctly in view it is as a local god of Babylon. With the consolidation of all southern Mesopotamia into the Babylonian empire, and the establishment of Babylon as its capital, the local god of this city waxed great with the greatness and importance of his local abode. This occurred under Hammurabi, or Khammuragas, the founder of the city and the empire, about 2356 B. C.

The attributes of Bel-Merodach are various. He is the son of Ea, "The first born of the gods," "The benefactor of mankind," "The mediator between gods and men," "The warrior god, who leads the forces of light." Like Nin-Girsu, the god of Gudea, he is the "Lord of the pure flame, who conquers and puts to flight the spirits of darkness." Finally assuming the attributes of Samas, the Sun God, he appears as the solar deity of Babylon.

Among the cuneiform documents in the British museum, there is a group of fragments known as the Assyrian Epic of Creation. Portions of these were first translated by the late George Smith, who directed attention to their peculiar significance. Other fragments have since been found and translated by Mr. Pinches, producing the epic nearly complete.

In its present form, the poem is probably of the later days of the Assyrian empire. It bears within it, however, the embodiment of ancient Babylonian legends of the origin of things, and is specially remarkable in certain similarities to the Hebraic account of creation. A very great and marked contrast between these two narratives is that in one case the story of creation is told by a polytheist, as the effort of many gods; in the other, by an uncompromising monotheist, who attributes the work to a decree of one Supreme God.

The Assyrian version of that portion of the Hebrew narrative: "And the Spirit of God moved upon the waters, and God said, 'Let there be light,' and there was light," in the Chaldean epic is the office of Bel-Merodach.

As he leads the forces of light against the powers of darkness he enters into mortal combat with the great dragon, Tiamat, the goddess of chaos and darkness. This contest all the great gods have refused to attempt. In the conflict which ensues Merodach is victorious, vanquishing and destroying the great dragon of chaos. Whereupon there was great rejoicing among the great gods. Then:—

"They established for him the mercy seat of the mighty."

"Before his fathers he seated himself for sovereignty."

"O Merodach! thou art glorious among the great gods!"

"Since that day unchanged is thy command."

And thus Bel-Merodach, the great son of Ea, was enthroned.

He never becomes the national god of Chaldea, as Asshur became to Syria. Local influences were opposed to this. The local deities of other important cities of southern Mesopotamia, more ancient and venerated, maintained their hold upon the affections of their worshippers to the last.

This was the case with Mul-lil, the local deity of Nippur, the second in the triad of great gods, the older Bel, with whom Bel-Merodach is sometimes confounded.

The Moon God was to the latest day the favored divinity of Ur of the Chaldees, and so of the local deities of other Sumerian cities.

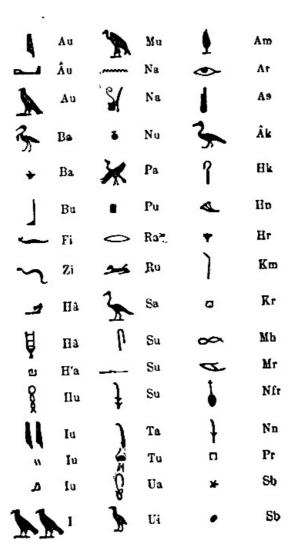
These divinities were many of them of great antiquity. They were reverenced in their special localities as nowhere else. Thus the indignation of the priesthoods of these local cults, and of the local aristocracies, may well be imagined at the attempt of Nabonidus, the latest king of Babylon, 555-538 B. C., to concentrate all these local worships at the city of Babylon.

When they saw their gods taken from their ancient shrines and gathered at Babylon in the great temple of Bel, as subordinate gods to magnify the worship of Bel, their resentment ripened into secret intrigue against their king, which resulted in the banishment of Nabonidus from his kingdom, the occupation of the throne by Cyrus, and finally the overthrow of the Babylonian empire.

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HIEROGLYPHIC SIGNS AND THEIR EQUIVALENTS

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HIS latest king of Babylon is, however, an interesting personage. To him we are indebted for many records which but for him the archæologists of this present time would not have recovered. He was a zealous restorer of ancient temples and shrines, which in his day had fallen into decay through all Mesopotamia. This seems to have been a duty enjoined by the gods upon all kings of Chaldea. But, whatever his motive, whether as a fulfillment of religious duty or of antiquarian inclinations, Nabonidus is said to have undertaken these restorations to an extent no king before him seems to have attempted.

Of famous temples rebuilded by him are those of the Moon God of Ur, and Haran; also of the Sun God at Larsa and of Sippara.

The custom of placing the records of the founder of an edifice in chambers or cavities in the foundations of the structure is of immense antiquity. These records were inscribed generally on clay cylinders and usually ended with injunctions to any future king who might, in rebuilding, come upon the secret hiding place of the cylinders that these records should be replaced in their original depository with religious rites. Failing to do this, the wrath of the gods is invoked upon his sacreligious head.

It was in this way that Nabonidus came upon some very ancient and important documents. As in all cases he followed his discoveries with the record of the event upon inscribed cylinders deposited by him in the foundations of the new structure, the value of these to later explorers can scarcely be estimated.

It was during his excavations in the foundations of the Sun temple at Larsa that he came upon a cylinder inscribed and deposited by Hammurabi, or Khammuragas, at the rebuilding of a more ancient temple on the same site.

Hammurabi states upon his cylinder that this more ancient temple was founded by Urea, or Ur Gur, seven hundred years before his time.

On annalistic tablets of Babylonian kings in the British Museum, Khammuragas is mentioned and the date accorded to him B. C. 2315, or the end of his reign B. C. 2259, which gives the date of Urea, The Builder, as about 2959 B. C.

The most important of the discoveries of Nabonidus, was, however, the finding of the foundation cylinder of Naram-Sin, the son and successor of the great Sargon of Accad.

This occurred at the time of his restoration of the Sun temple at Sippara, near the ancient city of Agane.

Of this, Nabonidus says:

"I brought the Sun God from his temple, and placed him in another house."

"I sought for its old foundation stone, and eighteen cubits deep—"

"I dug into the ground and the foundation stone of Naram-Sin, Son of Sargon, which for thirty-two hundred years no king who had gone before me had seen."

"The Sun God-the great Lord of E Bara. Let me see; even me."

Before the discovery of the cylinder of Nabonidus the date of Sargon of Accad was uncertain. He had often been regarded as identical with the later Sargon, the Assyrian king who carried the Ten Tribes of Israel into captivity about 722 B. C. The numerous records remaining of the earlier Sargon had made the identity of these two monarchs confusing and impossible, which was cleared away by the discovery of the records of Nabonidus.

This king had data for his statements which subsequent discoveries have confirmed, thus giving to Naram-Sin the date of thirty-two hundred and fifty years before Nabonidus, which was 550 B. C., and allowing for the long reign of Sargon I, we have the immense antiquity of B. C. 3800 for the time of the great Sargon of Accad.

The site where this important discovery was made is one of the two Sipparas, situated on opposite sides of the royal canal, not far from the Euphrates, and running parallel with the river.

These two cities were anciently known by their rival sanctuaries, the one dedicated to the worship of the Sun, and the other to the worship of the Moon, and were known as the Sippara of the Sun and the Sippara of Annuit.

The Sippara of Annuit is the supposed site of the ancient Agade of Sargon. It was, however, at Sippara of the Sun that Naram-Sin, the son of Sargon, founded the temple which was discovered by Nabonidus and rediscovered by Mr. Rassam a few years ago.

While making excavations in a mound near the supposed site of Sippara, Mr. Rassam made his way into some rooms of a vast structure which he found to be a temple. Passing on from room to room, he at last entered a smaller chamber which was paved with asphalt. As this kind of pavement was unusual in Babylonian and Assyrian structures he concluded this must be the secret depository of records. Having broken into the pavement, he came finally upon a sealed casket or chest of earthenware, about three feet below the surface, in which was found a stone tablet, beautifully inscribed, and also other documents.

This stone tablet was the archive of the famous Sun temple as was proved by the inscription on it, and also by the documents found with it, which gave the names of the founder and the restorers of

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the temple.

The tablet had upon it a representation of the Sun God, seated upon a throne receiving the homage of his worshippers, while above him the sun disc is suspended as from heaven by two strong cords held up by two ministering spirits.

The inscription declares this to be the image of Shamash, the great Lord who dwells in the House of the Sun which is within the city of Sippara.

This established at once the site as that of ancient Sippara, which to this time had been doubtful, and may lead to further discoveries of still greater antiquity on the site of the Sippara of Annuit, the supposed site of the ancient Agane.

In the records remaining of Sargon, from various localities, it is stated that he built here a palace, which, after some important military campaigns he greatly enlarged; that he built also a magnificent temple to Annuit, and that afterwards a statue of him (Sargon) was here erected, inscribed with memorials of his birth and career.

The tablets in the British Museum containing these records are probably copies of these older inscriptions, the originals not having as yet been discovered. They record Sargon's invasions of Elam with victorious armies, another successful campaign in Syria, the subjugation of all Babylonia and the peopling of his new city, Agane, with the conquered nations.

His longest and greatest campaign was a later invasion of Syria at which he was absent from his kingdom for three years. At this time he penetrated to the "Sea of the setting Sun"—the Mediterranean—conquering all the countries through which he passed.

In the rocky cliffs of the Asian shore he left inscriptions recording his triumphs, and memorial statues of him were erected in various places. It is possible that he crossed to Cyprus where relics of him, and of his son, Naram-Sin, have been found.

He seems to have had ambitions of universal empire, and it is stated that after his return from this expedition, "he appointed that all places should form a single kingdom." Of this he says:

"Forty-five years the kingdom I have ruled, and the black Accadian race I have governed."

"In multitude of bronze chariots I rode over rugged lands."

"Three times to the coast of the Persian sea I advanced."

"The countries of the Sea of the setting Sun I crossed."

"In the third year at the setting Sun my hand conquered."

"Under one command I caused them to be only fixed."

Naram-Sin—the beloved of Sin, the Moon God—continued the military advances of his father. The records remaining state that he invaded Egypt and held in possession for a time Maganna, the land of Magan, the region of the turquoise and copper mines and of the famous diorite.

A vase discovered at Babylon and since lost in the Tigris, has on it the inscription:

"To Naram-Sin, King of the Four Races, Conqueror of Apirak and Magan."

A second alabaster vase was found by M. de Sarazec in the ruins of Tel-Loh, having inscribed on it the words:

"Naram-Sin, King of the Four Regions," or king of the north, south, east and west.

This vase was imbedded in the masonry, evidently later restorations of the earlier buildings of Gudea.

A cylinder found by General Cesnola, at Cyprus has on it an inscription declaring its owner as a worshipper of Naram-Sin, who it seems had been deified by his subjects.

In the first volume of Babylonian inscriptions found at Nippur, Prof. Hilfrecht records six inscriptions of Sargon, two brick stamps of baked clay, fragments of many vases and three door sockets, most of these temple offerings to Bel—Mul-lil, of Nippur. The door sockets contain the longest inscriptions of Sargon thus far known.

There are many inscriptions of Naram-Sin in the Nippur remains, and yet more now in course of translation. These refer again to the restoration by these kings of the temple of Bel and their dominion over the whole of South Babylonia.

As these explorations are yet in progress, it is too early to indicate the farther evidences of these early rulers of Babylonia remaining at Nippur.

The various localities in which these relics have been found indicate the extensive sway of these monarchs. They suggest also the period when certain gods of Chaldea were adopted by the various nations and people conquered by Sargon or Naram-Sin.

Sinai, the mountain of Sin, the Moon God, may be a reminiscence of the invasion of Arabia by Naram-Sin directed by this divinity.

Mount Nebo, the mountain upon which Moses died, received its name from the Chaldean Nebo, the god of science and literature, the god of wisdom and prophesy.

Istar, the evening star, the Chaldean Venus, the goddess of love and fertility, became the Atthar of southern Arabia, is identical with the goddess Hathor, of Egyptian mythology, and was worshipped by the Canaanites as Ashtaroth, and finally by the Greeks as Astarte.

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Against this background of history and tradition, of civilization so remote, a notable figure appears about fifteen hundred and forty years later than the great Sharrukin, or 2260 B. C., in whom the most sacred traditions of later civilizations were to have their rise.

This was Abraham, or Abu-ramu, "the exalted father" with whom the history of the people of Israel begins. A Semite, and a native of Ur, his historical position is an important landmark in the story of letters.

Of special significance in this connection is this early contact of Abraham and his family with the land and people of Chaldea;—the lingering survivals of Accadian speech and traditions in Hebrew language and literature.

Again, when Abraham left Chaldea to found a great nation in another land, writing and literature could not have been unknown to him.

The constant use of cuneiform signs in architectural structures, in business forms and in every department of social and industrial life and the ever present schools for scribes in all the great cities of Mesopotamia made this impossible. The art of writing was no new thing to this young Semite prince. It was an art even then hoary with age.

With all to whom Abraham is a historic personality, the story of his life and times as recorded in the biblical narrative, is illuminated as never before in the testimony of these cuneiform documents from old Chaldea.

The biblical narrative does not touch upon the causes which led Abraham away from the land of his nativity. Jewish and Arabian traditions, however, state (and there may be a grain of truth in these traditions), that this was the result of the revolt of Abraham against the idols of Ur, and his refusal to acknowledge them as divine; that this brought upon him and his father's family a storm of persecution from the priests and people which ended in their banishment from Ur, and their departure for a distant country.

The references in the scripture narrative to Terah, the father of Abraham, as an idolator, and the Arabian tradition as a sculptor or maker of idols, is significant in these connections.

The destination of this family was Haran, at that time a Turanian city in northern Mesopotamia, an important frontier station on the high road to Syria and Palestine, and the various roads to the fords of the Tigris and Euphrates.

The word Haran is from the Accadian, Kharran, "a road," and was thus named for its position. It is said to lie in a region of exceeding fertility and beauty. Its fine, free air and commanding views make it the delight of the Bedaween tribes who find here luxuriant pasturage for innumerable flocks and herds.

Previous to the time of Abraham, there seems to have been at Haran, and in the region round about, a considerable colony of Semitic people, as indicated by Assyrian inscriptions. Since Abraham's date, "Nahor's City" and the "Well of Rebekah," located near Haran, bear these ancient names to the present day.

The deity of Haran was then the Moon God, the same deity as worshipped at Ur, always a favorite divinity with all Semitic people, and which might have been an influence that drew Terah there. During the remaining years of Terah's life, Abraham remained in this locality, prospering greatly; but with his father's death his long conceived purpose of establishing himself in Canaan was finally achieved.

After Abraham's arrival in Canaan with his numerous household, his princely retinue and his great possessions, we find him again in contact with certain Babylonian princes who have invaded Canaan and have obtained sovereignty in various localities.

The fourteenth chapter of Genesis gives account of the battle of Abraham with these kings of Babylonia for the rescue of Lot, his nephew, in which he put the invaders to flight, establishing peace and security in the land.

The names of these kings as given in the scripture narrative are Chedorlaomer, king of Elam; Amraphel, king of Shinar; Arioch, king of Ellasar, or Larsa, and Tidal, king of nations.

These kings are now identified by Babylonian records, Chedorlaomer, king of Elam, as Kudur-Lagomar, an Elamite king of that date; Arioch, king of Ellasar, with Eri-Aku, then king of Larsa. Amraphel, king of Shinar, is identified as Hammurabi, or Khammuragas, and Tidal, king of nations, as Thorgal, king of Gutium, a region to the north of Elam.

The evident correspondence of these kings with Abraham's contemporaries, furnish continued evidence of the political contacts of Babylonia and Canaan from the earliest times, and in many ways confirm the historical verities of the early scripture records.

Another document, reflecting new light from the cuneiform inscriptions, is the last exhortation of Joshua to Israel assembled at Shechem. In the review he then gives of the history of his people, he says:

"Your fathers dwelt on the other side of the flood—the Euphrates—in the old time; even Terah, the father of Abraham, and the father of Nahor, and they served other gods.

"And I took your father Abraham from the other side of the flood and led him throughout all the land of Canaan. And I brought you into the land of the Amorites * * and I gave them into your hand; * * now, therefore, fear the Lord * * and serve him in sincerity and truth and put away the gods which your fathers served on the other side of the flood and in Egypt, and serve ye the Lord."

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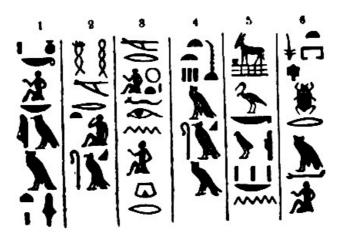
The whole discourse bears internal evidence of a written report, fresh from the voice of the speaker. We now know that the functions of the scribe were as constantly employed as the modern reporter through all Babylonia and Assyria as well as Egypt at these early dates.

Moses, who was learned in all the wisdom of the Egyptians, evidently had no lack of scribes among the Israelites. The Tel-el-Amarna tablets give evidence of the general practice of the art of writing through all Canaan before the days of Moses and Joshua.

We have thus little need to refer to the period of the Babylonian captivity for the appearance of Accadian and Aramean words in early Hebrew history, or for the correspondences of Chaldean legends with scripture records.

The origin of the documents which in Ezra's time were collected and re-written in new form, were historical remnants surviving from the earlier periods to which they are assigned in history and tradition.

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HIEROGLYPHS AND TRANSLATION.

The order both of the columns and the hieroglyphs is from left to right. Verbally translated it reads:

1.	<i>nuk</i> I am	<i>neb</i> a lord	-	a <i>amt</i> xcellent		
2.	<i>uah</i> very	<i>mert</i> beloved	<i>heka</i> ruler			
3.	<i>mer</i> loving	<i>tamaf</i> his coun	try	<i>arna</i> passed		<i>kar</i> for
4.	<i>rēnpau</i> years	<i>em</i> as	the h	eka ruler	<i>em</i> of	
5.	<i>Sah</i> Sah	<i>baku</i> the work	<i>neb</i> all	<i>en</i> of		
6.	sutna the pala		<i>per</i> done	<i>em</i> by	n	<i>tuta</i> . ny hand.

HE Semitic Assyrians and the Semitic people of other portions of Mesopotamia, had adopted the cuneiform script and the Turanian syllabary as early as the days of Sargon. From this time onward, and until the days of Assyrian and Babylonian supremacy, these signs were the common medium of literary intercourse among the nations of western Asia and expressed various languages and dialects.

The famous documents recently found in Egypt, known as the "Tel-el-Amarna" letters, indicate the extensive use of cuneiform writing in the fifteenth century before Christ, or about seven hundred and twenty years after Abraham.

The story of the discovery of these documents is still another among the many romances which archæology so constantly and so unexpectedly presents.

The site of the modern Arab village, Tel-el-Amarna, is about one hundred and ninety miles south of Cairo, on the eastern bank of the river Nile.

The mountain chain which here follows the course of the river, recedes at this point in the form of a bay, and upon the sandy plain thus partially enclosed, many interesting remains appear, indicating the site of an ancient city.

The tombs on the hillside have long been of special interest to Egyptologists.

This city was known to have been the royal residence, and for a time the capital of Egypt, under Amenophis IV, the ninth king of the eighteenth dynasty. This king, son of Amenophis III and Queen Teie, a princess of Mitanni, was through several generations of maternal descent more Asiatic than Egyptian.

The royal house of Mitanni—the Aram-Nahairam of the Hebrews—had given in marriage several successive princesses to the kings of Egypt. Tothmes III, during his wars of conquest in western Asia, had obtained a princess of Mitanni in marriage, and this alliance was further cemented by the Egyptian kings, his successors, to the period of Amenophis III, the father of Khu n Aten, Amenophis IV.

These frequent alliances had brought about an inclination for the gods of the Mesopotamian mothers, and after while this younger son of the royal house of Egypt, openly professed his adoption of the worship of Aten, the supreme Baal of the Semitic people of Asia, and attempted to substitute this for the worship of Amon, the god of Thebes. He erased the name of the Egyptian god from the monuments and temples wherever found. This so aroused the indignation of the powerful priesthood devoted to the worship of Amon, that Amenophis found it necessary to leave for a time the capital of his kingdom at Thebes and to found another elsewhere.

This was established on the site of the modern Tel-el-Armana. The king took to himself a new title, Khu n Aten, "The Splendor of the Sun's Disc," by which name also he designated his new city. His reign after this seems to have been of short duration. After him, two or three princes of his house succeeded him, but with him Egyptian supremacy in western Asia was at an end and the subject provinces of Syria and Palestine passed out of Egyptian hands and rule.

The mummy of this monarch has recently been found in a royal sepulcher of the kings of Thebes with those of other kings of this ancient dynasty.

The revolt against the heretical king was extensive and Egypt was distracted with civil wars. The adherents of the ancient religions soon brought the worship of the new heresy to an end, and Rameses, first king of the nineteenth dynasty, restored the worship of Amon and the ancient gods of Egypt, with all power and dignity and brought with him a return of peace.

Such was the aversion of the Egyptian people for the capital of the heretic king, that, although his city was built almost entirely of sun-dried bricks, it has suffered less from the ravages of time than the more solidly constructed cities of Thebes and Memphis.

Prisse D'Avennes, who gives a description of the site of Khu n Aten, says that the principal streets of the city are distinct and the greater buildings can in part be traced. And again, that some of the buildings of sun-burnt brick are the best preserved and most ancient dwellings in the valley of the Nile

In 1887 some clay tablets of peculiar and foreign character were found in these ruins in company with Egyptian relics. These tablets resembled for the most part small pillows of clay and they were inscribed with cuneiform characters. With them were found a few larger tablets, some small cylinders also inscribed in cuneiform, and seals and other relics with hieroglyphic inscriptions.

The ruins where they were found were at first supposed to have been the remains of the royal residence, but further examination indicates this structure as the depository of the royal archives, the abode of the king's scribe and custodian of documents. It was near the palace though not of it. A portion of these documents were placed in the museum at Cairo, some were obtained for the British Museum, and the remainder by the Royal Museum of Berlin. They include in all three hundred letters from kings of Babylonia, Assyria, Mesopotamia and northern Syria, and from subject princes and governors in Palestine and throughout Canaan.

Although in cuneiform script, these characters varied with the locality from whence they came. The indications are that this system of writing had been long in use throughout western Asia.

The language chiefly used in these documents was the Semitic Babylonian, in the syllabary of the older Turanian form. In one or two cases the writer uses the Babylonian script to express his native

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language, the speech of the locality from whence the letter was sent, but these instances are rare.

In one letter from Tushratta, or Dusratta, king of Mitanni, the first seven lines are in Assyrian, but after this the remaining five hundred and five lines are in his native language, the speech of Mitanni, a language as yet unknown, having never been translated.

The meanings of a few words have been determined by Dr. Sayce and other scholars and the indications are that the language was a Mongol dialect, akin to the Accadian. The similarity of some words to those used by the Hittite prince, Tarkondara, who also writes about this time to Amenophis III, indicates this to be of the same family of speech.

The writing of this document is syllabic; and in the older cuneiform, with very few determinatives.

In some later explorations at Tel-el-Amarna Mr. Petrie came upon some fragments of other tablets in cuneiform which proved to be dictionaries. "In one case the dictionary expresses Semitic Babylonian and Sumerian, and as the Sumerian words are written phonetically as well as ideographically, it would appear that Sumerian must have been still a living language."

On one of these later found tablets, Babylonian words are given to explain words of two other languages, one of which Mr. Boscawen thinks to be old Egyptian. If this is the case it is the only instance in the Tel-el-Amarna collections where this appears. In no other portion of this correspondence is the language of Egypt used.

Throughout the vast region represented by these letters, including various races and forms of speech, from the upper Euphrates to Babylonia; from northern Syria to southern Palestine; everywhere, the Babylonian language and Babylonian script were the common medium of literary intercourse in this correspondence.

The fact that many of these letters seem to have been individual productions and not the work of special schools of scribes indicates the widespread influence of Babylonian culture, and the opportunities for education existing throughout the Orient in the century before the Exodus.

There are evidences that the schools and libraries of the ancient cities of Mesopotamia had their counterparts in the cities of southern Palestine; as for instance Kirgath-Seper, "The City of Books," to which we find later reference as Kirgath-Sanneh, "The City of Instruction."

The glimpses afforded of social and political conditions in various localities at the period of this correspondence are of historical importance, furnishing data and verifying documents found elsewhere, of the same persons and events.

We have in the Tel-el-Amarna collection, letters from Burraburyash and his father, kings of Kardungyash or Babylon, to Amenophis III of Egypt, in which reference is made to the Egyptian princess, sister of Amenophis, wife of the king of Babylon.

Burraburyash also wants gold, "much gold" from the Egyptian king, for the building of his temple, and complains that this does not come to him in sufficient quantities.

There is one letter from the king of Assyria and many letters from Tushratta, or Dusratta, king of Mitanni. These latter refer chiefly to the princesses of Mitanni, wives of the Egyptian kings, Queen Teie, mother of Amenophis IV, and the princess Kirghipa, whose magnificent dowry occupies a great portion of some of the largest tablets in the collection. The lists include horses and a chariot covered with gold, ornaments of silver and gold of finest Babylonian workmanship, decorated with precious stones and rich garments of variegated stuffs.

Upon the death of Amenophis III, this princess became the wife of Amenophis IV, his son, who thus continued his alliance with the powerful and wealthy Tushratta, king of Mitanni.

Some of the most interesting letters in the collection are from Syria and Palestine, from the native princes and governors of cities, at this time subject to the Egyptian kings.

The correspondence of Ebed-tob, priest king and governor of Jerusalem, is of special interest. Jerusalem was at this time a city of the Amorites, a Semitic people of Palestine and its name in these documents is Uru-Salim, signifying "The City of the god Salim," or the "God of Peace."

Ebed-tob impresses the fact upon his royal correspondent that though subject to the Egyptian king, he is king of Uru-Salim by an oracle of the god of Salim. He was thus priest king of the city by divine appointment and not by heredity. This statement suggests that earlier king of Jerusalem, Melchizedek, who, as king of Salem and priest of the "Most High God," comes forth with bread and wine and blessings for Abraham, the Deliverer of the country from its foes; the Restorer of Peace.

The Assyrian form, Sar Salim, "King of Salem," is identical with the Hebrew Sar Shalom, "Prince of Peace." This again illustrates the application by Isaiah of the title of "Prince of Peace" to that later "Prince of the House of David," who, in a higher spiritual sense than his great prototype, Melchizedek, was yet to be to all nations and people "King of Salem" and "Prince of Peace."

The most remarkable event in the history of archæology has its connections with the Tel-el-Amarna discovery.

Among the letters in this collection addressed to Amenophis IV, from the governors of cities in southern Palestine, are those from the governor of Lachish. This dignitary was named Zimrida and his dispatches to the king of Egypt were chiefly upon the political conditions of his province, its dangers from approaching foes and the necessity of relief from Egypt.

It seems that Zimrida was in greater danger from foes within than without, for in one of the later letters from Ebed-tob, he alludes to the murder of Zimrida by servants of the Egyptian king.

The discovery of these cuneiform tablets from southern Palestine had strengthened the growing

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convictions of Prof. Sayce that lying beneath many of the *tels* or mounds that marked the sites of ancient cities throughout southern Palestine, other similar treasures were buried. The name Kirgath Sepher, "Book Town," was strongly suggestive, and acting upon these impressions he urged the Palestine Exploration Fund to undertake explorations in this region.

The Tel-el-Amarna letters were discovered in 1887. It was not, however, until 1890 that the officers of the Palestine Exploration Fund were able to obtain the necessary permission from the Turkish government, or to secure the services of the distinguished explorer, Dr. Petrie, for the work. This gentleman began excavations in the month of April of that year.

After some days of examination of various *tels* in this region for the site of Lachish, he decided to commence work at the *tel* or mound Tel-el-Hesy, so called from the river Hesy which flows by the hill on which the mound is located. It is about seventeen miles to the east of Gaza. The natural eminence upon which it is situated rises to a height of forty feet above the valley. Above this the mound consists of a succession of town levels, the one above the other, sixty feet higher, from which a commanding view of the region is obtained.

Fortunately for the explorer, the turbulent stream flowing over these declivities has cut this *tel* on the eastern side from top to bottom, leaving the whole face exposed and revealing distinctly the various city levels of the several periods of occupation. The commanding position of the site, the fine springs of water, gushing from the hillsides, and the rapid stream, affording an abundance of fresh, sweet water, the locality agreeing in so many particulars with the site of ancient Lachish, the evidences also in the hillside of the existence at various periods of ancient important cities, justified his convictions which subsequent discoveries verified.

After some months of excavation, Dr. Petrie was obliged to discontinue his work here for engagements elsewhere, leaving further explorations in the hands of Mr. Bliss.

^[4]The result of Dr. Petrie's labors had been to establish known facts in the history of ancient Lachish. The lowest and earliest town must have been of great strength and importance. The remains of the walls are twenty-eight feet and eight inches in thickness, of bricks unburnt, with two successive patchings of rebuilding occupying thirty-nine of the sixty feet in the height of the mound. At this level the fragments of pottery were distinct and peculiar, very different from the relics of the cities above and which, from relics elsewhere obtained, give the period of their use and manufacture at 1500 B. C.

The next level indicated a barbaric invasion when rude huts were piled up, to fall soon after into ruin. After this comes successive strata of Jewish cities until about 400 B. C., since which time Lachish passed out of history and no later relics are found.

Of these things Dr. Petrie says: "The Amorite pottery extends from 1500 B. C., to 1000 B. C. Phænician and Cypriote begins about 1000 and goes to 700 B. C. Greek influence then begins and continues to the top of the town."

Upon leaving, he pointed out to Dr. Bliss the indications that the lower portions of the *tel* would bring to light the ruins of a city destroyed by the invading Israelites.

Among the early relics found by Mr. Bliss, when the lower stratum of cities was more thoroughly explored, were a number of Egyptian beads and scarabs of the eighteenth Egyptian dynasty, on one of which the name of Queen Teie, wife of Amenophis III and mother of Amenophis IV, appears.

There were also a number of seal cylinders, some of Egyptian and some of Babylonian manufacture, of the same period or earlier.

The most wonderful discovery, however, was to come, verifying the predictions of Prof. Sayce and the judgment of Dr. Petrie, but in a way to astonish even these eminent scholars to whom all things seem possible. This was the discovery of a clay tablet inscribed in cuneiform characters similar in size, form and other peculiarities, to the letters from Lachish in the Tel-el-Amarna documents.

It is written in the Babylonian language and with the Babylonian syllabary, and what is still more astonishing, the name of Zimrida appears upon it.

It proves to be a letter addressed to an Egyptian officer, received at Lachish about the time Zimrida's letter was sent to the king of Egypt. In this the name of Zimrida, who, according to the Tel-el-Amarna dispatches was governor of Lachish, is twice mentioned.

Here in Canaan, deep beneath the remains of many cities, and there upon the banks of the Nile, these two fragments of a correspondence have lain through many centuries, waiting the time when this long forgotten story might be read and explained.

The Lachish letter was claimed at once by the Turkish government, and those who have attempted its translation have been obliged to do this from squeezes or impressions of the original document, which in some cases are imperfect, as some of the characters are partly obliterated or on the edges of the tablet. Quite enough, however, is apparent to identify the date and significance of the documents

The Tel-el-Amarna documents also indicate in a way the date of the Exodus. They at least prove, of the periods sometimes assigned, when this could not have happened, and to point to the probabilities when it did.

In the letters from southern Canaan we have a distinct view of Palestine before its occupation by the Children of Israel. They had not taken possession of Lachish, nor had they entered Jerusalem. At this time Palestine and all Syria were under Egyptian domination.

The governors of many of the cities were often times native Egyptians, and Egyptian garrisons were

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stationed at all important points for their protection.

From the time of Thotmes III, of the eighteenth dynasty, to the close of the reign of Amenophis IV, this state of affairs had continued and during this period no Egyptian king corresponds to the Pharaoh of the Oppression.

At the time of the invasion of Canaan by the Israelites and their occupation of its cities, the domination of Egypt had ceased. This did not occur until the close of the eighteenth dynasty.

When the nineteenth dynasty came in, with Rameses I, a new order of things arose. The reaction against the heresies of Amenophis extended to all Asiatic influences, and the Semitic people throughout the realm found in Rameses and his immediate successors the Pharaohs who "knew not Joseph."

Again, in certain of these letters from southern Palestine, there are references to the "Khabiri" who were threatening these cities, and in the Khabiri some scholars read the word Hebrews and their approaching invasion of Palestine.

This would place these letters at the close of the "Wandering in the Wilderness," instead of earlier. Against this view is urged that the political conditions of Canaan at the time of this correspondence do not agree with those of the Israelitish invasion of Canaan.

The word Khabiri signifies "confederates." They are probably the people of Hebron, one of the old Amorite cities, and confederated against the alien Egyptian authorities, with their stronghold at Hebron.

In the letters of Ebed-tob to the king of Egypt, he complains of certain officials in the neighboring cities who are conspiring with the Khabiri, the most dangerous foe to the constituted authorities in that part of Palestine.

The preservation of these documents among the archives of the Egyptian king show that these appeals were received. The evidences are that they were sent to Amenophis IV near the close of his reign. Then civil war, which continued for some time after his death, and during the reign of his immediate successors, made it necessary to recall the Egyptian troops abroad, and the strongholds of Egyptian rule in Asia soon surrendered to native and foreign claimants of Syria and Canaan.

It is scarcely possible, in so brief a sketch, to give an estimate of things indicated, or the historical importance of these documents. The most striking of the things indicated is the large range presented of Babylonian influence and culture.

This is not more noticeable in the countries bordering upon the Euphrates valley than it is throughout the region lying along the eastern coast of the Mediterranean and the western slopes of Amanus, from northern Syria to the valley of the Nile.

From Tyre and Sidon, Beyrut and Joppa, Gaza and Askalon, Jerusalem, Lachish and other ancient cities of Syria, Palestine and Canaan, letters were addressed to the king of Egypt; not in the language of Egypt, nor yet of Syria or Canaan, but in the language and script of Babylonia.

This is hardly what might have been expected. We might have expected, for instance, the speech of the Semitic people of Syria or Canaan—this older Hebrew—to have assumed Hebraic forms; that older Phœnician script for which scholars are so earnestly searching. Or we might reasonably have supposed that documents from this region and at this time would have been expressed in the written forms of the hieroglyphic system of Egypt; but this was not the case.

The problem of the use at this date of the script and language of Babylonia by the Semitic people of Syria and Canaan, must be referred to the extensive influence of Babylonian culture and power, which had been more or less dominant in Canaan from the period of Sargon I.

Of this, Prof. Sayce says:

"So long had this system of writing been adopted in western Asia, and so long had it had its home there, that each district and nationality had time to form its peculiar hand. We can tell at a glance by merely looking at the forms assumed, whether a particular document came from the south of Palestine, from Phœnicia or from northern Syria."

Again, the prevalence of its use throughout the vast region represented by these documents, from the Persian Gulf to the mountains of Armenia, from beyond the Tigris to the Mediterranean Sea and from northern Syria to Arabia, implies the centuries.

It indicates that what our alphabetic system is to modern civilizations the Babylonian cuneiform was to the civilizations of western Asia in the century preceding the Exodus.

Another influence for the persistency and spread of the cuneiform writing, was due to the great libraries established in various cities, to which the people had access. These had existed from the earliest times in Babylonia, and undoubtedly spread with the spread of Babylonian influence and culture.

Of legendary libraries in Chaldea, Berosus tells of the antediluvian city Pantabibla, town of Books, and Sippara, also City of the Sun, where Xisthurus, the Chaldean Noah, buried his books before the Deluge, and from whence they were disentombed after the subsidence of the waters.

Of actual collections, literary remains from the library of Erech, the most ancient of Chaldean cities, give evidence of the antiquity of these institutions, as also others from Cutha, Larsa and various localities.

The library of Larsa, or Senkereh, was famous for its mathematical works, and here students of that science came from all parts of the country.

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Some tablets from this library are now in the British Museum, among which are tables of squares, and there are traces of a Chaldean Euclid, with geometrical figures.

In Assyria, the great libraries established in various cities were at the expense of the libraries of Babylonia. They were founded by the kings of Assyria who became for the time masters of Babylonia.

For the enrichment of Assyria, the Babylonian libraries were despoiled of many treasures of which such books were selected and removed as would add to the glory of Assyria.

The books of the Assyrian libraries established in various cities consisted either of works from the older libraries or were copies of books left in their original homes.

The most ancient of the Assyrian libraries of which we have account, after that of the great Sargon, of Agane, was that of Calah. This city was founded by Shalmaneser, about 1300 B. C., but later on was laid waste during some invasions of Assyria. It was afterwards rebuilt by Assur-natsi-pal, king of Assyria, 885 B. C.

At this restoration of Calah, he founded the celebrated library in which, with other literature, was deposited the great work on astronomy, entitled the "Observations of Bel." This work was first composed for the library of Sargon at Agane, and throughout Assyrian and Babylonian history had a wide reputation. It was translated in later times into Greek by Berosus, the Chaldean historian, from many copies of the work made for the great library of Assur-bani-pal, at Kouyunjik. Many fragments of these copies are now in the British Museum, but the table of contents which remains gives a good conception of the subjects treated in the original work.

Assur-bani-pal says of the founding of his royal library, that inspired by "Nebo, the prophet god of Literature," and "his wife, Tasmit, the Bearer," he had regard to the engraved characters of which, as much as was suitable on tablets, he had written and explained and placed in his library for the inspection of his subjects.

To this library, strangers from all countries were also admitted, and for their assistance in the study of literature and the translation of these documents, syllabaries were prepared in which the cuneiform characters were classified and arranged. With these were the phrase books and dictionaries presenting the ancient Accadian form of the word with its Assyrian equivalent.

By these means the modern student of cuneiform has been able to translate this long forgotten language as readily as the student of the period of Assur-bani-pal.

Like testimony from other localities is coming to light, of the literary activity which prevailed for long centuries—we may say milleniums—throughout the vast region affected by Babylonian influence. There were books and libraries everywhere, and those who could read and write them.

The imperishable nature of these baked clay records is yet to furnish other and greater surprises. Beneath the mounds which dot the plains and valleys of Mesopotamia, Syria and Palestine, the treasures of many ancient libraries undoubtedly still await the spade of the explorer.

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^{4.} Palestine Explorations, 1890. Journals of Dr. Petrie.

CHAPTER X. [134]

HROUGHOUT the whole history of cuneiform writing, with the Babylonians and Assyrians it continued a syllabic system. There was no development with them of alphabetic characters.

The first evidences we have as yet of such development through this cuneiform was at the time when the Medes, an Aryan people related to the Persians, received from the primitive or earlier inhabitants of Media their system of writing.

These Proto-Medic tribes were a Turanian people of Ural-Altaic stock speaking an agglutinative language. Their system of writing was the cuneiform, and had been a development from the Semitic Babylonian script.

In the adaptations of this to the requirements of an agglutinative speech a process of simplifying had occurred quite similar to that which the Japanese present upon the transmission to them of the graphic system of the Chinese.

The Semitic Babylonian system which was originally adopted from the cuneiform of a Turanian people, had developed a complicated and cumbrous method of writing, including over five hundred signs. This had arisen in the attempts to adapt a syllabary and characters expressing an agglutinative speech to the uses of a Semitic language.

It was from this that the Persian cuneiform was derived, and in the further simplicity which appeared in the transmission of this to an Aryan people, and its applications to an Aryan speech, that we find a development towards alphabetism.

With the adoption of the Proto-Medic cuneiform by the Medes and Persians, many of the syllabic signs, instead of representing syllables came on the acrologic principle to be used as alphabetic characters.

As certain of these signs retained a syllabic character, the Persian cuneiform was never a pure alphabet, though far on the way to this as early as the period of the Achæmenian kings.

Dr. Taylor says of this:

"The idea of alphabetism may not improbably have been suggested to the Persians by their acquaintance with the Phœnician alphabet, which as early as the eighth century B. C. was used in the valley of the Euphrates concurrently with cuneiform writing."

At the date of the Persepolitan and Behistun inscriptions, and during the two previous centuries, the Aramean alphabet, daughter of the Phœnician, had been a commercial script of the Semitic people of northern Mesopotamia and Syria.

At the time of Darius it was used at the courts of the Assyrian kings in official records, and later on at Babylon.

Again, upon the decline of the Assyrian and Babylonian empires, and with these the decadence of the cuneiform, this was superseded by the Aramean alphabet. Of this, however, later on.

Whatever influences the alphabet of Aram may have had in suggesting the idea of alphabetism to the originators of the Persian cuneiform, the result was original and distinct.

Of this Persian cuneiform, which has furnished the key to the decipherment of all cuneiform, the fullest vocabulary has been found in the Behistun inscriptions.

The rock on which these are engraved is situated near the western frontier of Persia on the direct route from Babylon to Ecbatana. It rises an isolated mountain from the plain to a height of seventeen hundred feet.

On one side is a sheer wall of precipitous rock. At its base is a copious fountain. On one of the great highways of travel, its isolated position and peculiar features have made this a notable landmark throughout the ages. At the northern extremity of this escarpment, in a recess to the right, are the famous inscriptions of Darius, son of Hystapes. To make these inaccessible to foreign invaders or domestic foes, they were placed about three hundred feet above the base of the rock.

Sir Henry Rawlinson, who first deciphered these inscriptions, attempted the work by the aid of powerful field glasses, but later succeeded in obtaining a closer inspection by means of ropes let down from the cliffs at great expense and at the risk of his life.

The wonder is, how the engravers could have done the work. The rock was beautifully polished before inscribed, and in some places where there were inequalities of surface, pieces of the rock were fitted in and fastened with molten lead. This was done with such delicacy that only by close and careful scrutiny can it be detected.

After the engraving had been completed, a fine coat of silicious varnish was laid over, to give clearness of outline to each letter, and to protect the surface against the action of the elements.

Of the inscriptions, Sir Henry Rawlinson says:

"For beauty of execution, for uniformity and correctness, they are unequalled."

The purpose of King Darius in these memorials was to set forth to his subjects his hereditary right to the throne of Persia, and the glories of his reign.

"I am Darieiros," he says, "the great king, the king of kings, the king of Persia, the king of nations."

And then, after giving the record of his genealogy back to Achæmenes, the first of his line, he says: "There are eight of my race who have been kings before me; I am the ninth. In a double line we

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have been kings."

The inscriptions consist of a thousand lines in three columns and in three languages; an Aryan, a Turanian and a Semitic speech.

The first column, addressed to the Persian people of his realm, was written in the Persian cuneiform, with thirty-six alphabetic signs and but four ideograms. The second was to the Proto-Medic, or as now called, Scythic inhabitants of the kingdom, and was written in the Turanian cuneiform, with ninety-six pure syllabic signs, accompanied by seven surviving ideograms. The third version, to the Assyrian or Semitic subjects of the Persian king, was inscribed in the Semitic Babylonian cuneiform, including five hundred characters.

After the discovery by Grotefend of the key to the decipherment of the Persian cuneiform, Sir Henry Rawlinson, an English military officer in the service of the East India Company, while on duty in Persia, undertook the study of cuneiform characters.

This he attempted independently, with no one to aid him, as at this time he was not acquainted with the discoveries of Grotefend, or the methods pursued by him.

The greater simplicity of the Persian versions in the trilingual inscriptions, suggested less difficulties to overcome and led him to pursue the same lines by which Grotefend had previously obtained success.

Sir Henry Rawlinson was able to carry forward the decipherment of cuneiform much farther than Grotefend, owing partly to the better knowledge of the ancient languages of Persia attained at this time, and partly to the fact that he had escaped the mistakes which obstructed Grotefend in his later decipherments of cuneiform.

It will be remembered that Grotefend discovered the true values of twelve of the forty-eight letters of the Persian alphabet. Further than this he did not go. He made the mistake of supposing all the vowel sounds were expressed in this system, which is not the case.

With some of the consonants, the vowel sound is inherent and is not written with an independent sign. This mistake prevented his further progress; but his success had pointed the way, and a host of eager and able scholars at once entered this new field of oriental philology.

The most promising direction seemed to be the Zend, the so called language in which the sacred books of the Parsees was written. Of this, but one or two fragments known to be genuine were at this time to be found in the libraries of Europe; one in the Bodleian Library, chained to the wall, and here and there a few stray leaves of Zend manuscript in other collections.

In the year 1771 a work had been deposited by its author, Anquetil Duperron, which he claimed to be a translation from the original Zend-Avesta, with copy of the texts.

The work had been pronounced a forgery by certain distinguished scholars; but the well known scholarship of its author held the judgments of other learned philologists in abeyance.

The story of this effort is of romantic interest. While a youth, preparing for priesthood in the seminaries of Paris, he became so absorbed in the study of language, that he gave himself entirely to these pursuits, abandoning his intentions of the study of theology.

While thus engaged, some stray leaves of a Zend manuscript came into his hands, which so filled his mind with a desire to read the language of the Parsees that he determined to do so.

At this time the conflicting interests of the English and French in India reached a crisis. Enlisting as a private soldier in the French army, he was about to sail for India when the officers of the institute to which he was attached, affected by his zeal for learning, obtained from the Minister of War a free passage for him to Pondicherry, with a seat during the voyage at the captain's table and a salary to be paid him on his arrival in India while he carried on his studies.

After reaching Pondicherry, he began the study of Sanscrit and Arabic, and later on, through great hardship, finally reached Surat.

Here he obtained the confidence of certain Parsee priests, who permitted him access to their sacred books, and through whose assistance he acquired sufficient knowledge of the language in which they were written, to enable him to translate the Zend-Avesta.

Returning to Paris in 1762, with over a hundred precious manuscripts, he obtained a small post in the royal library, where he spent the next nine years in the preparation of his copies of the original texts of the Zend-Avesta, translating these for publication. In 1771 the work was completed and he had the satisfaction of placing in the Royal Library of Paris the first authentic version of the Zend-Avesta and the first translation that had ever appeared in any European language. As before stated, many scholars of the time were not prepared for the work, denying its authenticity and proclaiming it an audacious forgery.

Under this cloud, the intrepid author of this work, conscious of the importance of his contribution to learning, undaunted by the fate which so long delayed the just recognition of his labors, passed the remainder of his days in cheerful resignation.

He lived to congratulate Grotefend upon his achievements in the decipherment of cuneiform and died shortly after, in 1808, at the advanced age of seventy-seven.

Twenty years later, the honors due his name came through the researches of the illustrious scholars, Rask and Burnouf, who proved this great work of Anquetil Duperron to be a genuine if not correct translation of the Zend-Avesta, as obtained through the sacred books of the Parsees.

It was by a study of this translation that the key to the ancient Persian language was obtained and

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has since served an important use in the study of Zend^[5] philology.

Notwithstanding its value, this translation of the Zend-Avesta was by no means perfect. The faulty teachings of the Parsee priests led the author into occasional errors which obstructed the progress of later scholars who depended too closely upon it for results. Little by little, however, from the work of Sir Henry Rawlinson on the Behistun inscriptions, thro' the researches of Burnouf in the original Zend manuscripts; again from testimony furnished by other distinguished scholars, from coins and other inscriptions, and still again by a comparative study of Sanscrit, modern Persian and Arabic, all the letters of the old Persian cuneiform have been obtained, until now it is as easily and distinctly read as Greek or Hebrew.

It is impossible, within these limits, to follow the steps by which these important results were obtained. The methods employed in such researches are often only intelligible to philologists themselves.

In this special study, the epigraphic materials examined included not only cuneiform signs, but characters representing the fully developed alphabets of later periods, alphabets which had superseded the cuneiform as systems of writing, though expressing the ancient speech of Persia.

The most ancient copies of the Zend-Avesta are only to be found in Pehlivi characters, a Persian alphabetic system of the Sassanian period, dating from the 3d century A. D.

The Pehlivi alphabets are direct descendants of the Aramean alphabet, a daughter of the older Phœnician, which had developed in the highlands of Aram, or Upper Mesopotamia, before the Achamenian period in Persia.

The Aramean language originally expressed by these characters, was at this time one of the most widely spoken of the Semitic dialects, including the idioms of Syria, Aram and Assyria.

At first, as a commercial and literary script, it came to be extensively used in these and adjacent countries conjointly with the cuneiform.

In the ruins of ancient Nineveh, there are the remains of what must have been a public registry office. From this a great number of terra cotta tablets have been exhumed on which were inscribed in cuneiform characters records of legal contracts, including loans of money, sales of estates and exchanges of other properties. Many of these tablets were docketed on the sides or edges in Aramean or Phœnician letters, by which the subject of each document could be readily found when piled on the shelves or in recesses where they were deposited. Reference in some of these appears from the time of Tiglath Pileser and Sennacherib, 741 to 681 B. C.

Other evidences of the extensive use of this script comes from the later Assyrian kings, and from Babylonia, until the decline of these empires, 606 to 538 B. C.

After the conquests of Babylonia by the Persians, the Aramean alphabet gradually became the official script of these regions, finally supplanting the cuneiform.

Of historic documents of this period in the Aramean script and language was the royal decree given by Artaxerxes to Ezra for the rebuilding of the temple at Jerusalem.

The Aramean was the language spoken at this time by all the Semitic people of Babylonia.

It is probable that during the whole period of the Achæmenids a local variety of the Aramean alphabet was in general use as a cursive script throughout the empire.

The perishable materials used for this purpose, as the bark of trees, skins, papyrus, unbaked clay, etc., have furnished but few remains of this form of writing, but that it existed and was in extensive use at this date, there are unmistakeable evidences.

It is not impossible that the works of Zoroaster may have been so written in the old Bactrian, as Darius Hystaspes states in the Median text of the Behistun inscription, that he has made a book in the Aryan language which before him did not exist.

"The text of the divine law (Avesta)—the prayer and the translation." "And then this ancient book was restored by me in all nations and the nations followed it."

The inscription of King Asoka, at Kapur di giri on the northern and western confines of India, is evidently a survival of this ancient script.

About 500 B. C., the Punjaub was invaded by the Persians under Darius, and during the remaining period of the Achæmenian kings continued a satrapy of Persia. After the conquests of Alexander, and later, of the decline of Greek rule, this province was restored to India. About 251 B. C., Asoka, then king of India, an earnest and devout believer in Buddha, ordered certain edicts to be inscribed in various parts of his empire. These are known as the fourteen edicts of Asoka.

The type of the alphabetic character employed in the various localities differs. Those used at Kapur di giri are in a cursive script from the Aramean, and are often designated "the Bactrian alphabet," from its close relationship to these early Iranian forms.

Of this, Dr. Taylor says:

"The Kapur di giri record must be regarded as an isolated monument of a great Bactrian alphabet, in which the Zoroasterian books and an extensive literature were in all probability conserved."

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^{5.} This use of the word Zend is incorrect as referring to the language in which the works of Zoroaster appear. There is no Zend language.

CHAPTER XI. [147]

OR monumental purposes, the Persian cuneiform remained the official script of the empire conjointly with the Semitic Scythian cuneiform until the conquest of Persia by Alexander the Great, about 334 B. C., with which the period of the Achæmenids closed.

Immediately following this, the use of the Greek alphabet appears on coins and inscriptions, and this continued during the Greek domination in Persia under the successors of Alexander.

The early Arsacids, the Parthian kings who brought an end to the rule of the Greeks in Persia, used also for a time the Greek alphabet for monumental records and numismatic legends.

This, however, only lasted for a brief period, for a little later on we find that the Greek letters have given way to a variety of the Aramean alphabet, which evidently had been in general use for a long period as a cursive script.

This special variety of the Aramean belongs to a group of alphabets known as Pehlevi, and is the oldest of the group. The name Pehlevi is derived from the word Parthivi, signifying Parthian. It continued, however, to be applied not only to the alphabet which first appears in the early period of Parthian domination in Persia, but also to the later forms that developed under the Sassanian kings who succeeded the Arsacids, or Parthian kings.

The so called Zend alphabet was the latest of the Pehlevi, and appears during the later years of the Sassanian empire. Although the latest development of the Persian scripts, the Zend alphabet represents the most ancient form of Persian speech.

It was in these characters that some time during the Sassanian dynasty the Zend-Avesta, or sacred books of the Persians, were transcribed in the ancient speech of their origin, which have thus been preserved to the present day by the surviving representatives of this ancient faith.

The language expressed in the Gathas, or hymns, the most archaic portions of the Avesta, is in the ancient vernacular of eastern Persia; sometimes called "Old Bactrian," and is the most archaic of Iranian dialects.

This was apparent when Sanskrit became known to European scholars.

The striking resemblance of the Gathas to the older Sanskrit of the "Vedic Hymns," indicated a close relationship. They seemed, indeed, like two dialects of the same speech. In fact, the readiness with which this old Persian was converted into pure Sanskrit by a few slight phonetic changes, verified these indications.

In the further comparative study of the older Sanskrit with this older Persian, it was found that while the Sanskrit may be regarded as the older brother of the Aryan group, this ancient Persian is in some respects more archaic.

It nevertheless remains that the Sanskrit is in the main the elder representative of this family of languages, retaining the characteristic forms of phonetic structure once common to the whole family, with their meanings less changed, than any other branch of the Aryan group.

It is this fact which enabled philologists to base a science of Aryan philology upon the Sanskrit. And not only this, but from which has arisen the science of comparative philology for all families of languages.

Whatever may be said of the ethnic affinities of the Aryans, or their primitive home, this much has been made evident in the comparative study of the Vedas and the Avesta; that there is close kinship here.

They tell of a time not so remote in history as that of older Chaldea or Egypt, when these Indo-Iranians were one people, with a common ancestry, inhabiting the same country, speaking the same language, with the same social institutions and the same beliefs. They indicate that the home of these Indo-Iranians, before their separation, was somewhere near the head waters of the Oxus, to the north-west of the Hindu-Kush. That finally there was a separation of these families, those afterwards known as the Hindus penetrating these great mountain passes into the Punjaub, "The land of the Five Rivers," in the northwestern part of India, from whence they spread southward over this great peninsula.

The other branch, the Iranians, remained for a time north of the Hindu-Kush in Bactria, which formed later on a part of the ancient empire of Iran, or Persia, on the northeast.

This country was situated in an upper valley of the Oxus, formed by the Hissar mountains on the north, and at the south the Hindu-Kush, extending from the Pamir plateau on the east to the great desert of Chorasmin on the west, a fruitful valley, well watered, affording on the hill slopes of the southern range favorable pasturage for flocks and herds.

From this region the Iranian branch finally spread westward and southerly throughout the lands later known as Iran or Persia.

It has been suggested that the separation of the Indo-Iranians was the result of religious differences. The schism indicated in the Rig Vedas and Avesta seems to have grown out of the distinction which finally arose between the signification of the words "Asura" or "Ahura," as applied to Deity.

The earlier faith of these people seems to have been a pure nature worship, the sun, the sky, light, fire, the elements, throughout which appears also a spiritual conception of a Supreme Being, Lord of the Sky, the Sun, Creator of all things, who was known as "Asura," or "Ahura." The most ancient

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signification of this word is "The Broad and Enfolding," its earliest application as Lord of the Sky, is, perhaps, a reminiscence of that remote period in the history of these people when they roamed the vast steppes of northern central Asia.

In the spiritual conception which grew from this, Asura became the Lord of the Broad Heavens, the God of Light, the Infinite.

The word Deva, from the Sanskrit Div, signified "brilliant," "shining." In its spiritual sense, the "Shining Ones" applied originally to the ministering spirits, the bright messengers of Asura. From the word Deva, we have the word Deus, God; Divus, divine; dæmons, and other similar forms in various branches of Aryan speech.

At first, Asura is the most sacred name used for Deity. Later on, with the increase of gods in the Hindu pantheon, the term Asura is conferred as a highest dignity upon the greater gods, as Asura-Varuna, Asura-Indra.

There came a time, however, as appears in the Vedas, when the Asuras signified a class of spirits inferior to the Devas, and finally as spirits opposed to the gods. As the Asuras were degraded, the Devas were exalted. With the Iranian branch, there was no such change. The ancient "Asura," in Persian, "Ahura," remained from first to last their great divine One; nor throughout the whole history of Persian mythology are there "any gods before" him. The word Dævas, with them came to signify evil spirits—devils.

That a schism arose, is apparent; and also that it was local. "Hard by the believers in Ahura," says Zoroaster, "dwell the worshippers of the dævas."

Such were the conditions when the great prophet and sage appears upon the scene, not as the apostle of a new religion; but as a teacher of the higher meanings of their ancient faith.

As priest and leader of the believers in Ahura he strikes at once at the root of the dissension. The worshippers of the dævas are blind followers of the Evil One, who seek the souls of men to destroy them.

The Hindus developed into gross polytheism.

The Iranians grew into a monotheism, at once all comprehending and simple; a philosophy profound, and yet without dogma; a system of morality noble and true, which has compelled the admiration of the wise and spiritual of all ages.

This was the work of Zara-thustra, or Zoroaster. He pointed to the existence in all nature of two principles—Good and Evil. These were the offices of Ahura-Mazda, the all good, and Angro-Mainyash, the all evil.

In the regions of Light, the abode of Ahura-Mazda, there could be no contact between Ahura-Mazda and the Spirit of Evil and of Outer Darkness.

In his wisdom, Ahura-Mazda, the Creator, brought man into existence, forming the earth for his abode. He endowed man also with intelligence to perceive, and freedom to choose between good and evil, so far as his immediate actions were concerned. As a natural consequence, the earth became the arena of conflict between the powers of Good and Evil. The object of both was the souls of men.

Over those who chose purity of life, who were pure and noble in all their dealings with others, were just and merciful, over these, Ahriman, the Evil Spirit, could obtain no mastery.

To the man impure in thought and action, unjust, dishonest and cruel, the great god Ahura-Mazda could not extend his protection, and except through earnest and honest repentance his soul was doomed in the life to come to the service of the Evil One and to final destruction.

On the other hand, the man who followed the leadings of the God of Goodness and Wisdom, was assured that at his death his soul passed to a state of eternal blessedness.

These "sweet and reasonable doctrines" included no taint of fanaticism. While pervaded by the spirit of their founder, they were never urged at the point of the sword.

In the 30th chapter of the Yasna, in which is preserved the celebrated speech of Zoroaster to Vistacpe and his court, it is distinctly stated that the great prophet relied solely upon persuasion and argument.

In the account given by Firdusi of this occasion, Zoroaster is quoted as saying: "Learn, O King, the rites and doctrines of the religion of excellence; for without religion there cannot be any worth in a king." "When the mighty monarch heard him speak of the excellent religion, he accepted from him the rights and doctrines."

The date of Zoroaster is uncertain. Various authors assign him to different periods, from 2500 to 1000 B. C.; while others refer him to still remoter dates.

Anquetil Duperron places him in the time of Hystaspes, father of Darius; and Bunsen at 2500 B. C.; but scholars generally agree upon the period between 1400 to 1000 B. C.

At the date of Darius, 521 B. C., Zoroastrianism was the national religion of the Persians. In one of the inscriptions of Darius, we find this reference:

"Mazda, who created this earth and that heaven, who created man and man's dwelling place, who made Darius king, the one and only king of many."

This and other references in the inscriptions indicate the time of Zoroaster as before the date of Darius.

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Ancient Persian traditions represent Zoroaster as a native of Bactria, and that the important address to king Vistacpi and his court was delivered in the ancient city of Balkh.

Dr. Bunsen says of Zoroaster's conception, that "it was not less grand than that of Abraham; but that the distinctive difference lay in these facts; Zoroaster attempted a conciliatory compromise between his stern antagonism to nature worship, and the retention of the ancient rites and symbols of such worship."

Abraham, on the other hand, excinded nature worship altogether, and sought to banish it as utterly as possible from his religiously segregated society. "In this," he urges, "the Hebrew man of God stands above the Aryan."

From happy Bactria, this religion of "excellence" spread among the numerous tribes of Iranians into all Persia, finally becoming the state religion. This was also known from its earliest to its latest history, as the "Book Religion."

According to Parsee tradition, Zoroaster was the author of the Avesta, which, when first written, consisted of twenty-one nosks or parts.

It is also stated that this book was in a form of writing invented by Zoroaster, and which the Maga, or priests of this cult called the "writing of religion."

It was written on twelve thousand cow-hides, in ink of gold and the work was bound together by golden bands.

Various Greek writers, who followed the wake of Alexander's conquests in Persia, claim to have seen the original, which was preserved in the archives of Persepolis.

Traditional accounts state that there were two copies of this work, one of which was destroyed in the palace of Persepolis, which was burned by order of Alexander, and the other was destroyed by the Greeks in some other way.

There were also copies of the various nosks or parts in the hands of the priesthood, which thus escaped destruction.

After the death of Alexander, the Zoroastrian priests gathered the remaining fragments, putting these into book form.

Five hundred years later, at the close of the Parthian dynasty in Persia, another collection of the Avesta fragments, both oral and written, was instituted, at the command and under the patronage of King Vologases, the last of the Arascids, about A. D. 225.

The work of editing and revising these collections was continued under the early Sassanian kings, with whom the ancient nationality again became ascendant, and with this, the ancient Persian religion and its literature.

The new Avesta thus produced was proclaimed canonical.

Under the later Sassanian kings, the Avesta was transcribed in the later Pehlevi or Parsee script, in which form it has survived to the present day. Of this, however, but a portion remains. The Sassanian dynasty ended with the conquest of Persia by the Mohammedan Arabs in 641 A. D.

In the fury of persecution which broke over all Iran at this time, Zoroastrianism as a national faith was crushed, and the sacred literature of Persia was again scattered abroad by the devastating influences of war and fanaticism. To the religion of Zoroaster that of Mohammed succeeded, the Avesta was replaced by the Koran, and the Arabian alphabet supplanted the Persian as a national script and has so remained to the present.

The ancient national life of Persia was not crushed out at once, but continued a vigorous though ineffectual resistance for centuries.

During these troublous times, probably about the ninth century A. D., a colony of Persians who held fast to their ancient faith, fled from their country, and after many years wanderings, finally established themselves on the western coast of India, from Bombay to Surat. They brought with them the remains of their sacred literature, to which other missing portions were added from time to time, as they could obtain them from their brethren in the faith who remained in Persia, chiefly at Kerman and Yezd.

They adopted the language of the Hindus among whom they settled, but steadfastly maintained their religion and customs.

It is from the descendants of these refugees—the Parsees of India—that the ancient sacred books of Persia have come into our hands.

The Avesta as it now exists, consists of four^[6] parts, the Yasna, the Visparad, the Vendidad and the Kordash, or Little Avesta. Each of these parts are remainders of the older collection and are of different dates.

The Yasna, a collection of hymns and prayers for divine service, includes the "Gathas," the most ancient and sacred portion of the Avesta. These are evidently what they claimed to be—the work of Zoroaster. The language in which they are composed is as old, if not more ancient than the Sanskrit of the oldest Vedas.

The allusion to these hymns throughout the various parts of the Avesta, shows them to have been in existence long before all other portions of these collections were written.

Again, to all to whom Zoroaster is a living personality, the internal evidences of these utterances point distinctly to him as their author. Claiming no higher distinction than a teacher and preacher

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among his people, there could have been no time in the history of the religion of which he was the founder, than during his own life and work in which they could have had their origin.

These devout pleadings with the Divine for his people, that he and they might be led aright, does not savour of the higher spiritual dignities accorded to Zoroaster in later times.

The following quotation from the Gathas expresses very clearly the devout and reverent attitude of the author:

"With verses of my own making which now are heard; and with prayerful hands I come before Thee, Mazda; and with the sincere humility of the upright man, and the believer's song of praise."

6. Some authorities divide the Avesta in three parts, in which the Visparad is included with the Yasna as an appendix.

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Transcriber's Notes

A few minor obviously typographical errors have been silently corrected.

In Table of Illustrations, typo "Heirogyphic" was changed to "Heiroglyphic".

Typo p. 14: Duplicated word was deleted.

Typo p. 17: "Egytians" was corrected to "Egyptians".

Typo p. 34: "expresed" was corrected to "expressed".

Page 63: hyphen was added to Tel-Loh to agree with the other 8 and be parallel to similar names.

Typo pp. 64-65: duplicate "of" at page boundary was deleted.

Page 72: hyphen was added to Nin-Girsu to agree with other on p. 95 and be parallel with Nin-Girsu construction.

Typo p. 79: "hign" was corrected to "high".

Typo p. 85: hyphen was added to Naram-Sin to agree with the 13 others.

Page 92: hyphen was added to Mul-il to agree with 3 times spelled Mul-lil.

Both "priest kings" (3 times) and "priest-king(s)" (2 times) were found and left unchanged.

Both Sanscrit and Sanskrit were found multiple times and left unchanged.

On page 143 the one instance of "Parsi" was changed to "Parsee", which had been used as both an adjective and as a noun.

On page 154, judging from the context, "rights" should probably have been "rites" but it was within a quote, so it was left as printed.

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