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A table of contents for *Journal of the Transactions of the Victoria Institute* can be found here:

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ORDINARY MEETING, MAY 18, 1868.

CHARLES BROOKE, Esq., M.A., F.R.S., F.R.C.S., VICE-PRESIDENT, IN THE CHAIR.

The Minutes of the last Meeting were read and confirmed, and the election of the following Second Class Associate was announced :—

Lieutenant Edward F. Day, R.N., H.M.S. "Malabar," Bombay Harbour, East Indies.

The following paper was then read :—

ON THE COMMON ORIGIN OF THE AMERICAN RACES WITH THOSE OF THE OLD WORLD. By the REV. J. H. TITCOMB, M.A., Mem. Vict. Inst.

IN the year A.D. 1486, the prior of the Dominican convent at Salamanca summoned a meeting of divines for the purpose of investigating the alleged discovery of a new world by Columbus. It was a period of intense excitement. Up to that moment, science and Scripture had alike been made to teach that the world was round like a plate. The voyage of Columbus, and the theory which he propounded, completely overthrew that opinion. It produced, therefore, the greatest consternation among all orthodox divines. At the solemn conclave just mentioned, it was seriously contended that Columbus could not be right; otherwise St. Jerome and St. Augustine must have been wrong. Among the arguments it was also contended that, however easily Columbus might have crossed over the ocean on the downward side of the sphere, yet he never could have sailed up-hill in coming back again! But the reason which appears to have finally decided them in the rejection of the new theory was its incompatibility with Scripture; "since to believe in inhabited lands on the opposite side of the globe would be equivalent to maintaining that there were nations not descended from Adam, it being impossible for them to have passed the intervening ocean"!*

* Wilson's *Prehistoric Man*, vol. i.

I. This alternative, however, is by no means clear. Herodotus records a voyage of the Phœnicians, made in the seventh century before Christ, around the whole continent of Africa. Pliny states the same thing of the Carthaginians. These accounts, if true,—and there seems no good reason why we should doubt them,—must not only have involved very prolonged sea voyages, but have not improbably brought the voyagers into contact with the islands of Madeira, the Canaries, Cape Verde, and Azores. At all events, they upset the notion of those worthy Dominican friars at Salamanca who imagined that, in remote ages of the world, oceanic migrations of any great length were impossible. It may be replied that these were only coasting voyages, from which no argument can be drawn in relation to the open navigation of the Atlantic or Pacific. If so, a clearer and more satisfactory inference upon that subject might be drawn from the discovery and colonization of Greenland in the year A.D. 985, or thereabouts—a fact which is of strictly historical authority, and is actually confirmed by the existence of Runic inscriptions in that country. From this fact it will be seen that before the time of Columbus, the Northern Atlantic Ocean must have been traversed by Scandinavian sailors, and the mainland of America safely reached. Still more to the point is the following fact. In the year A.D. 1499, a portion of the Portuguese fleet was carried across the Atlantic by the equatorial current, resulting in the discovery of Brazil. And to show that these accidental driftings have not been always from east to west, but sometimes in the opposite direction, let me adduce two more recent cases of the same kind,—instances in which vessels have made long and dangerous voyages both over the Pacific and the Atlantic.

About the year A.D. 1750, for example, a canoe, which is now preserved in the museum at Aberdeen, was picked up by a ship on the Aberdeen coast, with an Eskimo in it, still alive, surrounded by all his fishing-tackle*—a circumstance which shows how easily oceanic currents may convey even uncivilized man across vast tracts of water. Similar cases have happened in the Pacific Ocean. In the year A.D. 1833, a Japanese junk was wrecked on the coast of Oregon, and some of its crew were subsequently rescued from captivity among the Indians of the Hudson's Bay Territory. Evidences exist, also, of a remote system of oceanic navigation among the Polynesians. Pickering, of the United States Exploring Expedition, says, "The Tonga people are known to hold

* Wilson's *Prehistoric Man*, vol. i., p. 148.

intercourse with Samoa, the Fiji Islands, and the New Hebrides." But there is a document published before those seas were frequented by whalers and trading vessels, which shows a more extensive aboriginal acquaintance with the islands of the Pacific. I allude to the map obtained by Forster and Cook, from a native of the Society Islands, which has been shown to contain, not only the Marquesas, and the islands south and west of Tahiti, but the Samoan, Fiji, and even more distant groups. The most remarkable fact, however, is that one of the Hawaiian headlands has been found to bear the name of "the starting-place for Tahiti"—the canoes, according to the natives, leaving in former times at a certain season of the year, and directing their course by a particular star."*

Facts like these are quite sufficient to prove that oceanic migrations, in very early periods of the world's history, might easily have conveyed mankind either from the east or the west to America. The bare possibility of such a thing, therefore, to say nothing of its probability, ought to convince any careful and conscientious mind that there is no *à priori* necessity for supposing the aboriginal inhabitants of America to have been created there independently of Adam.

If we examine this matter somewhat more minutely, it will be found that no fewer than five distinct routes to America were available for primary migrations from the Old World—three from the Asiatic and two from the European side.

In the *first* place, there was the route from the north-east of Asia, across Behring's Straits; in favour of which are the two following arguments, viz., the nearness of the opposite shores, and the evident continuity of population scattered along these coasts, as proved both by their physical affinities and by the agreement of their languages. This is admitted on all hands. To be perfectly candid, however, it ought to be allowed that, from a mere ethnological point of view, this migration might just as reasonably have taken place from America to Asia as the other way. While I urge this route, therefore, as perfectly possible, I dare not attempt to enforce it as a necessity.

Secondly, there was an oceanic route from Japan and the northern islands of Polynesia. This, indeed, seems to have been a highway marked out by Nature herself, inasmuch as at certain seasons of the year strong easterly currents uniformly run from the China seas in the direction of Polynesia and America. Pickering, who has been already quoted, tells us

* Pickering's *Races of Man*, p. 298.

that the northern extremity of California is most "favourably situated for receiving a direct arrival from Japan." He informs us that a few years ago a Japanese vessel was fallen in with by a whale-ship in the North Pacific; that another was wrecked on the Sandwich Islands; and that a third drifted to the American coast near the mouth of the Columbia river,* in the Oregon territory, to which I have before alluded. Under these circumstances, there is not only nothing improbable, but everything in favour of there having been occasional arrivals from the eastern coasts of Asia—first in the northern islands of Polynesia, and afterwards in the Oregon territory of America—even in remote periods of the world's history.

Thirdly, there was a south-eastern route through the Pacific by means of a current called the Antarctic Drift. A vessel, for example, sailing southward from Easter Island would soon get within this powerful stream, and might easily find herself floating toward the coasts of Chili and Peru. In fact, this part of the Antarctic Drift is laid down upon our modern charts as the "Chili Current." Nothing, therefore, was more likely to have happened in remote ages of the past than that some of the inhabitants of Easter Island should have drifted to that part of the American coast. It might be urged, however, that, if so, there ought to be some bond of connection still preserved between the two countries. I think there is, inasmuch as homogeneous architectural remains can be traced almost continuously from South India to Central America.

The Buddhist temples of Southern India and of the islands of the Indian Archipelago correspond with great exactness in all their essential and in many of their minor features with those of Central America. They are built (particularly those of more ancient date) upon terraces, some of which are of great height and extent, being faced with brick or stone, and ascended by flights of steps. They are crowned by structures often pyramidal, the stones forming the roofs of the chambers overlapping each other. Beside these buildings, erected on terraces, there are other analogous structures called *dagobas* in Ceylon, and *topes* in Hindustan, combining the temple and the tomb, usually of the pyramidal form, and generally containing relics of some sort, deposited in a small inner chamber.† In the third volume of the Transactions of the Royal Asiatic Society there is an account of the ruined city of Anarājapura, in Ceylon, whose structures have decided resemblances to

* Pickering's *Races of Man*, p. 297.

† See this subject pursued more fully in *American Archæological Researches*, p. 88.

those of Central America. Among these is the "Temple of a Thousand Pillars," consisting originally of 1,600 standing on a square. So, from the top of the lofty temple at Chichenitza, Mr. Stephens saw groups of upright pillars standing on a square. He counted 380, and then gave up the work, because so many were broken. The great temple of Bora Bodu, in Java, might be equally mistaken for a Central American temple. Passing thus from Southern India, through Ceylon and Java, into Polynesia, we still trace out the same sort of remains. Mr. Ellis, in his *Polynesian Researches*,* says that pyramidal structures are to be found in many parts which are essentially temple tombs. One at Atehuru is described as having been built of stone, 270 feet long, 94 feet broad at the base, and 50 feet high, with a flat top, reached by a flight of steps. Another at Mawa is 120 feet square. He tells us also that Easter Island abounds with these structures, erected of stone, cut and laid together with great precision. Colossal statues often crown their summits, some not far from 30 feet high, and 9 feet in diameter. This seems to be fair evidence of an ancient oceanic migration of South Asiatic races, which at last reached the coast of Chili or Peru, and carried civilization into Central America. To my own mind, it would seem that the Malay race followed this early stream of migration at a much *later* period—mingling with, if not supplanting it, and driving it onward unconsciously toward the New World. I found this opinion on the fact that while the present Polynesian languages are all essentially allied to the Malay, they are also connected with the languages of America, though *those* have no affinity with the Malay—a condition of things which would be exactly accounted for on the supposition just thrown out.

Let me now indicate a *fourth* possible line of migration from the Old World to the New, traceable by means of the great equatorial current which sets in a westerly direction from the Gulf of Guinea, and flows toward Brazil and Guiana. Had any of the Carthaginians—to whom Pliny alludes as fearless navigators—been driven, when coasting round Africa, into this strong current, they might have found themselves on the South American continent. If it be possible for us to imagine that any of the Guanches from the Canary Islands had met with this fate, the analogies presented between their mummied rock-caverns and the rock-cavern of Ataruipe would then be easily explained.

There remains a *fifth* route of possible migration, viz.,

* Vol. i., p. 261.

from Iceland to Greenland. The fact that this was effected before the time of Columbus proves that it was not improbable even in an earlier age. This probability is strengthened by the fact that an inscription of an apparent Runic character was discovered some years ago on an island off the coast of Maine. Another remarkable inscription was found among the excavations of Grave Creek, engraved on sandstone, containing at least four or five Runic letters. As late, also, as 1859, a stone axe was ploughed up in New Jersey, having apparently Runic characters carefully inscribed upon it—known among the American ethnologists as the Pemberton axe. Facts such as these cannot be overlooked. Possibly, when further discoveries shall have increased our knowledge by accumulated facts, we may be able to speak upon the subject with greater confidence.

What I have attempted to show, thus far, is that an entrance into America, both from Asia and Europe, was not only possible, but probable, even in prehistoric times. In other words, the unity of the native American races with those of the Old World, considered as a question of descent and of common origin, not only finds no insuperable difficulty from the oceanic isolation of the great Transatlantic continent, but is almost suggested to us by a variety of well-ascertained facts.

II. In coming to the next subject, viz., the analogies which may be traced between the LANGUAGES of America and the Old World, it will be necessary to proceed with the greatest caution; for it is not by discovering a word here and a word there seeming to agree with corresponding roots among all these various families that we can safely infer any true affinity between them. To speak on this subject with prudence and wisdom, it will be needful to observe two most rigid rules: 1st., To take no notice of any apparent identity among words which are evidently based upon imitative sounds. 2ndly, Never to deduce an affinity between any of the New and Old World languages on the ground only of root words existing in common between them; unless, indeed, the same roots appear and reappear, in many distinct tongues belonging to large family groups on both sides. In that case, I think, the widespread distribution of common root words can scarcely be referred to accidental resemblance; still less can they have arisen from recent intercourse. In all other cases, however, it will be necessary to go beyond such analogies. Hence I add (3rdly), Never to deduce an affinity in such cases between any of the New and Old World family stocks, unless there be a certain intercommunity of

grammatical construction, or idiom, as well as of root words.

The faintest of these affinities, perhaps (as might naturally have been expected), is that existing between the *Aryan* and American families of language. That there are Sanskrit roots in some of the latter is beyond all dispute. Take (*e. g.*) the Quichua, or ancient language of Peru, in which the sun is called *inti*, reminding us of the Sanskrit *indre*. Love is called *munay*, reminding us of the Sanskrit *manya*; and great is called *veypul*, reminding us of the Sanskrit *vipulo*. In the Chayma language, also, we find *az*, to be, reminding us of the Sanskrit *asmi*, I am. And in the Yucatan language we have the numeral one, which comes from the Latin *unus*, evidently reproduced in the word *hun*. Nor must we omit to notice that whereas *vári* in the Sanskrit means water, there is an American root word called *par*, which in Quichua takes the shape of *para*, for rain; and in the Caribbean and Brazilian tongue, the shape of *parana*, for sea. But, notwithstanding such analogies in the vocabularies of the Old and New World, the idioms and constructions in each are very dissimilar, so that any argument for direct affinity between them becomes weakened. One interesting similarity of idiom, however, may be noted. In Chayma they reckon the year by the rains of winter; "so many years" being expressed by the idiom, "so many rains," which is the case in Sanskrit. It is possible that further researches may discover other such analogies, every addition to which would be a fresh link in the chain of evidence.

A consideration of another analogy which the American languages present to those of the Old World will bring us to the ancient *Euskaldune*, or *Iberian*, spoken in Spain before the migration of the Kelts into Europe. This, however (unlike the former), unites the Old World with the New more through certain peculiar characteristics of grammatical construction than through roots common to their various vocabularies. It is well known that the American tongues are extremely agglutinate, compounding many words by mutilation into one aggregate word of great length. The same characteristic is traced in the modern Basque, which is a direct descendant from the *Euskaldune*. Again, the location of thoughts in these agglutinate words is the same. Thus in Chayma, instead of saying, as we should, "I do not know," they would say, "Not knowing, I am." Exactly the same sort of inversion takes place in the Basque. For example, instead of saying "I love him," it would say, "I loving, have him." Again, the sound of *f* is wanting in most

of the American tongues. So in the Basque. Finally, in both there is a strong dislike to any immediate joining of mute and liquid consonants. These analogous characteristics are very striking, and naturally lead us to the supposition that the languages at some remote period, since which their vocabularies have been changed, were derived from the same parent stock. In confirmation of this relationship, a few of their common root words may be noted. Thus in Basque we have for sun *egusquia*, which might easily have sounded like the word, in Choctaw, *hushke*. For hand, *es-cua*; in Chilian, *cue*. Compare *gua*, in Ottomi, for foot. For I, *nic* or *nik*; in the Chinook tribe of Columbia, *naik*; and in another of the Columbian tribes, *innik*. Further researches into this branch of the subject seem to me to be peculiarly desirable, and would tend, I have no doubt, in a very helpful manner to strengthen the force of this most interesting argument.

Let us now look at the *Semitic* family of languages, which is certainly represented in those of America. A valuable paper* in the Transactions of the American Ethnological Society tells us that in *all* the languages of that continent which have been investigated "the Possessive pronouns united with the noun, and the Personal pronouns in both the nominative and oblique case united with the verb, form but one word." Thus, "my son," "thy father," "I love thee," "he sends him," are each represented in the American languages by simple words. Now this construction, it is well known, marks the Hebrew and other Semitic languages. So far, then, the connection is direct and plain. Nor is it without companionship in regard to vocabularies. For example,—sun, which in the Pareni language is *camosi*, in Phœnician is *chemosh*; tree, which in Choctaw is *itte*, is in Hebrew *aits*; the verb to fetch, which in Algonkin, is *naten*, is in Hebrew identically the same.

If we pass to the *Mongolian* family of languages, we shall come upon even clearer affinities than these; not so much, however, from grammatical as from widely spread verbal relationships, far too numerous to specify in this place. Take the word man as a first example. On the Mongolian side we have Kamboja, *mans*; Chinese, *nan*; and Samoyede, *ninec*; among all of which we observe a marked repetition of the root *nan*, or *nin*. So on the American side. Thus in Algonkin we have *nena*; Athapaska *dini*; Chippeway, *inini*; Iroquois, *nenekin*; Blackfeet, *ninao*; Huastica, *inic*; Quichua, *ninac*; Ottomi, *nanyeke*. Take the various re-

* By M. Gallatin.

relationships, again, which can be traced among words of family kindred on both sides. On the Mongolian, in Lapp *akha*, for wife; in Ostiak, *ika*, for husband; in Turkish, *acha* for elder brother. On the American side, we have in Greenland *aka* for uncle, while in Ottawa *aque*, and in Dakota *waka-angka*; and in Umqua, *ekhe*; all stand for woman. I will only add two more specimens. On the Mongolian side, for the word fish, we find in Samoyede, *kole*; in Lapp, *quolle*; in Chinese, *kho* (a river); in Mantschu, *golo* (the bed of a river). On the American side, we have in Eskimo, for fish, *khallu*; in Choctaw, *kullo*; in Cathlascan, *calla*; and in Cherokee, for perch, *agaula*. Again, on the Mongolian side, for child, we find *esi*, in Samoyede; while in Canton, *dsxi*; and in Mian, *sa*; and in Kuanchua, *dsu*, for son. On the American side, we find in Ojibbewa, for child, *anesi* in Choctaw, *ussi*; while in Ottomi, *iso* stands for son, and in Chinook, *asa* stands for daughter. These, and other root affinities, seem to me to be too widely dispersed, and too regularly connected with one another, to be accounted for on the ground of mere accident, especially when we recollect the almost endless variety of forms into which these divers languages throw their words.*

Evidences, also, of strong philological relationship exist between the languages of South America and those of *South India*, through the intermediate links of Australia and Polynesia. The first striking analogy which I note between some of the American family of languages and those of the Deccan in South India, is traceable in the pronouns I and Thou, conveyed intermediately through the Australian dialects. Thus in the Deccan family, I is represented by *nunu*, *nenu*, *nan*, *nyan*. In the proximate Australian family, *nyan* is represented by *nganya* and *ngai*. In the American stage of transition, *ngai* takes the form of *naiki* (Upper Chinooks); and *nganya* of *yung* (Mosquito). The Cayuse say *ining*. The same appears in relation to Thou. In the Deccan dialects we have *ni*, *nin*, *ninna*; in the Australian, *ninna*, *ningte*, *nginne*. In the American, the Loucheux Indians say *nin*; the Mosquito, *nan*. Analogies exist also in grammar, by which Polynesia becomes a link as well as Australia. The Polynesian family (*e. g.*) contains two personal pronouns *we*—one including the person addressed, like our own; and the other excluding them. A missionary was once preaching in Tahiti, when he said, "We are great sinners;" but using the wrong

* The relationship of the American languages to the Somoyede is well brought out in a contribution to the Philological Society by L. K. Daa. See volume for 1856.

pronoun, he only conveyed to his audience the idea that he and his fellow-missionaries were exclusively great sinners. This is a striking peculiarity of speech. Yet it exists in many American languages, and is common to the Australian and Polynesian. Other links of relationship between the Asiatic and American races may be also traced through the languages of Polynesia, especially in the determinate significance of the formative particles on the verbal root. The Rev. R. Garnett, in a paper read before the Philological Society,* observes, "We may venture to assert, in general terms, that a South American verb is constructed precisely on the same principle as those in the Tamil and other languages of South India, consisting, like them, of a verbal root—a second element defining the time of the action, and a third denoting the subject or person." In Polynesia, too, "verbs have few if any inflections, the want of which is supplied by affixed particles, which are used to designate tense, mood, and voice." Time is, perhaps, less regarded than the place where the action is performed; and this is carefully expressed by the locative verbal form. The directive particles indicate (*e. g.*)—as in the Oregon language—the direction of the action, whether from or toward the speaker. Thus, in the Cherokee, *wai*, he is going away; *tayai*, he is coming near; *nai*, he is going by.

Putting all these linguistic affinities together, the evidence of some primeval connection between the Old World and the New, which we previously traced out as probable, even from a consideration of the oceanic currents, now assumes a far more definite character. Let us see how this evidence may be strengthened by a comparison of certain social customs which exist in common between America and the rest of the world.

III. The first I bring forward is of so extremely peculiar a nature that nothing but some common origin appears at all capable of explaining its existence among races otherwise distant and diverse. Strabo tells us that the Iberian women in the north of Spain, after the birth of a child, used to put their husbands to bed, and nurse them as invalids for a given time.† This practice still exists among the modern Basques, of whom it is said that after the birth of a child the husband goes to bed, taking his baby with him, and then receives his neighbours' compliments.‡ Diodorus Siculus notices the same custom as existing among the natives of Corsica.§ Others have

* Vol. i., p. 271.

† Strabo, III., 4, 17.

‡ Michael, *Le Pays Basque*, p. 20.

§ Diodorus Siculus, V., 14.

recorded it of the aborigines in Pontus, at the south of the Black Sea. Marco Polo found it also in a certain part of China—probably some of the aboriginal tribes who retained the very earliest and most primitive customs of mankind. This strange practice, however, appears beyond all mistake in South America and the West Indies. Among the Caribs, when a child is born, the mother soon goes to her work, while the father takes to his hammock, and is visited as though he were sick.* Among the Abipones, it is said, “No sooner do you hear that the wife has a child, than you see the husband lies in bed, huddled up with mats and skins, lest a ruder breath of air should touch him.”† The inference I draw is that in some remote manner, now unknown and perhaps impenetrable, there must have been an affinity between the ancestors of these American tribes and the aboriginal populations of Europe and Asia.

A conclusion of the same kind may be drawn from another extraordinary set of customs which are found in Central Asia and some of the islands on the south-east of that continent. I refer to certain prohibitions of social intercourse existing in these places between parents-in-law and children-in-law—prohibitions so far out of the ordinary course of life that we can only wonder at their origin. Among the Mongols and Kalmucks, for example, a young wife must never speak to her father-in-law; nor may she sit in his presence.‡ Among the Dayaks of Borneo a married man must not even pronounce the name of his father-in-law. Similar customs are also found in the Fiji Islands, and some parts of Australia. Now such are also found in America. In the south, among the Arawaks, “it was not lawful for the son-in-law to see the face of his mother-in-law. If they lived in the same house, a partition must be set up between them. If they went in the same boat, she had to get in first, so as to keep her back turned towards him.”§ Among the Caribs, all the women talk with whom they will; but the husband dares not converse with his wife’s relatives, except on extraordinary occasions. In the north, near the Rocky Mountains, among the Omahas, the father and mother-in-law never speak to their son-in-law, nor mention his name, nor look in his face. The same custom prevails among the Crees and the Sioux tribes. What can be the cause of this abnormal unity, unless it be the relic of some primeval practice dating from a very early period of history, when the ancestors of these races were in much closer proximity than

* Tylor’s *Early Races of Mankind*, p. 288. † Idem, p. 290.
‡ Idem, p. 286. § Idem, p. 284.

they are now? Facts like these, I contend, are extremely valuable, and supply us with a species of evidence on this subject which strongly augments the force of all that has preceded.

The same may be said of another very remarkable social custom which obtains in the western extremity of Ceylon, and which has acquired the recognition of law, whereby nephews on the sister's side succeed to the inheritance of the possessor, even to the exclusion of his own sons. "This anomalous arrangement is observed in various parts of India, in Sylhet, and Kachar, in Canara, and among the Naios in the south of the Dekkan. The guardianship of the sacred island of Ramiseram is vested in a chief of the tribe of Byragees, who is always devoted to celibacy, the succession being perpetual in the line of his sister."* Exceptional as this practice is, however, Humboldt assures us† that the same thing can be traced among the North American Indians,—the Hurons and the Natchez preferring the female to the male line, and setting aside the claims of the direct heir in favour of the son of a sister. How any custom, so far removed from all the ordinary usages of mankind, could ever have originated in these separate countries, from independent and unconnected causes, I am at a loss to imagine. But on the theory that some of the South Indian tribes found their way to America, as we have seen already to be probable from our philological argument, all is made plain.

IV. This connection between India and North America reminds me of certain mythological affinities which may be traced between them, especially in relation to serpent worship, which we will now proceed to consider.

Every student of these subjects is familiar with the fact that some form of serpent worship runs throughout the Old World. In the mythology of ancient Babylon, the temple of Belus contained an image of Juno holding in her right hand the head of a serpent.‡ In the mythology of ancient Persia, the god Mitras was always represented encircled by a serpent. In Java, when Sir Stamford Raffles visited it, he found ancient temples in ruins adorned with serpent images. In Abyssinia, the first king was said to have been a serpent; and the worship of this reptile prevailed until the Abyssinians were converted to Christianity. In ancient Britain our ancestors held the serpent in peculiar reverence. Several obelisks, indeed, still remain in the neighbourhood of Aberdeen, Dundee, and Perth, on which the serpent is a

* Tennent's *Ceylon*, vol. ii., p. 459.

† See his *Personal Narration*, c. 26.

‡ Diodorus Siculus, Lib. ii., s. 70.

frequent hieroglyph. As for Ireland, the celebrated legend of St. Patrick, viz., that he banished all the snakes from it, can only be reasonably explained by the supposition that, in evangelizing that country, he abolished serpent worship.

But it is in India that the most precise and singular forms of serpent mythology are preserved. It is not merely that houses are built for and dedicated to them, in which they are religiously fed and tended with the greatest reverence, or that the cave of Elephanta and other temples are sculptured with gods grasping serpents in their hands. Over and above this more ordinary form of serpent worship, we find distinct mythological representations, so closely copied from the Hebrew tradition, that it is impossible not to recognize their likeness. Maurice, for example, in his large work on the History of India, vol. ii., gives engravings of Krishna, first, as enfolded by a serpent, which is *biting his heel*; and, secondly, as *trampling the serpent upon its head*, copied accurately from the Hindu originals.

Now America supplies exact analogies to all these facts. When Mexico was first discovered, Montezuma, on one occasion, showed Cortez his gods. Among these, one idol was covered with gold and jewels, and his body bound with golden serpents. Some years since, in a collection of Mexican antiquities brought over to England by a Mr. Bullock, the cast of a terrific idol was exhibited, consisting of a serpent coiled up in an irritated position, with jaws extended, and in the act of gorging a woman. Like the Hindus, they also kept live serpents as household gods in their private dwellings.

Nor is this all, for among the paintings of the Aztecs found in Mexico, two have been preserved by M. Aglio in which a figure is drawn *smiting a great serpent on the head*. While a similar but more expressive painting occurs in Plate 74 of the Borgian collection, where a figure is represented as victoriously *smiting the serpent's head*, at the same time that the serpent is *biting his heel*.

I will not enlarge upon this part of my subject by adducing evidences from ancient Peru, and the modern tribes of North America, because I submit that the foregoing are sufficient; for they not only set forth a unity of mythological worship between the Old and the New World, but of tradition also, and that in such exact agreement with the Hebrew tradition as to render their identity of origin approximately clear and certain.

V. The same thing may be traced even still more powerfully in relation to the Hebrew tradition of the universal deluge.

To narrate the many traditions which exist of a general

deluge would be to wellnigh fill a volume. Some of these, no doubt, refer only to local inundations. Others bear evidence, however, by their striking analogies with the Hebrew tradition, that they were derived in some way or other from that source. It is not that any single tradition carries with it all the singular features found in the history of Noah's ark, but that one feature of the history is found in one tradition, and one in another; so that, like the fossil bones of some extinct mastodon discovered in different parts of the same mountain, we can put them all together and reconstruct the original skeleton. Among the Old World traditions, for example, those of Greece, Scandinavia, India, and China preserve the distinct recollection of a general deluge on account of the world's wickedness, and of a *new stock* springing from the number saved. In the Greek story of Deucalion, and the Hindu Matsya Avatar of Vishnu, as well as in the bardic verses of the British Druids, the fact of *remarkable piety* in the saved family is preserved. Among the Hindus and Fiji islanders, the identical number of *eight* saved persons is chronicled. Lucian* relates of Deucalion's deluge that the vessel which saved him took in by *couples* all kinds of living creatures. Plutarch,† in relating the story, adds that Deucalion *sent a dove* out of the vessel. Abydenus,‡ when relating the Chaldean tradition of Xisithrus, says, "On the third day after the waters abated, he *sent out birds*, to try if the water was gone off, but they, having nowhere to rest, returned to Xisithrus. In the same manner did others. And again the third time, when their wings were *daubed with mud*."§ The story of Satyaurata, in Matsya Avatar, says that he entered a large vessel, accompanied by seven saints, and encircled by *pairs of brute animals*, with seeds and medicinal herbs.

Now the argument I urge is that America supplies us with exactly the same sort of traditions respecting a universal deluge. In Peru, the tradition is that the saved persons found shelter, not in a ship, but on the top of a mountain; a fact which, if it stood alone, would simply indicate the recollection of some local flood. This is rendered very improbable, however, by the circumstance of other details being mingled with the story, which are plainly corrupted from the Hebrew tradition. For it is said, "As soon as the *rain ceased*, they sent out two dogs, which *returned to them* smeared with mud and slime. Hence they concluded that the flood had not

* Lucian : *De Deâ Syriâ*.

† Plutarch : *De Solertiâ Animalicum*.

‡ Preserved in Eusebius, *De Præp. Evang.* Lib. IX, c. 12.

§ From Sir R. W. Jones's *Asiatic Researches*.

yet subsided. After a certain interval, they sent out *more dogs, which, coming back dry*, convinced them that the earth was *now habitable*. Upon this they left their hiding-places, and became the *progenitors of the present race of men.*"* The tradition found among the natives of the island of Cuba refers the rescue of a man and his family to the friendly aid of a ship, *into which he took many animals*. It states that "when the flood ceased, he *sent out a raven, which, because it found food suited to its nature, never returned*. He then sent out a *pigeon, which soon returned, bearing a branch of the Hoba tree.*"† Let us now come to Mexico. Humboldt tells us ‡ that, of the different nations which inhabited Mexico previous to its discovery by the Spaniards, five had paintings representing the great deluge of Coxcox, or Tezpi. The tradition of one of these was that "Coxcox embarked in a spacious canoe *with his wife and children, several animals, and grain*. When the Great Spirit ordered the waters to withdraw, Tezpi, or Coxcox, *sent out a vulture*. This bird *did not return* on account of the carcasses with which the earth was strewed. He then *sent out other birds*, one of which, the humming bird, alone returned, *holding in its beak a branch with leaves*. From another source § we learn that in some of these Mexican pictures the canoe, or raft, is depicted at the foot of a mountain, "while a *dove, from the top of a tree, is distributing languages* to the men born after the deluge." Scarcely less interesting is the Mandan tradition which Mr. Catlin found when he lived with that tribe on the northern banks of the Mississippi. It was illustrated by a festival kept once a year, and at one of which he was present. This festival was called "The Subsiding of the Flood." Singularly enough, this ceremony "began at a season of the year," says Mr. Catlin, "when the willow leaves are fully out; in allusion to a tradition they have that *the twig which the bird brought home* was a willow bough, and had full-grown leaves on it. The bird to which they allude is *the dove, which they call the medicine bird*, and will not allow to be destroyed by any one. The ceremony begins by the sudden entrance into the village of one who personates the first or only man. Descending from the western prairie, he runs into the village, where all stand ready to receive him. His body is chiefly naked, but painted with white clay, so as to resemble at a little distance a white man. During the whole of the day he went through the

* See Faber's *Horæ Mosaicæ*, vol. i., p. 116.

† See Appendix to Norman's *Rambles in Yucatan*.

‡ Humboldt's *Vues des Cordillères*.

§ See Priest's *American Antiquities*.

village, stopping in front of every man's lodge, crying out till the owner asked who he was, and what was the matter. To this he replied by relating the sad catastrophe of the deluge, saying that he was the only person saved from the universal calamity; that he had *landed his big canoe on a high mountain*, where he resided; that he had come to open the medicine lodge, which must receive a present of some edged tools from the owner of every wigwam, that it might be sacrificed to the water. "For," said he, "if this be not done, there will be another flood, as it was with such tools the big canoe was made." Mr. Catlin adds that one of the Mandan doctors gravely told him how the flood was produced—namely, by four tortoises placed at the *four* cardinal points, each pouring forth water for *ten* days—a memorial of the *forty days' rain*, as related in the Hebrew tradition of the deluge, which is singularly confirmatory of all that has been stated before. I might easily increase these evidences. There is a tradition, for instance, among the Algonquin tribes of the Delaware, in which the deluge is described as covering the tops of the highest mountains, while a raft floats safely above them; the point of the story being that Manabozho, the owner of the raft, declares the waters will not subside till he obtains a few grains of earth from the bottom of the deep. Upon this, the beaver first undertakes the mission, but without success; then follows the otter, but with the same result; at last the musk rat plunges in, returning with a few grains of earth in its claws, taking up which, Manabozho dries them in the sun, and scatters them over the waters. This done, the mountains emerge from the deep, and at last the plains and valleys come to view, and the waters disappear.*

It will thus be seen that there is not only a remarkable concurrence even in minute particulars between the Old and New World traditions of the deluge, but that the points of similarity are such as would not have been likely to spring up naturally in the minds of independent nations out of the nature of the case; while, on the other hand, they all conform themselves in some way or other to the history of the Noachic tradition preserved by the Hebrews. This fact, connected with what has gone before, seems to add an almost conclusive argument in favour of the original dispersion of mankind from an Asiatic centre; and in that manner of an organic unity between the native races of America and those of the Old World continents.

* Taken from Squires's *American Archæological Researches*, where the whole story is narrated.

VI. Let me conclude with a few words upon miscellaneous analogies or affinities. Herodotus gives an account of the custom of scalping among the ancient Scythians, which singularly corresponds with the habits of the North American Indian. The New Zealanders possess a small but powerful weapon for close combat, made of bone or stone, somewhat in the shape of a beaver's tail, sharp and strong enough to split open an enemy's skull, through the end of which, nearest the hand, is a hole for the wrist-cord. Whether a weapon in every way a facsimile of this was likely to have been thought of by an independent race may be open to doubt. It is certain, however, that the ancient Peruvians had exactly the same instrument, even to the hole drilled through the handle and the wrist-cord. Yet, with this exception, no such instrument is found in any part of the world.

The people of Java, according to Sir Stamford Raffles, regulate their markets by a week of five days. So, in ancient Mexico, a month was divided into four weeks of five days each (there being eighteen months in the year); and on the last of these five days there was a public fair or market.*

The Aztecs of ancient Mexico believed also in the past destruction of the world at four successive epochs; so with the Hindus. Among the Mantschu Tartars there are the following signs in the zodiac, viz., the tiger, hare, serpent, monkey, dog, bird. These six signs are also found in the Mexican calendar. There is a singular instrument for striking fire represented in an ancient Mexican painting, in which a man twists a long stick with both hands as it presses upon a flat piece of wood which he keeps firm with his feet. This instrument is exactly the same as that in use among the Malays of Sumatra, and the aborigines of Ceylon. Among the ancient Peruvians, great religious festivals were regulated by the solstices and equinoxes, which were carefully calculated. † So with the Chinese. And just as the Emperor of China, once every year, holds a plough in the presence of his people, to show his respect for agriculture, so with the ancient kings of the Incas. ‡ These Incas, too, like our own Anglo-Saxon race, were in the habit of drinking healths at their feasts; and, like the ancient Persians, they had an elaborate system of government despatches by running posts.

This list might very easily be enlarged; but without any further advantage to our argument; for if the cumulative force of all

* Prescott's *Conquest of Mexico*, B. i. chap. 4.

† Prescott's *Conquest of Peru*, B. i., chap. 5.

‡ Count Carli's *Lettres Americaines*, tom. ii., p. 78.

which has been brought forward does not carry with it conviction, nothing else will. Some persons will probably repel the analogies just named, by urging that they have arisen out of the organic unity of the human mind in different races, without the least reference to a unity of origin in those races. This objection might possibly apply to some points. In ancient Mexico, for example, there has been discovered a piece of pottery with a border pattern painted on it as perfectly Etruscan in its character as if it had been dug up in Etruria itself. The analogy is most striking. Yet the possibility of an independent origin of this sort, in different ages, races, and countries, is so plausible that, taken by itself, it would prove little or nothing. That, and many other analogies, only obtain force by their aggregation with a number of others, too singular and exceptional in the history of mankind to be disregarded—such as those brought forward in the main part of this paper. I now conclude, therefore, with one or two other extraordinary coincidences of the same kind in connection with ancient Mexico—coincidences which have the strongest possible tendency either to prove that America had been visited by Christian missionaries long before the voyages of Columbus, or else that the wave of an Old World migration had taken over thither certain tribes who had previously known something of Christianity. Thus we read, in Prescott's *Conquest of Mexico*, that the Aztecs had a religious ceremony of naming their children, almost exactly corresponding with our sacrament of baptism. The lips and bosom of the infant were sprinkled with water; when God was implored in the following extraordinary language, viz., "that He would permit the holy drops to wash away the sin which had been given to the infant before the foundation of the world, in order that it might be born anew." I merely give you the form of words adduced by Mr. Prescott.

Again, that these Aztecs, with their bloody ritual, should have had such set forms of prayer as the following, is no less extraordinary: "Wilt Thou blot us out, O Lord, for ever?" And, "Impart to us, out of Thy great mercy, Thy gifts, which we are not worthy to receive through our own merits." Once more, what can be more parallel with the New Testament teaching than the following moral maxim: "Keep peace with all; bear injuries with humility; God, who sees, will avenge you." Still more remarkable is the following: "He who looks too curiously on a woman commits adultery with his eyes." In the midst of this strange medley of truly Christian morals with idolatrous abominations, there cropped up also certain vivid evidences of the Roman Catholic

ritual. They administered to each other, for instance, the rites of confession and absolution—the secrets of the confessional being held inviolable, and penances being imposed of the most severo nature. Nor was this unknown to the Incas of Peru, among whom also the conventual system was in full force.

The argument I urge, then, as the result of this paper, is cumulative. First, I have shown that the prehistoric population of America, through oceanic migrations, was possible by five distinct routes. Secondly, I have exhibited strong linguistic affinities between the languages of the Old and New World, rendering this possibility probable. Thirdly, I have adduced a variety of peculiar customs, so original and exceptional as not likely to have been independently thought of, still further confirming this view. Fourthly, I have added to the force of this argument by presenting to view what certainly appear to be distinct mythological recollections of the fall of man, as given in the Holy Scriptures. Fifthly, I have increased the weight of that argument by enumerating specific and minute recollections of Noah's deluge, corresponding too exactly with the Hebrew tradition not to have been borrowed from it. And, sixthly, I have touched upon a few other miscellaneous stores of information, exhibiting certain other analogies of customs between America and the Old World, too curious not to be mentioned. It is for my audience to decide how far the whole chain of evidence, taken together, is worthy of their consideration and respect.

The CHAIRMAN.—I beg leave to propose a vote of thanks to the author of the very admirable paper which has just been read. I am quite sure that we must all feel a great deal of satisfaction at hearing a paper containing such well-arranged evidence against the necessity of supposing or searching for any independent centres of creation. That is a mere theory, and the evidence that has been afforded by the paper of to-night is not only very conclusive and satisfactory, but to my mind offers many points that prove, not only that the origin of various races, in various parts of the globe, sprang from the same identical source, but that their origin is in conformity with the account which is given in the Scriptures. That account has been shown to be highly probable, and indeed much more so than the contrary supposition, which I am sure every one present must feel is very satisfactory. (Hear, hear.) I will only add that if any members have any remarks to make upon the paper which has just been read, I shall be most happy to hear them.

Rev. Dr. THORNTON.—It may seem presumptuous in me to offer any remarks upon so very learned, able, and conclusive a paper as that to which we have just listened, but perhaps I may be allowed to make a few observations

in corroboration of it. As to the preference of the female to the male line, setting aside the eldest son in favour of the sister, and taking as heir the son of the sister, I recollect that there is a statement in Herodotus to the effect that the Lycians had the same practice, and they gave as a reason the somewhat pungent statement that a man might be pretty sure who his mother was, but he could not be quite so sure about his other parent. (Laughter.) It is a fact, which is doubtless very well known to Mr. Titcomb, that the Lycians, of whom we know comparatively little, appear to have been a civilized people. I may also add that the practice of baptism, which Mr. Titcomb mentions as having been prevalent among the Aztecs, was also observed by the natives of New Zealand. The child was taken when eight days old to the priest, who poured water on it that it might live, without which the infant was supposed to be eaten by the Atua demon within a certain time. That is a curious analogy; but I should be inclined to attribute it, not to any Christian tradition, but rather to a tradition connected with the early custom of the Jews in the admission of their proselytes. I should, for the same reason, be inclined to doubt whether Mr. Titcomb is correct in attributing to the Aztecs a medley of Christian morals mixed up with idolatrous abominations and certain vivid resemblances of the Roman Catholic ritual. I should rather attribute those customs to some affinity with the Buddhist ritualism; and there is reason to believe that the strange customs referred to existed among the Buddhists long before they were borrowed by the Roman Catholics. Indeed, there is some reason for thinking that, instead of the Buddhists having borrowed anything from the Roman Catholics, the Roman Catholics got from them some things in their system, as pointed out by Mr. Titcomb; for instance, celibacy, abstinence from flesh, and penance, which have been known to exist for ages among the Buddhists. Any one who has read M. Huc's entertaining account of his visit to the Lamaseries in Mongolia will not be at a loss to see how the Aztec, Roman Catholic, and Buddhist customs may be considered to have a connection one with another. I may perhaps, however, be permitted to say that I think Mr. Titcomb scarcely appreciated sufficiently the fact (in referring to the analogy between the Iberian or Euscaldune language and the languages of North America) that the Euscaldune language probably belongs to the Turanian family, and was also a finished language: in fact, it is not unlikely that the ancient Lycian and the ancient Euscaldune languages were very similar. The agglutinate character, which is very remarkable in all the languages of North America, is found in the Turanian, and to a great extent in the Mantchou language. The monosyllabic form tends to agglutinate, and the number of syllables such as a North American strings together is really more characteristic of the Mantchou than it is of the more finished Turanian. Still the principle is the same, and we can therefore well suppose that the Turanian race did actually cross over at some remote period to the great continent of America, which is still further strengthened by the tradition which was found to exist in Central America that it was peopled by a race who came over in three great canoes. I think that we are very much indebted to Mr. Titcomb, and are bound to give him our hearty thanks for

the three great canons he has laid down in order to guide us when arguing from analogy. It has been well said that a coincidence to a historian is a will-o'-the-wisp, and that it very often leads him into a quagmire. The remark applies with still greater force to reasoning from analogy in philological studies. Nothing is more tempting, and nothing is more delusive to the philologist than a coincidence, and the three great canons laid down by the learned author of the paper are peculiarly valuable to us, as tending to put us on our guard against being led away by the great similarity of the agglutinate principle of the Aryan and the Turanian languages and those of North America, or being deterred, on the other hand, from forming a specific conclusion by the slight similarity which exists between the Semitic languages and the languages of South America; and arguing from analogy that they afford us sufficient proof that there must have been some intercourse between the Old and the New World, or rather that the inference is not only possible, but highly probable, that the population of what we call the New World sprang from some kind of emigration, which took place, whether by accident or design, from the Old World. (Cheers.)

Captain FISHBOURNE.—If I may be allowed to make a remark upon what may be termed the geographical view of the question, I would observe that the origin of currents is generally attributed to the winds; and Mr. Titcomb has not laid any great stress upon the winds, which I think are a much more reasonable and effectual way of accounting for the intercourse taking place between the two continents than any other. It must be remembered that canoes and rafts are very common even in these days on the coast of Chili. Great quantities of goods are carried upon rafts, and when they are blown off from the land, what can be more likely than that they should be carried away with the prevailing winds? The trade-winds blow exactly in the direction of the two courses which Mr. Titcomb has referred to. The north-east trade-wind would carry them from Polynesia, by the Pacific, over to America; and the south-east trade might carry them round the Cape and across the South Atlantic. With respect to the improbability of small vessels making such voyages, which has sometimes been alleged, it must be remembered that the old voyagers made some of their voyages in very small vessels. We have in these days got such large ships that we can hardly imagine that such voyages as those we are talking of could have been made by small vessels; but in the days of Anson we had vessels of from only 30 to 70 tons making long sea voyages; whereas now that we have ships of from 3,000 to 4,000 tons, we really begin to imagine that it is impossible to make a long voyage in a small vessel, and so that when we hear of people coming over from America in a small boat in which there were only two men and a boy, it is considered a most extraordinary thing, and all the world rushes to see the vessel. There really is nothing extraordinary in it; for voyages equally remarkable used to be made quite commonly in those days. I recollect, some years ago, Wilson Croker justifying his promotion of a son to a command at an early age, by saying that nobody had heard of such a feat of seamanship as he had achieved, for he had actually navigated a vessel

of 200 tons round Cape Horn. Why, if you carry yourself back a hundred years earlier, you will find that Cook, Frobisher, and other naval commanders made the voyage in much smaller ships. I merely mention this in order that no currency should be given to the idea that it was impossible for the thing to have occurred in the way suggested by Mr. Titcomb.

Mr. SHAW.—It is with some diffidence that I venture to make one or two remarks on the views of the rev. gentleman who has read so very able a paper; but I must confess, in the first place, I am somewhat surprised at the very slight regard which Mr. Titcomb seems to have paid to that means of communication which I have always thought the most likely to have been the medium of conveying the population of the Old World to the New—I mean the communication by way of Behring's Straits; and although I feel, with the gentleman who has just spoken, that the winds and currents have probably had a great deal to do with any accidental transmission of people from the Old to the New World, still I think that, having regard to the fact that Behring's Straits are only about 45 English miles across, that they are centred by two large islands, and that very often in a severe winter the waters are frozen over, thus forming a complete and unbroken means of transit on foot, it may undoubtedly be taken as one of the most probable means of the transmission of the human race from one world, or rather from one part of the world, to another. Again, I think, although I would not enforce it as a necessity, that a little stronger tone might have been used with regard to the accidental transmission of mankind from Asia to America by means of the equatorial currents or the wind currents, whatever they may be. With regard to the use of small boats, such as the one alluded to by the gentleman who spoke last, namely, the boat which came over recently from America to this country with only two men and a boy, although that may show clearly enough that very long voyages may be made in very small boats, it must be remembered that in order to support the proposition that America was peopled by individuals who were drifted there by currents, you must show that they must have set out for the very purpose of peopling a new country, since it is quite evident that any individual who was thus drawn into the current or trade wind must have had his wife with him, which is rather against the supposition of America having been accidentally peopled in this way. I don't think that that is quite consistent with an accidental transit by means of rafts or small boats. Of course if there was a determination to go forth upon some voyage of discovery for the purpose of peopling a new land, the men who went would be prepared with that necessary means of increasing or keeping up the population. What has been said by the learned author of the paper with respect to the traditions of Mexico appear to me to be most remarkable, and to afford as strong a reason as any why one should believe that the notions of the Old World have been carried to the New. The very great similarity between some of the traditions of the Mexicans and those of the Jews, the pyramidal column, and the notions of the deluge, which have certainly been current in Mexico for ages, go a long way to make one think that at one time or other there must have been distinct and positive, and

lthough a little misty and confused, yet still direct evidence of the circumstances mentioned in the account of the Noachian Deluge. But, in speaking of these customs, or beliefs, or traditions, or whatever you like to call them, among the Mexicans, one circumstance has occurred to my mind which affords a reason that I think is almost conclusive against the supposition that the New World was peopled by any people who were conveyed thither direct from the heart of Asia, and that is, that the old Indians never thought it necessary to invoke what they termed the Great Spirit in aid of good works ; they believed that Spirit to be always ready and willing to act for good, and therefore that it was not necessary to propitiate Him or to pray to Him in support of anything which they considered to be good. Their custom, therefore, was to endeavour to propitiate the bad or evil spirit, to engage his good offices in behalf of good works. It is a very singular thing that, while men in all Christian countries should address prayers to the Good Spirit, praying Him to countenance and help them in all good works, they should in America have taken the directly opposite course, and, leaving the Good Spirit, should have addressed all their prayers and aspirations to the evil one, and should intercede with him not to hinder them in their good works. The paper as a whole tends, in my mind, very much to confirm the *littera scripta* of Holy Writ ; and anything which in the way of scientific investigation tends to confirm that must be truly gratifying to inquiring minds. It is so much the fashion nowadays to obscure with uncertainties the plain words of Holy Writ that if we, by ingenuity of thought and consideration, can prove that science is not incompatible with the exact words of Scripture, it must be a cheering circumstance to the mind of inquirers. I cannot help feeling that such a paper as we have heard read is very acceptable, because nothing in the world can be plainer than the 19th verse of the 9th chapter of Genesis, in which it is said that the three sons of Noah were Shem, Ham, and Japhet, and that from them the whole earth was overspread. (Hear, hear.)

Professor MACDONALD.—I cannot help, in this society, expressing my opinion that the existence of different characteristics in the various races of mankind is not quite consistent either with the ideas of the writer of the paper or of the gentleman who has just sat down. That gentleman has referred to the account in the book of Genesis where it is stated that the whole earth was peopled by the three sons of Noah. Now I think that if clergymen and others were to read the whole of the passage from the commencement of Genesis, they would be of opinion that there was a very different system of distributing the people throughout the world. It has been too much the fashion to accept the interpretation which has been placed by the clergy upon the books in the Scriptures, which give an account of the distribution of mankind amongst the different nations of the earth. It must be remembered that for a very long period of time the Scriptures were thought to be the sole property of, and that the right to explain them was entirely in the hands of, the Church, and therefore any attempt, by the aid of science, to explain them beyond the exact teaching of the Church was looked upon as heretical and wrong. Now, I think that

if you read with strict faith in the Holy Scriptures the 1st chapter of Genesis you will come to a very different conclusion with respect to the distribution of mankind. In point of fact, it would be forced upon you. It has been too much the habit to doubt the wonderful declarations of the 1st chapter of Genesis, from its not coinciding with our ideas that any portion of the human kind should have been created subsequently, and therefore the subsequent myths and fancies of the people are preferred to the true interpretation and true use of the Scriptures. But the 1st chapter of Genesis has the same high inspiration that all the rest has, and my object in wishing to direct attention to this point is, that mankind are there described to have been created the day previous, whatever length of time you may take that expression to mean, whether it was a period of ages or a period of days, a period of weeks, or even of seconds. However long or however short it may be, it was a different period; and it was anterior to the creation of Adam, who, we have been told to-night, and who is generally believed to have been the great source and father of the human race. Now, I believe nothing of the kind. In my opinion Adam and his paradise is comparatively a modern creation—

Mr. REDDIE.—The learned professor will forgive me interrupting him; but I am afraid that he is travelling into a subject which is a great deal wider than the scope of the paper which has been read, and I doubt whether it is desirable to drift away from the discussion of so admirable a paper by introducing a still larger subject.

Professor MACDONALD.—If Mr. Reddie happened to know what I was about to say, he would be a better judge as to whether it had a bearing on the question or not; but, as he does not, I must be pardoned for proceeding to explain my views. What I start with is, that the world was peopled on a day anterior to the paradisaic age, and that the blessing of God was then bestowed on them. We are told, in the 27th and 28th verses of the 1st chapter of Genesis, "So God created man in His own image, in the image of God created He him; male and female created He them. And God blessed them." This, I contend, was before the paradisaic age. God created them with full liberty of everything. They were to have dominion over the fish of the sea, the fowl of the air, the beasts of the field, over every living thing, over every herb and tree; everything was given to them. There was no restriction whatever as to the eating of the forbidden fruit; that is entirely a restriction which relates to the sabbathic Adam. I bring these observations to bear on the notice on the paper by observing that the gentleman who followed the writer of the paper showed that the Turanian was probably the most extensive source of the language of America; but what are the people? What are the yellow races of mankind? They are scattered all over the world. There is a great mass of them in China; but generally speaking they are a maritime people. You have them scattered all along the edges of the southern continent. You have the Fins, and the Laps, and the Esquimaux scattered all over the coast of the north hemisphere. That I consider is a

proof that the world was peopled from different centres, which became scattered in different places; and from which I conceive the varied races of mankind to have descended. But the principal object which I had in view in rising was to direct your attention to the fact that it is generally considered that the source of the human family was created in a comparatively recent age; whereas it appears to me, from a study of the 1st chapter of Genesis, that the whole earth was peopled at a much earlier period than the Adamic age, and that it was peopled in different centres. I do not mean to say that the population was entirely spread over it, but that there were different centres of the human family; and it is particularly observable that in the tropical regions we have black races of wholly different kinds. I cannot and will not believe that they could possibly have come from the same stock. There must have been different individual stocks. I am pleased with the paper; it is on a subject into the details of which we cannot enter without due caution and anxious study; but I would suggest, from the considerations which I have now thrown out, whether it is not probable that there was a much earlier state of creation, so far as concerns mankind, than what is usually believed. I view the creation of Adam as the creation of one source of a human family alone. The object of this creation was restrictive: their penalties were greater, and those penalties were entirely restricted to them; but, for fear I should call up Mr. Reddie again, I will simply say that the consideration of the subject of the age at which mankind was created must, I think, lead us to the conclusion that the period must be antedated in reference to the period of the creation of the paradisaic Adam.

Mr. REDDIE.—I cannot help thinking that the learned professor has failed to appreciate the issue which is raised in the paper under discussion. Unquestionably Mr. Titcomb was not likely to be ignorant of the fact that there exists what has been termed a pre-Adamite theory of the creation of mankind, and that one portion of that theory is that the human species sprang not from one common father of us all, but from various centres of creation; because the whole object and tendency of the paper is to prove that that pre-Adamite theory is not so probable as the other theory that all mankind has sprung from one common origin. It was not intended to-night to discuss the Scriptural argument or the Scriptural view of the creation of man, but, simply taking the facts as we have them, of the existence of black races, white races, yellow races, and red races, to show, by pointing to a community of customs and to a community of language, and by proving the existence of opportunities of migration, that mankind, as now spread over all the world, with all these various diversities, may (as we have been recently taught in very learned quarters on physiological grounds) still have been developed from a single pair; and that the facts as we find them are not at all incompatible with the account of the origin of mankind as described in the Scriptures. Mr. Titcomb's object was to show from all these various arguments what is the most probable belief as regards the distribution of the human family, and therefore I think that we cannot to-night enter into any mere exegesis of the

1st chapter of Genesis, or properly go into any of the various arguments of a different kind which might on another occasion have been adduced as regards the probable diversity of the human race in its origin. I hold in my hand a paper read by Sir J. Lubbock, in the Ethnological Society, on the 26th of November last, which has also been put forward by him in a lecture delivered at University College, London, on the savage origin of mankind. Now Sir J. Lubbock is a Darwinian, and yet he is quite aware that there exists that great diversity in mankind to which Professor Macdonald has alluded, and of which Mr. Titcomb is so well aware that he has written a paper to show that there has been probably a common origin of mankind instead of its having sprung from different centres of creation. In that paper Sir J. Lubbock refers to some customs which I will very briefly glance at for the purpose of proving or at least confirming Mr. Titcomb's argument, notwithstanding that Sir J. Lubbock holds the opposite doctrine, and adduces those customs in proof of his own views. He considers that mankind rose from a savage condition, and not from a common civilized ancestor, such as we believe the first man created by God to have been. In reference to the peculiarity of kinship which has been noticed this evening, he says,—

“We recognize kinship running through a family line, and the traces which exist, running through the Australians, the Fijians, the South Sea Islanders, and the Cossack hordes, &c., may unquestionably dispose the mind to believe that mankind sprung from one common origin, and were afterwards dispersed all over the world.”

Now that is a very fair admission to be made by Sir J. Lubbock, who takes the opposite view ; and he goes on to say that there is some additional reason for this supposition in the universality of the custom which has been found to exist in so many nations of a man's heirs not being his own children, but those of his sister ; the mode in which the inheritance goes constituting the family line. There is another custom to which he refers which was brought prominently forward by the late eminent Judge Haliburton, the well-known author of “Sam Slick,” in a paper which he read before the Institute of Natural Science, in Nova Scotia ; and it is curious that the learned judge rested almost the whole of his argument on one particular custom which is common to almost all nations, but to which the author of the present paper has not alluded ; so that I think it will be useful now to refer to it. The title of Judge Haliburton's paper is, “The Unity of the Human Race proved by the Universality of Certain Superstitions Connected with Sneezing.” As you are quite aware, no doubt, it is the custom in many countries to say when a person sneezes, “God bless you,” or to use some other equivalent expression. That is a custom which Sir J. Lubbock admits to be at first sight both odd and arbitrary, but, so far from being confined to one nation, it has been found to extend over a great part of the world, and has even been found to exist in Otaheite. Sir J. Lubbock, however, contends that the custom is not arbitrary, because Judge Haliburton admits that to sneeze is considered an omen of impending evil. Now I consider that is a very arbitrary interpreta-

tion of sneezing, for not one of us, for instance, believes anything of the kind ; and indeed most of us rather enjoy a good sneeze very heartily. But the reason why Sir J. Lubbock has joined issue on the point whether the custom is an arbitrary one or not is because a community of arbitrary customs is the best proof of a common origin or unity ; and he goes on to say that the deduction that two and two make four, or that twelve months make a year, which we arrive at naturally, is no proof of a common origin. But, in making that remark, the learned baronet has fallen into a strange mistake. Most certainly such a division of the year into twelve months is purely arbitrary, for naturally the division would be into thirteen months, from the thirteen moons that occur in the year. There are several other arbitrary customs mentioned in the paper of Sir J. Lubbock to which I have alluded, but which I do not think by any means so exhaustive as the one we have just had the pleasure of listening to. The most important of all these arbitrary customs is one which has only been slightly glanced at by Mr. Titcomb, but still sufficiently to show that he has not overlooked the point, and that is the division of the sky into "constellations" of stars. I hope one day that we shall have some able author to take up that subject, so as to show a community of thought and object in dividing the starry sky into those very arbitrary signs designated by arbitrary figures and animals of various kinds, which seems to me to be a thing which could never have occurred independently to different peoples. It is a fact that the tendency of the present day has been to try to reverse that custom, though it is found that throughout the whole world, wherever there is the least knowledge of astronomy retained, you have the signs of the zodiac pretty nearly as we have them on the celestial globe. But the original divisions seem to have faded most completely and extensively in America, although, as has been mentioned by Mr. Titcomb, even there they have been retained in some few instances. Before I sit down, and with reference to the remark made regarding the mode of interpreting the Scriptures, I am going to take the liberty of criticising the paper on one point, and one only. There is no doubt whatever that what has been supposed to be the teaching of the Scriptures has much more frequently been the teaching merely of the belief of the people into whose hands the Scriptures have fallen, and who have been the generally accepted teachers of the day, and of course at certain different stages in the history of Christendom. Substantially, no doubt, Professor Macdonald is quite right in saying that the clergy were once the sole interpreters of the Scriptures. But it is unnecessary to tell him that then the clergy were the only "clerks" or learned people, and that they alone taught science and everything else. They naturally had their science drawn from such sources as they could get, but when they had once got a notion which they thought to be science they very often found it in the Scriptures also, just as Professor Macdonald has found the theory of the pre-Adamite men there ! The only two or three words of the paper to which I am going to take a slight exception—and I am sure Mr. Titcomb will excuse me, and will agree with me when I have explained what I mean—are those which referred to the belief respecting the shape of

the world in the middle ages. He says that the discovery of Columbus was discredited because up to that moment science and Scripture had alike been made to teach that the world was round like a plate. Taking the words as they stand in the sentence, there is no kind of objection to them, but I merely wish to show that the interpretation which was then placed upon the Scriptures must have been an erroneous one, because there is not a single passage in the whole of the Scriptures that supports the opinion that the world is round like a plate. On the contrary, I think passages may be found in the book of Job which clearly prove a knowledge of the rotundity of the earth. (Hear, hear.)

Mr. E. R. PATTISON, F.G.S.—I beg leave to make a few remarks, and I will commence by stating that it appears to me that the proposition of Professor Macdonald is very material to the consideration of the question before us ; so material, indeed, that if it were proved it must overthrow the theory put forward by Mr. Titcomb, since they could not both be true. What is Mr. Titcomb's theory ? It is of a definite character, and if, therefore, we are to pass judgment upon it in reference to the facts which he has produced, the one proposition is necessarily thoroughly antagonistic to the other. With the exception of Professor Macdonald, all the speakers have been engaged in adding stones to the noble cairn which Mr. Titcomb has raised. The paper which Mr. Titcomb has read is an admirable one, and as worthy of the attention of a learned society as any that has been read in this room, but we must not, of course, presume that it disposes conclusively and for ever of the whole question, and leaves nothing whatever to be said by those who take a different view. I therefore think that it is well that Professor Macdonald should state honestly and independently his views, in order to enable us to consider in what point of view the paper requires discussion this evening, and what must be the tendency and direction of the discussion. The title of the paper is, I think, amply justified by its contents. It takes the case of a people who, in regard to this subject of the dispersion of the human race all over the world, may be termed an *experimentum crucis* on the question ; for surely if there are any men to be found in the world who have not a common origin with the rest of mankind they would be found in America, because it must become apparent to any inquirer that, so far as intercourse is concerned, there must have been much less intercourse between Asia and America than between Asia and any other part of the known world. I say, therefore, that if any one thinks he can trace an independent origin, where is it more likely that traces of such an independent origin could be found preserved than in America ? But Mr. Titcomb has, I think, shown that not only do no such traces of independent origin exist, but that, on the contrary, there are distinct traces not only in analogical resemblances in language and customs to the old world which were found to exist on the discovery of America among the Aztecs and other nations, but he has also shown that there were certain possible modes by which the intercourse could have taken place. The only question with me is how far those proofs can be carried. Mr. Titcomb has adduced what I may call the geographical argu-

ment to prove not only that intercourse between the Old World and the New was possible, but that it did actually take place. Now I think I can carry that argument still further, and I hope you will not be suspicious of me when I seek to bring a proof from certain suspicious quarters in the estimation of some, namely, that mixture of archæology and geology which belongs to the flint period, and to the period which immediately succeeds it. We have now obtained a very large collection of relics from the lake dwellings, such as hammers and other implements used by our remote ancestors. This epoch is also well illustrated by the remains of animals which have been found, and especially by the bones of the reindeer and the implements made out of them, and which have been found without any admixture, so that such collections constitute a particular group of remains, which may be witnessed at Neufchâtel, and there is also a still larger and more complete museum of such things in Victoria-street, and which will illustrate the archæology of this remote period. We have thus had an opportunity of examining almost all the implements used, for it is quite evident that they all were used in these lake villages, and the materials are all admirably disposed and classified; and the conclusion to which we must come is that they were the relics of a people of quasi-civilized character. (Hear.) They were certainly civilized to the extent which the Esquimaux may be termed so, and if you have any doubt as to their being a civilized people all you have to do is to visit the museum of Mr. Christie, and there you will find harpoons of bone and materials used in fishing, such as forks, also harrows, diggers, and cutting instruments, such as scythes. With all this in your mind, if you compare the archæological implements with those now used by the Esquimaux and Fins, you will find that they are almost identical—many of them certainly are, so far as their forms and the uses to which they were applied—with those of the present day. Then I go further than that. If you look at the skulls, although one does not attach much importance to the measurement of a skull, yet you do get a certain idea of character from the skeletons. If, then, you can get an idea of the skeleton of the people, so as to form an idea, as to their stature and appearance, of the skeletons of Fins and Esquimaux, you will come to the conclusion, which is remarkably strengthened by what we have heard, that the inhabitants of Sicily, the South of France, and especially of Ireland, are identical with the people who have been for ages inhabiting the northern shores of North America. Whether they were driven northward in consequence of a change of climate, or by some other cause, is not material to Mr. Titcomb's purpose; all that is necessary for him to show is that they are the same identical people, so far as we have evidence bearing on the question, and we have no evidence to the contrary, so that Mr. Titcomb very likely added this to the cogent chain of reasoning on the geographical ground, in order to show that not only did some intercourse take place between Asia and North America, but that traces can be shown which would go far to prove that a much more direct means of intercourse with America might have been found from India. Then we come to the analogy which we find between the language of the Old and the New World.

I hardly know whether it is necessary to make any observations on that point, because the question of language is a very large one indeed, and, so far as it has been touched upon this evening, I do not think that anything has been advanced which is conclusive against Mr. Titcomb's argument of a common language ; on the contrary, there are proofs at any rate that in some respects the language of remote nations is alike, and therefore so far a proof of their common origin. Then, in regard to social habits and customs, there is a very curious instance which occurs to me, and which will be found described in Foster's voyages. On his last voyage he found that one of the tokens of grief among the Californian people and in Vancouver's Island was the chopping off of one joint of the little finger of the left hand, and he found also that the same custom prevailed among one of the largest tribes of the Hottentots, among whom chopping off the first joint of the little finger of the left hand was not only considered a mark of mourning, but of honour ; and in point of fact they exhibited their finger with the joint chopped off just as a man might exhibit one on which he wore a mourning ring as a token of grief. I suppose it will be said that this is a mere arbitrary custom——

Mr. REDDIE.—Merely arbitrary, according to the view of Sir J. Lubbock.

Mr. PATTISON.—Well, it is quite as arbitrary as any of those which have been mentioned ; but I think Mr. Titcomb's theory is right, that it could not have sprung from the mere sense of the people, or from any supernatural communication (hear, hear), but from some mode of intercommunication ; and that is further strengthened when we reflect that some of the customs mentioned have a ritualistic bearing. I will not trespass further on your time. I was glad to hear the accumulative arguments of Mr. Titcomb, because it is only in that way, by the accumulation of obscure items, that we can come to a reasonable conclusion. I think that a reasonable conclusion has been come to, and that a larger study of the subject would tend still more to prove it. To my mind one of the best proofs of the extreme naturalness and probability of the Scriptural account of the dispersion of mankind is to be found in the fact of the enormous exercise of ingenuity to which men are put in order to account for it in any other way.

Rev. W. MITCHELL.—I will just make one observation upon a paper which is so very valuable, and which has met with such very general acceptance. I may say that I can hardly conceive why, except for the purpose of drawing our attention to what may be considered an unorthodox view of the question, Professor Macdonald has introduced his system of pre-Adamitic men. I think that the answer to such a theory is contained in the paper itself, and in the arguments which have been brought forward to prove the original unity of mankind, dispersed throughout the earth. And I take my stand on the high ground of Biblical interpretation. Men in all ages, since the Bible has been looked upon as the book of God's revelation, have universally adopted one view in regard to the interpretation of that book, namely, that the whole human race sprang from one common ancestor ; that that ancestor of the human race fell ; that the human race multiplied, and became exceedingly wicked ; that the whole race was destroyed, with the

exception of a single family, and that that destruction was caused by the flood ; and I think that the accumulative evidence brought forward by Mr. Titcomb is in accordance with that opinion. He has not only shown that, in all probability, the large continent of Asia was peopled by a race which descended from Adam, but he has shown also, by a large variety of strange customs among mankind in different parts of the world, that not only have the race descended from Adam, but that they have retained, on the whole, considering the wonderful change in the surrounding conditions to which they have been exposed, an extraordinary unity and community of feelings and customs. I was very pleased to hear Mr. Titcomb refer to the labours of Mr. Catlin among the North American Indians. Had it not been for the self-devotion of that man, and the manner in which he laid himself out to preserve the perishing records of a perishing race, we should have known very little of the traditions of the North American Indians. He particularly refers to the tradition among the Mandan tribes. Now, that tradition, as Mr. Titcomb has clearly pointed out, is not simply a tradition of the Mandan tribes alone, but is to be found among other tribes of North American Indians, and also in a mitigated form amongst the more central nations of South America, in Peru and Mexico. One very curious fact which Mr. Catlin mentions with regard to the Mandan tribes throws considerable light on the arguments Mr. Titcomb used to show how America might have been peopled. He says that among the Mandans he found a tribe having a peculiarity of customs, a peculiarity of language, and a peculiarity of appearance which distinguished them from every other tribe of Indians which he had met with in North America. He found there was a prevalence among those Mandans of light-haired men, whose physiognomy and physique were essentially different from the rest of the North American Indians. Now that tribe became completely extinct before Mr. Catlin made his second voyage. It was entirely destroyed by the smallpox ; and its records which were accumulated by Mr. Catlin are the only relics of a tribe which has entirely disappeared from the surface of the globe. On account of his knowledge of medicine, and of the success attending his efforts to eradicate disease from among these tribes, Mr. Catlin was looked upon by them as a great medicine-man, possessed of considerable power, and in consequence was able to get admission into their tents, and saw some of their sacred rites, which he would not have been permitted to view as a mere stranger ; and he throws out an hypothesis which is one of considerable probability, namely, that the tradition being that a Welsh prince, Madoc, having been driven by contrary winds across the ocean, and at last cast upon the shores of Mexico, the Welsh people who formed his crew amalgamated with this particular tribe, and introduced customs among them which were not common among other tribes. For instance, he mentions that the pottery of the Mandans was far superior to the pottery of any other tribe ; that there was a great improvement in it, but that the people who improved it partly died out, leaving, however, traces of their ancestors in the light-haired race which appeared in their tribe, contrary

to the usual characteristics of all other North American tribes. That would show how, if anything could show it, a peculiarity or difference might arise in a single tribe; and it also shows that the fact of a shipwreck, such as that mentioned in the paper of the Japanese shipwreck, was not an isolated case in America, but the tribes may have been told by those people, "We come from a superior source of civilization." The same thing exists in the Mexican tradition that men and women, children of the sun, came among them at some remote time, and they attributed their higher degree of civilization to the civilization that was introduced among them by the people. The Peruvians also had a tradition of that kind, all of which, in my opinion, tends to prove the hypothesis contended for in the paper. Perhaps the best way in which to test the accuracy of the paper would be to try it on the other hypothesis, how could such an accumulation of arbitrary things exist among the inhabitants of all these countries without supposing them to have had a common origin?

Mr. WARINGTON.—I wish just to call attention to one item of Mexican tradition which seems to have been overlooked by the learned author of the paper. I cannot remember the exact details, but I can only give him the source from which I learnt it, which is Tylor's *Researches into the Early History of Mankind*. In that book the author mentions a Mexican tradition which points to some part of the Mexican race having once inhabited the Arctic regions. If so, that is a very important element in the idea of America having been peopled through Behring's Straits. As that idea has been so fully referred to in the course of the discussion, and as Mr. Titcomb seems to have thought somewhat slightly of it, I think it right to draw attention to this fact which is stated in Mr. Tylor's book.

Rev. J. H. TITCOMB.—I will not detain you at any great length in reply. I will only say, in regard to one or two remarks about the things which I have omitted, that if I had not omitted many things in my paper I should have been talking now. I am not unaware of the tradition referred to in Mr. Tylor's book, and, in point of fact, if you refer to the footnote at the bottom of page 11 of the printed paper,* you will see that I have made a reference to Mr. Tylor's book; indeed some of the customs I have mentioned I have taken very much from that book. Mr. Shaw, in the remarks he has been good enough to favour us with, has spoken of the improbability of any persons who were sailing in boats being driven by the force of the currents or winds over to America, and their having peopled it, because it was not likely that they would have their wives in their boats with them. That is one aspect of the question; but on the theory that persons who were in boats on an excursion might have been blown off the land, or been caught in one of the currents to which I have alluded, such an idea might become possible. When I told you that it was discovered some time since that one of the headlands in the Hawaiian group had a name attached to it by the natives which signified the starting-place for Tahiti, that seemed to indicate that

* *Ante*, p. 294.

the idea of long voyages was not absolutely unknown to them. Those voyages would be more or less for business, but why not for pleasure? I can well conceive that upon a pleasure excursion in a canoe men and women might travel together. And if one of those canoes got caught in the Antarctic drift, then, as I have pointed out, it might easily happen that the people in her would find themselves on the coast of Chili or Peru. With respect to what Professor Macdonald has said, I was not, of course, unprepared to receive such remarks, but I think they have been completely answered. Of course I could not be supposed to be ignorant of the pre-Adamite theory which Professor Macdonald has referred to. All I can say is, that I have thoroughly investigated it, and that I disbelieve it as strongly as he can believe it. I disbelieve it, not merely as a clergyman, but as a man of impartial judgment and extensive reading in this particular branch of study. However, the learned professor must be aware that in the remarks with which he favoured us upon this point he scarcely urged it upon us by force of argument, but merely stated his convictions upon it—

Professor MACDONALD.—I was unable to do so in consequence of Mr. Reddie's interruption.

Rev. J. H. TITCOMB.—I quite agree that you had no opportunity of entering into so wide an argument; but I think that as the tendency of my paper is to show that the world was peopled from Adam, or rather from Noah, and therefore *à fortiori* from Adam, it does more or less meet the arguments which the learned professor would raise against it. Ladies and gentlemen, I need detain you no longer. I was fully aware of the sneezing argument, and others which have not been brought forward. In reference to what Mr. Pattison has said, I feel much obliged to him for calling my attention to one point which is rather new to me; but on the whole I can only say that the great crucial difficulty is the physiological one with regard to colour—how it comes that red men crop up in America, yellow men in China, black men in Africa, and white men in Europe. I quite admit that that is the great point of the argument in favour of Professor Macdonald's theory of pre-Adamite men. But I purposely avoided going into it, and for this reason, that it would be utterly impossible to deal within the limits of a paper which has necessarily already extended to great length, with a question which involves many materials and such important details; but I do hope at some future time to write a paper which may perhaps go into the subject in such a manner as will enable us to discuss it. (Cheers.)

The meeting was then adjourned.