

tained the annals of their empire, the state of the public revenues, the account of their taxes for the support of government, and by means of them they recorded their astronomical observations.

One step farther in this process is the expression of ideas by painting. When the Spaniards arrived in Mexico, the inhabitants of the seacoasts sent intelligence to their emperor Montezuma, by a large cloth, on which they had carefully depicted every thing they had seen of the appearance and progress of the invaders. Some specimens of the picture-writing of the Mexicans are to be found in Dr. Robertson's History of America. Among other nations the difficulty and inconvenience of this practice taught men to abridge these signs; to give, instead of a complete picture of the object, some characteristic part of it; and by the addition of certain marks or strokes to make these pictures significant even of relations, qualities, passions, and sentiments. It is certain that by the hieroglyphical writing of the Egyptians was conveyed a great deal of complicated intelligence.\*

With regard to the use made by the Egyptians of hieroglyphical writing, there have been different opinions. It has been disputed, for example, whether the Egyptians employed them for communicating knowledge, or for recording it while they meant at the same time to conceal that knowledge from the vulgar. The President Goguet has endeavored to reconcile both opinions. "It is easy to prove," says he, "that the Egyptians used hieroglyphics at first, only to transmit the knowledge of their laws, their customs, and their history to posterity. It was nature and necessity, not art and choice, that produced the several kinds of hieroglyphic writing. It was an imperfect and defective invention, suited to the ignorance of the early ages. The Egyptians used it because they were ignorant of letters. Afterwards, when by intercourse with the Greeks the Egyptians learned the use of alphabetic characters, they abandoned the hieroglyphic writing, which

\* "The history of the world," says Mr. Barrow, "affords abundant evidence that, in the dawn of civilization, most nations endeavored to fix and to perpetuate ideas by painting the figures of the objects that produced them. The Bosjesmen Hottentots, the most wild and savage race perhaps of human beings, are in the constant habit of drawing on the sides of caverns the representations of the different animals peculiar to the country. When I visited some of those caverns, I considered such drawings as the employment of idle hours; but on since reflecting that in all such caverns are also to be seen the figures of Dutch boors (who hunt these miserable creatures like wild beasts) in a variety of attitudes; some with guns in their hands, and others in the act of firing upon their countrymen; wagons sometimes proceeding, and at others standing still, the oxen unyoked and the boors sleeping; and these representations generally followed by a number of lines scored like so many tallies; I am inclined to think they have adopted this method of informing their companions of the number of their enemies, and the magnitude of the danger. The animals represented were generally such as are to be met with in the district where the drawings appeared; this, to a people who subsist by the chase and by plunder, might serve as another piece of important information."—*Barrow's Travels in China*, p. 246.

soon ceased to be generally understood. It was then that the Egyptian priests, who like other learned men in rude ages sought to conceal and make a mystery of their knowledge, used the hieroglyphic writing as a convenient veil."

But all those methods of recording or conveying intelligence which were in use before the invention of alphabetic writings, were found extremely unfit for two most important purposes; the recording of historical events, and the promulgation of laws. It was therefore necessary for the early nations to adopt some other method of record and publication; and none other adequate to the imperfection of their knowledge and attainments was so suitable for those purposes as poetical composition. Poetry or song was therefore in all nations the first vehicle of history, and the earliest mode of promulgating laws; for nothing was found equally capable of striking with force the imagination, and impressing the memory. The earliest poetry of all nations is devoted to the celebration of the praises of their gods, and to the commemoration of the exploits of illustrious heroes. When society has made some advancement, and laws are established to guard the rights and privileges of men, a legislator, observing with what avidity the songs of the bards are listened to; how universally they are circulated, and how tenaciously retained, judiciously avails himself of the same vehicle for the publication of his laws. Plato, in his *Minos*, informs us, that the first laws of all nations were composed in verse and sung. Apollo is recorded to have been one of the first legislators, and to have published his laws to the sound of his harp, that is, set them to music. That this mode of promulgation was in use among the ancient Greeks, the word *Nomos*, which signifies both a law and a song, is direct proof: and Aristotle, in his problems, inquiring into the reason of this conformity of names between two such different objects, gives this express reason, that before the use of writing, it was customary to keep the laws in remembrance by singing them; and this, according to the same author, was the custom of many different nations. The laws of the ancient inhabitants of Spain were all in verse; as were likewise the laws of Tuisto, the first legislator of the ancient Germans.

Another mode of preserving the remembrance of historical events was by visible monuments, which were comparatively rude or artificial in their structure, according to the condition of society, or the age in which they were erected. Such are those heaps of stones raised as memorials of ancient battles, single unhewn blocks, or adorned with rude sculpture, expressive of the actions commemorated; and in more polished times, columns, triumphal arches, and coins or medals on which writing and sculpture are united. With respect even to the rudest of all monuments, the *cairns* or heaps of stones, or single unsculptured blocks, the historical facts which they commemorated would long be preserved by tradition; for even a migration of the inhabitants of a country or its coloni-



zation by a new race, would not be followed by a total loss of its history. The new settlers would anxiously inquire into the meaning of such monuments, and preserve the tradition, as illustrating the ancient history of that country which they had subdued.

Coins and medals are the invention of a polished people, and are of singular use as the records of historical events. They have been justly termed portable monuments; and they have this advantage over the most durable structures that were ever raised by human industry, that, as vast numbers were commonly struck of the same impression, they stand a much fairer chance of passing down to posterity; and even their being lost or buried in the earth ensures their preservation. Of such medals or coins even the spurious copies, though a fraud upon ignorant collectors and *virtuosi*, are of equal service with the original, for the purposes of the historian.\*

Among the earliest institutions of all nations are those which regard *religious worship*. The sentiment of religion has its origin in the nature of the human mind, or in those passions which are a part of our constitution. Let us conceive an infant thrown by some chance into a solitary desert, and there to have grown to manhood without intercourse with any other being of his own species; I think it is highly probable that such a person would form to himself some idea of a First Cause, or creative power, to whom he would refer the origin of himself, and of all he saw around him. Perceiving a settled order in the course of the sun and motion of the stars, a regular vicissitude of day and night, and a stated return of seasons, his mind could not fail to attribute that order and regularity to the operation of wisdom combined with power; and thus he would conceive some dark idea of a Being, who directed, in some distant region, the existence, the duration, the order and progress of all inanimate and animated nature. The idea first conceived from the order and regularity of nature would be strengthened by every extraordinary occurrence; and the passion

\* Medals are useful in explaining events which have been left doubtful by the historian, and they record many facts which history has omitted. The history of Palmyra would have been almost unknown but for the researches of M. Vaillant, who, from the existing medals, has made out an entire chronicle of the kings of Syria. Medals are likewise eminently useful in illustrating ancient manners and customs; in preserving the figures of ancient buildings, arms, implements of the arts, modes of dress, &c.: not to mention the pleasure they convey (a pleasure founded in the most natural and rational curiosity) in making us familiarly acquainted with the features of the great men of antiquity. As actual monuments of the fine arts, medals are entitled to great estimation. The sculpture of many of the ancient coins is superlatively beautiful; and they are supposed to exhibit on their reverses very exact representations of celebrated statues and paintings of antiquity which are now lost. This is rendered probable from the beautiful copies which we find on some of those coins of the celebrated statues which are yet preserved; as the *Venus de' Medici*, the *Hercules Farnese*, and the *Apollo Belvedere*. The progress of sculpture from its first rude commencement to its utmost perfection, and its equally sensible corruption and decline, are illustrated by the bare inspection of the regular series of the Greek and Roman coins.

of fear combining its aid, the thunder, the hurricane, or the earthquake would be interpreted into an expression of the wrath of this great invisible being; whom, therefore, the solitary savage would endeavor to appease by humiliating himself before him, by supplicating his clemency, or strive to gain his favor by praises of his beneficence. Thus an untutored human creature, merely by the operation of his natural passions and uninstructed reason, which teaches that every effect must have a cause, and that a combined series of effects, cooperating to a wise and useful end, implies wisdom and benevolence in the cause, would arrive at the first great principles of religion. But before conceiving the idea of a Being utterly imperceptible to his senses, a savage might not unnaturally seek to find him in some of the most striking objects of sense, to which he owed his most apparent and sensible benefits. Thus the sun, whose benignant influence is perceived to extend over all nature, and whose light and heat are apparently the immediate causes of fecundity of nature in the production of most of her works—was the first object of worship among many of the ancient nations. The element of fire presented a symbol of the sun, as possessing his most sensible qualities, and believed to have been originally a portion of his substance. The moon, the stars, whose distance removes them, like the sun, from any positive ascertainment of their nature, while at the same time the regularity of their motions conveys to the rude and uninstructed mind some idea of a living and intelligent principle which animates them, would naturally attract their share of respect and adoration. So, in like manner, as the influence of some of those superior bodies was plainly perceived to extend to inferior and terrestrial substances, as in the instances of the tides, monsoons, and alternation of the seasons, it was a most natural idea to conceive that all the phenomena of the universe, in the production and perpetuation of men, animals, plants, &c. were to be referred to the agency of those superior and ruling powers.

The unity of a Supreme Being is an idea too refined for the rude and uninstructed mind, which cannot easily conceive the notion of a being extending his influence and agency at the same moment through all the boundless regions of space and upon all the modifications of matter. Hence it would seem probable that not one, but several divinities were concerned in the formation, and shared between them the regulation, of the universe.

The symbolical mode of writing, already taken notice of, is likewise a probable source of the polytheism and idolatrous superstitions of many of the ancient nations. In the rude method, antecedent to writing, of communicating ideas by painting, if it was necessary to typify a god, and to describe his attributes, the artist had no other resource than to join to the image of the god those animals whose qualities were most expressive of his attributes. In the hieroglyphical method of writing which succeeded to that of painting, and was a more compendious mode of communicating



ideas, the animals naturally came to stand for symbols of the god himself; and the vulgar and illiterate would behold in those animals the figure of the god, which the wiser and more learned knew to be only typical of his attributes. As it was observed that the same god was sometimes represented by different animals, the notion would naturally arise in a rude mind, that this god occasionally transformed himself into different shapes; and hence sprang the belief of the transmigrations and metamorphoses of the gods.

The apotheosis of heroes, and the divine worship paid to men who had rendered eminent services to their country, are not more difficult to be accounted for. The homage and respect paid to the chief by his tribe must have originated with society itself. The belief of the immortality of the soul—a belief which, being founded in the nature of the human mind and its affections, obtains in every period of society, and equally among the most barbarous as among the most refined nations of the earth—had generally this concomitant idea, that the spirits of the dead are employed in the same actions and pursuits which had been their most pleasurable occupation in life. Hence, as the heroic chief had been deservedly honored for his actions while in life, it was natural to continue those honors after his death, while it was believed that he still extended his shadowy arm over his faithful tribe, still secretly animated them in the hour of danger, and was the unseen witness of all their exploits in the career of glory.\*

It is unnecessary to pursue this subject to a greater length. Enough has been said to show that it is easy, without having recourse to fanciful systems or labored investigations of mythology, to furnish a natural account of the origin of idolatry and polytheism. Many excellent reflections on this subject are contained in the apocryphal book termed the *Wisdom of Solomon*; a book which exhibits a profound knowledge of human nature, and abounds in the most excellent precepts of morality. On the absurdity of

\*The following just and beautiful reflections occur in a letter of Dr. Rundle, bishop of Derry, written February, 1737, on occasion of the death of his friend and patron, Chancellor Talbot.

“It was the love for such benevolent characters which first dictated to every nation the belief of the immortality of the soul. The learned expressed this affection by arguments to prove the truth of this hope, which such worthiness had lighted up in their hearts. But the ignorant uttered the genuine sentiments of their nature by worshipping those benefactors of mankind, as soon as they withdrew from the earth. They judged that their goodness would secure them an interest in the governor of the world, and recommend them to his love. What he loves he will reward in the manner which will make them most happy. Enjoying the desire of the heart is the sincerest felicity. The desire of their souls was always to make others virtuous and prosperous. New abilities to serve those above whom they delighted to bless when below, they imagined, therefore, the only suitable and acceptable reward to such generous natures. Hence they concluded them appointed guardians over their kindred people, and from lamenting were by an enthusiasm of gratitude, misled to worship them. A love of merit thus betrayed them into error and superstition; but methinks, virtue herself will plead and obtain pardon for such idolaters.”

some of those whimsical mythologies, and even of their pernicious tendency, I shall afterwards have occasion to make some remarks, in treating of the earliest periods of the history of the Greeks.

Among the ancient nations we find the priesthood always exercised by the chief or sovereign; for the chief must have presided in the performance of religious worship, because he presided in every thing. But the sovereign of an extensive empire was necessarily obliged to share that office with his subjects, and to appoint a certain number of priests to officiate in his room, while he himself retained the function of supreme pontiff. Hence arose that connection between the monarchy and the priesthood in most of the ancient kingdoms, because the priests considered themselves as the deputies of the prince. The respect which they obtained from that character, joined to the reverence for their sacred function, together with the opinion of their superior knowledge and learning, naturally made the illiterate vulgar submit their differences to their decision as umpires: and when society had so far advanced that there was an approach towards a system of legislation, the care of framing the laws was committed to the priests; when committed to writing they were deposited in their temples; and from their order the first tribunals were supplied with judges chosen by the sovereign.

We may presume with some reason, that in the early ages the priests were among the first who cultivated the sciences. The useful arts are the immediate offspring of necessity; and in the infancy of society, every individual, according as he feels his wants, is put to the necessity of exercising his talents in some rude contrivances to supply them. The skill to construct instruments for the capture or destruction of animals, or for offence and defence in war, is found among the most barbarous nations. The rude arts of forming a clothing for the body, and the constructions of huts for shelter against the inclemencies of the air, form among such nations the occupation of every individual of the tribe or community, and even of both sexes. The contrivances of savages in the useful arts often show considerable ingenuity. The North American Indians, having no iron, use stone hatchets in cutting down the largest trees. They found, says Charlevoix, in his *Travels in Canada*, a very hard and tough species of flint, which by great labor they sharpened for the head of the instrument. The difficulty lay in fastening it to the handle. They cut off the top of a young tree, and making a transverse slit, insert the stone into the opening. The parts of the tree growing together close so firmly upon the stone that it is impossible to move it. Then they cut the tree of such length as they judge sufficient for the handle.

The first boats were hollowed trunks of trees, which the Greeks termed *monoxyla*. Where trees could not be found sufficiently large, it was necessary to join planks together; and sometimes the



thick and pliable bark of trees, sewed together with the sinews of animals, formed a light canoe. The structure and shape of these vessels were in imitation of the form of a fish. The head or prow was sharp and conical; a movable plank in the stern imitated the action of a fish's tail, and the oars or paddles served the purpose of the fins in giving motion to the body; such canoes are used to this day among the North American Indians.

The President Goguet has, with much ingenuity and industry, collected a great mass of information relative to the origin of the arts among the nations of antiquity; and to his learned work I refer the reader who wishes further light on those topics.

The art of agriculture is not practised till society is considerably advanced, and individuals have obtained a determined share in the property of the lands which they inhabit. It had its origin therefore in those countries which are by nature most fertile, and which, producing abundance of food, made the inhabitants stationary, as they had no incitement to roam in quest of subsistence. The early historians attribute the origin of agriculture to kings; as to Menes or Osiris among the Egyptians, and Fohi among the Chinese: the meaning of which is no more than this:—that the first sovereigns, who, with their nation or tribe, occupied a fruitful country and became stationary in it, establishing such regulations regarding property in land as would secure individuals in their possessions, naturally gave rise to the experiments of such proprietors to fertilize their grounds, to till, to sow, reap and store up their fruits, which a wandering savage would never think of or attempt.

But while the useful arts are the offspring of necessity, and are therefore in some degree known and practised in the earliest periods of society, the sciences, on the other hand, are less the production of necessity than of ease and leisure. Before the origin of the sciences, society must have made great progress. They presupposed an extensive and populous community, where individuals have either acquired such opulence from the successful cultivation of the arts, or from commerce, as to allow them the indulgence of that ease and immunity from labor which invites to study and speculation; or they must have been maintained for special purposes by the sovereign or by the community in such a situation. This last was the condition of the priests; and, accordingly, we find that, among the Egyptians, one of the most ancient and early civilized nations, the priests were the depositaries of all the sciences. Aristotle informs us that the Egyptian priests consumed the greatest part of their time in abstract studies; and when Herodotus, Diodorus, or Plato relate any fact with regard to the sciences in Egypt, they always inform us, that they received it from the mouths of the priests. Among the Babylonians too, the Chaldeans or Chaldees, who were their priests, and formed a body distinct from the rest of the people, were chiefly occupied in the study of the sciences. The name *Chaldean*, occurring very fre-

quently in Scripture as synonymous with *soothsayer*, shows the nature of those sciences which they chiefly cultivated.\* It is not at all improbable that the frivolous and absurd science of judicial astrology, which has its origin in the prevailing passion of the un instructed mind to dive into futurity, was the first motive that led men to the attentive observation of the motions of the heavenly bodies; and consequently that superstition was the parent of that useful and sublime science of astronomy.† It is certain that to those Chaldeans or soothsayers the best informed authors of antiquity have joined in attributing the first astronomical discoveries. According to Diodorus, they had observed the motion of the planets; they had divided the zodiac into twelve signs, and each sign into thirty degrees; and they had ascertained the precise length of the year very near to the truth.

As an attention to their own preservation is the first care of mankind, we may naturally conjecture, that among those sciences to which in the early nations men would chiefly devote their attention, that of medicine would have a principal place. All savage nations have a pharmacy of their own, equal in general to their wants. Luxury creating new diseases requires a profounder knowledge of medicine and of the animal economy. Savages are often eminently skilful in the knowledge of the virtues of plants in the cure of diseases, and are very dexterous in the treatment of wounds. But without the knowledge of the internal structure of the body, medicine can hardly deserve the name of a science. And we are certain that anatomy could only have been practised in an advanced state of society, when arts had attained a considerable degree of perfection. The Jews, we know, in the days of Moses, used in some operations of surgery a sharp stone instead of a knife; a certain proof that they could not have dissected a human body. And although the Egyptians practised very early the evisceration and embalming of bodies, we hear nothing of any attempts at anatomy till the age of the Ptolemies, after the time of Alexander the Great, when, as we learn from Pliny, those monarchs established a medical school at Alexandria, and commanded dead bodies to be dissected, for the improvement of medicine and surgery; a circumstance which seems to indicate that it was at that time a new practice.—But of the arts and sciences of this remarkable people, the Egyptians, as well as of their government, laws, and manners, I propose to treat more particularly in the next chapter.

\* Although Chaldæa is the appropriate name of that region of Assyria in which Babylon was situated, the term *Chaldean* was used, not only in Scripture but by the ancient profane authors, to denote an *astrologer* or *soothsayer*.

† Kepler remarks, that astrology is the foolish daughter of a wise mother; but it is more probable that the genealogy was just the reverse,—and that the wise daughter sprang from the foolish mother.