

INCENSE AND LIBATIONS.¹

BY G. ELLIOT SMITH, M.A., M.D., F.R.S.,
PROFESSOR OF ANATOMY IN THE VICTORIA UNIVERSITY OF
MANCHESTER.

IT is commonly assumed that many of the elementary practices of civilization, such as the erection of rough stone buildings, whether houses, tombs, or temples, the crafts of the carpenter and the stonemason, the carving of statues, the customs of pouring out libations or burning incense, are such simple and obvious procedures that any people might adopt them without prompting or contact of any kind with other populations who do the same sort of things. But if such apparently commonplace acts be investigated they will be found to have a long and complex history. None of these things that seem so obvious to us was attempted until a multitude of diverse circumstances became focussed in some particular community, and constrained some individual to make the discovery. Nor did the quality of obviousness become apparent even when the enlightened discoverer had gathered up the threads of his predecessor's ideas and woven them into the fabric of a new invention. For he had then to begin the strenuous fight against the opposition of his fellows before he could induce them to accept his discovery. He had, in fact, to contend against their preconceived ideas and their lack of appreciation of the significance of the progress he had made before he could persuade them of its "obviousness". That is the history of most inventions since the world began. But it is begging the question to pretend that because tradition has made such inventions seem simple and obvious to us it is unnecessary to inquire into their history or to assume that any people or any individual simply did these things without any instruction when the spirit moved it or him so to do.

¹An elaboration of a Lecture on the relationship of the Egyptian practice of mummification to the development of civilization delivered in the John Rylands Library, on 9 February, 1916.

The customs of burning incense and making libations in religious ceremonies are so widespread and capable of being explained in such plausible, though infinitely diverse, ways that it has seemed unnecessary to inquire more deeply into their real origin and significance. For example, Professor Toy¹ disposes of these questions in relation to incense in a summary fashion. He claims that "when burnt before the deity" it is "to be regarded as food, though in course of time, when the recollection of this primitive character was lost, a conventional significance was attached to the act of burning. A more refined period demanded more refined food for the gods, such as ambrosia and nectar, but these also were finally given up."

This, of course, is a purely gratuitous assumption, or series of assumptions, for which there is no real evidence. Moreover, even if there were any really early literature to justify such statements, they explain nothing. Incense-burning is just as mysterious if Prof. Toy's claim be granted as it was before. But a bewildering variety of other explanations, for all of which the merit of being "simple and obvious" is claimed, have been suggested. The reader who is curious about these things will find a luxurious crop of speculations by consulting a series of encyclopædias.²

I shall content myself by quoting only one more. "Frankincense and other spices were indispensable in temples where bloody sacrifices formed part of the religion. The atmosphere of Solomon's temple must have been that of a sickening slaughter-house, and the fumes of incense could alone enable the priests and worshippers to support it. This would apply to thousands of other temples through Asia, and doubtless the palaces of kings and nobles suffered from uncleanness and insanitary arrangements and required an antidote to evil smells to make them endurable."³

It is an altogether delightful anachronism to imagine that religious ritual in the ancient and aromatic East was inspired by such squeamishness as a British sanitary inspector of the twentieth century might experience!

¹ "Introduction to the History of Religions," p. 486.

² He might start upon this journey of adventure by reading the article on "Incense" in Hastings' *Encyclopædia of Religion and Ethics*.

³ Samuel Laing, "Human Origins," Revised by Edward Clodd, 1903, p. 38

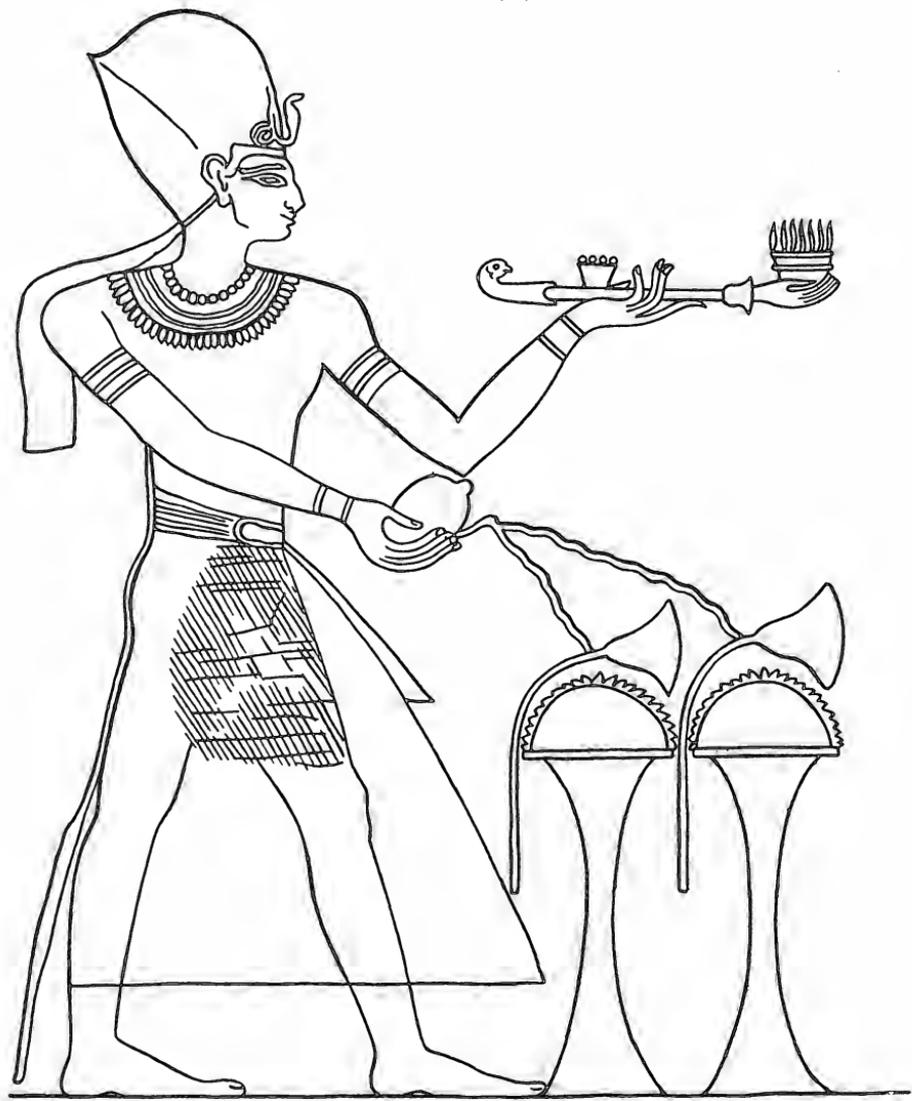


FIG. 1.—THE CONVENTIONAL EGYPTIAN REPRESENTATION OF THE BURNING OF INCENSE AND THE POURING OF LIBATIONS (Period of the New Empire)—after Lepsius

But if there are these many diverse and mutually destructive reasons in explanation of the origin of incense-burning, it follows that the meaning of the practice cannot be so "simple and obvious". For scholars in the past have been unable to agree as to the sense in which these adjectives should be applied.

But no useful purpose would be served by enumerating a collection of learned fallacies and exposing their contradictions when the true explanation has been provided in the earliest body of literature that has come down from antiquity. I refer to the Egyptian "Pyramid Texts".

Before this ancient testimony is examined certain general principles involved in the discussion of such problems should be considered. In this connexion it is appropriate to quote the apt remarks made, in reference to the practice of totemism, by Professor Sollas.¹ "If it is difficult to conceive how such ideas . . . originated at all, it is still more difficult to understand how they should have arisen repeatedly and have developed in much the same way among races evolving independently in different environments. It is at least simpler to suppose that all [of them] have a common source . . . and may have been carried . . . to remote parts of the world."

I do not think that anyone who conscientiously and without bias examines the evidence relating to incense-burning, the arbitrary details of the ritual and the peculiar circumstances under which it is practised in different countries, can refuse to admit that so artificial a custom must have been dispersed throughout the world from some one centre where it was devised.

The remarkable fact that emerges from an examination of these so-called "obvious explanations" of ethnological phenomena is the failure on the part of those who are responsible for them to show any adequate appreciation of the nature of the problems to be solved. They know that incense has been in use for a vast period of time, and that the practice of burning it is very widespread. They have been so familiarized with the custom and certain more or less vague excuses for its perpetuation that they show no realization of how strangely irrational and devoid of obvious meaning the procedure is. The reasons usually given in explanation of its use are for the most part merely paraphrases of the traditional meanings that in the course of

¹ "Ancient Hunters," 2nd Edition, pp. 234 and 235.

history have come to be attached to the ritual act or the words used to designate it. Neither the ethnologist nor the priestly apologist will, as a rule, admit that he does not know why such ritual acts as pouring out water or burning incense are performed, and that they are wholly inexplicable and meaningless to him. Nor will they confess that the real inspiration to perform such rites is the fact of their predecessors having handed them down as sacred acts of devotion, the meaning of which has been entirely forgotten during the process of transmission from antiquity. Instead of this they simply pretend that the significance of such acts is obvious. Stripped of the glamour which religious emotion and sophistry have woven around them, such pretended explanations become transparent subterfuges, none the less real because the apologists are quite innocent of any conscious intention to deceive either themselves or their disciples. It should be sufficient for them that such ritual acts have been handed down by tradition as right and proper things to do. But in response to the instinctive impulse of all human beings, the mind seeks for reasons in justification of actions of which the real inspiration is unknown.

It is a common fallacy to suppose that men's actions are inspired mainly by reason. The most elementary investigation of the psychology of everyday life is sufficient to reveal the truth that man is not, as a rule, the pre-eminently rational creature he is commonly supposed to be.¹ He is impelled to most of his acts by his instincts, the circumstances of his personal experience, and the conventions of the society in which he has grown up. But once he has acted or decided upon a course of procedure he is ready with excuses in explanation and attempted justification of his motives. In most cases these are not the real reasons, for few human beings attempt to analyse their motives or in fact are competent without help to understand their own feelings and the real significance of their actions. There is implanted in man the instinct to interpret for his own satisfaction his feelings and sensations, i.e. the meaning of his experience. But of necessity this is mostly of the nature of rationalizing, i.e. providing satisfying interpretations of thoughts and decisions the real meaning of which is hidden.

Now it must be patent that the nature of this process of rationalization will depend largely upon the mental make-up of the individual—

¹ On this subject see Elliot Smith and Pear, "Shell Shock and its Lessons," Manchester University Press, 1917, p. 59.

of the body of knowledge and traditions with which his mind has become stored in the course of his personal experience. The influences to which he has been exposed, daily and hourly, from the time of his birth onward, provide the specific determinants of most of his beliefs and views. Consciously and unconsciously he imbibes certain definite ideas, not merely of religion, morals, and politics, but of what is the correct and what is the incorrect attitude to assume in most of the circumstances of his daily life. These form the staple currency of his beliefs and his conversation. Reason plays a surprisingly small part in this process, for most human beings acquire from their fellows the traditions of their society which relieves them of the necessity of undue thought. The very words in which the accumulated traditions of his community are conveyed to each individual are themselves charged with the complex symbolism that has slowly developed during the ages, and tinges the whole of his thoughts with their subtle and, to most men, vaguely appreciated shades of meaning. During this process of acquiring the fruits of his community's beliefs and experiences every individual accepts without question a vast number of apparently simple customs and ideas. He is apt to regard them as obvious, and to assume that reason led him to accept them or be guided by them, although when the specific question is put to him he is unable to give their real history.

Before leaving these general considerations¹ I want to emphasize certain elementary facts of psychology which are often ignored by those who investigate the early history of civilization.

First, the multitude and the complexity of the circumstances that are necessary to lead men to make even the simplest invention render the concatenation of all of these conditions wholly independently on a second occasion in the highest degree improbable. Until very definite and conclusive evidence is forthcoming in any individual case it can safely be assumed that no ethnologically significant innovation in customs or beliefs has ever been made twice.

Those critics who have recently attempted to dispose of this claim by referring to the work of the Patent Office thereby display a singular lack of appreciation of the real point at issue. For the ethnological

¹ For a fuller discussion of certain phases of this matter see my address on "Primitive Man," in the *Proceedings of the British Academy*, 1917, especially pp. 23-50.

problem is concerned with different populations who are assumed *not* to share any common heritage of acquired knowledge, nor to have had any contact, direct or indirect, the one with the other. But the inventors who resort to the Patent Office are all of them persons supplied with information from the storehouse of our common civilization ; and the inventions which they seek to protect from imitation by others are merely developments of the heritage of all civilized peoples. Even when similar inventions are made apparently independently under such circumstances, in most cases they can be explained by the fact that two investigators have followed up a line of advance which has been determined by the development of the common body of knowledge.

This general discussion suggests another factor in the working of the human mind.

When certain vital needs or the force of circumstances compel a man to embark upon a certain train of reasoning or invention the results to which his investigations lead depend upon a great many circumstances. Obviously the range of his knowledge and experience and the general ideas he has acquired from his fellows will play a large part in shaping his inferences. It is quite certain that even in the simplest problem of primitive physics or biology his attention will be directed only to some of, and not all, the factors involved, and that the limitations of his knowledge will permit him to form a wholly inadequate conception even of the few factors that have obtruded themselves upon his attention. But he may frame a working hypothesis in explanation of the factors he had appreciated, which may seem perfectly exhaustive and final, as well as logical and rational to him, but to those who come after him, with a wider knowledge of the properties of matter and the nature of living beings, and a wholly different attitude towards such problems, the primitive man's solution may seem merely a ludicrous travesty.

But once a tentative explanation of one group of phenomena has been made it is the method of science no less than the common tendency of the human mind to buttress this theory with analogies and fancied homologies. In other words the isolated facts are built up into a generalisation. It is important to remember that in most cases this mental process begins very early ; so that the analogies play a very obtrusive part in the building up of theories. As a rule a multitude

of such influences play a part consciously or unconsciously in shaping any belief. Hence the historian is faced with the difficulty, often quite insuperable, of ascertaining (among scores of factors that definitely played some part in the building up of a great generalization) the real foundation upon which the vast edifice has been erected. I refer to these elementary matters here for two reasons. First, because they are so often overlooked by ethnologists; and secondly, because in these pages I shall have to discuss a series of historical events in which a bewildering number of factors played their part. In sifting out a certain number of them, I want to make it clear that I do not pretend to have discovered more than a small minority of the most conspicuous threads in the complex texture of the fabric of early human thought.

Another fact that emerges from these elementary psychological considerations is the vital necessity of guarding against the misunderstandings necessarily involved in the use of words. In the course of long ages the originally simple connotation of the words used to denote many of our ideas has become enormously enriched with a meaning which in some degree reflects the chequered history of the expression of human aspirations. Many writers who in discussing ancient peoples make use of such terms, for example, as "soul," "religion," and "gods," without stripping them of the accretions of complex symbolism that have collected around them within more recent times, become involved in difficulty and misunderstanding.

For example, the use of the terms "soul" or "soul-substance" in much of the literature relating to early or relatively primitive people is fruitful of misunderstanding. For it is quite clear from the context that in many cases such people meant to imply nothing more than "life" or "vital principle," the absence of which from the body for any prolonged period means death. But to translate such a word simply as "life" is inadequate because all of these people had some theoretical views as to its identity with the "breath" or to its being in the nature of a material substance or essence. It is naturally impossible to find any one word or phrase in our own language to express the exact idea, for among every people there are varying shades of meaning which cannot adequately express the symbolism distinctive of each place and society. To meet this insuperable difficulty perhaps the term "vital essence" is open to least objection.

In my last Rylands lecture¹ I sketched in rough outline a tentative explanation of the world-wide dispersal of the elements of the civilization that is now the heritage of the world at large, and referred to the part played by Ancient Egypt in the development of certain arts, customs, and beliefs. On the present occasion I propose to examine certain aspects of this process of development in greater detail, and to study the far-reaching influence exerted by the Egyptian practice of mummification, and the ideas that were suggested by it, in starting new trains of thought, in stimulating the invention of arts and crafts that were unknown before then, and in shaping the complex body of customs and beliefs that were the outcome of these potent intellectual ferments.

In speaking of the relationship of the practice of mummification to the development of civilization, however, I have in mind not merely the influence it exerted upon the moulding of culture, but also the part played by the trend of philosophy in the world at large in determining the Egyptian's conceptions of the wider significance of embalming, and the reaction of these effects upon the current doctrines of the meaning of natural phenomena.

No doubt it will be asked at the outset, what possible connexion can there be between the practice of so fantastic and gruesome an art as the embalming of the dead and the building up of civilization? Is it conceivable that the course of the development of the arts and crafts, the customs and beliefs, and the social and political organizations—in fact any of the essential elements of civilization—has been deflected a hair's breadth to the right or left as the outcome, directly or indirectly, of such a practice?

In previous essays and lectures² I have indicated how intimately this custom was related, not merely to the invention of the arts and crafts of the carpenter and stonemason and all that is implied in the building up of what Professor Lethaby has called the "matrix of civilization," but also to the shaping of religious beliefs and ritual practices,

¹ "The Influence of Ancient Egyptian Civilization in the East and in America," *The Bulletin of the John Rylands Library*, Jan.-March, 1916.

² "The Migrations of Early Culture," 1915, Manchester University Press: "The Evolution of the Rock-cut Tomb and the Dolmen," *Essays and Studies Presented to William Ridgeway*, Cambridge, 1913, p. 493; "Oriental Tombs and Temples," *Journal of the Manchester Egyptian and Oriental Society*, 1914-1915, p. 55.

which developed in association with the evolution of the temple and the conception of a material resurrection. I have also suggested the far-reaching significance of an indirect influence of the practice of mummification in the history of civilization. It was mainly responsible for prompting the earliest great maritime expeditions of which the history has been preserved.¹ For many centuries the quest of resins and balsams for embalming and for use in temple ritual, and wood for coffin-making, continued to provide the chief motives which induced the Egyptians to undertake sea-trafficking in the Mediterranean and the Red Sea. The knowledge and experience thus acquired ultimately made it possible for the Egyptians and their pupils to push their adventures further afield. It is impossible adequately to estimate the vastness of the influence of such intercourse, not merely in spreading abroad throughout the world the germs of our common civilization, but also, by bringing into close contact peoples of varied histories and traditions, in stimulating progress. Even if the practice of mummification had exerted no other noteworthy effect in the history of the world, this fact alone would have given it a pre-eminent place.

Another aspect of the influence of mummification I have already discussed, and do not intend to consider further in this lecture. I refer to the manifold ways in which it affected the history of medicine and pharmacy. By accustoming the Egyptians, through thirty centuries, to the idea of cutting the human corpse, it made it possible for Greek physicians of the Ptolemaic and later ages to initiate in Alexandria the systematic dissection of the human body which popular prejudice forbade elsewhere, and especially in Greece itself. Upon this foundation the knowledge of anatomy and the science of medicine has been built up.² But in many other ways the practice of mummification exerted far-reaching effects, directly and indirectly, upon the development of medical and pharmaceutical knowledge and methods.³

¹ "Ships as Evidence of the Migrations of Early Culture," Manchester University Press, 1917, p. 37.

² "Egyptian Mummies," *Journal of Egyptian Archaeology*, Vol. I, Part III, July, 1914, p. 189.

³ Such, for example, as its influence in the acquisition of the means of preserving the tissues of the body, which has played so large a part in the development of the sciences of anatomy, pathology, and in fact biology in general. The practice of mummification was largely responsible for the attainment of a knowledge of the properties of many drugs and especially

There is then this *prima-facie* evidence that the Egyptian practice of mummification was closely related to the development of architecture, maritime trafficking, and medicine. But what I am chiefly concerned with in the present lecture is the discussion of the much vaster part it played in shaping the innermost beliefs of mankind and directing the course of the religious aspirations and the scientific opinions, not merely of the Egyptians themselves, but also of the world at large, for many centuries afterward.

It had a profound influence upon the history of human thought. The vague and ill-defined ideas of physiology and psychology, which had probably been developing since Aurignacian times¹ in Europe, were suddenly crystallized into a coherent structure and definite form by the musings of the Egyptian embalmer. But at the same time the new philosophy found expression in the invention of the first deities, the establishment of the foundations upon which all religious ritual was subsequently built up, and the initiation of a priesthood to administer the rites which were suggested by the practice of mummification.

THE BEGINNING OF STONE-WORKING.

During the last few years I have repeatedly had occasion to point out the fundamental fallacy underlying much of the modern speculation in ethnology, and I have no intention of repeating these strictures here.² But it is a significant fact that, when one leaves the writings of professed ethnologists and turns to the histories of their special subjects written by scholars in kindred fields of investigation, views such

of those which restrain putrefactive changes. But it was not merely in the acquisition of a knowledge of material facts that mummification exerted its influence. The humoral theory of pathology and medicine, which prevailed for so many centuries and the effects of which are embalmed for all time in our common speech, was closely related in its inception to the ideas which I shall discuss in these pages. The Egyptians themselves did not profit to any appreciable extent from the remarkable opportunities which their practice of embalming provided for studying human anatomy. The sanctity of these ritual acts was fatal to the employment of such opportunities to gain knowledge. Nor was the attitude of mind of the Egyptians such as to permit the acquisition of a real appreciation of the structure of the body.

¹ See my address, "Primitive Man," *Proc. Brit. Academy*, 1917.

² See, however, *op. cit. supra*; also "The Origin of the Pre-Columbian Civilization of America," *Science*, N.S., Vol. XLV, No. 1158, pp. 241-246, 9 March, 1917.

as I have been setting forth will often be found to be accepted without question or comment as the obvious truth.

There is an excellent little book entitled "Architecture," written by Professor W. R. Lethaby for the Home University Library, that affords an admirable illustration of this interesting fact. I refer to this particular work because it gives lucid expression to some of the ideas that I wish to submit for consideration. "Two arts have changed the surface of the world, Agriculture and Architecture" (p. 1). "To a large degree architecture" [which he defines as "the matrix of civilization"] "is an Egyptian art" (p. 66): for in Egypt "we shall best find the origins of architecture as a whole" (p. 21).

Nevertheless Professor Lethaby bows the knee to current tradition when he makes the wholly unwarranted assumption that Egypt probably learnt its art from Babylonia. He puts forward this remarkable claim in spite of his frank confession that "little or nothing is known of a primitive age in Mesopotamia. At a remote time the art of Babylonia was that of a civilized people. As has been said, there is a great similarity between this art and that of dynastic times in Egypt. Yet it appears that Egypt borrowed of Asia, rather than the reverse." [He gives no reasons for this opinion, for which there is no evidence, except possibly the invention of bricks for building.] "If the origins of art in Babylonia were as fully known as those in Egypt, the story of architecture might have to begin in Asia instead of Egypt" (p. 67).

But later on he speaks in a more convincing manner of the known facts when he says (p. 82):—

When Greece entered on her period of high-strung life the time of first invention in the arts was over—the heroes of Craft, like Tubal Cain and Daedalus, necessarily belong to the infancy of culture. The phenomenon of Egypt could not occur again; the mission of Greece was rather to settle down to a task of gathering, interpreting, and bringing to perfection Egypt's gifts. The arts of civilization were never developed in watertight compartments, as is shown by the uniformity of custom over the modern world. Further, if any new nation enters into the circle of culture it seems that, like Japan, it must 'borrow the capital'. The art of Greece could hardly have been more self-originated than is the science of Japan. Ideas of the temple and of the fortified town must have spread from the East, the square-roomed house, columnar orders, fine masonry, were all Egyptian.

Elsewhere¹ I have pointed out that it was the importance which

¹ *Op. cit. supra.*

the Egyptian came to attach to the preservation of the dead and to the making of adequate provision for the deceased's welfare that gradually led to the aggrandisement of the tomb. In course of time this impelled him to cut into the rock,¹ and, later still, suggested the substitution of stone for brick in erecting the chapel of offerings above ground. The Egyptian burial customs were thus intimately related to the conceptions that grew up with the invention of embalming. The evidence in confirmation of this is so precise that every one who conscientiously examines it must be forced to the conclusion that man did not instinctively select stone as a suitable material with which to erect temples and houses and forthwith begin to quarry and shape it for such purposes.

There was an intimate connexion between the first use of stone for building and the practice of mummification. It was probably for this reason, and not from any abstract sense of "wonder at the magic of art," as Professor Lethaby claims, that "ideas of sacredness, of ritual rightness, of magic stability and correspondence with the universe, and of perfection of form and proportion" came to be associated with stone buildings.

At first stone was used only for such sacred purposes and the pharaoh alone was entitled to use it for his palaces in virtue of the fact that he was divine, the son and incarnation on earth of the Sun-god. It was only when these Egyptian practices were transplanted to other countries, where these restrictions did not obtain, that the rigid wall of convention was broken down.

Even in Rome until well into the Christian era "the largest domestic and civil buildings were of plastered brick". "Wrought masonry seems to have been demanded only for the great monuments, triumphal arches, theatres, temples and above all for the Coliseum." (Lethaby, *op. cit.* p. 120).

Nevertheless Rome was mainly responsible for breaking down the hieratic tradition which forbade the use of stone for civil purposes. "In Roman architecture the engineering element became paramount. It was this which broke the moulds of tradition and recast construction into modern form, and made it free once more" (p. 130).

¹ For the earliest evidence of the cutting of stone for architectural purposes, see my statement in the *Report of the British Association for 1914*, p. 212.

But Egypt was not only responsible for inaugurating the use of stone for building. For another forty centuries she continued to be the inventor of new devices in architecture. From time to time methods of building which developed in Egypt were adopted by her neighbours and spread far and wide. The shaft-tombs and *mastabas* of the Egyptian Pyramid Age were adopted in various localities in the region of the Eastern Mediterranean,¹ with certain modifications in each place, and in turn became the models which were roughly copied in later ages by the wandering dolmen-builders. The round tombs of Crete and Mycenae were clearly only local modifications of their square prototypes, the Egyptian Pyramids of the Middle Kingdom. "While this Ægean art gathered from, and perhaps gave to, Egypt, it passed on its ideals to the north and west of Europe, where the productions of the Bronze Age clearly show its influence" (Lethaby, p. 78) in the chambered mounds of the Iberian peninsula and Brittany, of New Grange in Ireland and of Maes Howe in the Orkneys.² In the East the influence of these Ægean modifications may possibly be seen in the Indian *stupas* and the *dagabas* of Ceylon, just as the stone stepped pyramids there reveal the effects of contact with the civilizations of Babylonia and Egypt.

Professor Lethaby sees the influence of Egypt in the orientation of Christian churches (p. 133), as well as in many of their structural details (p. 142); in the domed roofs, the iconography, the symbolism, and the decoration of Byzantine architecture (p. 138); and in Mohammedan buildings wherever they are found.

For it was not only the architecture of Greece, Rome, and Christendom that received its inspiration from Egypt, but that of Islâm also. These buildings were not, like the religion itself, in the main Arabic in origin. "Primitive Arabian art itself is quite negligible. When the new strength of the followers of the Prophet was consoli-

¹ Especially in Crete, Palestine, Syria, Asia Minor, and the North African Littoral.

² For an account of the evidence relating to these monuments, with full bibliographical references, see Déchelette, "Manuel d'Archéologie pré-historique Celtique et Gallo-Romaine," T. 1, 1912, pp. 390 *et seq.*; also Sophus Müller, "Urgeschichte Europas," 1905, pp. 74 and 75; and Louis Siret, "Les Cassitérides et l'Empire Colonial des Phéniciens," *L'Anthropologie*, T. 20, 1909, p. 313.

dated with great rapidity into a rich and powerful empire, it took over the arts and artists of the conquered lands, extending from North Africa to Persia" (p. 158); and it is known how this influence spread as far west as Spain and as far east as Indonesia. "The Pharos at Alexandria, the great lighthouse built about 280 B.C., almost appears to have been the parent of all high and isolated towers. . . . Even on the coast of Britain, at Dover, we had a Pharos which was in some degree an imitation of the Alexandrian one." The Pharos at Boulogne, the round towers of Ravenna, and the imitations of it elsewhere in Europe, even as far as Ireland, are other examples of its influence. But in addition the Alexandrian Pharos had "as great an effect as the prototype of Eastern minarets as it had for Western towers" (p. 115).

I have quoted so extensively from Professor Lethaby's brilliant little book to give this independent testimony of the vastness of the influence exerted by Egypt during a span of nearly forty centuries in creating and developing the "matrix of civilization". Most of this wider dispersal abroad was effected by alien peoples, who transformed their gifts from Egypt before they handed on the composite product to some more distant peoples. But the fact remains that the great centre of original inspiration in architecture was Egypt.

The original incentive to the invention of this essentially Egyptian art was the desire to protect and secure the welfare of the dead. The importance attached to this aim was intimately associated with the development of the practice of mummification.

With this tangible and persistent evidence of the general scheme of spread of the arts of building I can now turn to the consideration of some of the other, more vital, manifestations of human thought and aspirations, which also, like the "matrix of civilization" itself, grew up in intimate association with the practice of embalming the dead.

I have already mentioned Professor Lethaby's reference to architecture and agriculture as the two arts that have changed the surface of the world. It is interesting to note that the influence of these two ingredients of civilization was diffused abroad throughout the world in intimate association the one with the other. In most parts of the world the use of stone for building and Egyptian methods of architecture made their first appearance along with the peculiarly distinctive form

of agriculture and irrigation so intimately associated with early Babylonia and Egypt.¹

But agriculture also exerted a most profound influence in shaping the early Egyptian body of beliefs.

I shall now call attention to certain features of the earliest mummies, and then discuss how the ideas suggested by the practice of the art of embalming the dead were affected by the early theories of agriculture and the mutual influence they exerted one upon the other.

THE ORIGIN OF EMBALMING.

I have already explained² how the increased importance that came to be attached to the corpse as the means of securing a continuance of existence led to the aggrandizement of the tomb. Special care was taken to protect the dead and this led to the invention of coffins, and to the making of a definite tomb, the size of which rapidly increased as more and more ample supplies of food and other offerings were made. But the very measures thus taken the more efficiently to protect and tend the dead defeated the primary object of all this care. For, when buried in such an elaborate tomb, the body no longer became desiccated and preserved by the forces of nature as so often happened when it was placed in a simple grave directly in the hot dry sand.

It is of fundamental importance in the argument set forth here to remember that these factors came into operation before the time of the First Dynasty. They were responsible for impelling the Proto-Egyptians not only to invent the wooden coffin, the stone sarcophagus, the rock-cut tomb, and to begin building in stone, but also to devise measures for the artificial preservation of the body.

But in addition to stimulating the development of the first real architecture and the art of mummification other equally far-reaching results in the region of ideas and beliefs grew out of these practices.

From the outset the Egyptian embalmer was clearly inspired by two ideals: (a) to preserve the actual tissues of the body with a minimum disturbance of the integrity of the surface of the body; and (b) to preserve a likeness of the deceased as he was in life. At first

¹ Perry, "The Geographical Distribution of Terraced Cultivation and Irrigation," *Memoirs and Proc. Manch. Lit. and Phil. Soc.*, Vol. 60, 1916.

² *op. cit. supra.*

it was naturally attempted to make this simulacrum of the body itself if it were possible, or alternatively, when this ideal was found to be unattainable, from its wrappings or by means of a portrait statue. It was soon recognized that it was beyond the powers of the early embalmer to succeed in mummifying the body itself so as to retain a recognizable likeness to the man when alive : although from time to time such attempts were repeatedly made,¹ until the period of the XXI Dynasty, when the operator clearly was convinced that he had at last achieved what his predecessors, for perhaps twenty-five centuries, had been trying in vain to do.

EARLY MUMMIES.

In the earliest known (Second Dynasty) examples of Egyptian attempts at mummification² the corpse was swathed in a large series of bandages, which were moulded into shape to represent the form of the body. In a later (probably Fifth Dynasty) mummy, found in 1892 by Professor Flinders Petrie at Medûm, the superficial bandages had been impregnated with a resinous paste, which while still plastic was moulded into the form of the body, special care being bestowed upon the modelling of the face³ and the organs of reproduction, so as to leave no room for doubt as to the identity and the sex. Professor Junker has described⁴ an interesting series of variations of these practices. In two graves the bodies were covered with a layer of stucco plaster. First the corpse was covered with a fine linen cloth : then the plaster was put on, and modelled into the form of the body (p. 252). But in two other cases it was not the whole body that was

¹ See my volume on "The Royal Mummies," General Catalogue of the Cairo Museum.

² G. Elliot Smith, "The Earliest Evidence of Attempts at Mummification in Egypt," *Report British Association*, 1912, p. 612 : compare also J. Garstang, "Burial Customs of Ancient Egypt," London, 1907, pp. 29 and 30. Professor Garstang did not recognize that mummification had been attempted.

³ G. Elliot Smith, "The History of Mummification in Egypt," *Proc. Royal Philosophical Society of Glasgow*, 1910 : also "Egyptian Mummies," *Journal of Egyptian Archæology*, Vol. I, Part III, July, 1914, Plate XXXI.

⁴ "Excavations of the Vienna Imperial Academy of Sciences at the Pyramids of Gizah, 1914," *Journal of Egyptian Archæology*, Vol. I, Oct. 1914, p. 250.



57

FIG. 2.—WATER-COLOUR SKETCH BY MRS. CECIL FIRTH, REPRESENTING A RESTORATION OF THE EARLY MUMMY FOUND AT MEDŪM
BY PROF. FLINDERS PETRIE, NOW IN THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS IN LONDON



FIG. 3.—A MOULD TAKEN FROM A LIFE-MASK FOUND IN THE PYRAMID OF TETA
BY MR. QUIBELL

covered with this layer of stucco, but only the head. Professor Junker claims that this was done "apparently because the head was regarded as the most important part, as the organs of taste, sight, smell, and hearing were contained in it". But surely there was the additional and more obtrusive reason that the face affords the means of identifying the individual! For this modelling of the features was intended primarily as a restoration of the form of the body which had been altered, if not actually destroyed. In other cases, where no attempt was made to restore the features in such durable materials as resin or stucco, the linen-enveloped head was modelled, and a representation of the eyes painted upon it so as to enhance the life-like appearance of the face.

These facts prove quite conclusively that the earliest attempts to reproduce the features of the deceased and so preserve his likeness, were made upon the wrapped mummy itself. Thus the mummy was intended to be the portrait as well as the actual bodily remains of the dead. In view of certain differences of opinion as to the original significance of the funerary ritual, which I shall have occasion to discuss later on (see p. 210), it is important to keep these facts clearly in mind.

A discovery made by Mr. J. E. Quibell in the course of his excavations at Sakkara¹ suggests that, as an outcome of these practices a new procedure may have been devised in the Pyramid Age—the making of a death-mask. For he discovered what seems to be the mask taken directly from the face of the Pharaoh Teta (Fig. 3).

About this time also the practice originated of making a life-size portrait statue of the dead man's head and placing it along with the actual body in the burial chamber. These "reserve heads," as they have been called, were usually made of fine limestone, but Junker found one made of Nile mud.²

Junker believes that there was an intimate relationship between the plaster-covered heads and the reserve-heads. They were both expressions of the same idea, to preserve a simulacrum of the deceased when his actual body had lost all recognizable likeness to him as he

¹ "Excavations at Saqqara," 1907-8, p. 113.

² The great variety of experiments that were being made at the beginning of the Pyramid Age bears ample testimony to the fact that the original inventors of these devices were actually at work in Lower Egypt at that time.

was when alive. The one method aimed at combining in the same object the actual body and the likeness; the other at making a more life-like portrait apart from the corpse, which could take the place of the latter when it decayed.

Junker states further that "it is no chance that the substitute-heads . . . entirely, or at any rate chiefly, are found in the tombs that have no statue-chamber and probably possessed no statues. The statues [of the whole body] certainly were made, at any rate partly, with the intention that they should take the place of the decaying body, although later the idea was modified. The placing of the substitute-head in [the burial chamber of] the mastaba therefore became unnecessary at the moment when the complete figure of the dead [placed in a special chamber, now commonly called the *serdab*, above ground] was introduced." The ancient Egyptians themselves called the *serdab* the *pr-twt* or "statue-house," and the group of chambers, forming the tomb-chapel in the mastaba, was known to them as the "*ka*-house".¹

It is important to remember that, even when the custom of making a statue of the deceased became fully established, the original idea of restoring the form of the mummy itself or its wrappings was never lost sight of. The attempts made in the XVIII, and XXI and XXII Dynasties to pack the body of the mummy itself and by artificial means give it a life-like appearance afford evidence of this. In the New Empire and in Roman times the wrapped mummy was sometimes modelled into the form of a statue. But throughout Egyptian history it was a not uncommon practice to provide a painted mask for the wrapped mummy, or in early Christian times merely a portrait of the deceased.

With this custom there also persisted a remembrance of its original significance. Professor Garstang records the fact that in the XII Dynasty,² when a painted mask was placed upon the wrapped mummy, no statue or statuette was found in the tomb. The under-

¹ Aylward M. Blackman, "The *Ka*-House and the *Serdab*," *Journal of Egyptian Archaeology*, Vol. III, Part IV, Oct., 1916, p. 250. The word *serdab* is merely the Arabic word used by the native workmen, which has been adopted and converted into a technical term by European archæologists.

² *On rit.* p. 171

209.9



FIG. 4.—PORTRAIT STATUE OF AN EGYPTIAN
LADY OF THE PYRAMID AGE

takers apparently realized that the mummy¹ which was provided with the life-like mask was therefore fulfilling the purposes for which statues were devised. So also in the New Empire the packing and modelling of the actual mummy so as to restore its life-like appearance were regarded as obviating the need for a statue.

I must now return to the further consideration of the Old Kingdom statues. All these varied experiments were inspired by the same desire, to preserve the likeness of the deceased. But when the sculptors attained their object, and created those marvellous life-like portraits, which must ever remain marvels of technical skill and artistic feeling (Fig. 4), the old ideas that surged through the minds of the Pre-dynastic Egyptians as they contemplated the desiccated remains of the dead were strongly reinforced. The earlier people's thoughts were turned more specifically than heretofore to the contemplation of the nature of life and death by seeing the bodies of their dead preserved whole and incorruptible; and, if their actions can be regarded as an expression of their ideas, they began to wonder what was lacking in these physically complete bodies to prevent them from feeling and acting like living beings. Such must have been the results of their puzzled contemplation of the great problems of life and death. Otherwise the impulse to make more certain the preservation of the body by the invention of mummification and to retain a life-like representation of the deceased by means of a sculptured statue remains inexplicable. But when the corpse had been rendered incorruptible and the deceased's portrait had been fashioned with realistic perfection the old ideas would recur with renewed strength. The belief then took more definite shape that if the missing elements of vitality could be restored to the statue, it might become animated and the dead man would live again in his vitalized statue. This prompted a more intense and searching investigation of the problems concerning the nature of the elements of vitality of which the corpse was deprived at the time of death. Out of these inquiries in course of time a highly complex system of philosophy developed.²

¹ It is a remarkable fact that Professor Garstang, who brought to light perhaps the best, and certainly the best-preserved, collection of Middle Kingdom mummies ever discovered, failed to recognize the fact that they had really been embalmed (*op. cit.* p. 171).

² The reader who wishes for fuller information as to the reality of these beliefs and how seriously they were held will find them still in active

But in the earlier times with which I am now concerned it found practical expression in certain ritual procedures, invented to convey to the statue the breath of life, the vitalising fluids, and the odour and sweat of the living body. Apparently the seat of knowledge and of feeling was retained in the body when the heart was left *in situ*: so that the only thing needed to awaken consciousness and make it possible for the dead man to take heed of his friends and to act voluntarily was to present offerings of blood to stimulate the physiological functions of the heart. But the element of vitality which left the body at death had to be restored to the statue, which represented the deceased in the *ka*-house.¹

In my earlier attempts² to interpret these problems, I adopted the view that the making of portrait statues was the direct outcome of the practice of mummification. But Dr. Alan Gardiner, whose intimate knowledge of the early literature enables him to look at such problems from the Egyptian's own point of view, has suggested a modification of this interpretation. Instead of regarding the custom of making statues as an outcome of the practice of mummification, he thinks that the two customs developed simultaneously in response to the twofold desire to preserve both the actual body and a representation of the features of the dead. But I think this suggestion does not give adequate recognition to the fact that the earliest attempts at funerary portraiture were made upon the wrappings of the actual mummies.³ This fact and the evidence which I have already

operation in China. An admirable account of Chinese philosophy will be found in De Groot's "Religious System of China," especially Vol. IV, Book II. It represents the fully developed (New Empire) system of Egyptian belief modified in various ways by Babylonian, Indian and Central Asiatic influences, as well as by accretions developed locally in China.

¹ A. M. Blackman, "The *Ka*-House and the Serdab," *The Journal of Egyptian Archaeology*, Vol. III, Part IV, Oct., 1916, p. 250.

² "Migrations of Early Culture," p. 37.

³ Dr. Alan Gardiner (Davies and Gardiner, "The Tomb of Amenemhēt," 1915, p. 83, footnote) has, I think, overlooked certain statements in my writings and underestimated the antiquity of the embalmer's art; for he attributes to me the opinion that "mummification was a custom of relatively late growth".

The presence in China of the characteristically Egyptian beliefs concerning the animation of statues (de Groot, *op. cit.* pp. 339-356), whereas the practice of mummification, though not wholly absent, is not obtrusive, might perhaps be interpreted by some scholars as evidence in favour of the

quoted from Junker make it quite clear that from the beginning the embalmer's aim was to preserve the body and to convert the mummy itself into a simulacrum of the deceased. When he realized that his technical skill was not adequate to enable him to accomplish this double aim, he fell back upon the device of making a more perfect and realistic portrait statue apart from the mummy. But, as I have already pointed out, he never completely renounced his ambition of transforming the mummy itself; and in the time of the New Empire he actually attained the result which he had kept in view for nearly twenty centuries.

In these remarks I have been referring only to funerary portrait statues. Centuries before the attempt was made to fashion them modellers had been making of clay and stone representations of cattle and human beings, which have been found not only in Predynastic graves in Egypt but also in so-called "Upper Palæolithic" deposits in Europe.

But the fashioning of realistic and life-size human portrait-statues for funerary purposes was a new art, which gradually developed in the way I have tried to depict. No doubt the modellers made use of the skill they had acquired in the practice of the older art of rough impressionism.

Once the statue was made a stone-house (the *serdab*) was provided for it above ground. As the dolmen is a crude copy of the *serdab*¹ it can be claimed as one of the ultimate results of the practice

development of the custom of making statues independently of mummification. But such an inference is untenable. Not only is it the fact that in most parts of the world the practices of making statues and mummifying the dead are found in association the one with the other, but also in China the essential beliefs concerning the dead are based upon the supposition that the body is fully preserved (*see de Groot, chap. XV.*). It is quite evident that the Chinese customs have been derived directly or indirectly from some people who mummified their dead as a regular practice. There can be no doubt that the ultimate source of their inspiration to do these things was Egypt.

I need mention only one of many identical peculiarities that makes this quite certain. De Groot says it is "strange to see Chinese fancy depict the souls of the viscera as distinct individuals with animal forms" (p. 71). The same custom prevailed in Egypt, where the "souls" or protective deities were first given animal forms in the Nineteenth Dynasty (Reisner).

¹ *Op. cit. supra*, Ridgeway Essays; also *Man*, 1913, p. 193

of mummification. It is clear that the conception of the possibility of a life beyond the grave assumed a more concrete form when it was realized that the body itself could be rendered incorruptible and its distinctive traits could be kept alive by means of a portrait statue. There are reasons for supposing that primitive man did not realize or contemplate the possibility of his own existence coming to an end.¹ Even when he witnessed the death of his fellows he does not appear to have appreciated the fact that it was really the end of life and not merely a kind of sleep from which the dead might awake. But if the corpse were destroyed or underwent a process of natural disintegration the fact was brought home to him that death had occurred. If these considerations, which early Egyptian literature seems to suggest, be borne in mind, the view that the preservation of the body from corruption implied a continuation of existence becomes intelligible. At first the subterranean chambers in which the actual body was housed were developed into a many-roomed house for the deceased, complete in every detail.² But when the statue took over the function of representing the deceased, a dwelling was provided for it above ground. This developed into the temple where the relatives and friends of the dead came and made the offerings of food which were regarded as essential for the maintenance of existence.

The evolution of the temple was thus the direct outcome of the ideas that grew up in connexion with the preservation of the dead. For at first it was nothing more than the dwelling place of the re-animated dead. But when, for reasons which I shall explain later (see p. 220), the dead king became deified, his temple of offerings became the building where food and drink were presented to the god, not merely to maintain his existence, but also to restore his consciousness and so afford an opportunity for his successor, the actual king, to consult him and obtain his advice and help. The presentation of offerings and the ritual procedures for animating and restoring consciousness to the dead king were at first directed solely to these ends. But in course of time, as their original purpose became obscured, these services in the temple altered in character, and their meaning became

¹ See Alan H. Gardiner, "Life and Death (Egyptian)," *Hastings' Encyclopædia of Religion and Ethics*.

² See the quotation from Mr. Quibell's account in my statement in the *Report of the British Association for 1914*, p. 215.

rationalized into acts of homage and worship, and of prayer and supplication, and in much later times, acquired an ethical and moral significance that was wholly absent from the original conception of the temple services. The earliest idea of the temple as a place of offering has not been lost sight of. Even in our times the offertory still finds a place in temple services.

THE SIGNIFICANCE OF LIBATIONS.

The central idea of this lecture was suggested by Mr. Aylward M. Blackman's important discovery of the actual meaning of incense and libations to the Egyptians themselves.¹ The earliest body of literature preserved from any of the peoples of antiquity is comprised in the texts inscribed in the subterranean chambers of the Sakkara Pyramids of the Fifth and Sixth Dynasties. These documents, written forty-five centuries ago, were first brought to light in modern times in 1880-81; and since the late Sir Gaston Maspero published the first translation of them, many scholars have helped in the task of elucidating their meaning. But it remained for Blackman to discover the explanation they give of the origin and significance of the act of pouring out libations. "The general meaning of these passages is quite clear. The corpse of the deceased is dry and shrivelled. To revivify it the vital fluids that have exuded from it [in the process of mummification] must be restored, for not till then will life return and the heart beat again. This, so the texts show us, was believed to be accomplished by offering libations to the accompaniment of incantations" (*op. cit.* p. 70).

In the first three passages quoted by Blackman from the Pyramid Texts "the libations are said to be the actual fluids that have issued from the corpse". In the next four quotations "a different notion is introduced. It is not the deceased's own exudations that are to revive his shrunken frame but those of a divine body, the [god's fluid]² that

¹ "The Significance of Incense and Libations in Funerary and Temple Ritual," *Zeitschrift für Ägyptische Sprache und Altertumskunde*, Bd. 50, 1912, p. 69.

² Mr. Blackman here quotes the actual word in hieroglyphics and adds the translation "god's fluid" and the following explanation in a footnote: "The Nile was supposed to be the fluid which issued from Osiris. The expression in the Pyramid texts may refer to this belief—the dead" [in the Pyramid Age it would have been more accurate if he had said the dead

came from the corpse of Osiris himself, the juices that dissolved from his decaying flesh, which are communicated to the dead sacrament-wise under the form of these libations."

This dragging-in of Osiris is especially significant. For the analogy of the life-giving power of water that is specially associated with Osiris played a dominant part in suggesting the ritual of libations. Just as water, when applied to the apparently dead seed, makes it germinate and come to life, so libations can reanimate the corpse. These general biological theories of the potency of water were current at the time, and, as I shall explain later (see p. 218), had possibly received specific application to man long before the idea of libations developed. For, in the development of the cult of Osiris¹ the general fertilizing power

king, in whose Pyramid the inscriptions were found] "being usually identified with Osiris—since the water used in the libations was Nile water."

¹ The voluminous literature relating to Osiris will be found summarized in the latest edition of "The Golden Bough" by Sir James Frazer. But in referring the reader to this remarkable compilation of evidence it is necessary to call particular attention to the fact that Sir James Frazer's interpretation is permeated with speculations based upon the modern ethnological dogma of independent evolution of similar customs and beliefs without cultural contact between the different localities where such similarities make their appearance.

The complexities of the motives that inspire and direct human activities are entirely fatal to such speculations, as I have attempted to indicate (see above, p. 195). But apart from this general warning, there are other objections to Sir James Frazer's theories. In his illuminating article upon Osiris and Horus, Dr. Alan Gardiner (in a criticism of Sir James Frazer's "The Golden Bough: Adonis, Attis, Osiris; Studies in the History of Oriental Religion," *Journal of Egyptian Archaeology*, Vol. II, 1915, p. 122) insists upon the crucial fact that Osiris was primarily a king, and that "it is always as a *dead* king," "the rôle of the living king being invariably played by Horus, his son and heir".

He states further: "What Egyptologists wish to know about Osiris beyond anything else is how and by what means he became associated with the processes of vegetable life". An examination of the literature relating to Osiris and the large series of homologous deities in other countries (which exhibit *prima facie* evidence of a common origin) suggests the idea that the king who first introduced the practice of systematic irrigation thereby laid the foundation of his reputation as a beneficent reformer. When, for reasons which I shall discuss later on (see p. 220), the dead king became deified, his fame as the controller of water and the fertilization of the earth became apotheosized also. I venture to put forward this suggestion only because none of the alternative hypotheses that have been propounded

of water when applied to the soil found specific exemplification in the potency of the seminal fluid to fertilize human beings. Malinowski has pointed out that certain Papuan people, who are ignorant of the fact that women are fertilized by sexual connexion, believe that they can be rendered pregnant by rain falling upon them (*op. cit. infra*). The study of folk-lore and early beliefs makes it abundantly clear that in the distant past which I am now discussing no clear distinction was made between fertilization and vitalization, between bringing new life into being and reanimating the body which had once been alive. The process of fertilization of the female and animating a corpse or a statue were regarded as belonging to the same category of biological processes. The sculptor who carved the portrait-statues for the Egyptian's tomb was called *sa'nkh*, "he who causes to live," and "the word 'to fashion' (*ms*) a statue is to all appearances identical with *ms*, 'to give birth'".¹

Thus the Egyptians themselves expressed in words the ideas which an independent study of the ethnological evidence showed many other peoples to entertain, both in ancient and modern times.²

The interpretation of ancient texts and the study of the beliefs of less cultured modern peoples indicate that our expressions: "to give birth," "to give life," "to maintain life," "to ward off death," "to insure good luck," "to prolong life," "to give life to the dead," "to animate a corpse or a representation of the dead," "to give fertility," "to impregnate," "to create," represent a series of specializations of meaning which were not clearly differentiated the one from the other in early times or among relatively primitive modern people.

seem to be in accordance with, or to offer an adequate explanation of, the body of known facts concerning Osiris.

It is a remarkable fact that in his lectures on "The Development of Religion and Thought in Ancient Egypt," which are based upon his own studies of the Pyramid Texts, and are an invaluable storehouse of information, Professor J. H. Breasted should have accepted Sir James Frazer's views. These seem to me to be altogether at variance with the renderings of the actual Egyptian texts and to confuse the exposition.

¹ Dr. Alan Gardener, quoted in my "Migrations of Early Culture," p. 42: see also the same scholar's remarks in Davies and Gardiner, "The Tomb of Amenemhēt," 1915, p. 57, and "A new Masterpiece of Egyptian Sculpture," *The Journal of Egyptian Archaeology*, Vol. IV, Part I, Jan., 1917.

² See J. Wilfrid Jackson, "Shells as Evidence of the Migrations of Early Culture," 1917, Manchester University F

The evidence brought together in Jackson's work clearly suggests that at a very early period in human history, long before the ideas that found expression in the Osiris story had materialized, men entertained in all its literal crudity the belief that the external organ of reproduction from which the child emerged at birth was the actual creator of the child, not merely the giver of birth but also the source of life.

The widespread tendency of the human mind to identify similar objects and attribute to them the powers of the things they mimic led primitive men to assign to the cowry-shell all these life-giving and birth-giving virtues. It became an amulet to give fertility, to assist at birth, to maintain life, to ward off danger, to ensure the life hereafter, to bring luck of any sort. Now, as the giver of birth, the cowry-shell also came to be identified with, or regarded as, the mother and creator of the human family; and in course of time, as this belief became rationalized, the shell's maternity received visible expression and it became personified as an actual woman, the Great Mother, at first nameless and with ill-defined features. But at a later period, when the dead king Osiris gradually acquired his attributes of divinity, and a god emerged with the form of a man, the vagueness of the Great Mother who had been merely the personified cowry-shell soon disappeared and the amulet assumed, as Hathor, the form of a real woman, or, for reasons to be explained later, a cow.

The influence of these developments reacted upon the nascent conception of the water-controlling god, Osiris; and his powers of fertility were enlarged to include many of the life-giving attributes of Hathor

EARLY BIOLOGICAL THEORIES.

Before the full significance of these procedures can be appreciated it is essential to try to get at the back of the Proto-Egyptian's mind and to understand his general trend of thought. I specially want to make it clear that the ritual use of water for animating the corpse or the statue was merely a specific application of the general principles of biology which were then current. It was no mere childish make-believe or priestly subterfuge to regard the pouring out of water as a means of animating a block of stone. It was a conviction for which the Proto-Egyptians considered there was a substantial scientific basis; and their faith in the efficacy of water to animate the dead is to be

regarded in the same light as any scientific inference which is made at the present time to give a specific application of some general theory considered to be well founded. The Proto-Egyptians clearly believed in the validity of the general biological theory of the life-giving properties of water. Many facts, no doubt quite convincing to them, testified to the soundness of their theory. They accepted the principle with the same confidence that modern people have adopted Newton's Law of Gravitation, and Darwin's theory of the Origin of Species, and applied it to explain many phenomena or to justify certain procedures, which in the light of fuller knowledge seem to modern people puerile and ludicrous. But the early people obviously took these procedures seriously and regarded their actions as rational. The fact that their early biological theory was inadequate ought not to mislead modern scholars and encourage them to fall into the error of supposing that the ritual of libations was not based upon a serious inference. Modern scientists do not accept the whole of Darwin's teaching, or possibly even Newton's "Law," but this does not mean that in the past innumerable inferences have been honestly and confidently made in specific application of these general principles.

It is important, then, that I should examine more closely the Proto-Egyptian body of doctrine to elucidate the mutual influence of it and the ideas suggested by the practice of mummification. It is not known where agriculture was first practised or the circumstances which led men to appreciate the fact that plants could be cultivated. In many parts of the world agriculture can be carried on without artificial irrigation, and even without any adequate appreciation on the part of the farmer of the importance of water. But when it came to be practised under such conditions as prevail in Egypt and Mesopotamia the cultivator would soon be forced to realize that water was essential for the growth of plants, and that it was imperative to devise artificial means by which the soil might be irrigated. It is not known where or by whom this cardinal fact first came to be appreciated, whether by the Sumerians or the Egyptians or by any other people. But it is known that in the earliest records both of Egypt and Sumer the most significant manifestations of a ruler's wisdom were the making of irrigation canals and the controlling of water. Important as these facts are from their bearing upon the material prospects of the people, they had an infinitely more profound and far

beliefs of mankind. Groping after some explanation of the natural phenomenon that the earth became fertile when water was applied to it, and that seed burst into life under the same influence, the early biologist formulated the natural and not wholly illogical idea that water was the repository of life-giving powers. Water was equally necessary for the production of life and for the maintenance of life.

At an early stage in the development of this biological theory man and other animals were brought within the scope of the generalization. For the drinking of water was a condition of existence in animals. The idea that water played a part in reproduction was co-related with this fact.

Even at the present time many aboriginal peoples in Australia, New Guinea, and elsewhere, are not aware of the fact that in the process of animal reproduction the male exercises the physiological rôle of fertilization.¹

There are widespread indications throughout the world that the appreciation of this elementary physiological knowledge was acquired at a relatively recent period in the history of mankind. It is difficult to believe that the fundamental facts of the physiology of fertilization in animals could long have remained unknown when men became breeders of cattle. The Egyptian hieroglyphs leave no doubt that the knowledge was fully appreciated at the period when the earliest picture-symbols were devised, for the verb "to beget" is represented by the male organs of generation. But, as the domestication of animals may have been earlier than the invention of agriculture, it is quite likely that the appreciation of the fertilizing powers of the male animal may have been, and probably was, definitely more ancient than the earliest biological theory of the fertilizing power of water.

I have discussed this question to suggest that this earlier knowledge that animals could be fertilized by the seminal fluid was certainly brought within the scope of the wider generalisation that water itself was endowed with fertilizing properties. Just as water fertilized the earth so the semen fertilized the female. Water was

¹Baldwin Spencer and Gillen, "The Northern Tribes of Central Australia"; "Across Australia"; and Spencer's "Native Tribes of the Northern Territory of Australia". For a very important study of the whole problem with special reference to New Guinea, see B. Malinowski, "Baloma: the Spirits of the Dead," etc., *Journal of the Royal Anthropological Institute*, 1916, p. 415.

necessary for the maintenance of life in plants and was also essential in the form of drink for animals. As both the earth and women could be fertilized by water they were homologized one with the other. The earth came to be regarded as a woman, the Great Mother.¹ When the fertilizing water came to be personified in the person of Osiris his consort Isis was identified with the earth which was fertilized by water.²

One of the earliest pictures of an Egyptian king represents him using the hoe to inaugurate the making of an irrigation-canal.³ This was the typical act of benevolence on the part of a wise ruler. It is not unlikely that the earliest organization of a community under a definite leader may have been due to the need for some systematized control of irrigation. In any case the earliest rulers of Egypt and Sumer were essentially the controllers and regulators of the water supply and as such the givers of fertility and prosperity.

Once men first consciously formulated the belief that death was not the end of all things,⁴ that the body could be re-animated and

¹ In places as far apart in space and time as Ancient Egypt and Modern America.

² With reference to the assimilation of the conceptions of human fertilization and watering the soil and the widespread idea among the ancients of regarding the male as "he who irrigates," Canon van Hoonacker gave M. Louis Siret the following note:—

"In Assyrian the cuneiform sign for water is also used, *inter alia*, to express the idea of begetting (*banû*). Compare with this the references from Hebrew and Arabic writings. In Isaiah xlviii. 1, we read 'Hear ye this, O house of Jacob, which are called by the name of Israel, and are come forth out of the waters of Judah'; and in Numbers xxiv. 7, 'Water shall flow from his buckets and his seed shall be in many waters'.

"The Hebrew verb (*shangal*) which denotes sexual intercourse has, in Arabic (*sadjala*), the meaning 'to spill water'. In the Koran, Sur. 36, v. 6, the word *mâ'un* (water) is used to designate semen" (L. Siret, "Questions de Chronologie et d'Ethnographie Ibériques," Tome I, 1913, p. 250).

³ Quibell, "Hieraconpolis, Vol, I, 260, 4.

⁴ In using this phrase I want to make a clear distinction between the phase of culture in which it had never occurred to man that, in his individual case, life would come to an end, and the more enlightened stage, in which he fully realized that death would inevitably be his fate, but that in spite of it his real existence would continue.

It is clear that at quite an early stage in his history man appreciated the fact that he could kill an animal or his fellow-man. But for a long time he failed to realize that he himself, if he could avoid the process of me-

consciousness and the will restored, it was natural that a wise ruler who, when alive, had rendered conspicuous services should after death continue to be consulted. The fame of such a man would grow with age ; his good deeds and his powers would become apotheosized ; he would become an oracle whose advice might be sought and whose help be obtained in grave crises. In other words the dead king would be " deified," or at any rate credited with the ability to confer even greater boons than he was able to do when alive.

It is no mere coincidence that the first " god " should have been a dead king, Osiris, nor that he controlled the waters of irrigation and was specially interested in agriculture. Nor, for the reasons that I have already suggested, is it surprising that he should have had phallic attributes, and in himself have personified the virile powers of fertilization.¹

In attempting to explain the origin of the ritual procedures of burning incense and offering libations it is essential to realize that the creation of the first deities was not primarily an expression of religious belief, but rather an application of science to national affairs. It was the logical interpretation of the dominant scientific theory of the time for the practical benefit of the living ; or in other words, the means devised for securing the advice and the active help of wise rulers after their death. It was essentially a matter of practical politics and applied science. It became religion only when the advancement of knowledge superseded these primitive scientific theories and left them as soothing traditions for the thoughts and aspirations of mankind to cultivate. For by the time the adequacy of these theories of knowledge began to be questioned they had made an insistent appeal, and had come to be regarded as an essential prop to lend support to man's conviction of the reality of a life beyond the grave. A web of moral precept and the allurements of hope had been so woven around them that no force was able to strip away this body of consolatory

chanical destruction by which he could kill an animal or a fellow-man, would not continue to exist. The dead are supposed by many people to be still in existence so long as the body is preserved. Once the body begins to disintegrate even the most unimaginative of men can entirely repress the idea of death. But to primitive people the preservation of the body is equally a token that existence has not come to an end. The corpse is merely sleeping.

¹ Breasted, *op. cit.*, p. 28.

beliefs ; and they have persisted for all time, although the reasoning by which they were originally built up has been demolished and forgotten several millennia ago.

It is not known where Osiris was born. In other countries there are homologous deities, such as Ea, Tammuz, Adonis, and Attis, which are certainly manifestations of the same idea and sprung from the same source. Certain recent writers assume that the germ of the Osiris-conception was introduced into Egypt from abroad. But if so, nothing is known for certain of its place of origin. In any case there can be no doubt that the distinctive features of Osiris, his real personality and character, were developed in Egypt.

For reasons which I have suggested already it is probable that the significance of water in cultivation was not realized until cereals were cultivated in some such place as Babylonia or Egypt. But there are very definite legends of the Babylonian Ea coming from abroad by way of the Persian Gulf.¹

The early history of Tammuz is veiled in obscurity. Somewhere in South Western Asia or North Eastern Africa, probably within a few years of the development of the art of agriculture, some scientific theorist, interpreting the body of empirical knowledge acquired by cultivating cereals, propounded the view that water was the great life-giving element. This view eventually found expression in the Osiris-group of legends.

This theory found specific application in the invention of libations and incense. These practices in turn reacted upon the general body of doctrine and gave it a more sharply defined form. The dead king also became more real when he was represented by an actual embalmed body and a life-like statue, sitting in state upon his throne and holding in his hands the emblems of his high office.

Thus while, in the present state of knowledge, it would be unjustifiable to claim that the Osiris-group of deities was invented in Egypt, and certainly erroneous to attribute the general theory of the fertilizing properties of water to the practice of embalming, it is true that the latter was responsible for giving Osiris a much more concrete

¹ The possibility, or even the probability, must be borne in mind that the legend of Ea arising from the waters may be merely another way of expressing his primary attribute as the personification of the fertilizing powers of water.

and clearly-defined shape, of "making a god in the image of man," and for giving to the water-theory a much richer and fuller significance than it had before.

The symbolism so created has had a most profound influence upon the thoughts and aspirations of the human race. For Osiris was the prototype of all the gods; his ritual was the basis of all religious ceremonial; his priests who conducted the animating ceremonies were the pioneers of a long series of ministers who for more than fifty centuries, in spite of the endless variety of details of their ritual and the character of their temples, have continued to perform ceremonies that have undergone remarkably little essential change. Though the chief functions of the priest as the animator of the god and the restorer of his consciousness have now fallen into the background in most religions, the ritual acts (the incense and libations, the offerings of food and blood and the rest) still persist in many countries: the priest still appeals by prayer and supplication for those benefits, which the Proto-Egyptian aimed at securing when he created Osiris as a god to give advice and help. The prayer for rain is the earliest form of religious appeal.

In using the terms "god" and "religion" with reference to the earliest form of Osiris and the beliefs that grew up with reference to him a potent element of confusion is introduced.

During the last fifty centuries the meanings of those two words have become so complexly enriched with the glamour of a mystic symbolism that the Proto-Egyptian's conception of Osiris and the Osirian beliefs must have been vastly different from those implied in the words "god" and "religion" at the present time. Osiris was regarded as an actual king who had died and been reanimated. In other words he was a *man* who could bestow upon his former subjects the benefits of his advice and help, but also could display such human weaknesses as malice, envy, and all uncharitableness. Much modern discussion completely misses the mark by the failure to recognize that these so-called "gods" were really men, equally capable of acts of beneficence and of outbursts of hatred, and as one or the other aspect became accentuated the same deity could become a Vedic *deva* or an Avestan *dæva*, a *deus* or a devil, a god of kindness or a demon of wickedness.

The acts which the earliest "gods" were supposed to perform

were not at first regarded as supernatural. They were merely the boons which the mortal ruler was supposed to be able to confer, by controlling the waters of irrigation and rendering the land fertile. It was only when his powers became apotheosized with a halo of accumulated glory (and the growth of knowledge revealed the insecurity of the scientific basis upon which his fame was built up) that a priesthood, reluctant to abandon any of the attributes which had captured the popular imagination, made it an obligation of belief to accept these supernatural powers of the gods for which the student of natural phenomena refused any longer to be a sponsor. This was the parting of the ways between science and religion ; and thenceforth the attributes of the " gods " became definitely and admittedly superhuman.

As I have already stated (p. 213) the original object of the offering of libations was thus clearly for the purpose of animating the statue of the deceased and so enabling him to continue the existence which had merely been interrupted by the incident of death. In course of time, however, as definite gods gradually materialized and came to be represented by statues, they also had to be vitalized by offerings of water from time to time. Thus the pouring out of libations came to be an act of worship of the deity ; and in this form it has persisted until our own times in many civilized countries.

But not only was water regarded as a means of animating the dead or statues representing the dead and an appropriate act of worship, in that it vitalized an idol and the god dwelling in it was thus able to hear and answer supplications. Water also became an essential part of any act of ritual rebirth.¹ As a baptism it also symbolized the giving of life. The initiate was re-born into a new communion of faith. In scores of other ways the same conception of the life-giving properties of water was responsible for as many applications of the use of libations in inaugurating new enterprises, such as " christening " ships and blessing buildings. It is important to remember that according to early Egyptian beliefs the continued existence of the dead was wholly dependent upon the attentions of the living. Unless this animating ceremony was performed not merely at the time of the funeral but also at stated periods afterwards, and unless the friends of the deceased

¹ This occurred at a later epoch when the attributes of the water-controlling deity of fertility became confused with those of the birth-giving mother goddess (*vide infra*, p. 230).

periodically supplied food and drink, such a continuation of existence was impossible.

But the development of these beliefs had far-reaching effects in other directions. The idea that a stone statue could be animated ultimately became extended to mean that the dead man could enter into and dwell in a block of stone, which he could leave or return to at will. From this arose the beliefs, which spread far and wide, that the dead, ancestors, kings, or deified kings, dwelt in stones; and that they could be consulted as oracles, who gave advice and counsel. But as any mortal at his death could thus enter into a stone, another crop of legends concerning the petrification of men and animals also developed. In other words the acts of dying and then entering into the stone were merged into one simultaneous process; and the living man or creature at once became transformed into stone.

All this rich crop of myths concerning men and animals dwelling in stones, as well as the petrification stories, which are to be found encircling the globe from Ireland to America, can be referred back to these early Egyptian attempts to solve the mysteries of death, and to acquire the means of circumventing fate.¹

These beliefs at first may have concerned human beings only. But in course of time, as the duty of revictualing an increasingly large number of tombs and temples tended to tax the resources of the people the practice developed of substituting for the real things models, or even pictures, of food-animals, vegetables, and other requisites of the dead. And these objects and pictures were restored to life or reality by means of a ritual which was essentially identical with that used for animating the statue or the mummy of the deceased himself.²

It is well worth considering whether this may not be one of the basal factors in explanation of the phenomena which the late Sir Edward Tylor labelled "animism".

So far from being a phase of culture through which many, if not all, peoples have passed in the course of their evolution, may it not

¹ For a large series of these stories see E. Sidney Hartland's "Legend of Perseus". But even more instructive, as revealing the intimate connexion of such ideas with the beliefs regarding the preservation of the body, see J. J. M. de Groot, "The Religious System of China," Vol. IV, Book II, 1901.

² In this connexion see de Groot, *op. cit.* pp. 356 and 415.

have been merely an artificial conception of certain things, which was given so definite a form in Egypt, for the specific reasons at which I have just hinted, and from there spread far and wide ?

Against this view may be urged the fact that our own children talk in an animistic fashion. But is not this due in some measure to the unconscious influence of their elders ? Or at most is it not a vague and ill-defined attitude of anthropomorphism necessarily involved in all spoken languages, which is vastly different from what the ethnologist understands by "animism" ?

But whether this be so or not there can be no doubt that the "animism" of the early Egyptians assumed its precise and clear-cut distinctive features as the result of the growth of ideas suggested by the attempts to make mummies and statues of the dead and symbolic offerings of food and other funerary requisites.

Thus incidentally there grew up a belief in a power of magic by means of which these make-believe offerings could be transformed into realities. But it is important to emphasize the fact that originally the conviction of the genuineness of this transubstantiation was a logical and not unnatural inference based upon the attempt to interpret natural phenomena, and then to influence them by imitating what were regarded as the determining factors.¹

In China these ideas still retain much of their primitive influence and directness of expression. Referring to the Chinese "belief in the identity of pictures or images with the beings they represent" de Groot states that the *kwan shuh* or "magic art" is a "main branch of Chinese witchcraft". It consists essentially of "the infusion of a soul, life, and activity into likenesses of beings, to thus render them fit to work in some direction desired . . . this infusion is effected by blowing or breathing, or spurting water over the likeness: indeed breath or *khi*, or water from the mouth imbued with breath, is identical with *yang* substance or life."²

¹ It became "magical" in our sense of the term only when the growth of knowledge revealed the fact that the measures taken were inadequate to attain the desired end; while the "magician" continued to make the pretence that he could attain that end by ultra-physical means.

² De Groot, *op. cit.* p. 356.

INCENSE.

So far I have referred in detail only to the offering of libations. But this was only one of several procedures for animating statues, mummies, and food-offerings. I have still to consider the ritual procedures of incense-burning and "opening the mouth".

From Mr. Blackman's translations of the Egyptian texts it is clear that the burning of incense was intended to restore to the statue (or the mummy) the odour of the living body and that this was part of the procedure considered necessary to animate the statue. He says "the belief about incense [which is explained by a later document, the *Ritual of Amon*] apparently does not occur in the Old Kingdom religious texts that are preserved to us, yet it may quite well be as ancient as that period. That is certainly Erman's view" (*op. cit.* p. 75).

He gives the following translation of the relevant passage in the *Ritual of Amon* (XII, 11): "The god comes with body adorned which he has fumigated with the eye of his body, the incense of the god which has issued from his flesh, the sweat of the god which has fallen to the ground, which he has given to all the gods. . . . It is the Horus eye. If it lives, the people live, thy flesh lives, thy members are vigorous" (*op. cit.* p. 72). In his comments upon this passage Mr. Blackman states: "In the light of the Pyramid libation-formulæ the expressions in this text are quite comprehensible. Like the libations the grains of incense are the exudations of a divinity,¹ 'the fluid which issued from his flesh,' the god's sweat descending to the ground. . . . Here incense is not merely the 'odour of the god,' but the grains of resin are said to be the god's sweat" (*op. cit.* p. 72). "Both rites, the pouring of libations and the burning of incense, are performed for the same purpose—to revivify the body [or the statue] of god and man by restoring to it its lost moisture" (p. 75).

In attempting to reconstitute the circumstances which led to the

¹ As I shall explain later (see page 228), the idea of the divinity of the incense-tree was a result of, and not the reason for, the practice of incense-burning. As one of the means by which the resurrection was attained incense became a giver of divinity; and by a simple process of rationalization the tree which produced this divine substance became a god.

The reference to the "eye of the body," I shall discuss later (see p. 242).

invention of incense-burning as a ritual act, the nature of the problem to be solved must be recalled. Among the most obtrusive evidences of death were the coldness of the skin, the lack of perspiration and of the odour of the living. It is important to realize what the phrase "odour of the living" would convey to the Proto-Egyptian. From the earliest Predynastic times in Egypt it had been the custom to make extensive use of resinous material as an essential ingredient (what a pharmacist would call the adhesive "vehicle") of their cosmetics. One of the results of this practice in a hot climate must have been the association of a strong aroma of resin or balsam with a living person.¹ Whether or not it was the practice to burn incense to give pleasure to the living is not known. The fact that such a procedure was customary among their successors may mean that it was really archaic, or on the other hand the possibility must not be overlooked that it may be merely the later vulgarization of a practice which originally was devised for purely ritual purposes. The burning of incense before a corpse or statue was intended to convey to it the warmth, the sweat, and the odour of life.

When the belief became well established that the burning of incense was potent as an animating force and especially a giver of life to the dead it naturally came to be regarded as a divine substance in the sense that it had the power of resurrection. As the grains of incense consisted of the exudation of trees, or, as the ancient texts express it, "their sweat," the divine power of animation in course of time became transferred to the trees. They were no longer merely the source of the life-giving incense but were themselves animated by the deity whose drops of sweat were the means of conveying life to the mummy.

The reason why the deity which dwelt in these trees was usually identified with the Mother-Goddess will become clear in the course of the subsequent discussion (p. 228). It is probable that this was due mainly to the geographical circumstance that the chief source of incense was Southern Arabia, which was also the home of the primitive goddesses of fertility. For they were originally nothing more than personifications of the life-giving cowry amulets from the Red Sea.

Thus Robertson Smith's statement that "the value of the gum of the acacia as an amulet is connected with the idea that it is a clot of

¹ It would lead me too far afield to enter into a discussion of the use of scents and unguents, which is closely related to this question.

menstruous blood, i.e., that the tree is a woman"¹ is probably an inversion of cause and effect. It was the value attached to the gum that conferred animation upon the tree. The rest of the legend is merely a rationalization based upon the idea that the tree was identified with the mother-goddess. The same criticism applies to his further contention (p. 427) with reference to "the religious value of incense" which he claims to be due to the fact that "like the gum of the *samora* (acacia) tree, . . . it was an animate or divine plant".

Many factors played a part in the development of tree-worship, but it is probable the origin of the sacredness of trees must be assigned to the fact that it was acquired from the incense and the aromatic woods which were credited with the power of animating the dead. But at a very early epoch many other considerations helped to confirm and extend the conception of deification. When Osiris was buried, a sacred sycamore grew up as "the visible symbol of the imperishable life of Osiris".² But the sap of trees was brought into relationship with life-giving water and thus constituted another link with Osiris. The sap was also regarded as the blood of trees and the incense that exuded as the sweat. Just as the water of libation was regarded as the fluid of the body of Osiris, so also, by this process of rationalization, the incense came to possess a similar significance.

For reasons precisely analogous to those already explained in the case of libations, the custom of burning incense, from being originally a ritual act for animating the funerary statue, ultimately developed into an act of homage to the deity.

But it also acquired a special significance when the cult of sky-gods developed,³ for the smoke of the burning incense then came to be regarded as the vehicle which wafted the deceased's soul to the sky or conveyed there the requests of the dwellers upon earth.⁴

"The soul of a human being is generally conceived [by the

¹ "The Religion of the Semites," p. 133.

² Breasted, p. 28.

³ For reasons explained on a subsequent page (246).

⁴ It is also worth considering whether the extension of this idea may not have been responsible for originating the practice of cremation—as a device for transferring not merely the animating incense and the supplications of the living but also the body of the deceased to the sky-world. This, of course, did not happen in Egypt, but in some other country which adopted the Egyptian practice of incense-burning, but was not hampered by the religious conservatism that guarded the sacredness of the corpse.

Chinese] as possessing the shape and characteristics of a human being, and occasionally those of an animal ; . . . the spirit of an animal is the shape of this animal or of some being with human attributes and speech. But plant spirits are never conceived as plant-shaped, nor to have plant-characters . . . whenever forms are given them, they are mostly represented as a man, a woman, or a child, and often also as an animal, dwelling in or near the plant, and emerging from it at times to do harm, or to dispense blessings. . . . Whether conceptions on the animation of plants have never developed in Chinese thought and worship before ideas about human ghosts . . . had become predominant in mind and custom, we cannot say : but the matter seems probable" (De Groot, *op. cit.* pp. 272, 273). Tales of trees that shed blood and that cry out when hurt are common in Chinese literature (p. 274) [as also in Southern Arabia] ; also of trees that lodge or can change into maidens of transcendent beauty (p. 276).

It is further significant that amongst the stories of souls of men taking up their residence in and animating trees and plants, the human being is usually a woman, accompanied by "a fox, a dog, an old raven or the like" (p. 276).

Thus in China are found all the elements out of which Dr. Rendel Harris believes the Aphrodite cult was compounded in Cyprus,¹ the animation of the anthropoid plant, its human cry, its association with a beautiful maiden and a dog.²

The immemorial custom of planting trees on graves in China is supposed by De Groot (p. 277) to be due to "the desire to strengthen the soul of the buried person, thus to save his body from corruption, for which reason trees such as pines and cypresses, deemed to be bearers of great vitality for being possessed of more *shen* than other trees, were used preferably for such purposes". But may not such beliefs also be an expression of the idea that a tree growing upon a grave is developed from and becomes the personification of the deceased ? The significance of the selection of pines and cypresses may be compared to that associated with the so-called "cedars" in Babylonia, Egypt, and Phœnicia, and the myrrh- and frankincense-producing trees in Arabia and East Africa. They have come to be

¹ "The Ascent of Olympus," 1917.

² For a collection of stories relating to human beings, generally women, dwelling in trees, see Hartland's "Legend of Perseus".

accredited with "soul-substance," since their use in mummification, and as incense and for making coffins, has made them the means for attaining a future existence. Hence in course of time they came to be regarded as charged with the spirit of vitality, the *shen* or "soul-substance".

In China also it was because the woods of the pine or fir and the cypress were used for making coffins and grave-vaults and that pine-resin was regarded as a means of attaining immortality (De Groot, *op. cit.* pp. 296 and 297) that such veneration was bestowed upon these trees. "At an early date, Taoist seekers after immortality transplanted that animation [of the hardy long-lived fir and cypress¹] into themselves by consuming the resin of those trees, which, apparently, they looked upon as coagulated soul-substance, the counterpart of the blood in men and animals" (p. 296).

Thus in the Far East there are found in intimate association the one with the other all of the bizarre assortment of beliefs out of which the Cypriote Aphrodite is supposed by Dr. Rendel Harris to have been compounded, as well as those which the ritual of incense and libations was responsible for originating in Egypt

Elsewhere in these pages it is explained how the vaguely defined Mother "Goddess" and the more distinctly anthropoid Water "God," which originally developed quite independently the one of the other, ultimately came to exert a profound and mutual influence, so that many of the attributes which originally belonged to one of them came to be shared with the other. Many factors played a part in this process of blending and confusion of sex. As I shall explain later, when the moon came to be regarded as the dwelling or the impersonation of Hathor, the supposed influence of the moon over water led to a further assimilation of her attributes with those of Osiris as the controller of water, which received definite expression in a lunar form of Osiris.

But the link that is most intimately related to the subject of this address is provided by the personification of the Mother-Goddess in incense-trees. For incense thus became the sweat or the tears of the

¹ The fact that the fir and cypress are "hardy and long-lived" is not the reason for their being accredited with these life-prolonging qualities. But once the latter virtues had become attributed to them the fact that the trees were "hardy and long-lived" may have been used to bolster up the belief by a process of rationalization.

Great Mother just as the water of libation was regarded as the fluid of Osiris.

THE BREATH OF LIFE.

Although the pouring of libations and the burning of incense played so prominent a part in the ritual of animating the statue or the mummy, the most important incident in the ceremony was the "opening of the mouth," which was regarded as giving it the breath of life.

Elsewhere¹ I have suggested that the conception of the heart and blood as the vehicles of life, feeling, volition, and knowledge may have been extremely ancient. It is not known when or under what circumstances the idea of the breath being the "life" was first entertained. The fact that in certain primitive systems of philosophy the breath was supposed to have something to do with the heart suggests that these beliefs may be a constituent element of the ancient heart-theory. In some of the rock-pictures in America, Australia, and elsewhere the air-passages are represented leading to the heart. But there can be little doubt that the practice of mummification gave greater definiteness to the ideas regarding the "heart" and "breath," which eventually led to a differentiation between their supposed functions.² As the heart and the blood were obviously present in the dead body they could no longer be regarded as the "life". The breath was clearly the "element" the lack of which rendered the body inanimate. It was therefore regarded as necessary to set the heart working. The heart then came to be looked upon as the seat of knowledge, the organ that feels and wills during waking life. All the pulsating motions of the body seem to have been regarded, like the act of respiration, as expressions of the vital principle or "life," which many ethnological writers refer to as "soul substance". The neighbourhood of certain joints where the pulse can be felt most readily, and the top of the head, where pulsation can be felt in the infant's fontanelle, were therefore regarded by some Asiatic peoples as the places where the substance of life could leave or enter the body.

It is possible that in ancient times this belief was more widespread

¹ "Primitive Man," *Proceedings of the British Academy*, 1917, p. 41.

² The enormous complexity and intricacy of the interrelation between the functions of the "heart," and the "breath" is revealed in Chinese philosophy (see de Groot, *op. cit.* Chapter VII. *inter alia*).

than it is now. It affords an explanation of the motive for trephining the skull among ancient peoples, to afford a more ready passage for the "vital essence" to and from the skull.

In his lecture on "The Socratic Doctrine of the Soul,"¹ Professor John Burnet has expounded the meaning of early Greek conceptions of the soul with rare insight and lucidity. Originally, the word *ψυχή* meant "breath," but, by historical times, it had already been specialized in two distinct ways. It had come to mean *courage* in the first place, and secondly the *breath of life*, the presence or absence of which is the most obvious distinction between the animate and the inanimate, the "ghost" which a man "gives up" at death. But it may also quit the body temporarily, which explains the phenomenon of swooning (*λιποψυχία*). It seemed natural to suppose it was also the thing that can roam at large when the body is asleep, and even appear to another sleeping person in his dream. Moreover, since we can dream of the dead, what then appears to us must be just what leaves the body at the moment of death. These considerations explain the world-wide belief in the "soul" as a sort of double of the real bodily man, the Egyptian *ka*,² the Italian *genius*, and the Greek *ψυχή*.

Now this double is not identical with whatever it is in us that feels and wills during our waking life. That is generally supposed to be blood and not breath.

What we feel and perceive have their seat in the heart: they belong to the body and perish with it.

It is only when the shades have been allowed to drink blood that consciousness returns to them for a while.

At one time the *ψυχή* was supposed to dwell with the body in the grave, where it had to be supported by the offerings of the survivors, especially by libations (*χοαί*).

An Egyptian psychologist has carried the story back long before the times of which Professor Burnet writes. He has explained "his conception of the functions of the 'heart (mind) and tongue'." "When

¹ Second Annual Philosophical Lecture, Henriette Hertz Trust, *Proceedings of the British Academy*, Vol. VII, 26 Jan., 1916.

² The Egyptian *ka*, however, was a more complex entity than this comparison suggests.

the eyes see, the ears hear, and the nose breathes, they transmit to the heart. It is he (the heart) who brings forth every issue and it is the tongue which repeats the thought of the heart.'"¹

"There came the saying that Atum, who created the gods, stated concerning Ptah-Tatenen: 'He is the fashioner of the gods. . . . He made likenesses of their bodies to the satisfaction of their hearts. Then the gods entered into their bodies of every wood and every stone and every metal.'"²

That these ideas are really ancient is shown by the fact that in the Pyramid Texts Isis is represented conveying the breath of life to Osiris by "causing a wind with her wings".³ The ceremony of "opening the mouth" which aimed at achieving this restoration of the breath of life was the principal part of the ritual procedure before the statue or mummy. As I have already mentioned (p. 215), the sculptor who modelled the portrait statue was called "he who causes to live," and the word "to fashion" a statue is identical with that which means "to give birth". The god Ptah created man by modelling his form in clay. Similarly the life-giving sculptor made the portrait which was to be the means of securing a perpetuation of existence, when it was animated by the "opening of the mouth," by libations and incense.

As the outcome of this process of rationalization in Egypt a vast crop of creation-legends came into existence, which have persisted with remarkable completeness until the present day in India, Indonesia, China, America, and elsewhere. A statue of stone, wood, or clay is fashioned, and the ceremony of animation is performed to convey to it the breath of life, which in many places is supposed to be brought down from the sky.⁴

In the Egyptian beliefs, as well as in most of the world-wide legends that were derived from them, the idea assumed a definite form that the vital principle (often referred to as the "soul," "soul-substance," or "double") could exist apart from the body. Whatever

¹ Breasted, *op. cit.* pp. 44 and 45.

² *Op. cit.* pp. 45 and 46.

³ *Ibid.* p. 28.

⁴ W. J. Perry has collected the evidence preserved in a remarkable series of Indonesian legends in his recent book, "The Megalithic Culture of Indonesia". But the fullest exposition of the whole subject is provided in the Chinese literature summarized by de Groot (*op. cit.*).

the explanation, it is clear that the possibility of the existence of the vital principle apart from the body was entertained. It was supposed that it could return to the body and temporarily reanimate it. It could enter into and dwell within the stone representation of the deceased. Sometimes this so-called "soul" was identified¹ with the breath of life, which could enter into the statue as the result of the ceremony of "opening the mouth".

It has been commonly assumed by Sir Edward Tylor and those who accept his theory of animism that the idea of the "soul" was based upon the attempts to interpret the phenomena of dreams and shadows, to which Burnet has referred in the passage quoted above. The fact that when a person is sleeping he may dream of seeing absent people and of having a variety of adventures is explained by many peoples by the hypothesis that these are real experiences which befell the "soul" when it wandered abroad during its owner's sleep. A man's shadow or his reflection in water or a mirror has been interpreted as his double. But what these speculations leave out of account is the fact that these dream- and shadow-phenomena were probably merely the predisposing circumstances which helped in the development of (or the corroborative details which were added to and, by rationalization, incorporated in) the "soul-theory," which other circumstances were responsible for creating.²

I have already called attention (p. 195) to the fact that in many of the psychological speculations in ethnology too little account is taken of the enormous complexity of the factors which determine even the simplest and apparently most obvious and rational actions of men. I must again remind the reader that a vast multitude of factors, many of them of a subconscious and emotional nature, influence men's decisions and opinions. But once some definite state of feeling inclines a man to a certain conclusion, he will call up a host of other circumstances to buttress his decision, and weave them into a complex net of rationalization. Some such process undoubtedly took place in the development of "animism"; and though it is not possible yet to

¹ See, however, the reservations in the subsequent pages.

² The thorough analysis of the beliefs of any people makes this abundantly clear. De Groot's monograph is an admirable illustration of this (*op. cit.* Chapter VII.). Both in Egypt and China the conceptions of the significance of the shadow are later and altogether subsidiary.

reconstruct the whole history of the growth of the idea, there can be no question that these early strivings after an understanding of the nature of life and death, and the attempts to put the theories into practice to reanimate the dead, provided the foundations upon which have been built up during the last fifty centuries a vast and complex theory of the soul. In the creation of this edifice the thoughts and the aspirations of countless millions of peoples have played a part, but the foundation was laid down when the Egyptian king or priest claimed that he could restore to the dead the "breath of life" and, by means of the wand which he called "the great magician,"¹ could enable the dead to be born again. The wand is supposed by some scholars to be a conventionalized representation of the uterus, so that its power of giving birth is expressed with literal directness. Such beliefs and stories of the "magic wand" are found to-day in scattered localities from the Scottish Highlands to Indonesia and America.

In this sketch I have referred merely to one or two aspects of a conception of vast complexity. But it must be remembered that, once the mind of man began to play with the idea of a vital essence capable of existing apart from the body and to identify it with the breath of life, an illimitable field was opened up for speculation. The vital principle could manifest itself in all the varied expressions of human personality, as well as in all the physiological indications of life. Experience of dreams led men to believe that the "soul" could also leave the body temporarily and enjoy varied experiences. But the concrete-minded Egyptian demanded some physical evidence to buttress these intangible ideas of the wandering abroad of his vital essence. He made a statue for it to dwell in after his death; but such a view was seriously entertained only because he had already convinced himself that the life-substance could exist apart from his body as a "double" or "twin" which reproduced the form of his real self.

Searching for material evidence to support his faith primitive man not unnaturally turned to the contemplation of the circumstances of his birth. All his beliefs concerning the nature of life can ultimately be referred back to the story of his own origin, his birth or creation.

When an infant is born it is accompanied by the after-birth or placenta to which it is linked by the umbilical cord. The full comprehension of the significance of these structures is an achievement of

¹ Alan H. Gardiner, *Davies and Gardiner op cit* p. 59

modern science. To primitive man they were an incomprehensible marvel. But once he began to play with the idea that he had a double, a vital essence in his own shape which could leave the sleeping body and lead a separate existence, the placenta obviously provided tangible evidence of its reality. The considerations set forth by Blackman,¹ supplementing those of Moret, Murray and Seligman, and others, have been claimed as linking the placenta with the *ka*.

Much controversy has waged around the interpretation of the Egyptian word *ka*, especially during recent years. An excellent summary of the arguments brought forward by the various disputants up to 1912 will be found in Moret's "Mystères Égyptiens". Since then more or less contradictory views have been put forward by Alan Gardiner, Breasted, and Blackman. It is not my intention to intervene in a dispute as to the meaning of certain phrases in ancient literature; but there are certain aspects of the problems at issue which are so intimately related to my main theme as to make some reference to them unavoidable.

The development of the custom of making statues of the dead necessarily raised for solution the problem of explaining the deceased's two bodies, his actual mummy and his portrait statue. During life on earth his vital principle dwelt in the former, except on those occasions when the man was asleep. His actual body also gave expression to all the varied attributes of his personality. But after death the statue became the dwelling place of these manifestations of the spirit of vitality.

Whether or not the conception arose out of the necessities unavoidably created by the making of statues, it seems clear that this custom must have given more concrete shape to the belief that all of those elements of the dead man's individuality which left his body at the time of death could shift as a shadowy double into his statue.

At the birth of a king he is accompanied by a comrade or twin exactly reproducing all his features. This double or *ka* is intimately associated throughout life and in the life to come with the king's welfare. In fact Breasted claims that the *ka* "was a kind of superior

¹ Aylward M. Blackman, "Some Remarks on an Emblem upon the Head of an Ancient Egyptian Birth-Goddess," *Journal of Egyptian Archaeology*, Vol. III, Part III, July, 1916, p. 199; and "The Pharaoh's Placenta and the Moon-God Khons," *ibid.* Part IV, Oct., 1916, p. 235.

genius intended to guide the fortunes of the individual *in the hereafter* . . . there "he had his abode and awaited the coming of his earthly companion".¹

At death the deceased "goes to his *ka*, to the sky". The *ka* controls and protects the deceased: he brings him food which they eat together.

It is important clearly to keep in mind the different factors involved in this conception:—

(a) The statue of the deceased is animated by restoring to it the breath of life and all the other vital attributes of which the early Egyptian physiologist took cognisance.

(b) At the time of birth there came into being along with the child a "twin" whose destinies were closely linked with the child's.

(c) As the result of animating the statue the deceased also has restored to him his character, "the sum of his attributes," his individuality, later raised to the position of a protecting genius or god, a Providence who watches over his well-being.²

The points that I want to call attention to are, first, that the breath of life, or *animus*, is not identical with the *ka*, as Burnet supposes (*op. cit. supra*); secondly, that the adoption of the conception of the *ka* as a sort of guardian angel which finds its appropriate habitation in a statue that has been animated does not necessarily conflict with the view so concretely and unmistakably represented in the tomb-pictures that the *ka* is also a double who is born along with the individual.

This material conception of the *ka* as a double who is born with and closely linked to the individual is, as Blackman has emphasized,³ very suggestive of Baganda beliefs and rites connected with the placenta. At death the circumstances of the act of birth are reconstituted, and for this rebirth the placenta which played an essential part in the original process is restored to the deceased. May not the original meaning of the expression "he goes to his *ka*" be a literal description of this reunion with his placenta?

¹ "Religion and Thought in Ancient Egypt," p. 52. Breasted denies that the *ka* was an element of the personality.

² For an abstruse discussion of this problem see Alan H. Gardiner, "Personification (Egyptian)," Hastings' *Encyclopædia of Religion and Ethics*, pp. 790 and 792.

³ *Op. cit. supra*.

Blackman makes the suggestion that "on the analogy of the beliefs entertained by the Hamitic ruling caste in Uganda," according to Roscoe, "the placenta,¹ or rather its ghost, would have been supposed by the Ancient Egyptians to be closely connected with the individual's personality, as" he maintains was also the case with the god or protecting genius of the Babylonians.² "Unless united with his twin's [i.e. his placenta's] ghost the dead king was an imperfect deity, i.e. his directing intelligence was impaired or lacking."

In China, as the quotations from de Groot (*op. cit.* p. 396) have shown, the placenta when placed under felicitous circumstances is able to ensure the child a long life and to control his mental and physical welfare. In view of the claims put forward by Blackman to associate the placenta with the *ka*, it is of interest to note Moret's suggestion concerning the fourteen forms of the *ka*, to which von Bissing assigns

¹ Mr. Blackman is puzzled to explain what "possible connexion there could be between the Pharaoh's placenta and the moon beyond the fact that it is the custom in Uganda to expose the king's placenta each new moon and anoint it with butter.

To those readers who follow my argument in the later pages of this discussion the reasoning at the back of this association should be plain enough. The moon was regarded as the controller of menstruation. The placenta (and also the child) was considered to be formed of menstrual blood. The welfare of the placenta was therefore considered to be under the control of the moon.

The anointing with butter is an interesting illustration of the close connexion of these lunar and maternal phenomena with the cow.

The placenta was associated with the moon also in China, as the following quotation shows.

According to de Groot (*op. cit.* p. 396), "in the *Siao 'rh fang* or Medicament for Babies, by the hand of Ts'ui Hing-kung [died 674 A.D.], it is said: 'The placenta should be stored away in a felicitous spot under the salutary influences of the sky or the moon . . . in order that the child may be ensured a long life' ". He then goes on to explain how any interference with the placenta will entail mental or physical trouble to the child.

The placenta also is used as the ingredient of pills to increase fertility, facilitate parturition, to bring back life to people on the brink of death and it is the main ingredient "in medicines for lunacy, convulsions, epilepsy, etc." (p. 397). "It gives rest to the heart, nourishes the blood, increases the breath, and strengthens the *tsing*" (p. 396).

These attributes of the placenta indicate that the beliefs of the Baganda are not merely local eccentricities, but widespread and sharply defined interpretations.

² *Op. cit.* p. 241.

the general significance "nourishment or offerings". He puts the question whether they do not "personify the elements of material and intellectual prosperity, all that is necessary for the health of body and spirit" (*op. cit.* p. 209).

The placenta is credited with all the varieties of life-giving potency that are attributed to the Mother-Goddess. It therefore controls the welfare of the individual and, like all maternal amulets (*vide supra*), ensures his good fortune. But, probably by virtue of its supposed derivation from and intimate association with blood, it also ministered to his mental welfare.

In my last Rylands Lecture I referred to the probability that the essential elements of Chinese civilization were derived from the West. I had hoped that before the present statement went to the printer I would have found time to set forth in detail the evidence in substantiation of the reality of that diffusion of culture.

Briefly the chain of proof is composed of the following links : (a) the intimate cultural contact between Egypt, Southern Arabia, Sumer, and Elam from a period at least as early as the First Egyptian Dynasty ; (b) the diffusion of Sumerian and Elamite culture in very early times at least as far north as Russian Turkestan and as far east as Baluchistan ; (c) at some later period the quest of gold, copper, turquoise, and jade led the Babylonians (and their neighbours) as far north as the Altai and as far east as Khotan and the Tarim Valley, where their pathways were blazed with the distinctive methods of cultivation and irrigation ; (d) at some subsequent period there was an easterly diffusion of culture from Turkestan into China proper ; and (e) at least as early as the seventh century B.C. there was also a spread of Western culture to China by sea.

I have already referred to some of the distinctively Egyptian traits in Chinese beliefs concerning the dead. Mingled with them are other equally definitely Babylonian ideas concerning the liver.

It must be apparent that in the course of the spread of a complex system of religious beliefs to so great a distance, only certain of their features would survive the journey. Handed on from people to people, each of whom would unavoidably transform them to some extent, the tenets of the Western beliefs would become shorn of many of their details and have many excrescences added to them before the Chinese received them. In the crucible of the local philosophy they

would be assimilated with Chinese ideas until the resulting compound assumed a Chinese appearance. When these inevitable circumstances are recalled the value of any evidence of Western influence is strongly reinforced.

According to the ancient Chinese man has two souls, the *kwei* and the *shen*. The former, which according to de Groot is definitely the more ancient of the two (p. 8), is the material, substantial soul, which emanates from the terrestrial part of the Universe, and is formed of *yin* substance. In living man it operates under the name of *p'oh*, and on his death it returns to the earth and abides with the deceased in his grave.

The *shen* or immaterial soul emanates from the ethereal celestial part of the cosmos and consists of *yang* substance. When operating actively in the living human body, it is called *khi* or "breath," and *hwun*; when separated from it after death it lives forth as a refulgent spirit, styled *ming*.¹

But the *shen* also, in spite of its sky-affinities, hovers about the grave and may dwell in the inscribed grave-stone (p. 6). There may be a multitude of *shen* in one body and many "soul-tablets" may be provided for them (p. 74).

Just as in Egypt the *ka* is said to "symbolize the force of life which resides in nourishment" (Moret, p. 212), so the Chinese refer to the ethereal part of the food as its *khi*, i.e. the "breath" of its *shen*.

The careful study of the mass of detailed evidence so lucidly set forth by de Groot in his great monograph reveals the fact that, in spite of many superficial differences and apparent contradictions, the early Chinese conceptions of the soul and its functions are essentially identical with the Egyptian and must have been derived from the same source.

From the quotations which I have already given in the foregoing pages it appears that the Chinese entertain views regarding the functions of the placenta which are identical with those of the Baganda, and a conception of the souls of man which presents unmistakable analogies with those of Egypt. Yet these Chinese beliefs do not shed any clearer light than Egyptian literature does upon the problem of the possible relationship between the *ka* and the *placenta*.

¹ De Groot, p. 5.

In the Iranian domain, however, right on the overland route from the Persian Gulf to China, there seems to be a ray of light. According to the late Professor Moulton, "The later Parsi books tell us that the Fravashi is a part of a good man's identity, living in heaven and reuniting with the soul at death. It is not exactly a guardian angel, for it shares in the development or deterioration of the rest of the man."¹

In fact the Fravashi is not unlike the Egyptian *ka* on the one side and the Chinese *shen* on the other. "They are the *Manes*, 'the good folk'" (p. 144): they are connected with the stars in their capacity as spirits of the dead (p. 143), and they "showed their paths to the sun, the moon, the sun, and the endless lights," just as the *kas* guide the dead in the hereafter.

The Fravashis play a part in the annual All Soul's feast (p. 144) precisely analogous to that depicted by Breasted in the case of an Egyptian of the Middle Kingdom.² All the circumstances of the two ceremonies are essentially identical.

Now Professor Moulton suggests that the word Fravashi may be derived from the Avestan root *var*, "to impregnate," and *fravaši* mean "birth-promotion" (p. 142). As he associates this with childbirth the possibility suggests itself whether the "birth-promoter" may not be simply the placenta.

Loret (quoted by Moret, p. 202), however, derives the word *ka* from a root signifying "to beget," so that the Fravashi may be nothing more than the Iranian homologue of the Egyptian *ka*.

The connecting link between the Iranian and Egyptian conceptions may be the Sumerian instances given to Blackman³ by Dr. Langdon.

The whole idea seems to have originated out of the belief that the sum of the individual attributes or vital expressions of a man's personality could exist apart from the physical body. The contemplation of the phenomena of sleep and death provided the evidence in corroboration of this.

At birth the newcomer came into the world physically connected with the placenta, which was accredited with the attributes of the life-giving and birth-promoting Great Mother and intimately related

¹ *Early Religious Poetry of Persia*, p. 145.

² *Op. cit.* p. 264.

³ *Ibid.* p. 240.

to the moon and the earliest totem. It was obviously, also, closely concerned in the nutrition of the embryo, for was it not the stalk upon which the latter was growing like some fruit on its stem? It was a not unnatural inference to suppose that, as the elements of the personality were not indissolubly connected with the body, they were brought into existence at the time of birth and that the placenta was their vehicle.

The Egyptians' own terms of reference to the sculptor of a statue show that the ideas of birth were uppermost in their minds when the custom of statue-making was first devised. Moret has brought together (*op. cit. supra*) a good deal of evidence to suggest the far-reaching significance of the conception of ritual rebirth in early Egyptian religious ceremonial. With these ideas in his mind the Egyptian would naturally attach great importance to the placenta in any attempt to reconstruct the act of rebirth, which would be regarded in a literal sense. The placenta which played an essential part in the original act would have an equally important rôle in the ritual of rebirth.

THE POWER OF THE EYE.

In attempting to understand the peculiar functions attributed to the eye it is essential that the inquirer should endeavour to look at the problem from the early Egyptian's point of view. After moulding into shape the wrappings of the mummy so as to restore as far as possible the form of the deceased the embalmer then painted eyes upon the face. So also when the sculptor had learned to make finished models in stone or wood, and by the addition of paint had enhanced the life-like appearance, the statue was still merely a dead thing. What were needed above all to enliven it, literally and actually, in other words, to animate it, were the eyes; and the Egyptian artist set to work and with truly marvellous skill reproduced the appearance of living eyes (Fig. 5). How ample was the justification for this belief will be appreciated by anyone who glances at the remarkable photographs recently published by Dr. Alan H. Gardiner.¹ The wonderful eyes will be seen to make the statue sparkle and live. To the concrete mind of the Egyptian this triumph of art was regarded.

¹ "A New Masterpiece of Egyptian Sculpture," *The Journal of Egyptian Archæology*, Vol. IV, Part I, Jan., 1917.



FIG. 5.—STATUE OF AN EGYPTIAN NOBLE OF THE PYRAMID AGE TO SHOW THE TECHNICAL SKILL IN THE REPRESENTATION OF LIFE-LIKE EYES

not as a mere technical success or æsthetic achievement. The artist was considered to have made the statue really live ; in fact, literally and actually converted it into a "living image". The eyes themselves were regarded as one of the chief sources of the vitality which had been conferred upon the statue.

This is the explanation of all the elaborate care and skill bestowed upon the making of artificial eyes. No doubt also it was largely responsible for the development of the remarkable belief in the animating power of the eye. But so many other factors of most diverse kinds played a part in building up the complex theory of the eye's fertilizing potency that all the stages in the process of rationalization cannot yet be arranged in orderly sequence.

I refer to the question here and suggest certain aspects of it that seem worthy of investigation merely for the purpose of stimulating some student of early Egyptian literature to look into the matter further.¹

As death was regarded as a kind of sleep and the closing of the eyes was the distinctive sign of the latter condition the open eyes were not unnaturally regarded as clear evidence of wakefulness and life. In fact, to a matter-of-fact people the restoration of the eyes to the mummy or statue was equivalent to an awakening to life.

At a time when a reflection in a mirror or in a sheet of water was supposed to afford quite positive evidence of the reality of each individual's "double," and when the "soul," or more concretely, "life," was imagined to be a minute image or homunculus, it is quite likely that the reflection in the eye may have been interpreted as the "soul" dwelling within it. The eye was certainly regarded as peculiarly rich in "soul substance". It was not until Osiris received from Horus the eye which had been wrenched out in the latter's combat with Set that he "became a soul".²

It is a remarkable fact that this belief in the animating power of the eye spread as far east as Polynesia and America, and as far west as the British Islands.

¹ In all probability the main factor that was responsible for conferring such definite life-giving powers upon the eye was the identification of the moon with the Great Mother. The moon was the eye of Re, the sky-god.

² Breasted, "Religion and Thought in Ancient Egypt," p. 59. The meaning of the phrase rendered "a soul" here would be more accurately given by the word "reanimated".

Of course the obvious physiological functions of the eyes as means of communication between their possessor and the world around him ; the powerful influence of the eyes for expressing feeling and emotion without speech ; the analogy between the closing and opening of the eyes and the changes of day and night, are all hinted at in Egyptian literature.

But there were certain specific factors that seem to have helped to give definiteness to these general ideas of the physiology of the eyes. The tears, like all the body moisture, came to share the life-giving attributes of water in general. And when it is recalled that at funeral ceremonies, when natural emotion found expression in the shedding of tears, it is not unlikely that this came to be assimilated with all the other water-symbolism of the funerary ritual. The early literature of Egypt, in fact, refers to the part played by Isis and Nephthys in the reanimation of Osiris, when the tears they shed as mourners brought life back to the god. But the fertilizing tears of Isis were life-giving in the wider sense. They were said to cause the inundation which fertilized the soil of Egypt.

There is the further possibility that the beliefs associated with the cowry may have played some part, if not in originating, at any rate in emphasizing the conception of the fertilizing powers of the eye. I have already mentioned the outstanding features of the symbolism of the cowry. In many places in Africa and elsewhere the similarity of the cowry to the half-closed eyelids led to the use of the shells as artificial " eyes " in mummies. Thus the use of same shell to symbolize the female reproductive organs and the eyes may have played some part in transferring to the latter the fertility of the former. The gods were born of the eyes of Ptah. Might not the confusion of the eye with the genitalia have given a meaning to this statement ? There is evidence of this double symbolism of these shells. Cowry shells have also been employed, both in the Persian Gulf and the Pacific, to decorate the bows of boats, probably for the dual purpose of representing eyes and conferring vitality upon the vessel. These facts suggest that the belief in the fertilizing power of the eyes may to some extent be due to this cowry-association. Even if it be admitted that all the known cases of the use of cowries as eyes of mummies are relatively late and that it is not known to have been employed for such a purpose in Egypt, the mere fact that the likeness to the eyelids

so readily suggests itself may have linked together the attributes of the cowry and the eye even in Predynastic times, when cowries were placed with the dead in the grave.

Hathor's identification with the "Eye of Re" may possibly have been an expression of the same idea. But the rôle of the "Eye of Re" was due primarily to her association with the moon (*vide infra*, p. 246).

The apparently hopeless tangle of contradictions involved in these conceptions of Hathor will have to be unravelled. For "no eye is to be feared more than thine (Re's) when it attacketh in the form of Hathor" (Maspero, *op. cit.* p. 165). Thus if it was the beneficent life-giving aspect of the eye which led to its identification with Hathor, in course of time, when the reason for this connexion was lost sight of, it became associated with the malevolent, death-dealing *avatar* of the goddess, and became the expression of the god's anger and hatred toward his enemies. It is not unlikely that such a confusion may have been responsible for giving concrete expression to the general psychological fact that the eyes are obviously among the chief means for expressing hatred for and intimidating and "brow-beating" one's fellows. [In my lecture on "The Birth of Aphrodite" I shall explain the explicit circumstances that gave rise to these contradictions.]

It is significant that, in addition to the widespread belief in the "evil eye"—which in itself embodies the same confusion, the expression of admiration that works evil—in a multitude of legends it is the eye that produces petrification. The "stony stare" causes death and the dead become transformed into statues, which, however, usually lack their original attribute of animation. These stories have been collected by Mr. E. S. Hartland in his "Legend of Perseus".

There is another possible link in the chain of associations between the eye and the idea of fertility. I have already referred to the development of the belief that incense, which plays so prominent a part in the ritual for conferring vitality upon the dead, is itself replete with animating properties. "Glaser has already shown the *anti* incense of the Egyptian Punt Reliefs to be an Arabian word, *a-a-nete*, 'tree-eyes' (*Punt und die Südarabischen Reiche*, p. 7), and to refer to the large lumps . . . as distinguished from the small round drops, which are supposed to be tree-tears or the tree-blood."¹

¹ Wilfred H. Schoff, "The Periplus of the Erythræan Sea," 1912, p. 164.

THE MOON AND THE SKY-WORLD.

There are reasons for believing that the chief episodes in Aphrodite's past point to the Red Sea for their inspiration, though many other factors, due partly to local circumstances and partly to contact with other civilizations, contributed to the determination of the traits of the Mediterranean goddess of love. In Babylonia and India there are very definite signs of borrowing from the same source. It is important, therefore, to look for further evidence to Arabia as the obvious bond of union both with Phœnicia and Babylonia.

The claim made in Roscher's *Lexicon der Mythologie* that the Assyrian Ishtar, the Phœnician Ashtoreth (Astarte), the Syrian Atargatis (Derketo), the Babylonian Belit (Mylitta) and the Arabian Ilat (Al-ilat) were all moon-goddesses has given rise to much rather aimless discussion, for there can be no question of their essential homology with Hathor and Aphrodite. Moreover, from the beginning, all goddesses—and especially this most primitive stratum of fertility deities—were for obvious reasons intimately associated with the moon.¹ But the cyclical periodicity of the moon which suggested the analogy with the similar physiological periodicity of women merely explains the association of the moon with women. The influence of the moon upon dew and the tides, perhaps, suggested its controlling power over water and emphasized the life-giving function which its association with women had already suggested. For reasons which have been explained already, water was associated more especially with fertilization by the male. Hence the symbolism of the moon came to include the control of both the male and the female processes of reproduction.²

The literature relating to the development of these ideas with refer-

¹ I am not concerned here with the explanation of the means by which their home became transferred to the planet Venus.

² In his discussion of the functions of the Fravashis in the Iranian Yasht, the late Professor Moulton suggested the derivation of the word from the Avestan root *var*, "to impregnate," so that *fravaśi* might mean "birth-promotion". But he was puzzled by a reference to water. "Less easy to understand is their intimate connexion with the Waters" ("Early Religious Poetry of Persia," pp. 142 and 143). But the Waters were regarded as fertilizing agents. This is seen in the Avestan Anahita, who was "the presiding genie of Fertility and more especially of the Waters" (W. J. Phythian-Adams, "Mithraism," 1915, p. 13).

ence to the moon has been summarized by Professor Hutton Webster.¹ He shows that "there is good reason for believing that among many primitive peoples the moon, rather than the sun, the planets or any of the constellations, first excited the imagination and aroused feelings of superstitious awe or of religious veneration".

Special attention was first devoted to the moon when agricultural pursuits compelled men to measure time and determine the seasons. The influence of the moon on water, both the tides and dew, brought it within the scope of the then current biological theory of fertilization. This conception was powerfully corroborated by the parallelism of the moon's cycles and those of womankind, which was interpreted by regarding the moon as the controlling power of the female reproductive functions. Thus all of the earliest goddesses who were personifications of the powers of fertility came to be associated, and in some cases identified, with the moon.

In this way the animation and deification of the moon was brought about: and the first sky deity assumed not only all the attributes of the cowry, i.e. the female reproductive functions, but also, as the controller of water, many of those which afterwards were regarded as the rôle of Osiris. The confusion of the male fertilizing powers of Osiris with the female reproductive functions of Hathor and Isis may explain how in some places the moon became a masculine deity, who, however, still retained his control over womankind and caused the phenomena of menstruation by the exercise of his virile powers.² But the moon-god was also a measurer of time and in this aspect was personified in Thoth.

The assimilation of the moon with these earth-deities was probably responsible for the creation of the first sky-deity. For once the conception developed of identifying a deity with the moon, and the Osirian beliefs associated with the deification of a dead king grew up, the moon became the impersonation of the spirit of womankind, some mortal woman who by death had acquired divinity.

After the idea had developed of regarding the moon as the spirit

¹ "Rest Days," New York, 1916, pp. 124 *et seq.*

² Wherever these deities of fertility are found, whether in Egypt, Babylonia, the Mediterranean Area, Eastern Asia, and America, illustrations of this confusion of sex are found. The explanation which Dr. Rendel Harris offers of this confusion in the case of Aphrodite, seems to me not to give due recognition to its great antiquity and world-wide distribution.

of a dead person, it was only natural that, in course of time, the sun and stars should be brought within the scope of the same train of thought, and be regarded as the deified dead. When this happened, the sun not unnaturally soon leapt into a position of pre-eminence. As the moon represented the deified female principle the sun became the dominant male deity Re. The stars also became the spirits of the dead.

Once this new conception of a sky-world was adumbrated a luxuriant crop of beliefs grew up to assimilate the new beliefs with the old and to buttress the confused mixture of incompatible ideas with a complex scaffolding of rationalization.

The sun-god Horus then became the son of Osiris. Osiris controlled not only the river and the irrigation canals, but also the rain-clouds. The fumes of incense conveyed to the sky-gods the supplications of the worshippers on earth. Incense was not only "the perfume that deifies," but also the means by which the deities and the dead could pass to their doubles in the newly invented sky-heaven. The sun-god Re was represented in his temple not by an anthropoid statue, but by an obelisk,¹ the gilded apex of which pointed to heaven and "drew down" the dazzling rays of the sun, reflected from its polished surface, so that all the worshippers could see the manifestations of the god in his temple.

These events are important, not only for creating the sky-gods and the sky-heaven, but possibly also for suggesting the idea that even a mere pillar of stone, whether carved or uncarved, upon which no attempt had been made to model the human form, could represent the deity, or rather could become the "body" to be animated by the god.² For once it was admitted, even in the home of these ancient ideas concerning the animation of statues, that it was not essential for the idol to be shaped into human form, the way was opened for less cultured peoples, who had not acquired the technical skill to carve statues, simply to erect stone pillars or unshaped masses of stone or

¹ L. Borchardt, "Das Re-heiligtum des Königs Ne-woser-re".

For a good exposition of this matter see A. Moret, "Sanctuaires de l'ancien Empire Égyptien," *Annales du Musée Guimet*, 1912, p. 265.

² It is possible that the ceremony of erecting the *dad* columns may have played some part in the development of these beliefs. (On this see A. Moret, "Mystères Égyptiens," 1913, pp. 13-17.)

wood for their gods to enter, when the appropriate ritual of animation was performed.¹

This conception of the possibility of gods, men, or animals dwelling in stones spread in course of time throughout the world, but in every place where it is found certain arbitrary details of the methods of animating the stone reveal the fact that all these legends must have been derived from the same source.

The complementary belief in the possibility of the petrification of men and animals has a similarly extensive geographical distribution. It represents merely an abbreviated version of the original story. If a man after death could be reanimated and his "life," or what most writers call his "soul," could then take up its residence in a stone, it was merely short-circuiting this process to transform the man directly into a stone.²

THE WORSHIP OF THE COW.

Intimately linked with the subjects I have been discussing is the worship of the cow. It would lead me too far afield to enter into

¹ Many other factors played a part in the development of the stories of the birth of ancestors from stones. I have already referred to the origin of the idea of the cowry (or some other shell) as the parent of mankind. The place of the shell was often taken by roughly carved stones, which of course were accredited with the same power of being able to produce men, or of being a sort of egg from which human beings could be hatched. It is unlikely that the finding of fossilized animals played any leading rôle in the development of these beliefs, beyond affording corroborative evidence in support of them after other circumstances had been responsible for originating the stories. The more circumstantial Oriental stories of the splitting of stones giving birth to heroes and gods may have been suggested by the finding in pebbles of fossilized shells—themselves regarded already as the parents of mankind. But such interpretations were only possible because all the predisposing circumstances had already prepared the way for the acceptance of these specific illustrations of a general theory.

These beliefs may have developed before and quite independently of the ideas concerning the animation of statues; but if so the latter event would have strengthened and in some places become merged with the other story.

² For an extensive collection of these remarkable petrification legends in almost every part of the world, see E. Sidney Hartland's "The Legend of Perseus," especially Volumes I and III. These distinctive stories will be found to be complexly interwoven with all the matters discussed in this address.

the details of the process by which the earliest Mother-Goddesses became so closely associated or even identified with the cow and why the cow's horns became associated with the moon among the emblems of Hathor. But it is essential that reference should be made to certain aspects of the subject.

I do not think there is any evidence to justify the common theory that the likeness of the crescent moon to a cow's horns was the reason for the association. On the other hand it is clear that both the moon and the cow became identified with the Mother-Goddess quite independently the one of the other, and at a very remote period.

It is probable that the fundamental factor in the development of this association of the cow and the Mother-Goddess was the fact of the use of milk as food for human beings. For if the cow could assume this maternal function she was in fact a sort of foster-mother of mankind; and in course of time she came to be regarded as the actual mother of the human race and to be identified with the Great Mother.

Many other considerations helped in this process of assimilation. The use of cattle not merely as meat for the sustenance of the living but as the usual and most characteristic life-giving food for the dead naturally played a part in conferring divinity upon the cow, just as an analogous relationship made incense a holy substance and was responsible for the personification of the incense-tree as a goddess. This influence was still further emphasized in the case of cattle because they also supplied the blood which was used for the ritual purpose of bestowing consciousness upon the dead, and in course of time upon the gods also, so that they might hear and attend to the prayers of supplicants.

Other circumstances emphasize the significance attached to the cow, but it is difficult to decide whether they contributed in any way to the development of these beliefs or were merely some of the practices which were the result of the divination of the cow. The custom of placing butter in the mouths of the dead, in Egypt, Uganda, and India, the various ritual uses of milk, the employment of a cow's hide as a wrapping for the dead in the grave, and also in certain mysterious ceremonies,¹ all indicate the intimate connexion between the cow and the means of attaining a rebirth in the life to come.

I think there are definite reasons for believing that once the cow

¹ See A. Moret, *op. cit.* p. 81, *inter alia*.

became identified with the Mother-Goddess as the parent of mankind the first step was taken in the development of the curious system of ideas now known as "totemism".

This, however, is a complex problem which I cannot stay to discuss here.

When the cow became identified with the Great Mother and the moon was regarded as the dwelling or the personification of the same goddess, the Divine Cow by a process of confused syncretism came to be regarded as the sky or the heavens, to which the dead were raised up on the cow's back. When Re became the dominant deity, he was identified with the sky, and the sun and moon were then regarded as his eyes. Thus the moon, as the Great Mother as well as the eye of Re, was the bond of identification of the Great Mother with an eye. This was probably how the eye acquired the animating powers of the Giver of Life.

A whole volume might be written upon the almost world-wide diffusion of these beliefs regarding the cow, as far as Scotland and Ireland in the west, and in their easterly migration probably as far as America, to the confusion alike of its ancient artists and its modern ethnologists.¹

As an illustration of the identification of the cow's attributes with those of the life-giving Great Mother, I might refer to the late Professor Moulton's commentary² on the ancient Iranian Gâthâs, where cow's flesh is given to mortals by Yima to make them immortal. "May we connect it with another legend whereby at the Regeneration Mithra is to make men immortal by giving them to eat the fat of the . . . primeval Cow from whose slain body, according to the Aryan legends adopted by Mithraism, mankind was first created?"³

¹ See the Copan sculptured monuments described by Maudslay in Godman and Salvin's "Biologia Centrali-Americana," Archæology, Plate 46, representing "Stela D," with two serpents in the places occupied by the Indian elephants in Stela B—concerning which see *Nature*, November 25, 1915. To one of these intertwined serpents is attached a cow-headed human dæmon. Compare also the Chiriqui figure depicted by MacCurdy, "A Study of Chiriquian Antiquities," Yale University Press, 1911, fig. 361, p. 209.

² "Early Religious Poetry of Persia," pp. 42 and 43.

³ *Op. cit.* p. 43. But I think these legends accredited to the Aryans owe their parentage to the same source as the Egyptian beliefs concerning the cow, and especially the remarkable mysteries upon which Moret has been endeavouring to throw some light—"Mythologie Égyptienne," p. 43.

THE DIFFUSION OF CULTURE.

In these pages I have made no attempt to deal with the far-reaching and intricate problems of the diffusion abroad of the practices and beliefs which I have been discussing. But the thoughts and the aspirations of every cultured people are permeated through and through with their influence.

It is important to remember that in almost every stage of the development of these complex customs and ideas not merely the "finished product" but also the ingredients out of which it was built up were being scattered abroad.

I shall briefly refer to certain evidence from the East and America in illustration of this fact and in substantiation of the reality of the diffusion to the East of some of the beliefs I have been discussing.

The unity of Egyptian and Babylonian ideas is nowhere more strikingly demonstrated than in the essential identity of the attributes of Osiris and Ea. It affords the most positive proof of the derivation of the beliefs from some common source, and reveals the fact that Egyptian and Sumerian civilizations must have been in intimate cultural contact at the beginning of their developmental history. "In Babylonia, as in Egypt, there were differences of opinion regarding the origin of life and the particular natural element which represented the vital principle." "One section of the people, who were represented by the worshippers of Ea, appear to have believed that the essence of life was contained in water. The god of Eridu was the source of the 'water of life'."¹

"Offerings of water and food were made to the dead," not, as Mr. Mackenzie states, so that they might be "prevented from troubling the living,"² but to supply them with the means of sustenance and to

¹ Donald A. Mackenzie, "Myths of Babylonia and Assyria," p. 44 *et seq.*

² Dr. Alan Gardiner has protested against the assertions of "some Egyptologists, influenced more by anthropological theorists than by the unambiguous evidence of the Egyptian texts," to the effect that "the funerary rites and practices of the Egyptians were in the main precautionary measures serving to protect the living against the dead" (Article "Life and Death (Egyptian)," Hastings' *Encyclopædia of Religion and Ethics*). I should like to emphasize the fact that the "anthropological theorists," who so frequently put forward these claims have little more justification for them than "some

reanimate them to help the suppliants. It is a common belief that these and other procedures were inspired by fear of the dead. But such a statement does not accurately represent the attitude of mind of the people who devised these funerary ceremonies. For it is not the enemies of the dead or those against whom he had a grudge that run a risk at funerals, but rather his friends ; and the more deeply he was attached to a particular person the greater the danger for the latter. For among many people the belief obtains that when a man dies he will endeavour to steal the "soul-substance" of those who are dearest to him so that they may accompany him to the other world. But as stealing the "soul-substance"¹ means death, it is easy to misunderstand such a display of affection. Hence most people who long for life and hate death do their utmost to evade such embarrassing tokens of love ; and most ethnologists, misjudging such actions, write about "appeasing the dead". It was those whom the gods *loved* who died young.

Ea was not only the god of the deep, but also "lord of life," king of the river and god of creation. Like Osiris "he fertilized parched and sunburnt wastes through rivers and irrigating canals, and conferred upon man the sustaining 'food of life'. . . . The goddess of the dead commanded her servant to 'sprinkle the Lady Ishtar with the water of life'" (*op. cit.* p. 44).

In Chapter III. of Mr. Mackenzie's book, from which I have just Egyptologists". Careful study of the best evidence from Babylonia, India, Indonesia, and Japan, reveals the fact that anthropologists who make such claims have probably misinterpreted the facts. In an article on "Ancestor Worship" by Professor Nobushige Hozumi in A. Stead's "Japan by the Japanese" (1904) the true point of view is put very clearly : "The origin of ancestor-worship is ascribed by many eminent writers to the *dread of ghosts* and the sacrifices made to the souls of ancestors for the purpose of *propitiating* them. It appears to me more correct to attribute the origin of ancestor-worship to a contrary cause. It was the *love* of ancestors, not the *dread* of them" [Here he quotes the Chinese philosophers Shiu-ki and Confucius in corroboration] that impelled men to worship. "We celebrate the anniversary of our ancestors, pay visits to their graves, offer flowers, food and drink, burn incense and bow before their tombs, entirely from a feeling of love and respect for their memory, and no question of 'dread' enters our minds in doing so" (pp. 281 and 282).

¹ For, as I have already explained, the idea so commonly and mistakenly conveyed by the term "soul-substance" by writers on Indonesian and Chinese beliefs would be much more accurately rendered simply by the word "life," so that the stealing of it necessarily means death.

quoted, there is an interesting collection of quotations clearly showing that the conception of the vitalizing properties of the body moisture of gods is not restricted to Egypt and Osiris, but is found also in Babylonia and India, in Western Asia and Greece, and also in Western Europe.

It has been suggested that the name Ishtar has been derived from Semitic roots implying "she who waters," "she who makes fruitful".¹

"The beginnings of Semitic religion as they were conceived by the Semites themselves go back to sexual relations . . . the Semitic conception of deity . . . embodies the truth—grossly indeed, but nevertheless embodies it—that 'God is love'" (*op. cit.* p. 107).

Throughout the countries where Semitic² influence spread the primitive Mother-Goddesses or some of their specialized variants are found. But in every case the goddess is associated with many distinctive traits which reveal her identity with her homologues in Cyprus, Babylonia, and Egypt.

Among the Sumerians "life comes on earth through the introduction of water and irrigation".³ "Man also results from a union between the water-gods."

The Akkadians held views which were almost the direct antithesis of these. To them "the watery deep is disorder, and the cosmos, the order of the world, is due to the victory of a god of light and spring over the monster of winter and water; man is directly made by the gods".⁴

"The Sumerian account of Beginnings centres around the production by the gods of water, Enki and his consort Nin-ella (or Dungal), of a great number of canals bringing rain to the desolate fields of a dry continent. Life both of vegetables and animals follows the profusion of the vivifying waters. . . . In the process of life's production besides Enki, the personality of his consort is very conspicuous. She is called

¹ Barton, *op. cit.* p. 105.

² The evidence set forth in these pages makes it clear that such ideas are not restricted to the Semites: nor is there any reason to suppose that they originated amongst them.

³ Albert J. Carnoy, "Iranian Views of Origins in Connexion with Similar Babylonian Beliefs," *Journal of the American Oriental Society*, Vol. XXXVI, 1916, pp. 300-20.

⁴ This is Professor Carnoy's summary of Professor Jastrow's views as expressed in his article "Sumerian and Akkadian Views of Beginnings".

Nin-Ella, 'the pure Lady,' *Damgal-Nunna*, the 'great Lady of the Waters,' *Nin-Tu*, 'the Lady of Birth'" (p. 301). The child of Enki and Nin-ella was the ancestor of mankind.¹

"In later traditions, the personality of that Great Lady seems to have been overshadowed by that of Ishtar, who absorbed several of her functions" (p. 301).

Professor Carnoy fully demonstrates the derivation of certain early so-called "Aryan" beliefs from Chaldeæ. In the Iranian account of the creation "the great spring *Ardvī Sūra Anāhita* is the life-increasing, the herd-increasing, the fold-increasing who makes prosperity for all countries (Yt. 5, 1) . . . that precious spring is worshipped as a goddess . . . and is personified as a handsome and stately woman. She is a fair maid, most strong, tall of form, high-girded. Her arms are white and thick as a horse's shoulder or still thicker. She is full of gracefulness" (Yt. 5, 7, 64, 78). "Professor Cumont thinks that *Anāhita* is Ishtar . . . she is a goddess of fecundation and birth. Moreover in Achæmenian inscriptions *Anāhita* is associated with *Ahura Mazdāh* and *Mithra*, a triad corresponding to the Chaldean triad: *Sin-Shamash-Ishtar*. *Ἀνάιτις* in Strabo and other Greek writers is treated as *Ἀφροδίτη*" (p. 302).

But in Mesopotamia also the same views were entertained as in Egypt of the functions of statues.

"The statues hidden in the recesses of the temples or erected on the summits of the 'Ziggurats' became imbued, by virtue of their consecration, with the actual body of the god whom they represented." Thus *Marduk* is said to "inhabit his image" (Maspero, *op. cit.* p. 64).

This is precisely the idea which the Egyptians had. Even at the present day it survives among the Dravidian peoples of India.² They make images of their village deities, which may be permanent or only temporary, but in any case they are regarded not as actual deities but as the "bodies" so to speak into which these deities can enter. They are sacred only when they are so animated by the goddess. The

¹ Jastrow's interpretation of a recently-discovered tablet published by Langdon under the title *The Sumerian Epic of Paradise, the Flood and the Fall of Man*.

² I have already (p. 233) mentioned the fact that it is still preserved in China also.

ritual of animation is essentially identical with that found in Ancient Egypt. Libations are poured out; incense is burnt; the bleeding right fore-leg of a buffalo constitutes the blood-offering.¹ When the deity is reanimated by these procedures and its consciousness restored by the blood-offering it can hear appeals and speak.

The same attitude towards their idols was adopted by the Polynesians. "The priest usually addressed the image, into which it was imagined the god entered when anyone came to inquire his will."²

But there are certain other aspects of these Indian customs that are of peculiar interest. In my Ridgeway essay (*op. cit. supra*) I referred to the means by which in Nubia the degradation of the oblong Egyptian *mastaba* gave rise to the simple stone circle. This type spread to the west along the North African littoral, and also to the Eastern desert and Palestine. At some subsequent time mariners from the Red Sea introduced this practice into India.

[It is important to bear in mind that two other classes of stone circles were invented. One of them was derived, not from the *mastaba* itself, but from the enclosing wall surrounding it (see my Ridgeway essay, Fig. 13, p. 531, and compare with Figs. 3 and 4, p. 510, for illustrations of the transformed *mastaba*-type). This type of circle (enclosing a dolmen) is found both in the Caucasus-Caspian area as well as in India. A highly developed form of this encircling type of structure is seen in the famous rails surrounding the Buddhist *stupas* and *dagabas*. A third and later form of circle, of which Stonehenge is an example, was developed out of the much later New Empire Egyptian conception of a temple.]

But at the same time, as in Nubia, and possibly in Libya, the *mastaba* was being degraded into the first of the three main varieties of stone circle, other, though less drastic, forms of simplification of the

¹ Henry Whitehead (Bishop of Madras), "The Village Deities of Southern India," Madras Government Museum, Bull., Vol. V, No. 3, 1907; Wilber Theodore Elmore, "Dravidian Gods in Modern Hinduism: A Study of the Local and Village Deities of Southern India," University Studies: University of Nebraska, Vol. XV, No. 1, Jan., 1915. Compare the sacrifice of the fore-leg of a living calf in Egypt—A. E. P. B. Weigall, "An Ancient Egyptian Funeral Ceremony," *Journal of Egyptian Archaeology*, Vol. II, 1915, p. 10. Early literary references from Babylonia suggest that a similar method of offering blood was practised there.

² William Ellis, "Polynesian Researches," 2nd edition, 1832, Vol. I, p. 373.

mastaba were taking place, possibly in Egypt itself, but certainly upon the neighbouring Mediterranean coasts. In some respects the least altered copies of the *mastaba* are found in the so-called "giant's graves" of Sardinia and the "horned cairns" of the British Isles. But the real features of the Egyptian *serdab*, which was the essential part, the nucleus so to speak, of the *mastaba*, are best preserved in the so-called "holed dolmens" of the Levant, the Caucasus, and India. [They also occur sporadically in the West, as in France and Britain.]

Such dolmens and more simplified forms are scattered in Palestine,¹ but are seen to best advantage upon the Eastern Littoral of the Black Sea, the Caucasus, and the neighbourhood of the Caspian. They are found only in scattered localities between the Black and Caspian Seas. As de Morgan has pointed out,² their distribution is explained by their association with ancient gold and copper mines. They were the tombs of immigrant mining colonies who had settled in these definite localities to exploit these minerals.

Now the same types of dolmens, also associated with ancient mines,³ are found in India. There is some evidence to suggest that these degraded types of Egyptian *mastabas* were introduced into India at some time after the adoption of the other, the Nubian modification of the *mastaba* which is represented by the first variety of stone circle.⁴

I have referred to these Indian dolmens for the specific purpose of illustrating the complexities of the processes of diffusion of culture. For not only have several variously specialized degradation-products of the same original type of Egyptian *mastaba* reached India, possibly by different routes and at different times, but also many of the ideas

¹ See H. Vincent, "Canaan d'après l'exploration récente," Paris, 1907, p. 395.

² "Les Premières Civilisations," Paris, 1909, p. 404: Mémoires de la Délégation en Perse, Tome VIII, archéol.; and Mission Scientifique au Caucase, Tome I.

³ W. J. Perry, "The Relationship between the Geographical Distribution of Megalithic Monuments and Ancient Mines," *Memoirs and Proceedings of the Manchester Literary and Philosophical Society*, Vol. 60, Part I, 24th Nov., 1915.

⁴ The evidence for this is being prepared for publication by Captain Leonard Munn, R.E., who has personally collected the data in Hyderabad.

that developed out of the funerary ritual in Egypt—of which the *mastaba* was merely one of the manifestations—made their way to India at various times and became secondarily blended with other expressions of the same or associated ideas there. I have already referred to the essential elements of the Egyptian funerary ritual—the statues, incense, libations, and the rest—as still persisting among the Dravidian peoples.

But in the Madras Presidency dolmens are found converted into Siva temples.¹ Now in the inner chamber of the shrine—which represents the homologue of the *serdab*—in place of the statue or bas-relief of the deceased or of the deity, which is found in some of them (see Plate I), there is the stone *linga-yoni* emblem in the position corresponding to that in which, in the later temple in the same locality (Kambaduru), there is an image of Parvati, the consort of Siva.

The earliest deities in Egypt, both Osiris and Hathor, were really expressions of the creative principle. In the case of Hathor, the goddess was, in fact, the personification of the female organs of reproduction. In these early Siva temples in India these principles of creation were given their literal interpretation, and represented frankly as the organs of reproduction of the two sexes. The gods of creation were symbolized by models in stone of the creating organs. Further illustrations of the same principle are witnessed in the Indonesian megalithic monuments which Perry calls “dissoliths”.²

The later Indian temples, both Buddhist and Hindu, were developed from these early dolmens, as Mr. Longhurst's reports so clearly demonstrate. But from time to time there was an influx of new ideas from the West which found expression in a series of modifications of the architecture. Thus India provides an admirable illustration of this principle of culture contact. A series of waves of megalithic culture introduced purely Western ideas. These were developed by the local people in their own way, constantly intermingling a variety of cultural influences to weave them into a dis-

¹ Annual Report of the Archæological Department, Southern Circle, Madras, for the year 1915-1916. See for example Mr. A. H. Longhurst's photographs and plans (Plates I-IV) and especially that of the old Siva temple at Kambadurn, Plate IV (*b*).

² W. J. Perry, “The Megalithic Culture of Indonesia”.

tinative fabric, which was compounded partly of imported, partly of local threads, woven locally into a truly Indian pattern. In this process of development one can detect the effects of Mycenaean accretions (see for example Longhurst's Plate XIII), probably modified during its indirect transmission by Phœnician and later influences ; and also the more intimate part played by Babylonian, Egyptian, and, later, Greek and Persian art and architecture in directing the course of development of Indian culture.

The ideas which grew up in association with the practice of mummification were responsible for the development of the temple and its ritual and for a definite formulation of the conception of deities. But they were also responsible for originating a priesthood. For the resuscitation of the dead king, Osiris, and for the maintenance of his existence it was necessary for his successor, the reigning king, to perform the ritual of animation and the provision of food and drink. The king, therefore, was the first priest, and his functions were not primarily acts of worship but merely the necessary preliminaries for restoring life and consciousness to the dead seer so that he could consult him and secure his advice and help.

It was only when the number of temples became so great and their ritual so complex and elaborate as to make it a physical impossibility for the king to act in this capacity in all of them and on every occasion that he was compelled to delegate some of his priestly functions to others, either members of the royal family or high officials. In course of time certain individuals devoted themselves exclusively to these duties and became professional priests ; but it is important to remember that at first it was the exclusive privilege of Horus, the reigning king, to intercede with Osiris, the dead king, on behalf of men, and that the earliest priesthood consisted of those individuals to whom he had delegated some of these duties.

In the "Migrations of Early Culture" (p. 114) I called attention to the fact that among the Aztecs water was poured upon the head of the mummy. This ritual procedure was inspired by the Egyptian idea of libations, for, according to Brasseur de Bourbourg, the pouring out of the water was accompanied by the remark "C'est cette eau que tu as reçue en venant au monde".

But incense-burning and blood-offering were also practised in

America. In an interesting memoir¹ on the practice of blood-letting by piercing the ears and tongue, Mrs. Zelia Nuttall reproduces a remarkable picture from a "partly unpublished MS. of Sahagun's work preserved in Florence". "The image of the sun is held up by a man whose body is partly hidden, and two men, seated opposite to each other in the foreground, are in the act of piercing the helices or external borders of their ears." But in addition to these blood-offerings to the sun, two priests are burning incense in remarkably Egyptian-like censers, and another pair are blowing conch-shell trumpets.

But it was not merely the use of incense and libations and the identities in the wholly arbitrary attributes of the American pantheon that reveal the sources of their derivation in the Old World. When the Spaniards first visited Yucatán they found traces of a Maya baptismal rite which the natives called *zihil*, signifying "to be born again". At the ceremony also incense was burnt.²

The forehead, the face, the fingers and toes were moistened. "After they had been thus sprinkled with water, the priest arose and removed the cloths from the heads of the children, and then cut off with a stone knife a certain bead that was attached to the head from childhood."³

The same custom is found in Egypt at the present day.

In the case of the girls, their mothers "divested them of a cord which was worn during their childhood, fastened round the loins, having a small shell that hung in front ('una conchuela asida que les venia a dar encima de la parte honesta'—Landa). The removal of this signified that they could marry."⁴

This custom is found in the Soudan and East Africa at the present day.⁵ It is the prototype of the girdle of Hathor, Ishtar, Aphrodite, Kali and all the goddesses of fertility in the Old World. It is an admirable illustration of the fact that not only were the finished products, the goddesses and their fantastic repertory of attributes transmitted to the New World, but also the earliest and most primitive ingredients out of which the complexities of their traits were compounded.

¹ "A Penitential Rite of the Ancient Mexicans," *Archæological and Ethnological Papers of the Peabody Museum, Harvard University*, Vol. I, No. 7, 1904.

² Bancroft, *op. cit.* Vol. II, pp. 682 and 683.

³ *Op. cit.* p. 684. ⁴ *Ibid.* ⁵ See J. Wilfrid Jackson. *op. cit. supra.*

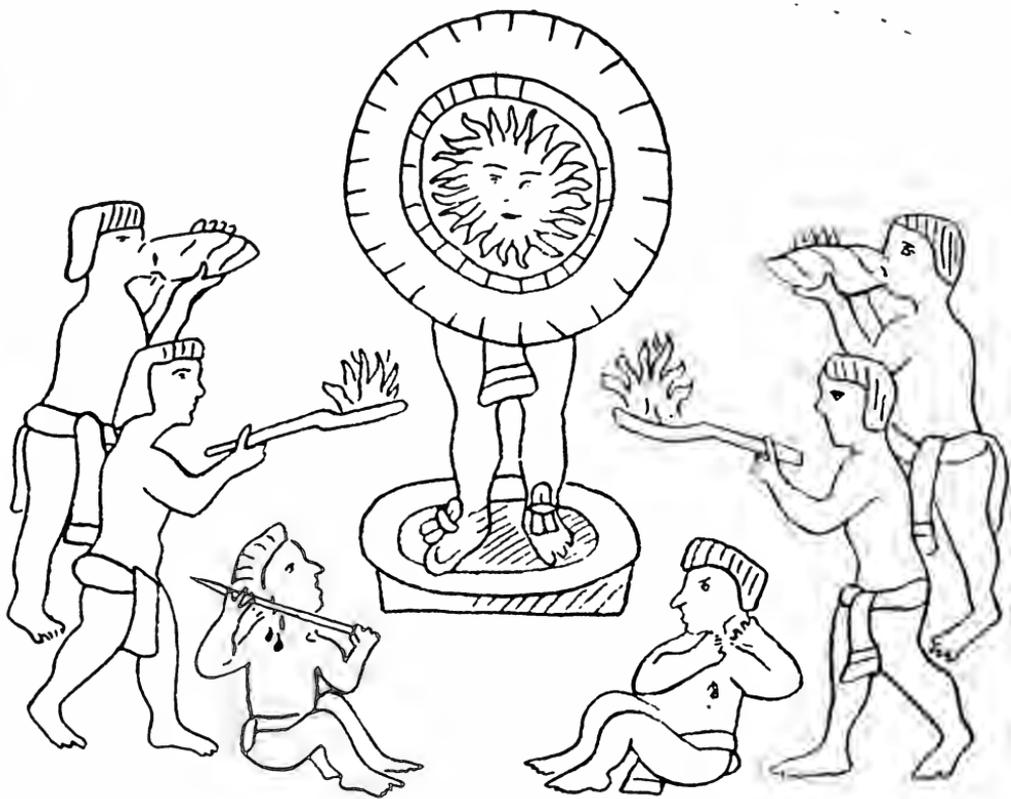


FIG. 6.—REPRESENTATION OF THE ANCIENT MEXICAN WORSHIP OF THE SUN

The image of the sun is held up by a man in front of his face; two men blow conch-shell trumpets; another pair burn incense; and a third pair make blood-offerings by piercing their ears—after Zelia Nuttall.

SUMMARY.

In these pages I have ranged over a very wide field of speculation, groping in the dim shadows of the early history of civilization. I have been attempting to pick up a few of the threads which ultimately became woven into the texture of human beliefs and aspirations, and to suggest that the practice of mummification was the woof around which the web of civilization was intimately intertwined.

I have already explained how closely that practice was related to the origin and development of architecture, which Professor Lethaby has called the "matrix of civilization," and how nearly the ideas that grew up in explanation and in justification of the ritual of embalming were affected by the practice of agriculture, the second great pillar of support for the edifice of civilization. It has also been shown how far-reaching was the influence exerted by the needs of the embalmer, which impelled men, probably for the first time in history, to plan and carry out great expeditions by sea and land to obtain the necessary resins and the balsams, the wood and the spices. Incidentally also in course of time the practice of mummification came to exert a profound effect upon the means for the acquisition of a knowledge of medicine and all the sciences ancillary to it.

But I have devoted chief attention to the bearing of the ideas which developed out of the practice and ritual of embalming upon the spirit of man. It gave shape and substance to the belief in a future life; it was perhaps the most important factor in the development of a definite conception of the gods: it laid the foundation of the ideas which subsequently were built up into a theory of the soul: in fact, it was intimately connected with the birth of all those ideals and aspirations which are now included in the conception of religious belief and ritual. A multitude of other trains of thought were started amidst the intellectual ferment of the formulation of the earliest concrete system of biological theory. The idea of the properties and functions of water which had previously sprung up in connexion with the development of agriculture became crystallized into a more definite form as the result of the development of mummification, and this has played an obtrusive part in religion, in philosophy and in medicine ever since. Moreover its influence has become embalmed for all time in many languages and in the ritual of every religion.

But it was a factor in the development not merely of religious beliefs, temples and ritual, but it was also very closely related to the origin of much of the paraphernalia of the gods and of current popular beliefs. The swastika and the thunderbolt, dragons and demons, totemism and the sky-world are all of them conceptions that were more or less closely connected with the matters I have been discussing.

In conclusion I should like to express in words what must be only too apparent to every reader of this statement. It claims to be nothing more than a contribution to the study of some of the most difficult problems in the history of human thought. For one so ill-equipped for a task of such a nature as I am to attempt it calls for a word of explanation. The clear light that recent research has shed upon the earliest literature in the world has done much to destroy the foundations upon which the theories propounded by scholars have been built up. It seemed to be worth while to attempt to read afresh the voluminous mass of old documents with the illumination of this new information.

The other reason for making such an attempt is that almost every modern scholar who has discussed the matters at issue has assumed that the fashionable doctrine of the independent development of human beliefs and practices was a safe basis upon which to construct his theories. At best it is an unproven and reckless speculation. I am convinced it is utterly false. Holding such views I have attempted to read the evidence afresh.