

Of these 47 recorded gales 17 blew between the South and West; eight between South and East; eleven between West and North; and eleven between East and North.

The greatest velocity of wind registered in 24 hours during the month of January was 882·8 miles on the 12th.

February	1061·4	“	“	7th.
March	1346·8	“	“	25th.
April	1443·8	“	“	17th.
May	966·2	“	“	3rd.
June	764·4	“	“	3rd.
July	837·2	“	“	30th.
August	633·2	“	“	27th.
Sept.	667·2	“	“	19th.
Octr.	870·0	“	“	27th.
Novr.	1112·0	“	“	7th.
Decr.	1343·4	“	“	13th.

ART. IX. — THE AFFINITY OF RACES. BY WM. GOSSIP.

(*Read April 14, 1873.*)

THE paper I am about to read does not recommend itself by any new scientific discovery. It is ethnological in its character, but speculative, hypothetical and discursive. It may serve to vary the routine of our ordinary meetings, but I fear will be of little value except perhaps as it may be an incentive to pursue the subject. It presumes an affinity of races in the Eastern and Western hemispheres, based upon a similarity of names, of etymologies and customs. I can adduce no positive evidence to prove the connection; and there are forcible reasons in the wide expanse of ocean between the Continents at the present day, against the probability of inter-communication at any previous period of human history. Still, if we believe in the unity of mankind, the peopling of America remains to be accounted for on hypotheses or theory, either of disruption or derivation, or both, in the absence of complete evidence; and

therefore I trust you will bear with me, although to say the least the subject is of a most unpromising and impracticable nature.

My attention was directed to the affinity or relationship of the human family in the Eastern and Western Hemispheres, by the following circumstance. About two years ago there appeared in the *Church Chronicle*, published in this city, a well written article, comparing a passage in Herodotus, on the customs of the *Carian* women of Asia Minor, with what is recorded of the customs of the *Carib* women of the Antilles at the time of the modern discovery of the latter by Columbus. The similarity is somewhat remarkable. The author of the article suggested that it might help to account for the peopling of some of those islands, or of the central portions of the continent beyond. But at the period of which Herodotus writes, there could have been no communication between the Eastern and Western continents, and nothing can be gathered therefrom to show affinity in any way. I believe, however, and it is to this I would direct attention, that there may have been affinity in the remoter past, of which these mutual customs were a relic.

The passage referred to from Herodotus, is as follows: "Those of them who set out from the Prytaneum of Athens, and who deem themselves the most noble of the Ionians, brought no wives with them when they came to settle in this country, but seized a number of *Carian* women after they had killed their men, and on account of this massacre, these women established a law, and imposed on themselves an oath, and transmitted it to their daughters, that they would never eat with their husbands, nor ever call them by the name of husband, because they had killed their fathers, their husbands and their children, and then after so doing had forced them to become their wives. This was done at Miletus."

When Herodotus relates any event or circumstance falling under his own observation, his veracity is indisputable; but what he relates from other sources is not always to be depended on. It may be valuable as a reflex of the belief or opinions of his time, but remains to be judged in the light of superior modern knowledge and civilization. The story therefore of the *Carian* women, with ample foundation in fact, has been mixed up with the inroad of the

Ionians, who slew their husbands. The truth seems to be, that the Carians at that epoch being still a barbarous people, the women were treated just as are the women of all such savage people—as the Indians of North America—as the Caribs treated their women. They were slaves to the men, administered to their wants, their comforts and their pleasures, but were, if I may so speak, a separate institution, with no community of interests or feelings except as the stronger sex permitted. Thus we may readily believe that the customs of the Carian women did not originate when they were captured by the Ionians, or that the latter were responsible for them. They merely followed those which had grown up with them, and to which they had become inured. In this respect they were on an exact parallel with their uncivilized sisters in both hemispheres, and were in affinity with them. The Carib women were socially degraded when the Spaniards came among them, and satisfied with their inferior position. Improvement, so far as they were concerned, depended entirely upon the civilizing influences of settled life, to which their nature had not attained. They were thus even far behind the inhabitants of the larger Antilles. Historians describe the Caribs as an intelligent people, and probably they were not much inferior to the Ionians at the time of their migrations.

Lafiteu and other historians describe the Caribs as a distinct race from the Indians who inhabited the larger Antilles—Hispaniola, Cuba, Jamaica and Trinidad. These last were evidently pre-occupants of the Islands. They are represented as of common origin, speaking the same language, mild in disposition and comparatively cultivated, possessing the same institutions, and practising similar superstitions. The Caribs who had conquered the smaller windward islands, frequently made descents upon the others, and their depredations were much dreaded. They were enterprising and energetic, extremely jealous of their independence, ferocious, cruel, and cannibals, devouring the bodies of their enemies. They knew nothing of their origin, and had no traditions that pointed to it. They delighted in war, and the conquest of all the neighbouring islands, peopled by a race effeminate by comparison, would probably have been only a work of time, had they not been interrupted in their designs by the Spanish discovery. The radical difference

between the language of the Caribs, and that spoken by the natives of Hispaniola and the other islands, is of itself convincing that they were a distinct people. Some authors have supposed that they came at first from Florida—that a colony of the Appalachian race having been driven from the Continent, arrived at the Windward Islands, and exterminating the ancient male inhabitants, took possession of their lands and their women. But besides other objections to this, it is sufficiently known that there existed numerous and powerful tribes of Charaibes in the southern peninsula, extending from the river Orinoco to Essequibe, and throughout the whole province of Surinam even to Brazil. This gives some colour to an idea of their derivation from the Eastern continent. It is admitted that their own traditions referred constantly to Guiana, where they were always at war with the Arrawak tribes, their hereditary enemies. It does not appear that they entertained the most remote idea of a northern ancestry.

Their customs were peculiar. Polygamy prevailed among them. The climate made clothing unnecessary, and both sexes went stark naked, without any sense of shame or indecency. The women were mere drudges; they did not eat with the men nor were admitted to an equality with them; they ground the maize, prepared cassava, and gathered in the cotton. Both men and women had shining black hair, the women's being finer than that of the men. They dressed it with daily care, the men in particular decorating their heads with feathers of divers colours. Both had a fondness for red paint, a peculiarity of savages all over the American continent, and every where; and they covered their faces and bodies with arnotto so extravagantly, that their natural complexion which was nearly that of a Spanish olive, was not easily distinguished under the surface of crimson. Besides this, the men disfigured their cheeks with deep incisions and hideous scars, which they stained with black, and they painted white and black circles round their eyes. Some of them perforated the cartilage that divides the nostrils, and inserted the bone of some fish, a parrot's feather, or a fragment of tortoise shell; they strung together the teeth of their enemies slain in battle, and wore them as trophies on their arms and legs; they

resided in villages, in cabins constructed like the Indian wigwam, except that the covering was palm leaves instead of birch bark. As to their religion, it is reported that they had not even a name for the Deity, although they seemed to entertain an indistinct sense of a superior wise and invisible Being, of absolute and irresistible power, and admitted the agency of subordinate divinities; they even supposed that each individual had his peculiar protector or tutelar deity. They had some notion also of practical worship, for besides their funeral ceremonies, which embodied observances common in both hemispheres, it was their custom to erect in every cabin a rustic altar composed of banana leaves and rushes, whereon they occasionally placed the earliest of their fruits and the choicest of their viands, as humble offerings to avert the wrath of incensed Omnipotence.

Thus far but few analogies will be detected that will refer the Caribs to a Mediterranean origin. Indeed the description would answer for any of the Indian tribes on and to the north of the Mississippi, especially those of them who were not sun worshippers. We might go a step further and conjecture with some degree of plausibility, that they were an offshoot, either of the Algonquin, the parent stock of our Micmacs, or of the Iroquois races. The former was the most widely spread of all the northern aboriginal races, and was well known as far south as the mouth of the Mississippi, which is an Algonquin word; while the latter had all the characteristics of the Caribs, in their love of independence, their warlike habits, their aptitude for conquest, and even their cruelty. But if it were so the connection must have been far remote, and all remembrance of that and their separation had been lost. They had no knowledge of each other, nor is it recorded that there was any similarity in their languages.

The somewhat cautiously hazarded hypothesis of the writer in the *Church Chronicle*, that the Caribs came from the Eastern Continent, is not without supporters, although their theories are not based upon the same facts. Edwards, the substance of whose history respecting them, I have largely availed myself of, "without attempting to controvert the position to which recent discoveries seem indeed to have given a full confirmation, namely, that the

Asiatic Continent first furnished inhabitants to the contiguous north western parts of America, conceives the Caribs to have been *a distinct race*, widely differing from all the nations of the new hemisphere," and is inclined to adopt the opinion of Hornius and other writers, who ascribe to them an oriental ancestry from across the Atlantic. I will quote as succinctly as possible the reasoning by which this writer convinces himself of the truth of his position:— "If we reflect" he says "on the limited extent of navigation before the discovery of the compass, the prevailing direction of the winds between the tropics, and various other obstructions, we may I think very confidently determine *that no vessel ever returned from any part of America before that of Columbus*—a conclusion however, that by no means warrants us in pronouncing that no vessel ever arrived from the ancient Continent, either by accident or design, anterior to that period." The probability of such arrival, he evidences as follows:—

"There is no circumstance in history better attested, than that frequent voyages from the Mediterranean along the African coast, in the Atlantic Ocean, were made both by the Phœnicians and Egyptians many hundred years before the christian era.

"We know from indisputable authority that the Phœnicians discovered the Azores, and visited even our own island (Britain) before the Trojan War.

"Their successors the Carthaginians were not less distinguished for the spirit of naval enterprise, as we may conclude from the celebrated expedition of Hanno, who about 250 years before the birth of our Saviour, sailed along the African coast until he came within five degrees of the Line.

"It was the Carthaginians who first discovered the Canary Islands, and it appears from the testimony of Pliny, that they found in those islands, the ruins of great buildings, (*Vestigia Edificiorum*,) a proof that they had been well inhabited in periods of which history is silent.

"Not less clear historical evidence are the accounts of the Phœnician navigation down the Arabian Gulf or Red Sea to distant parts of Asia and Africa, in ages still more remote. In the voyages undertaken by King Solomon, he employed the ships and mariners

of that adventurous and commercial people. With their assistance he fitted out fleets from Ezion-geber, a port of the Red Sea. Of these ships some were bound for the western coast of the great Indian continent; others there is reason to believe turned towards Africa, passed the southern promontory, and returned home by the Mediterranean to the port of Joppa."

He thus considers it clearly proven "that the navigation of the Atlantic Ocean along the coast of Africa, both from the north and south and even at a considerable distance from land, was well understood, and frequent in very remote ages; and that if we inquire into the nature of the winds and currents on the African coast, and reflect on the various casualties to which ships at sea are liable, even in the most favorable season of the year, we must admit that it not only probably happened in some of those ancient expeditions, but even that *it was scarce possible not to happen*, that vessels would be driven by sudden gusts, or carried by adverse currents within the verge of the trade winds; in which case if they happened to lose their masts, they must necessarily run before the wind towards Brazil or the West Indies."

He quotes two remarkable instances of this nature which have happened in modern times—the first related by Capt. Glass, in his history of the Canary Islands, who observes—"that a small bark bound from Lancerota to Teneriffe, was thus forced out of her course, and obliged to run before the wind until she came within two days sail of the coast of Caraccas, where she fortunately met with an English cruiser which relieved her distress, and directed her to the port of La Guaria. The other is told by Gumill (a Spanish historian) which happened Dec. 1731, while he was at the town of St. Joseph, in Trinidad, when a small vessel from Teneriffe, with six seamen, was driven into that island by stress of weather, the crew reduced to the last extremity. To these instances may be added the discovery by Columbus himself, of the stern post of a vessel lying on the shore at Guadaloupe. Martyr also mentions that at a place called Quarequa, in the Gulf of Darien, Vasco Nunez met with *a colony of negroes*, who from the smallness of their number it was supposed had not been long arrived upon that

coast." Many other instances might be adduced, of much more modern date, of accidental arrivals at the Western Continent.

Taken as sufficient evidence that the ancient Egyptians, Phœnicians, Jews, and probably a good sprinkling of the people of Asia Minor, including the Greeks, became acquainted either as mariners or merchants, with the western coast of Africa, and even with the Azores and Canaries, yet these accounts go no further, and all else is supposition. There is nothing on record except the apochryphal Ophir, (which some have assumed to be a part of Central America,) from whence Solomon imported gold and silver and ivory, apes and peacocks, to suggest a probability that his or any other navy of the period or previously, either by accident or design, touched at this continent. Yet it is difficult to account for the civilization that prevailed in Central America, so analogous to the ancient civilization of the Eastern hemisphere, except that accident may have thrown some of those ships on the coast, from which they would find it impossible to return whence they came, and where their crews remained to communicate so much of the arts of civilization as they themselves were acquainted with, and thus to form the basis of, or to give an impulse to that which existed at the time of the modern discovery of the continent.

The Caribs had many customs and observances which seemed to connect them with such an ancestry, without possessing that degree of civilization which might be expected to accompany it. Even their language has been quoted and compared with the Phœnician and Hebrew, in proof of their oriental derivation. None of these, however, are conclusive tests. They do indeed carry them back to an antiquity far more remote than those nations, and may be adduced in favour of their being derived from one family, in which respect they were only on an equal footing with the whole American race. The historian Edwards, to whose work I have frequently alluded, with reference to their language, says, "It is scarcely possible to doubt that the following words used by the Charaibes, had their origin in the Old Hemisphere. [Examples on the black board, but cannot be quoted here for want of oriental type—see Edwards' History.] It may also be observed, that Dawson in his *Acadian Geology*, a chapter of which is devoted to prehistoric man,

claims a similar affinity for the Micmac language. I have placed the examples he has given in juxta-position with those of Edwards, [on the black board.]

Albert Gallatin, an American Secretary of State, who bestowed much attention on the Indians, in an analysis of the various languages of the northern half of the American Continent, has shown that they are all similar in construction, and making allowance for the total separation from each other of many of the tribes, that they are derived from one original language, which may be taken to be the most ancient on the face of the earth.

Father Joseph Gumilla, in his account of the nations bordering on the Orinoco, relates “that the Charaibes of the continent punish their women caught in adultery like the ancient Israelites, by stoning them to death before an assembly of the people.” There is no trace that such a custom existed amongst the insular Caribs who, before they had any intercourse with Christians had no established punishment for adultery, which was unknown as a crime. As such a fact is not described by any other author, it may not be well founded. It is supposed to have been brought forward to support an hypothesis which has always been received with more or less favour—that the aborigines were descended from the Jews. But were the relation worthy of all credence, while it would be a remarkable coincidence, it would not follow that the punishment was derived from Moses’ Law, which doubtless in this as in many other instances, was a counterpart of that instituted at a much earlier period in the history of mankind, and again rendered necessary under the circumstances in which the Israelites were placed.*

They had other customs, observances and ceremonies, indicative of high antiquity, which appear to have been possessed by the most ancient nations bordering the Mediterranean. They are described as having voracious appetites, and yet to have rejected many of the best bounties of nature. Of some animals they held the flesh in abhorrence: these were the peccary or Mexican hog, an animal very much resembling our swine, the manati or sea cow, and the turtle. Labat observes that they scrupled likewise to eat the eel, which the rivers in several of the islands supply in great plenty. The confor-

*The Mexicans punished the crime of adultery by stoning to death: but their code of morality was much stricter than that of the Caribs.

imity of these prejudices to those of the Egyptians, long before the exodus of the Jews, and to those of the Jews in every period of their national history, is remarkable. Yet one fact alone is sufficient to prove that there could be no affinity except such as must have subsisted in the earliest ages of mankind. There can be little doubt from what is stated, that they made a distinction between clean and unclean animals, which must have been impressed long previous to the age of Noah. But the Caribs did not practice circumcision, which was pretty general amongst the early Egyptians, and is an imperative obligation amongst the Jews to the present day, and would have been observed also by the Caribs had there been any affinity with those nations. This omission attests that they were not indebted to either for their origin, or to any accidental influences by which the peculiar rites of Jewish civilization could operate to change their mode of life.

Another curious custom proving their high antiquity, and bearing upon the question of their affinity, which appears very extraordinary, but is well authenticated, is related of them. On the birth of his firstborn the father took to his bed with the baby, and fasted with a strictness that often endangered life. On the birth of every male child he was sprinkled with some drops of his father's blood. Lafiteu observing that this custom was also practised by the Tybarenians of Asia, and the Iberians or ancient inhabitants of Spain, and is still in use amongst the people of Japan, not only urged the circumstance as a proof among others that the new world was peopled from the old, but pretends to discover in it some traces of the doctrine of original sin; he supposes that the severe penance thus voluntarily submitted to by the father, was at first instituted in the pious view of protecting his issue from the contagion of hereditary guilt; averting the wrath of offended Omnipotence at the crime of our first parents, and expiating their guilt by his sufferings. Strange then as this custom was, and practised among other American tribes, of which several instances might be adduced, it was likewise prevalent among some of the most ancient races of the Eastern hemisphere. It is strong evidence of affinity with them, although so widely separated; but it does not imply that the new world was peopled from the old. The traces of the doctrine of original sin,

which Lafiteu finds in a custom thus widely dispersed, but of which the meaning seems to have been lost, is however of some importance in determining the unity of mankind, and the subject in this connection deserves more attention than hitherto it seems has been bestowed upon it.

Their mode of burying the dead affords another important instance of the primordial antiquity of the Caribs, places them on a parallel in this respect with other American tribes, and without furnishing any particular proof of derivation, establishes an affinity with the most ancient races of the Eastern continent; and further confirms belief in the unity of mankind, and their descent from Adam and Eve. The most ancient Carians interred their dead in the same manner, and it is probable with similar ceremonies.* The investigations of archæologists in Europe, have resulted in a classification of modes of interment, which determines the comparative although not the remotest antiquity of offshoots of the primitive stock farthest removed from centres of civilization; and then the gradual introduction among them of progressive arts and science. The stone age, the bronze age, and the iron age, represent as well as customs of burial, phases of increasing knowledge, from the rudest condition of humanity, when all remembrance and all tradition of previous civilization, even in degree had been lost, to periods when improvement had been introduced from abroad, and in process of time matured and perfected. In the most abject condition there appears no connection either with an Egyptian, Assyrian, or Phœnician origin, or with any previous era. Only a few customs remain to determine the original unity. Yet as far back as we can obtain any knowledge of the rudest tribes, and beyond all knowledge of them, we find in other regions, highly civilized peoples, cultivating art and science, and manifesting a progress, the origin of which can be traced by the Biblical record, to be coeval with man's creation, and quite apparent amongst the first families of mankind. There ought to be no doubt then, from whence the savage tribes derived their progressive improvement. This wisdom from on High, and the capacity to improve it, has never

*Thucydides—Delos.

been lost to the world. It has frequently changed its base, but it has always advanced and spread itself abroad. We may say that it was almost contemporaneous in Egypt and Assyria, in India and Phœnicia, in all of which it may have been introduced (you will excuse the hypothesis which has taken possession of my mind and to which I shall again allude) by the sons of Noah and their progeny. They preserved their genealogy, were perfect in their generations, and transmitted the high cultivation of a race that peopled some particular region beyond the confines of Paradise, wherever that may have been, down to the time of the Flood, to all the countries to which they spread after that event. Some of their descendants having at length arrived at the Mediterranean, they found a land suitable for settlement, and a people with whom they mingled, whose derivation, customs, and dialects may have been similar to those of the American tribes, but who were perhaps better fitted to accept the improvements that were tendered to them by this regenerating race.

It is difficult at the present day to ascertain whether or not the Mediterranean was affected by the Noachian deluge. An obscure tradition or myth among the Greeks* points to such an event. The most ancient Egyptian monuments are quite oblivious of that catastrophe. The record however, of customs which may be considered ante-diluvian are numerous. They are found amongst the Carians as amongst the Caribs, in their tombs. Far beyond the age of bronze, when the people on the shores of Asia Minor knew of no other implements than those they manufactured of stone, they buried their dead, as the Caribs buried theirs, in a contracted posture, with their knees to the chin, a practice that was first modified and then changed, when bronze and iron came into use. Wherever mankind had wandered by successive removals far from the primitive home, had realized that the earth bare unto them only thorns and thistles, and were led to a dependence on the wild beasts and fishes for subsistence, their normal intelligence being entirely superseded by animal instinct, this custom seems never to have been forgotten. All throughout Europe it prevailed, and what is remarkable as proving

* The deluge of Ogyges.

an affinity and identity of race, in most instances the skulls of the remote stone age men, both in Europe and America, bear to each other a strong resemblance. They were dolichocephalic, or long headed. In some instances, more frequent however in the western than in the eastern hemisphere, flattened or distorted in infancy by compression. If there be any here who desire to become acquainted with prehistoric man, I would refer them to a recent work by Sir John Lubbock, entitled "Prehistoric Times." The conclusion drawn from customs of burial, is thus stated:—"There can be no doubt that in the Neolithic stone age (*i. e.* the age which showed an improvement in the make of stone implements) it was usual to bury the corpse in a sitting or contracted posture; and in short it appears probable, although far from being satisfactorily established, that in Western Europe this attitude is characteristic of the stone age, cremation of that of bronze, while those cases in which the skeleton was extended may be referred with little hesitation to the iron age." It only remains to say that the Caribs of the West Indies, (and all the northern tribes,) had got no further than the Neolithic age at the arrival of Columbus; although the bronze age was at their door, and would soon have been upon them in the extension of Mexican civilization.

I might adduce many other customs and ceremonies of the Caribs, which would imply a connection at some remote period, and a common origin, with the most ancient races of the Eastern hemisphere; but time will not allow, even if it were not a trespass on your patience. I may mention, however, in conclusion of these observations on a most interesting people, now almost entirely extinct, that they practised to a certain extent the art of agriculture. Strange to say they knew how to prepare cassava, by neutralizing the poisonous properties of the manioc from which it is made, by a process similar to that employed on the coast of Africa. They also cultivated the maize, which is an African cereal, although apparently indigenous in America. Strangest of all was their habit of chewing the betel, preparing it with calcined shells, after the manner of the natives of the East Indies. By what mysterious means they had acquired this proportion of knowledge, we shall never be able to ascertain; but if they did not possess it from the beginning, in common with the ancient

nations of the earth, we may be allowed to conjecture with others, that it may have been communicated by some accidental arrival on their shores from the Eastern Continent; or it may have been received from the people of the adjacent islands, who were a distinct race, and of whom nothing is more certain than that they preceded the Caribs in their occupation of those beautiful spots of the earth.

PART II.

THE affinity of the most ancient races in the Eastern and Western Hemispheres is much easier of proof *at the present day*, than are the causes that led to their total separation. Yet nothing can be more clear, affinity being granted, than that a separation at some early period of the history of mankind, attended with extraordinary circumstances, must have occurred to account for their perfect isolation and the total oblivion of each other that had so long existed. Nothing but a tremendous cataclysm, dividing the lands in the midst and interposing an ocean between them, can satisfy this requirement. Of such an event there is no positive record, or at least the record does not fully warrant the inference. I shall again advert more particularly to this branch of the subject; but in the meantime desire to direct your attention to the Mediterranean Sea, the countries on the borders of which appear to have been specially prepared for the reception and civilization of mankind.

There would seem to have been much greater facilities for maritime peoples of ancient times to pass into the Mediterranean from India, Africa and Europe, than are afforded naturally at the present day. "Ancient authors entertained strong opinions on the subject. Aristotle held that the Mediterranean had at one time covered a large part of Africa and Egypt, and had extended inland as far as the temple of Jupiter Ammon. This doctrine was maintained also by Xanthus the Lydian, Strabo and Eratosthenes. The ancients appear to have been led to this conclusion, by observing in various parts of Africa and Egypt manifest traces and indications of the sea. They found there shells, pebbles evidently rounded or worn smooth by the action of water, incrustations of salt, and many salt lakes. Some of these appearances were particularly frequent on the route through the desert to the temple of Ammon.

“The ancient writers maintained, that the temple and oracle of Ammon never would have become so famous, if the only approach to them had always been over vast and dangerous deserts. They insisted that the Oases had all originally been islands in the earlier and more widely extended Mediterranean. In this remote period, according to them, there existed as yet no communication between the Pontus Euxinus and Mediterranean Sea, nor between the latter and the Atlantic. The isthmus connecting Arabia with Egypt was under water, and Eratosthenes believed that Menelaus had sailed over this narrow passage, which is now the Isthmus of Suez. When the waters of the Euxine forced a passage into the Mediterranean, the great influx of water opened another outlet for itself through what were called by the ancients the Pillars of Hercules—Spain and Africa having been previously joined. In this tremendous convulsion the ancient land of Lectonia is thought to have been inundated and to have sunk in the sea, leaving merely the islands of the Archipelago its mountain tops, to attest its former existence. According to Diodorus Siculus, the inhabitants of Samothrace had a tradition that a great part of their island, as well as of Asia, was ravaged and laid under water by this inundation, and that in passing near their island fragments of temples were frequently rescued from the waves.”

If the belief of Eratosthenes previously quoted, were realized, a passage would have been open to the Indian and Atlantic Oceans. “The Ethiopians pretended to have planted the first colonies in Egypt, soon after that country had emerged from the waters of the Mediterranean, by which it was traditionally reported to have been covered. Tradition also refers to a northern passage to the ocean. The belief for a long time prevailed that there was a communication between the Palus Maeotis (Sea of Azof) and the Oceanus or earth-encompassing stream. The Argonauts were thought to have passed up the Phasis into the Palus Maeotis, thence up the Tanais, from the head of which they transported the Argo over land to a river that fell into the main ocean, and thence directing their course to the west to have come to the British Isles and the Atlantic, and to have reached at last the Columns of Hercules.” These traditions which have very little historic value, may however point to a time

when the Mediterranean Sea may have had several outlets, and was therefore more open to foreign arrivals of mankind than after it had settled to its present outline and configuration. The only natural passage now to the Atlantic, is by the Pillars of Hercules (Straits of Gibraltar).

At the close of these disturbances, or during their continuance, we may safely conclude that the habitable coast of Asia Minor was occupied by wanderers of the primitive stock, who although more remote in time, were probably as rude and uncultivated as the people of Northern Europe whose remains in our day are of so much interest to the archæologist. The affinity of these people with the American race is exceedingly probable, but there appears to have been a remarkable distinction between them. The western race had no subsequent communication with the civilization from which they had wandered, or, if the ancient remains on this continent depend upon it, it was confined to a few centres where it was afterwards overlaid or destroyed. The last condition of things may have happened in the era of the mound builders; and its destruction by the inroads of barbarian tribes of the same race. Finally it may have revived in Mexico and Peru and Central America, where it took thousands of years to recover itself, and had but recently begun as it were to assert its strength, when the modern discovery of the country again doomed it to destruction. The Mediterranean people, on the contrary, had the elements of civilization introduced among them at an early age. The Pelasgians who possessed it imperfectly first came among this primitive race, at what time cannot now be determined. Their origin also is lost in mythological obscurity.

Inachus (Enoch or Anak great and powerful) son of Oceanus and Tethys, significant of his being reared on the ocean, is said to have been the first king of Argos. Phoroneus the Pelasgian, son of Inachus and the ocean nymph Melia, is significantly styled the first man—he gave the aborigines fire and social institutions. Car, his son (or the son of Manes, or Man, the derivation is not clear) is claimed by the Carians as the patriarch of their race. Mysis and Lydus, are brothers of Car, and eponyms or patriarchs of the Lydians and Mysians. Another descendant of Phoroneus, Pelasgus, is said to have given his name to the Pelasgians. These mythical

genealogies, which are not to be depended on as a basis of historical truth, seem, however, in their derivations, to point to arrivals from beyond the sea, from a region where art and science had made some progress, and that those who communicated them became kings and chiefs of peoples whom they benefitted by their introduction. Ancient authors have supposed that the Pelasgians came from Thrace, but there is no proof of any civilization having then existed in that region. These authors knew nothing of this continent, or the religious worship, manners and customs of its people, or of any intermediate civilization which could have established affinities either with the aboriginal races, or the Pelasgians, or of their possible separation; or perhaps we might have handed down very different opinions, both as to affinities and derivation. From all this I have taken the liberty to assume.

I.—That wanderers of the Adamic stock peopled the coasts of Asia Minor and other parts of the Mediterranean, about the same time that wanderers of the same race were progressing towards the central portions of this continent.

II.—That some ages after them, either previous or subsequent to the time of the diluvial catastrophe in which Noah and his family were involved, a more civilized race arrived at the Mediterranean, and under the name of Pelasgians spread themselves through the wide extent of its coasts.

III.—That after the Noachian deluge, when the family of Noah, whose mission it was to give an impulse to civilization, had multiplied, branches of them arrived at and settled on the shores of the Mediterranean. Cush and Mizraim introduced their superior civilization into Egypt and Ethiopia. The Phœnicians or Kanaanites, another Hamitic race, were amongst the first arrivals. They appear more particularly to have understood the art of navigation, and to have come from the Persian Gulf by way of the Red Sea. The descendants of Japheth afterwards obtained a footing, and either by conquest or being deemed benefactors, acquired great influence, and became eponyms of various tribes.

It is remarkable as evidence of the unity of mankind, and their affinities, that these tribes or races of men, not far removed from each other in time, comparatively, readily amalgamated—that they

spake dialects of one original language, which very soon became assimilated ; and that this language, altered, matured and perfected through long past ages, still retains traces of derivation, that in the opinion of archæologists connects it with the aboriginal languages of this continent.

But while evidence of this nature shews that it might have been easy to pass into the Mediterranean from countries adjacent, and may be taken also as proof of the affinity of races, it is by no means conclusive with reference to a communication with this continent. It still remains to close the wide gap of ocean which separates the two hemispheres and their peoples—the most ancient as well as the most civilized. Here we shall find that tradition and fact combine to prove, that at some very remote period of the world's history, the facilities of communication must have been much greater than in more recent times ; and that the disturbances which separated the continents, must have been caused by tremendous convulsions of nature in some instances, and in others by gradual sinking of the land. In connection with this subject it may as well be remembered that when nature depresses in one locality, there is always a corresponding elevation in another, nigh to or remote. The phenomena which has obliterated the lands of the Pacific Ocean between the tropics is very remarkable, and has been satisfactorily explained by modern science. What the whole amount of this subsidence may have been, or its effect in advancing or retarding the peopling of this continent, will never be known ; but enough is revealed to enable us to estimate the greater by the less. Let it be remembered also, that the Pacific islands were very early inhabited, and that the nighest to this continent, Easter Island, where ancient remains have been found, is not further off than a few days sail, while between each across the ocean, a few days sail would establish consecutively, a communication. The affinity of the Polynesian with the Malayan, and with some of the American tribes on the Pacific side, may therefore, we think be conceded. For a description of this wonderful phenomena of subsidence, which appears to have been gradual, but which realized all the circumstances of a drowned world, I cannot do better than refer to Dana's Geology, where in connection with Coral Islands, it is thus adverted to.—

Dana observes,—“The Coral Islands of the Pacific are proofs of a great secular subsidence of that Ocean. The line CCC (Physiographic Chart) between Pitcairn’s Island and the Pelews, divides coral islands from those not coral; over the area north of it to the Hawaiian Islands all the islands are atolls, excepting the Marquesas and three or four of the Carolines. If then the atolls are registers of subsidence, a vast area has partaken of it, measuring 6000 miles in length (a fourth of the earth’s circumference) and 1000 to 2000 in breadth. Just south of the line there are extensive coral reefs; north of it the atolls are large, but they diminish towards the equator, and disappear mostly north of it; and as the smaller atolls indicate the greater amount of subsidence, and the absence of islands still more, the line AA may be regarded as the axial line of the great Pacific disturbance. The amount of the subsidence may be inferred from the soundings near some of the islands to be at least 3000 feet. But as 200 islands have disappeared, and it is probable that some among them were at least as high as the average of existing high islands, the whole subsidence cannot be less than 6000 feet. It is probable that this sinking began in the Post-tertiary period. Since this subsidence ceased, for the wooded condition of the islands is proof of its having ceased, there have been several cases of isolated elevations.”*

Although there is much less evidence extant of connecting links by the Atlantic between the two hemispheres, than by the Pacific, notwithstanding that the latter is the more expansive ocean, it is probable that a continuous land, or a chain of islands stretched from the Canaries to the Antilles in the remote past, where there is now a wide extent of ocean. The Canaries and the Cape de Verde lie in the same parallels with the West Indies and with the Pacific Islands. Hypotheses and tradition must here be largely drawn upon to supply the place of positive proof. The geological facts presume that the West India Islands are the high lands of a submerged continent. If so the subsidence must have been immense that once took place over this wide tract of ocean; but there is also evidence of compensating elevations even in the vicinity of the line

* See Dana’s Geology, p. 587.

of disturbance. The historian Edwards, before quoted, says—
“Lofty as the tropical mountains generally are, it is wonderfully true, that all the known parts of their summits furnish incontestible evidence that the sea had once dominion over them. * * * Marine shells are found in great abundance in various parts of those heights. I have seen on a mountain in the interior parts of Jamaica, petrified oysters dug up, which perfectly resembled in the most minute circumstances, the large oysters of the western coast of England, a species not to be found at this time, I believe, in the seas of the West Indies.” This fact would seem to indicate, that with a change in the height or continuity of the land, there has also been a change from a temperate to a tropical climate, which is deserving of more attention than has hitherto been bestowed upon it. It is also well known, that with few exceptions, all the islands are volcanic.

This mingling of hypotheses and fact is the basis that remains upon which to establish a connection between the Eastern and Western hemispheres, and is as strong on one side of the ocean as the other. The Azores, Madeira, the Canaries and the Cape de Verds, are supposed to be relics on that side of an ancient submerged continent—and of these the Canaries were at a remote period inhabited by an inoffensive and comparatively civilized race, who from their pursuits, for aught we know, may have been of the lineage of the people of the Antilles, or the ancient Egyptians. The inhabitants of the Antilles, exclusive of the Caribs, had affinities of customs with this race. Both made mummies of their dead by a similar process. Their mode of embalming was not that of the scientific Egyptians, but was far simpler and perhaps as efficacious. They dried the dead bodies in ovens, by gradual heat, and when this was done they ranged them in a sitting posture side by side, in caves, and so handed them down to posterity. Whether they communicated this idea, or were indebted for it to some accidental arrival of Egyptians who imperfectly understood the process, we are left to conjecture. They had other customs which appeared to connect them with the most ancient races of the Eastern hemisphere—rites resembling those of the worship of Bacchus,

which so infatuated the nations among whom they were introduced. These appear to have been observed more or less among all the American tribes. Other worship or mysteries they had, analogous to those of Cybele. Both Bacchus and Cybele I take to be of pre-Noachian age and corruption. The Guanches of the Canary Isles appear to have had much skill in architecture, of which remains (which are noticed by Pliny) exist to attest to their material progress.

Tradition has been busy in all ages with this region and the surrounding ocean, and its influence upon the human mind is as powerful as ever, now that the investigations of ethnologists have shown the possibility that it may be well founded. The Fortunate Isles (the Canaries) were supposed to be a portion of the lost continent long previous to the discovery by Columbus west of the same parallels. They are not more than twenty days sail of the Antilles. The Elysian Plains had become the Isles of the Blessed, in the Western Ocean, in the time of Hesiod. Plato, who obtained his information from the priests of Egypt, gives a description of the island of Atlantis, supposed to have existed at a very early period in the Atlantic Ocean. He relates as follows: "In the Atlantic Ocean over against the Pillars of Hercules, lay an island larger than Asia and Africa taken together, and in its vicinity were other islands and a large continent beyond. The Mediterranean compared with the Ocean in which these lands were situated, resembled a mere harbour with a narrow entrance. Nine thousand years ago, before the time of Plato, this island of Atlantis was both thickly settled and very powerful. Its sway extended over Africa as far as Egypt, and over Europe as far as the Tyrrhenian Sea. The tradition of an ancient Athenian State, anterior to the deluge of Deucalion is also related, which was governed by laws not unlike those of Egypt. The Athenians (said this tradition) made war at this remote period against the inhabitants of Atlantis, and defeated them. After this a violent earthquake, which lasted for the space of a day and a night, and was accompanied with inundations of the sea, caused the islands to sink, and for a long period subsequently the sea in this quarter was impassable by reason of the slime and shoals. A certain Marcellus

related a similar tradition with that of Plato. According to this writer there were seven islands in the Atlantic Ocean sacred to Proserpina, of these three were of a very large size, and the inhabitants had a tradition among them that they were originally one large island which had ruled over the rest."

Since the discovery of this continent many authors find America in the Atlantis of Plato. Anthon, from whose excellent Classical Dictionary I have extracted the foregoing from ancient authors, says for himself—"The advocates of this theory might easily connect with the legend of the lost Atlantis, the remains of a very remote civilization that are found at the present day in Spanish America. We have there the ruins of cities which carry us back to Pelasgic times, and the religious symbols and ornaments connected with which remind us strongly of the phallic mysteries of antiquity. Even the lotus flower, the sacred emblem of India (he might have added the elephant also) may be seen in the sculptures. These curious remains of former days are long anterior to Mexican times, nor have they anything whatever to do with Phœnician settlements, such settlements on the shores of America being purely imaginary. In connection with the view just taken we may point to the peculiar conformation of our continent along the shores of the Gulf of Mexico, where everything indicates the sinking at a remote period of a large tract of land, the place of which is now occupied by the waters of the Gulf. * * * The mountain tops of this sunken land still appear to view as the Islands of the West Indian group, and thus the large continent lying beyond Atlantis, and the adjacent islands, and to which Plato refers, may have been none other than that of America. We proceed a step further. Admitting that Atlantis was situate in the Ocean which at present bears its name, it would require no great stretch of fancy to suppose that the Canaries, Madeira isles and Azores once formed portions of it, and that it even extended as far as Newfoundland. The Cape de Verd islands, though so much to the south, may also be included."

Thus far hypotheses, tradition and fact, with reference to an exceedingly remote connection between the races of the Eastern and Western hemispheres, and then its disruption. If it were

granted there need be no further controversy about the unity of mankind; and the affinity of the races of Europe, Asia and America, separated in the early age of the world, by tremendous convulsions of nature, and left, each in its own way, to fulfil its destinies, may just as well be conceded.

Hitherto I have said nothing of Scripture testimony to the existence of this lost continent, nor does it embrace anything that is directly significant thereof. It might however be expected, were there any foundation for the tradition, that we should find some reference thereto in the Bible. Well, we cannot feel sure that the whole history of man, as there recorded, is not in fact a history of Atlantis. It is not precisely defined where Paradise was situated, nor its limits and bounds declared with any degree of probability. The question has never yet been satisfactorily solved. It is therefore quite useless to attempt, by any fancied resemblance in the world that is known, or by any process of reasoning, to identify the Eden of the world that was destroyed. All the migrations of the earliest race of mankind point to the east of Eden as the region that was inhabited after the forced departure from that blissful seat. East of Eden to the land of Nod, Cain emigrated, ceased his wanderings and built a city. The other children of Adam occupied a country perhaps not far distant, as a similarity of names and a limited genealogy of Cain's descendants and other evidence, make an amalgamation of the races tolerably certain. It is not so difficult to mark the probable resting place of the ark after the deluge, but even that, modern science, based upon the Scripture relation, has changed from a belief anciently entertained, to a site more in accordance with Scripture history as well as tradition. The journeying from the east of the descendants of Noah, who had greatly multiplied, was no insignificant exodus from that site; and their arrival at the plains of Shinar, does not imply that the Armenian Ararat was the resting place of the Ark.

But we can if we please, and without doing violence to any belief, with what is known of the lands that are left on both sides of the Atlantic, with what we may conjecture of the convulsions that have separated them and their races, and various species of animals, and reduced them to their present condition, conclude that

Atlantis may have been the scene of man's creation. The climate, the rich productions, the mineral wealth, the volcanic strata of these beautiful islands, favour the conclusion.

Here may have been the region where God planted a garden, and placed Adam, and then Eve, to keep it, and where they roamed *naked*, the man and his wife, and were not ashamed. In this delightful country we may draw upon imagination, without fear of satiety, for a picture of the lost Paradise, and the fiery obstructions to its ever being regained. Beyond it, in the genial climate and fertile soil, we can look upon Adam, in the sweat of his brow, tilling the ground from whence he was taken, and which God had cursed. Soon thereafter, Cain, the first murderer and emigrant, and his brother Abel, come upon the scene. We find the first born bringing his presumptuous offering of the fruits of the ground, not as an acknowledgment of Divine mercy in still permitting it to maintain the human family, but as an earnest that it yet bore something in that propitious clime, more akin to the products of Eden than "thorns and thistles"—an offering, in the spirit in which it was made, to which the Lord had not respect. We can judge of what his remorse must have been after the fatal act that brought death into the world, and made him a fugitive and a vagabond on the earth, and can hope for him that in after life he received consolation from the Divine declaration "If thou doest well shalt thou not be accepted." Ages roll on, mankind multiply exceedingly, the longevity is remarkable, although we know nothing of the measure of time in the antediluvian age. The tree of knowledge bears its fruit in the human mind; art and science progress. Iniquity also abounds although it had not yet culminated. Men worshipped the true God and called upon his name. Polygamy prevailed as in later ages. We find Lamech with his wives Adah and Zillah, endowed with superior talents, coupled with a certain ferocity of disposition characteristic of the period, showing even then the insecurity of human life. Lamech who had slain a man by whom he had been wounded, and a young man from whom he had received a hurt,—probably not innocent blood as was that of Abel—deprecating revenge, or claiming exemption from retributive justice, on the plea which preserved his great ancestor—"If Cain shall be avenged

seven fold, truly Lamech seventy and seven fold." The world progresses in civilization, but faster in sin. This episode of Lamech and his family is a rare study for the archæologist. It is the sixth generation only from Adam, and yet marks an era of progress. The nomadic or shepherd life is followed by Jabal the son of Adah, who possesses domestic cattle—his brother Jubal has invented musical instruments. Tubal-cain the son of Zillah has discovered the composition of bronze, and has made iron subservient to the uses of man—which implies a previous discovery of the metals themselves. The Jews have a tradition that his sister Naamah invented weaving. These early instances of progress do not warrant a belief that the primitive race of men were ever in that rude and savage condition, to which long continued wanderings had afterwards reduced them, and to which the remains of stone implements and the kjokkenmoddings of the north of Europe attest that they had at length arrived. The story of Lamech is not tradition but actual occurrence. It bears intrinsic evidence of having been written and handed down, as do all the events recorded from the Creation to the Noachian Deluge. Viewed in this light philology may have made progress during that epoch, and if so we need not wonder at the perfection of written language to which some of the most ancient nations attained in a comparatively short period after the latter event. Between Lamech and Noah there were many generations of this primitive race, as is testified by their genealogy in a direct line; but it would be absurd to suppose that in all that long period from Adam to Noah, the human family had not spread to every part of the world—to this continent north and south on the one hand—to Africa, Asia and Europe on the other. When their wickedness had culminated at the primitive seat, and Noah had endeavored in vain to restrain and reform them, he was commanded to build an Ark, and the intelligence was communicated that man would be destroyed from off the face of the earth. Portentous disturbances *must* have given force to his warnings, and confirmed his belief—volcanic eruptions, earthquakes, subsidences, overflowings of the dry land—as in the West Indies and Central America at the present day—their very frequency perhaps, short of general disaster, inspiring confidence in personal safety. They went on, eating and

drinking, marrying and giving in marriage, until the Flood came and destroyed them all. Then the windows of heaven were opened, the fountains of the great deep were broken up, and the rain was upon the earth forty days and forty nights. This catastrophe is very particularly stated to have commenced in the six hundredth year of Noah's life, in the second month, the seventeenth day of the month. Fifteen cubits (27 feet) upwards did the waters prevail, or the land subside to that extent, and the mountains were covered. It is a remarkable coincidence as concerns the Atlantean hypothesis, that Josephus determines the year at the Flood to have begun about the autumnal equinox; thus the 17th day of the 2nd month (Marchesvan) would fall in our October, about the time when the rainy season begins in the West Indies. The historian Edwards, whom I have so frequently quoted, thus describes that phenomena:—"An European who has not visited those climates can form no just conception of the quantity of water which deluges the earth at this season,—by an exact account which was kept of the rain which fell in one year in Barbados [1762,] it appeared to have been $87\frac{1}{100}$ cubic inches, equal to 7 feet $3\frac{1}{100}$ inches perpendicular. Taking the whole islands throughout, from 60 to 65 inches appears to be about the medium of rain in seasonable years. If this quantity should annually fall in England, the country would be deluged, and the fruits of the earth destroyed. The power of the sun at that distance from the equator would be too feeble to exhale a sufficient quantity of it. Earthquakes also are not unfrequent; but none have been productive of mischief since the fatal one of June 1692, which swallowed up Port Royal." To which I may add, that perhaps the judgment on Port Royal for its wickedness was as just as that which destroyed the posterity of Adam many thousand years previously, and obliterated the continent which they had inhabited for so long a period.

The immediate result of this great cataclysm was the transport of Noah and his sons to a region whose climate and productions differed considerably from those of the country of endless summer from whence they were tempest-driven. The conditions expressed recognize a temperate clime, such as may well have existed in the central parts of Asia. The olive grew there, for the dove returned

to the ark with an olive leaf plucked off. They there received a promise from the mind of the Lord, that *seed* time and *harvest*, and *cold* and *heat*, and *summer* and *winter*, and *day* and *night* should not cease. A rainbow was given as a token of this covenant. Noah became an husbandman and planted *a vine*. If in addition to this it is credible that the African desert in these latitudes was then a wide ocean—that the Mediterranean sea spread over a much larger surface than at present—that the land of Egypt was submerged—that the Red Sea and the Persian Gulf extended where there is now dry land—we may have the compensating elevations; and I see no difficulty then in further supposing, that after a drift eastward of more than 150 days, during which the waters prevailed—the ark may have rested on one of the heights of the Hindoo Coosh—the distance involved being equal to about one fourth of the circumference of the Globe in these latitudes.

We know that in this invigorating climate mankind multiplied exceedingly—that in a few generations they journeyed thence a host—that after some time they arrived and settled at the Plains of Shinar—that with inconceivable stupidity, as appears to us, but wondrous energy, a token of an impious design, they commenced to build a tower whose top should reach unto heaven. That Nimrod became a mighty hunter before the Lord, built cities and established a kingdom, &c., &c., &c.

Thenceforth the history of the Noachian family is the communication of progressive civilization wherever they extended themselves amongst the rude tribes of mankind—improvement, with all the knowledge of art and science conveyed thereby, entirely confined to the Eastern hemisphere. If the true history of the Creation of man and of the Deluge was thus spread abroad—if none escaped the Noachian catastrophe to this side, of those who were involved in it, accidental arrivals of some of the descendants of Noah—Assyrians, Egyptians, Phœnicians, Jews, or Greeks, &c. may have impressed imperfect accounts of those truths, along with elements of civilization, upon some of the pre-existent tribes of the western continent, and given rise to traditions and beliefs extant at the time of Columbus—but which, be it remembered, were considered only with reference to their own ancestry. As the question stands, all the

affinities of the American races with those of the Eastern hemisphere, which are relied on to establish the unity of mankind, are evidently of a much earlier period, and can be predicated with greater certainty, than those which are adduced to show a derivation of the former from the ancient civilizations with which history makes us acquainted.

We must await with patience the complete solution of the problem. Through the researches of learned men the early history of mankind is becoming better known than heretofore. The obscurities of mythology and tradition are being permeated by the light of science and the evidence of facts. In our own day, we know more perhaps of primitive and prehistoric man, and can speculate with more probability upon the operations of his mind, than the ancients themselves. To use the language of one of the followers of the celebrated African traveller, Dr. Livingstone, who had just got a glimpse of the wonders of civilization—"We are the ancients, and all that has gone before us is but as of yesterday."

ART. X. — ON THE PROGRESS OF WEATHER KNOWLEDGE.
BY FREDERICK ALLISON, ESQ.

(Read May 12, 1873.)

IN 1848—now a quarter of a century ago—I began taking some observations of Temperature in this Province in a very rude manner, with an ordinary thermometer fastened to the side of a large building. I thus detail my own beginning, as it happens to coincide with that of many others; and the experience of a large number of present regular observers is similar.

In Nova Scotia, and even in all parts of the Continent of America, observations of climatic phenomena were then in their infancy. The Smithsonian had initiated a good work at Washington, but the best position of instruments, their construction, and hours of observing, were known to comparatively few. The British Government had established the Toronto Magnetic Observatory, where meteorological phenomena were also observed, and