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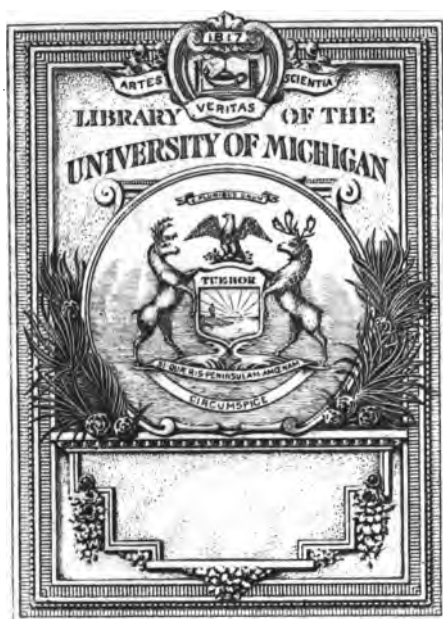
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EXAMINATION  
OF THE  
LEGEND OF ATLANTIS

IN REFERENCE TO  
PROTOHISTORIC COMMUNICATION WITH AMERICA

By HYDE CLARKE, V.P.R.HIST.S.

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REPRINTED from the TRANSACTIONS of the ROYAL HISTORICAL SOCIETY

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LONDON  
LONGMANS, GREEN, AND CO.

1886



PRINTED BY  
SPOTTISWOODE AND CO., NEW-STREET SQUARE  
LONDON

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# EXAMINATION OF THE LEGEND OF ATLANTIS IN REFERENCE TO PROTOHISTORIC COMMU- NICATION WITH AMERICA.

By HYDE CLARKE, V.P.R.Hist.S.

(Read June 1885.)

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## I. INVESTIGATIONS AS TO AMERICAN AND OTHER ORIGINS.

My historical investigations for some years have particularly borne upon the relations of America to the Old World. They refer to the questions whether the populations and civilisations of the New World are there born and indigenous, or whether they are imported from the other hemisphere, and therefore in no respect distinct.

Upon anthropological grounds it has been impossible for

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#### 4 EXAMINATION OF THE LEGEND OF ATLANTIS.

me to determine that no race is autochthonous or purely American ; but this is absolutely certain, that many of the populations are immigrants, and many are of mixed race. As a matter of hypothesis the leaning must be on the general evidence to the conclusion that the population of America did not differ in the incidents of its origin from that of other regions of the earth.

The teachings of Professor Daniel Wilson, the apostle of prehistoric archæology, had a natural influence in moulding my own investigations, which have been still further favoured by the liberal assistance of Dr. Hayden and his colleagues at the Smithsonian, Professor A. Graham Bell, Professor John Campbell, of Montreal, &c.

When the migrations began remains in obscurity, but many of the phenomena of migration are illustrated by race, language, mythology, and culture. One incident has been dimly sketched out by me, that migration must have taken place during the epoch of gesture language, anterior to the development of speech language.

In America gesture language still is more extended and developed than in any region of the world, and it is a matter so important that it has engaged the special attention of Colonel Mallery, and has become a branch of distinct investigation by the ethnological department of the United States Scientific Staff.

There is no reason to suppose that gesture language was less developed in America at an early epoch or that it was non-existent in the eastern hemisphere. From the Old World many of Colonel Mallery's illustrations and those of Professor Graham Bell are derived, and particular attention has been called by me to the gesture language of the mutes of the seraglio at Constantinople, which constitutes a self-sufficient system and appears to represent that of the classic epoch, as recorded<sup>1</sup> by various writers with regard to mimes and pantomimes.

<sup>1</sup> See notes by me in *Transactions of British Association*, and my more detailed remarks towards the end of this paper.

My reason for the hypothesis that migration and the manifestations of culture took place during the epoch of gesture language as well as afterwards is founded on a consideration of the development of speech language from gesture language and the nature of the legends as to creation and language.

That gesture language was derived from speech language, and that the latter was anterior, cannot be argued from the facts, and the connection of ideas between the two forms of language shows, as will be hereafter referred to, that a system of mythology, symbology, and culture already existed in gesture language, and it is upon these bases speech language was constituted.

My affirmation goes further than the assertion that there was an epoch of culture contemporaneous with gesture languages, for it seems impossible to avoid coming to this conclusion, that ideographs, hieroglyphs, and characters existed in that epoch, and so existing were afterwards applied to speech language. There is a self-evident connection between some characters and some gestures, and this is independent of speech or phonetic relation. Characters of double lines, ||, √√, √√, represent 'son' and 'river' in ancient palæography, and though it is true that in some languages the same sound stands for 'son' and 'river,' the explanation of the character being double can only be accounted for by the record in Colonel Mallery that the sign for offspring is made by two hands and not by one hand.

At the same time the reserve must be maintained that while certain ideographs belonged to the earliest period, and that with them picture writing was made, and that these characters passed into syllabic or sound representations, yet that the latter system of writing, on which our own is founded, was greatly influenced by the psychological ideas thereby connected with sounds.

It is quite possible that picture writings may still exist on rocks in America, such as those in Guiana and elsewhere, which belong to the infancy of mankind and are derivations

from the carvings which we recognise in such primitive abodes as those in the caves of Dordogne. Of such inscriptions too there are survivals among the Indians of America, as there are of gesture language and of so many institutions.

It is in the epoch of speech language that we can safely trace many events of migration. It has been stoutly maintained that migration passed solely by the Pacific, and various circumstances have been brought forward on this side, and in particular a reference to China, of the origin of intercourse and the transmission of culture. That migration passed across Behring's Straits we know from the community, type and languages of the Esquimos and other northern populations of America and Asia. The insufficiency of this sole route of passage has favoured speculations for a Pacific Ocean route, and Mr. Park Harrison has largely dealt with this. His papers establish many points of community between the eastern and western hemispheres, such as have been followed by Mr. Donnelly in the 'Atlantis' and others. The evidence, however, as examined by the lights we now have, does not necessarily establish a supremacy for a transmission from Asia across the Pacific.<sup>1</sup>

Alexander von Humboldt showed us that the Mexican zodiac and the Chinese were of common origin, but this does not prove an origin from China. There are so many resemblances of Mexican institutions with countries remote from China that we cannot set up a connection from an isolated fact which is destitute of general support. A case which has been strongly dwelt upon by Dr. Latham and others is the relation of the Gallinero and Khwakhlamayo languages of the north-west coast of America to Chinese (Stephen Powers, 'Atlantic Monthly,' March 1874). This relationship is, again, one of isolated facts, and the words cited are words which are not peculiar to Chinese. However typical the Chinese language may appear to us as a whole, yet Chinese,

<sup>1</sup> My own conclusions in *Khita and Khita Peruvian Epoch*, at p. 68, are erroneous in this respect, though at the same place the doctrine of the Four Worlds is described.

like all other languages, is only a later development from the general system, and the present Chinese does not represent the ancient words. Nevertheless these facts show a resemblance of American words with Chinese as with other languages, which is commonly the case in all languages.

It may be regarded as certain that migrations did take place across the Pacific, but this cannot have been the main or exclusive route. The Pacific Ocean must have been known at an early date, for it is recognised in the doctrine of the Four Worlds, as has been pointed out by me. There the Pacific divides the Americas from the eastern hemisphere and Australia. It is, however, this doctrine of the Four Worlds which shows that the Atlantic was equally well known as lying between the eastern hemisphere and the Americas.

Indeed it is the first doctrine of the Four Worlds which has been dwelt upon by me<sup>1</sup> as the key to the olden knowledge of America in the eastern hemisphere, afterwards lost in oblivion. That the earth is a globe was a most ancient doctrine of astronomy, and may be regarded as protohistoric, if not prehistoric; but we find a record of the distribution of land on its surface in a doctrine taught in the school of Pergamos in Asia Minor. This doctrine, neglected by the general mass, had nevertheless such fascination that it lingered in classic and in Christian times even to the days of Columbus, only to be effaced by his discoveries, to which this record of the past led if it did not inspire them.

This system was notably maintained by Crates of Pergamos, 160 B.C. (Reinaud, 'Journal Asiatique,' vol. i., new series, 1863, p. 140), and it is also referred to by Virgil in the 'Æneid.' There appears to have been a tradition of an imperial title of Monarch of the Four Worlds offered to Augustus by his flatterers. By me this is connected with a statement of Mr. George Smith that Agu, an ancient king in Babylonia, called himself King of the Four Races. The empire of the Incas was called Tavintinsusu, or Four Quarters of the World, as stated by Prescott, 'Conquest of Peru,' book i., chapter ii.,

<sup>1</sup> It was first quoted in *Khita and Khita Peruvian Epoch* (1877), p. 68.

quoting Ondegarde, 'Rel. Prim. MSS.,' and Garcilasso, 'Comentario Real' ('Khita and Khita Peruvian Epoch').

Europe, Asia, and Africa were described as a continent occupying the northern portion of one side of the earth, the chief error being in the limit given to the southern extension of Africa. This continent was balanced in the south by an Austral continent, being Australasia and Australia. On the other side of the earth each continent was balanced, one by a northern continent and the other by a southern continent representing the Americas. These continents were separated from each other laterally by oceans passing from pole to pole, being the Atlantic and Pacific, and supposed to be divided between north and south by a belt of ocean. That the eastern continent and Australia are so divided is a fact, and North and South America are so thinly joined that they are nearly divided. The legend perhaps had reference to the fact that communication could be made from the Atlantic to the Pacific Ocean by portages across the isthmuses.

This delineation of the earth and of the Americas is too close to be accidental, and appears to be derived from intercourse and observation. This intercourse is confirmed by numerous facts of anthropology, language, and mythology published by many of us, and those who went before us, as to language, notably by Alexander von Humboldt and Garnett. That the knowledge of this intercourse was not wholly lost is shown by the legend of Atlantis. Of late years this legend again occupies attention, and will be dealt with more fully.

Having in 1874, in sequence to other communications, read a paper before the Anthropological Institute, in 1875 it was published in a distinct form as 'Researches in Prehistoric and Protohistoric Comparative Philology, Mythology, and Archæology in connection with the Origin of Culture in America.'<sup>1</sup>

This treatise was especially devoted to the origin of culture in America, and included a recapitulation of facts

<sup>1</sup> London : N. Trübner and Co., 1875.

from various authorities, with additional observations of my own, largely linguistic. Various tables showed the identity of words and features of language in North America, Central America, South America, North Africa, West Africa, Australasia, Asia, India, Caucasia, Europe.

The interrelations of words in various regions was sufficiently shown, also the dependence of the American languages on those of other regions. Two erroneous conclusions were, however, drawn by me in my then state of knowledge—first, that, in agreement with accepted philology, languages were to be classified in families, and, secondly, that the families were more or less precedent and could be chronologically arranged by development.

The true solution is that all languages are of common origin, but of varied distribution ; but this was not discovered by me for some years.

Although my observations illustrated a general intercommunication of languages, there was such a general fear of accepting the Atlantic route of intercourse that my then leaning was to a Pacific route. This was more particularly influenced by a consideration for the supposed area of ancient culture. It is true this was extended by me through India to Indo-China, thereby forming the connection with China, now becoming an accepted doctrine. The facts of the same class relating to Africa had not, however, been ascertained by me, though examination shows that the early extension of culture was uniform and reached to the shores of the Atlantic in the Old World.

One table in the 'Prehistoric Comparative Philology' was a comparison of river names in New Granada with those of India, Italy, &c., and also of other South American river names. This was followed by a short list of mountain names. Of town names a most copious enumeration was given, with similar comparative names from other regions.

This subject of topographical nomenclature has long engaged me, having been led to it by William von Humboldt. In examining the names of towns it was impossible to avoid



seeing, as so many had done, resemblances of form. On carrying out the investigations on a large scale and with more labour it appeared that the names are on one plan, and therefore of one epoch, and are uniformly distributed.

What disturbed me, as it had done others, was the necessity of accounting for the supposed influence of various populations, particularly of the Semitic population in Palestine. In various papers these names in Palestine were proved to be identical with those in Asia Minor, Greece, Italy, and Spain. The clear evidence of Genesis is that the early population of Palestine<sup>1</sup> was not Semitic but Turanian, and, as we have lately found, allied to the populations of Khita class in the regions already cited.

Ultimately, the same class of town names was largely traced by me in West and Central Africa. As the date of these names cannot yet be clearly defined, the comparative tables are formed on the ancient and the American names.

One group of names cited by me as common to the two worlds is that given in Genesis as ancient cities; but it may be of interest to give another, quoted by Mr. Donnelly from Short's 'North Americans of Antiquity' (p. 497). The Armenian cities are taken from Ptolemy.

<i>Armenian.</i>	<i>Central America.</i>
Chol	Cholula
Coluæ	Coluacan
Zuivana	Zuivan
Cholima	Colima
Zalissa	Xalisco

Some of these will be found in my lists with wider illustrations, as also examples of the conversion of *sc* and *sh* into *ss*.

The application of these facts to the American continents was so direct that it led me to formulate the proposition that

<sup>1</sup> In the *Palestine Exploration Fund Quarterly Statement* for June 1871, p. 176, will be found 'On the Relations of Canaanite Exploration to Prehistoric Classic Archæology,' by Hyde Clarke. This contains the first tables of these comparative town names on a large scale.

the establishment of culture and the settlement of towns in America was coeval with the same events in the eastern hemisphere, and that the historical relations were of the same class. For convenience the populations and languages were styled Khita and Khita Peruvian, and in 1877 the whole subject was reviewed at length by me in a paper before the Royal Historical Society, also separately published under the title of 'The Khita and Khita Peruvian Epoch' (London, N. Trübner and Co., 1877). Of that essay this paper becomes a continuation and a correction.

Much of this book, like the 'Prehistoric Comparative Philology,'<sup>1</sup> was based on the publications beginning in 1863, describing my discoveries as to Asia Minor (1863), the Khita inscriptions (1871), and Palestine (1879).

The commencement was devoted to another form of proof of the connection of the populations, being a dissection of the Hamath or Khita inscriptions. Among other results of interest may be named the relation of some of the Chinese characters as ideographs in conformity with their philological relations (p. 17), since adopted by M. Terriens, and also the connection of characters in Egyptian, cuneiform, and Chinese. The question of the Etruscan language, one connected with Atlantis, was dealt with (p. 20) so as to show that the words belonged to the general body of language.

The town names of the east of America were also in this book dealt with more in detail, and the linguistic tables will be found more fully given, and to them the reader of this paper is now referred for such evidence.

## II. RELATIONS OF CENTRAL AMERICA AND AFRICA.

While hesitating as to the absolute assertion of the identity of culture in the two hemispheres, my knowledge of the whole subject was strengthened and corrected by a paper in the 'Proceedings of the American Philosophical Society' for 1875, by a distinguished American man of science, Pro-

fessor W. M. Gabb, who died shortly after. It was entitled 'The Indian Tribes and Languages of Costa Rica,' and dealt with tribes which had escaped the notice of my friends Chevalier de Scherzer and Mr. Thos. Belt.

The languages are Bribri, Cabecar, Tiribi, Terraba, and Branca, the whole population speaking them being 1,226. On comparing the vocabularies with those of the Old World, the words were readily traced and identified, and particularly with Africa. In fact it is in considering the relation of words and thoughts to culture that the results are to be understood. Sounds may perhaps, as supposed by many, be assigned independently and casually in various regions to represent ideas, but other considerations have to be taken into account when we find a large number of facts indicative of some common influence.

The names of the following animals are capable of identification in these languages: tapir and elephant, monkey, leopard and tiger, deer, bird, macaw and parrot, snake, alligator, lizard and iguana, frog, butterfly.

Other words examined by me were arrow, bow, knife, calabash, pot, bed, door, house, cotton, leaf, tree, forest, rope, maize, drum, chair, sand, skin, navel, smoke, coal, salt, rain, dew, day, night, god, devil.

The same names for elephant extend from Central America to Japan. The animal names throughout the world are formed on identical bases. Of these my former explanations in the 'Prehistoric Comparative Philology' (p. 26) were incomplete and erroneous. Animal names are the same words and roots as applied to the nomenclature of other series. Thus the name for an animal may be the same as that of a limb, a weapon, &c. The main relation is that of numerical series in symbology, and this is the foundation of mythology, astrology, and ancient philosophy.

There is an important citation by Dr. Tylor ('Early History,' p. 312) from Humboldt ('Vue des Cordillères,' pt. xv.), in which he regards the circumstance of the Mexicans having retained the traditions of the elephant as 'a myth of

observation.' Upon this a comment was made by me in 'Pre-historic Comparative Philology,' p. 26. Subsequently the matter came more closely under my observation in the Bribri, where the Old World elephant names in three forms are also preserved. In Guarani, of Brazil, however, the name tapir is an Agaw word for cow.<sup>1</sup>

It appears to me that the citation which struck the mind of Dr. Tylor is well worth more attention, because it refers to a familiar illustration and one which is more readily accepted by the public than a proof more decided, but less within their comprehension. For the name of the elephant to be introduced from Africa into America, and given to its representative in the New World, there must have been intercourse in the epoch of speech language, and which was carried on across the Atlantic. Had there been the supposed Bridge of Atlantis then there would have been the same animals on both sides—tapirs in Africa and elephants in America—and this was not the case; but there was the record and tradition chronicled by Dr. Tylor.

We may dispose of the communication by the sunken continent and accept that by vessels across the wide ocean, carried in paths to and fro by the currents.

It may be observed that we are not compelled to adopt all the supposed identifications of elephant forms in sculpture on the American continent.<sup>2</sup>

A chief point in Professor Gabb's memoir was the description of the theological system of the Bribri, which provides one God, of whom the chief name is Sibü. This God appears to be symbolised throughout the universe, and Professor Gabb's descriptions give the true explanation of fetishism.<sup>3</sup> The name of Sibü, Siva, or Saba is to be found frequently in mythology, and as a root it is to be found with

<sup>1</sup> *Comparative Grammar of Egyptian, Coptic, and Ude*, p. 20. By Hyde Clarke. London: Trübner, 1873.

<sup>2</sup> In *Animal Carvings from the Mounds of the Mississippi Valley* (Washington, 1883) Mr. H. Wetherbee Henshaw disposes of the hypothetical elephant there.

<sup>3</sup> This differs from Professor Max Müller's lecture on Fetishism.

its congeners with many meanings throughout the African vocabularies.

My paper was published under the name of 'Serpent and Siva Worship and Mythology in Central America, Africa, and Asia,' by Trübner in 1876. Although there is much that is valuable in the languages of North America, there are none which up to the present time have yielded so much as the Bribri.

Of late my attention has been drawn to another form of the title for the Supreme Being, in the Old World and the New, and which appears to have become a matter of sectarianism. This, in its earlier shapes, appears as Woden, Widen, Odin, Wuotan, and possibly as Buddha.<sup>1</sup> In the present day it is widely represented in Africa, but it is best known by the descriptions given of the Vaudoux or Vudu mysteries by Sir Spencer St. John in his book on Hayti, and by Mr. C. E. Leland in relation to the celebration of the mysteries in the United States. Mr. Leland is right in identifying the word as Woden, as I had already connected it with the names of God in Africa. Vudu is also recognisable in Mexican history as Votan.<sup>2</sup>

The main basis of the rites of Sibü and Vudu is the same as that of the Eleusinian and other ancient mysteries. The serpent is a common emblem. In some cases, as in Hayti, the rites degenerate into orgies accompanied with cannibalism. Connected with these mysteries are secret meetings, initiations, degrees, ceremonies, signs, symbolic language (what is understood as free masonry), and these are to be recognised not only in Africa, but also in Australasia. The information as yet obtained is very scanty, as the societies are maintained in secrecy. Africa is the great centre for information with regard to the mysteries, as for other institutions.

In the same year (1875) a paper had been published by me on 'Prehistoric Names of Weapons,' which had been

<sup>1</sup> This was the opinion of Sir William Jones, adopted by Humboldt.

<sup>2</sup> M. de Charency, *Bulletin de l'Athénée Orientale*, 1885, p. 375. Humboldt (*Vue des Cordillères*, p. 148, ed. 1816) considers Votan and Woden to be the same.

preceded by a note on the 'Terms for "Arrow"' read before the British Association in 1873. In this case as in others the evidence as to North and South America was decided, and it was detailed in parallel columns.

In 'Prehistoric Comparative Philology,' 1875 (p. 32) some facts were brought forward by me as to the common distribution of names of tribes in various parts of the world. The basis for this fact was defined by me from the observed relation of the word 'man' to the name of a tribe, of which there are so many instances. It does not, however, follow that two tribes of the same name have any ethnological connection, as the similarity of name is simply dependent on the original distribution of the words for 'man' at the diffusion of speech language.

The Rev. Professor John Campbell, of Montreal, among many other labours and original researches illustrative of the connection of the eastern and western hemispheres, has paid particular attention to the distribution of these tribal and eponymous distinctions and the various regions in which they are found. Many of these observations of Professor Campbell are very remarkable, and indeed his various works which have been published in Canada and elsewhere are indispensable to the student of American ethnology.

### III. LEGEND OF ATLANTIS AND OF THE FOUR WORLDS.

The legend of Atlantis has occupied many, but yet has never perhaps received full consideration. It is to be found in the 'Dialogues' of Plato, called 'Timæus.' One reason for the neglect of its practical part is that imagination has fastened on the part which is purely legendary, and which may be said to be purely supposititious. The account of the Four Worlds has been treated in the same way. What has been most readily seized hold of, as to the Atlantis, is that Plato states that Atlantis suddenly disappeared and sank beneath the sea. Then, identically as with the Four Worlds, the Atlantic Sea is said to be impassable and impenetrable, with this special concoction as

to Atlantis, that there was a quantity of mud in the way, the fact being the direct reverse.

A very valuable suggestion was lately made to me by the eminent scholar Mr. Cs. Mijatovich, the Minister of Servia, Member of the Academy of Belgrade. He points out the impediment created in some directions to navigators by the Sargosso Sea, Mar de Sargoço, or Sea of Weeds. As we know, the ancients penetrated to the Canary or Fortunate Islands, and vessels attempting another course and reaching the Sea of Weeds might well bring back the mud story. The navigators would naturally think that the weeds grew at the bottom of the sea, and consequently in mud, forming a serious impediment. This story got tacked on in due course to the tradition of Atlantis.

It is most possible that the soundings of Columbus were first to know whether he was in a region of mud, and having ascertained that he was not, then he could accept the other version of an open ocean, which had indeed been confirmed by the discoveries in another direction of Vasco de Gama.

Grote, in the third volume of his 'Plato,' p. 297, in the chapter (xxxv.) relating to Kritias, gives an account of the Island of Atlantis and its history, but without expressing any opinion.

In the third volume of his 'History of Greece,' however, to which he gives a reference in his eighteenth chapter, on Phœnicians, he enters into the question of the Atlantic Ocean being no longer navigable beyond a certain point, either from mud, sands, shallows, fogs, or accumulations of sea-weed. Grote quotes Skylax, c. 109, who said that 'beyond Kerne the sea is no longer navigable, from shallows and mud and sea weed.' He also quotes the 'Timæus' and 'Kritias' of Plato. He further calls attention to the geographical productions in verse of Rufus Festus Avienus, 'Descriptio Orbis Terræ,' v. 57, and 'Ora Maritima,' v. 406-415. In this latter passage he speaks of large quantities of sea-weed.

*Exsuperat autem gurgitem fucus frequens.*

The same statement again occurs in v. 115-130.

Aristotle is referred to ('Meteorolog.' ii. 3, 14) for the dead calm, mud, and shallows of the external ocean; Seneca ('Suasoriar.' i. 1) is also adduced by Grote.

Grote, who devotes much space to the subject, follows Von Humboldt in the description of the terrors which beset the followers of Columbus and the passage of the Sea of Sargosso by that navigator.

The effective reason for the cessation of the intercourse is that accepted, that the great King of the West was defeated in the sea fight in the Mediterranean, and his power utterly broken. Atlantis or Atalantis, as will be hereafter explained, appears to have been the title of the king rather than of his dominions.

The whole tale of the colonisation of Atlantis is sufficiently curious. The generation of five pairs is a common legend of exogamous communities,<sup>1</sup> and in Atlantis the eldest son also receives his mother's inheritance, a trait of mother right. If the details of the 'Timæus' are considered in a favourable rather than in an unfavourable spirit, many things may be conciliated; for Plato did not invent matriarchy and exogamous marriages, or such details of institutions dying out among the Hellenes.

Elephants may be regarded as tapirs, horses as llamas. It is a circumstance worthy of note that just as the tapir names represent elephant names, so do llama, vicuña, and paca represent horse names of the Old World. It is possible that on further investigation we may find many points of verisimilitude. The great fact, however, remains that the intercourse across the Atlantic did take place, for language and other ideas at all events were transmitted from side to side.

Of the many treatises on Atlantis the last is by Mr. Ignatius Donnelly, 'Atlantis, the Antediluvian World' (New York and London), which is in a popular form. The author works out his theory on the basis of a geological Atlantis

<sup>1</sup> See the valuable monograph on the 'Andaman,' &c., by R. H. Man (London, 1885), wherein it is stated that the Supreme Being, Pulga, created five pairs of elephants, or races of mankind, in these small islands, with separate languages.



suddenly disappearing. This does not account for the archæological and the linguistic facts, many of which are adduced by the American author.

The concurrent opinion of geologists is that the main forms and features of the Atlantic Ocean and of the American continent must have been given to them at a most ancient geological epoch, and not in any modern geological epoch, or in any epoch of which, by tradition or history, man has cognisance. The evidence on this head may be found in details in any authority treating of the subject. So far from a large continent or large mass of islands being depressed into the Atlantic Ocean, the facts are directly the reverse, and show that volcanic action even in our time has been throwing up islands from the bottom. Except the Bermudas, which are of coral origin, all the islands in the Atlantic are the result of volcanic eruption, not peculiar to any period, but continuing to our own day. In 1811 a new island was temporarily formed off St. Michael, in the Azores, in the same way as takes place in the Mediterranean and other seas. A few years after another formation was thrown up. All these operations are on a small scale, and in few cases present permanent results. In fact, while changes are constantly proceeding they are not of a character to alter the main features or provide for the creation of an Atlantis or its destruction.

In an able review of Atlantis in the 'St. James's Gazette' of June 20, 1882, it was pointed out that the geological theory had long ago been exploded. It was demolished by Mr. Darwin in his chapter on 'Oceanic Islands,' and the same fate was destined for it by Mr. A. R. Wallace in his volume on 'Island Life.' There is no evidence that such a continent ever did exist, nor is it even possible that it could. No fossil or living remains of indigenous mammals or terrestrial vertebrates of any kind are to be found. The fauna and flora of the islands are strictly oceanic.

Dr. Andrée, of Leipsic,<sup>1</sup> is of opinion that iron was not

<sup>1</sup> Quoted in *Nature*, June 1885, p. 110.

known in America other than meteoric iron in pre-Columbian times. He dwells chiefly on the absence of iron in graves of Peru and Chili, and considers that the great monuments were erected either with bronze (*chumpi*) or stone tools. He allows that the Americans knew how to work gold, silver, tin, copper, and quicksilver, but thinks they could not forge iron. He says they had a word (*panilgue*) for iron, but this he considers meant metals in general. Iron tools are not generally found anywhere, but they are asserted to have been discovered in the North American mounds, and we have to wait for further discoveries.

Mr. St. John V. Day, of Edinburgh, wrote some years ago a book on the antiquity of iron-working, in which he entered very fully into the matter; on a new edition of this he is now engaged, having accumulated more information. The same statement was long since put forth by myself, particularly in reference to the Chalybes and metal-working tribes of Asia Minor.<sup>1</sup> Dr. Percy, in his address as president at the Iron and Steel Institute, renewed the opinions he had formerly given to a like effect.

The Marquis de Nadaillac, a gentleman who has given much attention to Central America, has this year published a book on the 'Prehistoric Intercourse between Europe and America' (London, Murray, 1885), with numerous illustrations. Like Mr. Donnelly, he is a full believer that this intercourse took place and that the numerous resemblances and coincidences can only by a physical connection be so explained. He looks rather to prehistoric intercourse and the passage of cave men like those of the Dordogne to America. He or his translator has completely excluded all reference to the Atlantis.

This compilation will be found useful to enquirers, more particularly for the illustrations, although these are chiefly on too small a scale to admit of detailed study. M. de Nadaillac has made no real progress in decipherment, and appears to devote too much attention to French descriptions.

<sup>1</sup> See *Transactions of the Ethnological Society and the Anthropological Society*.

It may conveniently be mentioned in this place that Professor Flower, the late President of the Anthropological Institute, has recently expressed his opinions on the Eskimo question in a discussion on Laplanders at the Institute on June 9, 1885. The opinions of Professor Flower with regard to the older systems of craniology are very much modified, and he is remodelling the whole science. On reviewing the forms of skulls of the Eskimos in Asia and America he considered it inadmissible in the present state of evidence that the Eskimos can have gone from Europe to Greenland, but that they proceeded from Asia eastward. Long and short skulls he considers to be no longer specific distinctions, and the present racial characteristics of the Eskimos he treats as having been modified by the populations through which they passed in their migrations from Central to Northern Asia.

Besides these books of Mr. Donnelly and the Marquis de Nadaillac there was in the number of the 'Literary Journal' of New York for August 1884 a bibliography by Mr. Paul Barron Watson of the pre-Columbian discoveries of America. His first class was the Chinese (499 A.D.), Northmen (1000-1347), Arabs (circ. 1125), Welsh (1170), Venetians (1380), Portuguese (1463), Poles (1476), Martin Behaim (1483), Cousin of Dieppe (1488). It will be seen that the materials dealt with in this essay are not embraced by Mr. Watson.

Students must be cautioned that the argument does not rest on the narrative or authority of Plato as to Atlantis, as is assumed by some persons. The doctrine of the Four Worlds, and of Atlantis as one of them, was, as is here shown, dealt with by many writers of antiquity, but it so happens that Plato deals at greater length with Atlantis, and he does not touch on the greater question: Plato we have to consider on account of the extent to which he supplies material, but not as the chief or sole authority.

The writer of the article 'Atlantis, Atalantis, or Atlantica, in the third volume, p. 27, of the 'Encyclopædia Britannica, now in course of publication, gives an abstract from Plato,

with his own comments, which well sum up the popular view among scholars.

Such is the main substance of the principal account of the island furnished by the ancients ; an account which, if not entirely fictitious, belongs to the most nebulous period of history. The story may embody some popular legend, and the legend may have settled on certain historical circumstances ; but what these were it is (as the numerous theories advanced on the subject may be held as proving) impossible now to determine.

This is a judgment which may be admitted as orthodox, but at the same time it involves many fallacies, not the least of which is to be found at the close. The fact that a number of persons, having been unable to solve a problem, have arrived at contradictory opinions represents a fact, but one which has nothing to do with the matter. Until a solution is found there may be contradiction of opinions, but such does not prove whether the problem is soluble or insoluble. It does not prove that, because numerous persons have been incompetent to propose a solution, a solution may not come from a competent person.

The attempt at solution is legitimate, and yearly some dark point in historical investigation is cleared up, whereby contradictory opinions are brought to a close.

The function of Gibbon, of Grote, of Niebuhr, and of other great authorities has been to destroy what has been received as history where it is unsound, to examine the popular legend and determine in what degree it rests on historical circumstances, and to show the true bearing of those historical circumstances when divested of the causes of doubt and error. If error propagates error, so does any element of truth become the means of developing and establishing some other truth and of destroying some error.

#### IV. ATLANTIS IN THE 'TIMÆUS.'

In the 'Timæus' of Plato we find the first reference of that author to the history of Atlantis. It is given by him as a

distinct tradition handed down from Solon, to whom he was related. This dialogue and the 'Critias' may be consulted in any translation, or more conveniently in 'Atlantis,' by Ignatius Donnelly.

In the 'Timæus' Critias relates that Solon had brought with him a history from Egypt. Solon had had a contest with an Egyptian priest at Sais as to the ancient annals of Athens, and the priest had told him that the real annals of Athens were more illustrious than he (Solon) supposed. They embraced an action the greatest and most celebrated which this state ever achieved.

Solon, you are unacquainted with that noble and excellent race of men who once inhabited your country, from whom you and your whole present state are descended, though only a small remnant of this admirable people is now remaining ; your ignorance in this matter resulting from the fact that their posterity for many generations died without the power of speech through the medium of letters ; for long before the chief deluge a city of Athenians existed, regulated by the best laws, both in military and all other matters, whose noble deeds and civil institutions are said to have been the most excellent of all we have heard to exist under heaven.

It may be taken that this refers to the previous Iberian, Khitoid, or pre-Hellenic epoch, when Athens as well as the other cities of the ancient world was founded and received its name. In Egypt these matters would be better understood than in Athens. In Athens the old languages had died out and the ancient literature was extinct, and herein it greatly differed from Rome, which, like Babylon and Nineveh, remained under the spell of Turanian religion and science, Etruscan maintaining its vitality there as Akkad did in the last.

Etruria remained for ages a compact state and nationality long after the Aryan military adventurer had got possession of Rome ; but there was nothing of this kind in the neighbourhood of Athens in the time of Plato, though in Asia there was an example in the great kingdom of Lydia, and down to a late age many populations were barbarous-speaking. In the Hellenic peninsula the Hellenes cleared out the tribes, and

their language spread into Epirus, Macedonia, and Thrace, so that though Athens received immigrants from those countries, as now, the Hellenic dialect, written and spoken, held the preponderance.

In Egypt, the resort not only of the Hellenes, but of the mercenaries from western Asia, the Iberian relationships were better understood, and the more particularly as the Egyptians had held possessions in Syria. We must, however, take the teachings of the Egyptian priest as indicating not Athens solely, though Athens was evidently, in the Iberian epoch, a great city, but rather the Iberian races and states, and the empire of the great King of the East.

The priest, among other things, states that

with respect to wisdom you may perceive what attention the law paid to it even from the first, as likewise to all that respects the universe, including even divinations and medicine, that conduces to the preservation of health ; and from these, which are divine things, the enquiry proceeds to human affairs and all other branches of learning therewith connected.

This is a very truthful picture of the protohistoric epoch of culture, from which the Egyptian, the Assyrian, and the Hellenic proceeded.

Many and mighty deeds of your state, then, are here recorded in writing, and call forth our admiration ; nevertheless there is one in particular which in magnitude and valour surpasses them all ; for these writings relate what a prodigious force your city once overcame when a mighty warlike power, rushing from the Atlantic Sea, spread itself with hostile fury over all European Asia.

In applying this passage, we must not understand it as meaning that the force was derived solely from outside the Mediterranean, for we find that the Atlantic power held the western countries of Europe and Africa. A circumstance which was probably not without its influence in closing the Mediterranean ultimately to the Atlantic king was the Semitic migration. This migration did not affect Hellas or Italia, but it did Cyprus, Carthage, and Spain. Hellas and

Italia became the seat of the Aryan rivalries, and offered less temptations to the Phœnician and Punic pirates than did Hispania, divided, like all Iberian countries, into petty principalities of mixed populations. The cohesion of these again must have been affected by the fall of the Atlantic king and the loss of his dominions.

Similar conditions influenced Gaul and the Britains. They fell a prey to the Celtic invasions, and, though some of the states of Iberian origin lingered on their power and wealth, declined.

Plato goes on to say that the Atlantic Sea was then navigable—an observation to be kept in mind—and that it had an island fronting the strait. This island, he says, was larger than Libya and Asia put together, a description well beseeeming America. Further he says distinctly—

There was a passage hence for travellers of that day to the rest of the islands, as well as from all those islands to the whole opposite continent that surrounds the real sea. For, as respects what is within the mouth here mentioned, it appears to be a bay with a kind of narrow entrance ; and that sea is indeed a true sea, and the land that entirely surrounds it may really and truly be called a continent.

This is a correct description, but the real point for note is the acknowledgment that there had been in ancient times a free navigation.

In this Atlantic island (continued Plato) was formed a powerful league of kings, who subdued the entire island, together with many others, and parts also of the continent ; besides which they subjected to their rule the inland parts of Libya as far as Egypt, and Europe also as far as Tyrrhenia.

My comment on this is that the head seat of the great king was possibly in the Caribbean Sea ; it may be in St. Domingo. It is to be noted, however, that at the Spanish invasion this island was under the Caribs, whose language is traced there. Consequently the relics of the former civilisation in this and the other islands was lost. What is further to be found in America of the ancient occupation time alone

can show. At that ancient epoch the great kingdoms of Mexico, of the Mayas, of the Chibchas, of Peru, must already have existed. It may be that the voyage of Columbus was on the ancient route.

A material statement of Plato, and one more probably within safe traditions than the rest, was that which assigned to the dominions of the great king parts of Africa, which would include the coast, and of Europe, which embraced Hispania and most probably Gaul and Britain.

The whole of this force being collected (states Plato) in a powerful league, undertook at one blow to overawe your country [Europe?] and ours [Egypt], and all the land besides that lies within the mouth.

By comparison with the other passage this involves some indistinctness, as it is already stated that the great King of the West held dominion up to Tyrrhenia.

This was the period, Solon, when the power of your state was universally celebrated for its virtue and strength, far surpassing all others both in magnanimity and military skill, sometimes taking the lead of the Greek nation ; at others left to itself by the defection of the rest, and brought into the most extreme danger, it still prevailed, raised the trophy over its assailants, kept from slavery those not as yet enslaved, ensured likewise the most powerful liberty for all of us without exception who live within the Pillars of Hercules.

The continuation of events is thus related:—

Subsequently, however, through violent earthquakes and deluges, which brought desolation in a single day and night, the whole of your warlike race was at once merged under the earth, and the Atlantic island itself was plunged beneath the sea and entirely disappeared ; whence even now that sea is neither navigable nor to be traced out, being blocked up by the great depth of mud [?] which the subsiding island produced.

## V. THE DESCRIPTION IN THE 'CRITIAS.'

We may leave the discussion of these theories and proceed to the dialogue of Plato, 'Critias,' which is the real



continuation of the 'Timæus,' but of which the text has come down to us in an imperfect state. Indeed Mr. Grote, in the third volume of his 'Plato's Chapter on Critias,' is doubtful whether Plato finished or meant to finish this dialogue. The part that concerns us begins :—

First of all, then, let us recollect that it is about 9,000 years since war was proclaimed between those dwelling outside the Pillars of Hercules and all those within them, which war we must now describe. Of the latter party, then, this city [Athens] was the leader, and conducted the whole war; and of the former the kings of the Atlantic island, which we said [in the 'Timæus'] was once larger than Libya and Asia, but now sunk by earthquakes, a mass of impervious mud, which hinders all those sailing in the vast sea from effecting a passage hither; and thus our story will, as it were, unfold [to your view] the many barbarous tribes, and such of the Greek nations as then existed, as each may happen to present itself.

The dialogue then proceeds to give a mythical history of the ancient Athenians.

Critias says expressly that Solon turned the native names of the Atlantis into their Greek meanings, and he thus accounts for the appearance of such words. This is in favour of the statement having really been adopted from abroad.

As we remarked (says Critias) at first commencing the allotment of the gods, that they distributed the whole earth here into larger and smaller portions, so Poseidon in particular, taking as his lot the Atlantic island, begot children by a mortal woman and settled in some such spot of the island as we are about to describe.

We next get an account of Poseidon becoming enamoured of the daughter of two aborigines, which is one of the peculiarities of the narrative, because we are led to believe that the real population of the earth was from Poseidon. It may be a vague admission of an aboriginal population which was brought under culture by the invading Iberians. Poseidon is said to have created two springs, one hot and one cold, which may become an identification of a site, and five pairs of male twins, to whom he gave kingdoms. The eldest is stated to have been named Atlas.

All these and their descendants dwelt for many generations and ruled in the sea of islands, yet further extended their empire, as before said, to Egypt and Tyrrhenia.

Whether, however, this passage means that the King of the West held Egypt and Tyrrhenia may be doubted, and the historical meaning may be inferred to be that he held the countries next Tyrrhenia and Egypt.

By far the most distinguished were the sons of Atlas, and among them the eldest king in succession always handed down his power to his eldest son, all of them successively possessing wealth in such abundance as never was before found among royal dynasties, nor will easily be found hereafter ; and all things were provided for them which in a city or elsewhere are worth such provision. Many possessions, indeed, accrued to them through their power from foreign countries ; but the greatest part of what they stood in need of was supplied by the island itself ; first such ores as are dug out of mines in a solid state, or require smelting, and especially that metal—*orichalcus*—which is now known only by name, but formerly of high celebrity, was dug out of the earth in many parts of the island, being considered the most valuable of all the metals then known except gold ; and it produced an abundance of wood for builders, and furnished food also for tame and wild animals.

This probably refers to the supply of precious metals (for which see also *Ælian*), of which the King of the West would have the monopoly to himself. Then comes a passage which has hitherto sealed the fate of the authenticity of the tradition and caused it to be set down as fable, but which may be evidence of the contrary. 'Moreover there were comprised within vast numbers of elephants.' These are interpreted by me as *tapirs*, for there were abundant means of 'support for all animals that feed in marshes and lakes, on mountains and plains.' The productiveness is further referred to in rhetorical detail—fruits, vegetables, drinks, meats, and ointments. There were said to be 'certain dainty fruits for dessert that might provoke the satiated palate or please the sick.'

Critias describes how the inhabitants employed them-

selves in erecting temples, royal habitations, ports and docks over the whole region, and of similar works there are remains enough in America. Of the royal city and palace Critias enters into a lengthened description. He represents that gold and silver were largely used in the decorations. Warm baths are specified, and separate baths for women. The most troublesome passage speaks of an arena for horses, and also of riding horses for soldiers. There is a possibility that the details as to the establishment of war chariots may belong to the European and not to the American dominions of the great king, and in such case a connection may be suggested between such war chariots and those encountered by Julius Cæsar in Britannia. The docks are represented as full of triremes, and as carrying on a large trade with all parts, meaning of Atlantis. Of their polity an express condition was said to be that none of the ten states were to engage in war with each other, and that they were to combine against any city breaking out in sedition or trying to destroy the royal race. They had held from immemorial custom a common assembly as to the right course both in war and other concerns, and 'assigning the empire to the Atlantic race.' 'They did not allow the king, however, any authority to put to death any of his kinsmen, unless approved by more than half of the ten.'

The writer, while engaged in suggesting that a diminution of public virtue was the cause of the fall of the state, can no longer be followed, as the continuation of the dialogue is missing, and no MS. has yet been found under the circumstances stated.

## VI. OTHER TRADITIONS.

The mythological fables connected with Atlas and the Atlantides or Pleiades possibly refer to the traditions recorded by Plato.

Thus Atlas is treated as among the earliest men and leaders, being son of Japetus and brother of Prometheus. As some say, he was a son of Asia, daughter of Oceanus. In

the division of the world he received the western portion, including Mauritania.

Hesperus was a son of Atlas and represented the west and the islands of the Hesperides. The several islands were symbolised as the Pleiades. He is also represented as possessing Italy, which, according to the account in Plato, appears to have been included in the domains of the Atalantis. Hesiod places the Hesperides at the western extremity of the earth.

The continent of Atalantis, according to Plato, abounded in gold, and the chief feature in the legend of the Hesperides is the tree that produces golden apples.

Mythology, like the story in Plato, represents contests between the east and west, Libya and Atalantis. Busiris, king of Egypt, carried off the Hesperides; but they were recovered by Hercules. On the other hand a Hercules invaded the Hesperides and carried off the gold. Orion also attacked the Atlantides.

Mr. Ignatius Donnelly, in his 'Atlantis: the Antediluvian World' (p. 27), has collected a mass of passages on the subject, though he treats them as confirmatory of his theory of a submerged land.

An extract is stated by him to be preserved in Proclus, taken from a work now lost, and which mentions islands in the exterior sea, beyond the Pillars of Hercules.<sup>1</sup> It was known that in one of these islands 'the inhabitants preserved from their ancestors a remembrance of Atlantis, an extremely large island, which for a long time held dominion over all the islands of the Atlantic Ocean.' This is, in my opinion, a reference to one of the Canary or Fortunate Islands, and to be taken as an evidence.

Ælian, Mr. Donnelly cites, in his 'Varia Historia,' related the particulars of an interview between Midas, king of Phrygia, and Silenus, in which Silenus reported the existence of a great continent beyond the Atlantic, 'larger than

<sup>1</sup> Quoted by Boeckh in his *Commentary on Plato*, and in Diedrich Müller, *Fragmenta Historicorum Græcorum*.

Asia, Europe, and Libya put together.' He stated that a race of men called Meropes dwelt there and had extensive cities. They were persuaded that their country always was a continent, and in it gold and silver were so plentiful that they were esteemed no more than iron in Asia. Out of curiosity some of them crossed the ocean and visited the Hyperboreans. This, again, is of interest, as it shows the Asiatic chain of tradition, and is to be taken in concurrence with the teaching of the doctrine in the school of Pergamos. As to Silenus and Midas, they are only Greek phrases to express a tradition of the pre-Hellenic period.

The regions wherein the tradition would be preserved would be Britain, Gaul, Spain, Etruria, the Canaries, Mauritania, Egypt, Asia. The old Greeks and Romans had no intercourse with the Britains, and afterwards the invasion of the Celts broke the chain of Iberian knowledge, unless the teaching of the monk Vergilius is to be taken as in point. Before the Celts the Phœnicians had done the same in Gaul. In Hispania we trace the historical influences, as in Mauritania. The Aryan Romans learned little from the Etruscans before the national decadence of the latter. Hellas early fell under the power of the Aryans. In the Canaries we find the legend was preserved (Proclus), in Ireland (Vergilius), in Italy (Cicero), in Egypt (Plato), and in Asia (Ælian). Now all these localities, in the Greek and Roman period, were separated and gave no combined evidence.

Another passage of Mr. Donnelly (p. 28) quotes Diodorus Siculus for the statement that the Phœnicians discovered a large island in the Atlantic Ocean, beyond the Pillars of Hercules, several days' sail from the coast of Africa. This island abounded in all manner of riches. The soil was exceedingly fertile; the scenery was diversified by rivers, mountains, and forests. It was the custom of the inhabitants to retire during the summer to magnificent country-houses, which stood in the midst of beautiful gardens. Fish and game were found in great abundance, the climate was delicious, and the trees bore fruit at all seasons of the year.

This may represent the result of the voyage of some Carthaginian ship driven over the ocean, and which got back as best it could, but it does not represent the outcome of regular Phoenician or Carthaginian intercourse.<sup>1</sup>

Cicero in the 'Somnium Scipionis,' c. 6, refers to habitable continents.

Macrobius, in commenting on the 'Somnium Scipionis,' c. 2, 5, 9, discusses the question of there being four great islands, two in the north and two in the south hemisphere.<sup>2</sup>

Von Humboldt dealt with this statement, and, like myself, considers it to represent the regions of the world. He too considered, as I am now fully convinced, that Columbus was influenced by this reasoning in his search.<sup>3</sup> In fact, one problem Columbus had to solve was whether it was true, as alleged in Plato, that the Atlantic Ocean was blocked with mud. When he had ascertained that it was not so, he was in a position to look out for his two continents. He may have thought it possible, as stated in the tradition, that the two continents were separated at the equator, and that he would find an open channel to Cathay.

At the time when Columbus, as well as others, were discussing the subject of new lands to be discovered, literary resources had become available. The Latin writers could be examined, but, above all, the fall of Constantinople had driven numbers of Greeks into Italy. The Greek language was studied, and Greek books were eagerly bought by the Latin nations, as before they had been by the Arabs. Thus all that had been written as to the four worlds was within the ken of Columbus.<sup>4</sup>

One part of the investigation of the subject turns on the

<sup>1</sup> A Phoenician inscription reputed to have been found in Brazil a few years ago could not be authenticated, and was pronounced to be spurious, of which it bore all the appearances.

<sup>2</sup> Except the two dialogues of Plato none of the quotations have been verified by me. As to the *Somnium*, I quote from Forbiger, *Handbuch der alten Geographie*, vol. ii.

<sup>3</sup> V. Humboldt, *Kritische Untersuch.*, i. 119, 168.

<sup>4</sup> In the discussion Mr. Fyfe differed from Humboldt, and considered that Columbus was more under the influence of Christian cosmogony than of classic.

tradition of antiquity recorded by Plato<sup>1</sup> as to the sun, moon, and stars having once risen in the opposite quarter to what they now do. Mr. Haliburton considers this to be a reference to the knowledge of the ancients that the rising south of the equator had actually been seen and communicated. To the Tahitians the sun, moon, and stars rise on their right hand, as to us on the left.<sup>2</sup>

There are traditions as to a lost world, which may have reference to the cessation of correspondence with America. One existing to this day among the Slavonic nations, mentioned by Mr. Mijatovich, is to the effect that there was once another world lost by conflagration. So was the world of Plato lost by volcanic influences, from which account the Slavonic tale may have emanated.

For the later period of knowledge as to the four worlds may be mentioned St. Clement, who said in his Epistle to the Corinthians that there were other worlds beyond the ocean.<sup>3</sup>

The Irish priest Vergilius in the eighth century taught in Germany that the earth is a globe, that there are antipodes, and that there may be population there. St. Boniface, the English apostle, having complained against this, Pope Zachary declared it to be 'perversa et iniqua doctrina,' contrary to the law of God.<sup>4</sup>

It is possible that, on careful comparison of Irish and Salic legends, many traces of the former epoch would be found in a traditional shape. Mr. Hector MacLean, of Islay, who has devoted much research to the subject of the early legends, has of late had his attention called to probable Iberian survivals. He informs me that in many of the folk tales of illiterate peasants Rìgh an Domhail, King of the World, is a common expression, as well in the Highlands as in Ireland.

<sup>1</sup> Quoted by R. G. Haliburton from Canon Greswell (*Fasti Catholici*, i. 343).

<sup>2</sup> *Primitive Man*, p. 21. In the discussion on this paper Mr. Collett justly referred to the importance to be attached to a tradition that the sun had been seen on the wrong side of the world.

<sup>3</sup> Donnelly, *Atlantis*, p. 28.

<sup>4</sup> *Hardouin*, iii. 912. This subject came under discussion in *Notes and Queries* for June 1885.

In these tales heroes are lauded who fought with the King of the World and defeated him. There is also frequent mention made of Eilean Fomallach an Domhain, the island on the border of the world or in the farthest part of the world. With regard to a disputed phrase, Ceithir Ranna ruadh an Domhain, Mr. MacLean is inclined to suggest that it may mean Lordship of the World. As Inis Fail, one of the names of Ireland, may mean King's Island, Mr. MacLean regards this as a possible attribute of the last portion of the Iberian Kings of the West.<sup>1</sup>

With regard to the descriptions of the possessions of the Atalantis, it comes in great conformity with what must have been the necessities of the great king for the occupation of America, and in explanation of what must have been the causes of cessation of intercourse. On account of the physical constitution of the Atlantic, and the course of its winds and currents, it was necessary to have a foothold not only on the shores of America, but on the shores of this side of the Atlantic.

This is another independent circumstance in favour of the general narrative of Plato, for he shows his ignorance of the real conditions. His account provides for the occupation of the west shore of Africa and of Hispania, and it must be assumed, as a consequence, of the Britannic islands and possibly of the shores of Gaul. In the time of Julius Cæsar Aquitania was Iberian, but the coins show us that the other parts of Gaul<sup>2</sup> had been colonised and occupied by the Iberians, and my argument goes to the extent that the Belgians were to be regarded as Iberian. In the time of Cæsar the Celtic races had become predominant in Gaul and the Britains, and had invaded Hispania and Belgium.

This historical state we must take as an indication for our guidance. After the decline of the great king the navigators who attempted to follow him to his vassal provinces would

<sup>1</sup> This would be conformable with the possibilities of the Pictish and Scottish relations in Ireland before the last stage of the kingdom in Britain.

<sup>2</sup> See my *Mediterranean Populations*.



have no claim to a friendly reception, and step by step the Iberian vassal kings and chiefs would fall into dissensions with each other, and become a prey to the Celts. The Celts, like the Hellenes, had no traditions of western intercourse to preserve.

The Atlantic Ocean has in particular trade winds from east to west within  $30^{\circ}$  lat. N. and S; not, it is to be noted, from west to east, under which, had America been first occupied across the Pacific from China, as assumed, it might be supposed the population there would have instituted intercourse across the Atlantic with the eastern world. It is therefore in favour of the determination that the intercourse did begin from this eastern side.

Indeed, so favourable are the winds that Humboldt thought it less dangerous to pass from the Canaries to America than to traverse one of the small lakes of Switzerland. The Spaniards, he says, called this part of the Atlantic El Golfo de las Damas, or the Ladies' Sea, as the passage to America could safely be effected in an open boat. This opinion is the more noteworthy as it meets the doubts raised by those who believe that modern decked ships can alone make the passage. Such vessels as the most ancient navigators possessed could well accomplish the purpose, and it is hardly necessary to cite what was done by the early navigators, as recorded in Hakluyt, or how often we have known adventurous men in our days make the contrary and dangerous passage of the North Atlantic in open boats.

It is noticeable that though there is an equatorial current passing from the Canaries south of the Sargosso Sea<sup>1</sup> to Guiana and the West Indies, there is another and the main equatorial current much more favourable, passing from the Gulf of Guinea to South America. It is on the shores of the Gulf of Guinea that languages are to be found having affinity with those of Central America, though in so many ages great

<sup>1</sup> The Mar de Sargoso region of the weed *Fucus natans* extends across the Atlantic from  $30^{\circ}$  meridian to the Bahama Islands, between  $36^{\circ}$  N. and  $19^{\circ}$  N., being 1,200 miles from north to south.

displacements and new developments may have occurred. On the other hand, the local races may have been always compressed on the shores of the ocean. The point at which the Guinea current is available is that of which the geographical knowledge of the ancient writers held cognisance.

## VII. EFFECT OF THE REVOLUTION ON EAST AND WEST.

The fall of the western Iberians must have been attended with great results both in the New World and in the Old, and in the latter paved the way for that new epoch in history which by the Greeks and Romans and by ourselves was looked upon as the infancy of history. It is of this history alone that Herodotus was the father; but of the history before him we are only of late acquiring the rudiments, and a dim conception from excavations and the exhumed relics of Akkadians, Sumerians, Khitans, Babylonians, Egyptians, Chinese, Etruscans, Cypriotes, and others have still to come.

It is to this indeterminate epoch, whereof there are some historical elements, as yet shapeless and incomplete, that the term protohistoric was some years since applied by me, and, being found convenient, was adopted by others. The term prehistoric is not correct, for history there is better than is sometimes to be found of later periods, and the term prehistoric should be maintained for those conditions which, according to its meaning, are before history.

The application of the facts as ascertained by the ancients is consistent with the conditions of America on the resumption of intercourse by the Spaniards.

The effect of the stoppage of the navigation would be to deprive the ten kingdoms of the Atlantic of their supply of trained Iberian civilians, warriors, navigators, and merchants, leaving the half-caste and native elements to acquire numerical preponderance. In fact, then, by the cessation of Iberian immigration, would occur what happened in our days by the rupture of intercourse with old Spain after the wars of inde-

pendence. The migration of Spaniards ceasing, we have seen Indian blood assuming preponderance; and although the people still speak Spanish, and observe outwardly the new religion, the rulers of many republics are men of whole or half Indian blood, as well recognisable by their features and their characters as by their histories. It is because history repeats itself that we can from comparative history, too much neglected from our incomplete knowledge, obtain a better and more exact explanation of what we regard as events and facts.

After the dissolution of the empire of Atlantis the states, becoming independent, might retain for a longer or shorter period the ancient culture, but its ultimate extinction was certain by the influence of the new elements. The official languages would linger, but would be superseded by those of the dominant tribes, and these we find to be of the same real origin and mould as those of the Old World.

New states and governments would fall by the diminished power of cohesion, and would, according to circumstances, hold a more or less decided position of culture or of savagery. Where the wild tribes invaded and overturned a kingdom to be again overturned by others, as we find in the later history of Mexico, there would mythology, not language and culture, generally be affected.

Hence we should look to find a very different development at the period of the Spanish invasion than was to be found in the Old World, except in Africa. Indeed, in the Old World Babylonia and Egypt had fallen for ages, and their whole material existence had been annihilated by alien preponderance. On the other hand, America was protected from Semites and Aryans. There was no corresponding stage to the absorption of Babylonia by Assyrians and Persians, and of Egypt by Greeks and Arabs. In America the ancient culture languished, but it was more persistently maintained. This again must be repeated of Africa.

As to Europe, the effects of the catastrophe were more immediate and more complete. There must have been an epoch when the great King of the West must have been in

harmony with the ruler of the east, for the coast dominions of the west in Spain, Etruria, and Mauritania were as fully Iberian, or whatever term is to be applied, as those of the east. It was long since shown by me that the topographical names of Hispania are identically those of Italia, Hellas, Asia Minor, Palestine, &c.

A severance having taken place, political hostility followed, and the fall of the great King of the West in reality weakened the conquerors and laid them open to the invaders lying behind them in the east. Support from the west they could no longer obtain, nor naval aid, and most probably some invasion by them of Hispania and other countries dissipated their local strength.

We may very fairly argue this, for we find historically that Phœnicia, according to the Bible an unsemitic country, fell under the hands of Semitic victors, taking their languages and religions. We then find the Phœnicians as traders and pirates in the Levant seas in advance of the Aryans, who had penetrated into Hellas. The Phœnicians occupied another Iberian country when they conquered but did not found Carthage, again at Massilia, in Gaul, and more particularly in Hispania.

Thus the Iberian races were deprived of power in Hispania, South Gaul, South Italia, Sicilia and the islands, Mauritania, and Hellas. Lydia was probably the last stronghold in western Asia, and that fell to the Persians, while though Etruria lingered it ultimately succumbed to the Aryan masters of Rome.

What happened in the Britains must be chiefly matter of conjecture. Here too the Iberians were severed from their allies in the rest of the world, and their several branches of gainful commerce were cut off. After a time these were looked after by the newer comers, and the tin trade more particularly attracted foreign cupidity.<sup>1</sup> The power of the Celtic invaders was, as we know, sufficiently great to cover

<sup>1</sup> See my paper read before the Royal Historical Society on the *Iberians in Britain*.

these secluded regions, and to make the Celtic language ultimately universal.<sup>1</sup>

### VIII. THE NAME ATALANTIS OR ATLANTIS.

The name Atalantis or Atlantis is by me taken as the name of the king and not as that of the land, and as the name of the king instead of Atlas. There is material enough to suggest the form Atalantis.

Such a form as Atlantis or Atalantis brings it into conformity with mythological and historical surroundings.

In the course of my determinations and investigations of the Khita or Hamath inscriptions (by some called Hittite a term calculated to mislead in reference to characters found over western Asia and the eastern Mediterranean) much attention was devoted by me to the bilingual in Khita and Assyrian cuneiform, known as the boss or seal of Tarkhondemos or Tarkutimmi, and on which some observations have been published by me.<sup>2</sup>

This object has been very fancifully treated, and, as the figures on it are rudely or conventionally represented, various animal forms have been attributed to them. It is, however, now recognised that, as stated by me ('Athenæum,' 1880), they are identical with characters, natural or conventional, represented in the inscriptions of Hamath, Carchemish, Magnesia, Ninfi, &c., and that the signification is the title of the

<sup>1</sup> Since this paper was read I have proposed in a paper sent to the British Association in September 1885 a solution of the question of the Picts, which brings the Iberian relations of Britain more prominently forward. Those who have bestowed the most attention on the Picts—Dr. Skene, Professor Rhys, and Mr. Grant Allen—have come to the conclusion that they were non-Celtic and non-Aryan. Beda, the contemporary of the Pictish kings, had informed us that a law of female succession prevailed. Dr. Skene found that of forty-two names about half belonged to the form Talargh, a quarter to Brude, and a quarter to Drust, and that no king succeeded his father. The kingly names are shown by me to be Iberian. If an Iberian dynasty survived for a thousand years of our era, and within about four centuries of the rediscovery of America, a similar survival may have taken place in the New World. Talargh, Talargan, and its various forms I identify in Pictish in the paper for the British Association.

<sup>2</sup> See *Proceedings of the British Association*, &c.

king. From that point divergence into theory grows rife among writers.

It has, however, been shown by me that the characters are identical with two types on the coins of Sardis, which represent the heads of a bull and a lion, and in an artistic form the figures of a bull and a lion. Sardis is close to the inscriptions of the pseudo-Sesostris and the Niobe (?) at Ninfi and Magnesia.

From linguistic evidence it has been decided by me that on the boss the bull stands for Tara or Tar, and the lion for Kun or Ku, Timmi or Demos meaning offspring or children.

In my paper contributed to the Royal Historical Society in 1882, on the 'Early History of the Mediterranean Populations, &c., in their Migrations and Settlements,' will be found, at pp. 22, 24, and 25, some remarks on the adoption of the head as the type of the animal,<sup>1</sup> illustrative of the Tarkondemos characters, and in the application of the bull and lion on coins.

In that treatise will be found several examples of cities of the form Tarakona, having either a bull or a lion, or both, as emblems.

Such are—

Acanthus, Macedonia, bull and lion.  
 Knidos, lion.  
 Tarraco, Spain, bull.  
 Dyrrhacchium, Illyria, bull.  
 Atrax, Thessaly, bull.  
 Taurini, Italy, bull.  
 Citium, Cyprus, [deer] lion.  
 Catana, Sicily, bull.  
 Panticapæum, bull, lion.  
 Cibra (Kibura), Phrygia, bull, lion.  
 Cyzicus (Kuziku), (calf) lion.  
 Syracuse, Sicily, bull.  
 Khios, island, lion.  
 Morgantia, Sicily, (stag) lion.

<sup>1</sup> So in Mexican inscriptions, and now among the North American Indians. They are also found in Captain Gill's Western China MSS. in the British Muscurn (Moso?).

Messana, Sicily, (calf) lion.  
 Tarsus, Cilicia, bull, lion.  
 Carthago, Africa, (goat) lion.  
 Sardis, Lydia, bull, lion.  
 Segesta, Sicily, (stag) lion.  
 Suessa, Campania, bull, lion.  
 Samos, island, bull, lion.

Before commenting on this list it is to be noted that 'tara' and 'kona' are not the only words used in the ancient languages for the bull and lion, nor are the words employed in the same order. Sardis appears to be Sara, Sala, bull; Di, Ti, lion (compare Sura, Kusa); Acanthus is a-Kan-Tu.

Taking the form Tarkon—for in the Hamath inscriptions it is separable, and found with or without the characters II II, reading Timmi, Demos—we find many examples of it.

Tarku (-timme, on boss).

Tarkondimotos, Cilician names quoted by Dr. Merdtmann.

Tarkondemos<sup>1</sup>                   "                   "                   "

Tarcodimatos               "               "               "

Adarkonim (1 Chron. xxix. 7; Ezra viii. 25, 26) and Darkamonim (Ezra ii. 69; Nehemiah vii. 70, 71), names given to foreign gold coins in the Bible.

Tarquin, kingly title and royal name in Etruria and Rome.

Dercennus, king of Latium, in the 'Æneid,' xi. 850, which may be an invention, but, like other words used by Virgil, seems to be modelled on an old form.

Tarquitius, *see* Faunus and Dryope, 'Æneid,' x. 550.

Tarchetius, king of Alba.

Telegonus, a legendary king of Italy.

"               "               "               Egypt.

Telkhis, a 'king of Peloponnesus.'

Telkhines, chief of Rhodes.

Darkuan is the word for king in the Kanyop language of Africa.

<sup>1</sup> The name Tarkondemos, or its local equivalent Dardanus, is found by me in the Hissarlik or Trojan inscriptions, discovered by Dr. Schliemann and read by Professor Gompers, of Vienna, as Tago or Tako in Cypriote characters (*see* my papers in *Athenæum*, July 25, &c. 1885, p. 112).

The same interpretations I attach to the only characters discovered by Dr. Schliemann at Mycenæ.

Tarakanausa, a name of the Khita or Khittim enumerated by Professor T. K. Cheyne in the 'Encyclopædia Britannica' after De Rougé.

The form is also to be found in the names of places.

Besides Darkuan in Africa we have the title Tarkhun still preserved in Central Tartary, for which the 'Bibliothèque Orientale' of D'Herbelot is quoted, p. 847. He says that it is the title of a noble exempt from all kinds of taxes and from any contribution to the prince or general of plunder or booty he may have made in war. The Rev. Dr. Kœlle informs me further that Zenker, in his 'Turkish Dictionary,' explains the word as the title of a dignitary at the courts of the Tartar khans, who enjoyed special privileges, such as exemption from tribute, free access to the sovereign, inviolability of person, &c. These privileges are of a princely kind.

Tarkhun was also applied as a name to a tribe of Jaghata Turks.

Mr. W. St. Chad Boscawen suggested to me in 1880 that Tirhakah is one of the forms of Tarkon.

Among the kingly names in the district of Sardis or Lydia we find Candaules (Kandaules), Tantalus, and in the Troad Dardanus. On the objects brought by Dr. Schliemann from the Troad inscriptions have been found by me, which appear to represent the kingly title.

As to Kandaules, which we are justified in treating as Kan-daures, we have Tara-kon or Dara-kon reproduced.

The name of the individual who was called Kandaules is said to have been Myrsilus, so that, as suggested here, Kandaules may have been the kingly title.

On the other side in Kandaules, Tantalus, and Dardanus we get a form like A-tlantis, A-talantis, A-taranti.

To this class perhaps belong Tyndarus, Codrus (Kodarus), Deukalion, &c. Indeed the names of the legendary kings may be recognised as belonging to such forms.

There is an appearance that the numerous kings adopting the title of Tarkon differentiated themselves from each other by dialectical distinctions and by reversing the syllables.



This title of Tarkon and its equivalents was the great and favourite title before the Semitic and Aryan epoch. The bull is made the superior animal to the lion, but this is probably because the original king of beasts was the elephant and not the lion. As the elephant died out in the northern countries he was replaced by the bull (*aloph*), the stag, and even the goat (*tragos*, which Mr. Basil Cooper supposes to be the true representative of the Tarkon). The words for elephant and king show some correspondence in the African languages.

Whether the bull and lion were totems or standards of the kings is matter of speculation, but a curious case of survival of the tradition is to be traced in the description of the legendary throne of King Solomon. On the first step, the Rev. Dr. Löwy remarks, the bull and the lion held their place. It is to be noted also that on the bull side was the sheep, and on the lion's the leopard and the cat, with the savage birds the eagle and the sparrow-hawk.

In reference to the coins *adarkonim* and *darkemonim* great discussion has taken place among numismatists, as recorded by Mr. Madden in the fourth chapter of his work of great labour on the coins of the Jews in the 'Numismata Orientalia.'

The general impression has been that the coin was the daric of Darius; but Mr. Madden has given reasons to doubt this conclusion. It so happens there is a passage of the scholiast on Aristophanes' 'Eccl.,' 602, in Harpocration and Suidas 'word *Δαρεικόν*' (Madden, p. 46). This says *Δαρεικὸς οὐκ ἀπὸ Δαρείου, τοῦ Ξέρξου πατρὸς, ἀλλ' ἀφ' ἑτέρου τινὸς παλαιότερου βασιλέως ὀνομάσθησαν*. This, says Mr. Madden, is particularly rejected by Mr. Head as 'unworthy of credit.'<sup>1</sup>

On consideration of the evidence given on the present occasion the quotation in Harpocration may be taken as representing a real historical condition. There is likewise an appearance that coinage originated in Asia Minor, bearing the title or emblems of the Tarkon, and that in a later stage it is represented by coins of Sardis.

<sup>1</sup> *Int. Num. Orient.*, vol. i. part iii. p. 22.

It is by no means impossible that with this point the date of the events of Atalantis may have some connection. Although in America a community of symbolism, character, and ornament<sup>1</sup> with the Old World may be traced, there is no such development as we find in the coinage and standards of the Mediterranean populations. To this day a crescent and star suggest the idea of Byzantium, and is acknowledged there, just as an owl is accepted for Athens. The symbolism is, however, more particularly recorded in the vast number of coins of so many cities and islands.

That shells or cowries were an early form for money has been the opinion of many. The inscribed and sculptured whorls found by Dr. Schliemann have by me had a signification assigned them of being a further form of money. The lumps of metal first coined at Sardis bear the same symbols as the spindle whorls.<sup>2</sup>

Using this adoption of gold, silver, and bronze coins as a distinctive historic epoch, the alleged naval conflict of east and west, and the severance of intercourse, must have taken place anterior to it.<sup>3</sup>

Upon the eastern territories of the King of Atlantis, in Mauritania, Mr. R. G. Haliburton, Q.C., of Toronto, who has been so many years a labourer in prehistoric anthropology, is now engaged in researches and has discovered many interesting facts.

#### IX. ORIGIN AND DISTRIBUTION OF THE AMERICAN AND OTHER LANGUAGES.

Without including the Davenport, the Brazilian, Phœnician, and other controverted specimens, there is a large number of

<sup>1</sup> What, perhaps, more than anything else suggests a community of ideas between east and west is to be found in those observations on the measurement of American buildings published by Mr. Flinders Petrie and Mr. R. P. Greg.

<sup>2</sup> See my paper in *Athenæum* on 'Darics and Darkomenim,' June 27, 1885, p. 830.

<sup>3</sup> Mr. Donnelly, *Atlantis*, p. 445, describes a coin of Palenque with a serpent and eagle. Whether this is a coin is uncertain, but the serpent and eagle are found in America, as on Mediterranean coins.

American rock inscriptions, particularly those of Guiana, which show affinities with those of the Old World. The inscriptions of Yucatan and Lake Titicaca, as well as the Mexican characters, even in our present state of knowledge suggest a common origin with the east, through an independent development.

A popular example may be taken in the Mexican use of 'tooth' for 'mountain'; the same is found in the Old World symbology, and, as in other cases, it is dependent on common laws of symbolism and linguistic formation, under which tooth, mountain, arrow and similar forms were arranged in series, and in speech represented by dentals.

Another correspondence in a different branch is to be found in the well-known illustration of the Mexican astrological figure of the human body, in which each limb and member is represented by a zodiacal sign or numeral, many of which can be traced in languages or symbols of the Old World.<sup>1</sup> Dr. Tylor has illustrated systems of numeration by touching various features of the face.

Having been engaged for a long time on the investigation of the connection of characters and speech which was illustrated in papers to the British Association, Society of Biblical Archæology, Anthropological Institute, &c., I was led by observations of Mr. Alfred R. Wallace in 'Nature' in 1881<sup>2</sup> to the true key.

It was evident to me, from Chinese more particularly, that ancient characters representing a round object, as eye, sun, moon, mouth, &c., were naturally, as ideographs, round, but also that the sounds were of the same class (in this case labials.) My supposition for many years had been that they turned as a central type on the eye.

Mr. Wallace said, 'When we name the mouth or lips we use labials, for teeth and tongue dentals, for the nose and things relating to it nasal sounds, and this peculiarity is remarkably constant in most languages, civilised and savage.' His ex-

<sup>1</sup> Karl Faulmann, *Geschichte der Alphabete*, p. 217. Vienna, 1880.

<sup>2</sup> Vol. xxiv. p. 244.

amples were given from Australia, but the best examples for us are the words, as we have them in English, mouth, tooth, nose, as they familiarly give the types.

Of course this incident of itself would give us but a very small stock of language, but to me, having the materials at hand, it afforded the key, for it brought out that the old Chinese round characters were allied to mouth, and consequently thereby labials, and only allied to eye secondarily, and it enabled me to show how speech and characters were formed by my article in 'Nature' (at p. 380).

Instead of referring to this paper it is better to give the results as confirmed by further investigations of words and characters. On examining the ancient and modern syllabaries and alphabets they can generally be recognised as not only ideographic but phonetic in relation to the law of classification. Of this there are some interesting examples in connection with America, but for which there is no space now. Thus character is to be considered as strictly in psychological connection with speech.

On going again over Col. Mallery's researches on gesture and sign language there is further to be recognised a connection of gesture, speech, and character, and in this precise connection it can be seen, as already stated, that speech is in succession to gesture and not precedent to it, and that many characters, not strictly ideographic in writing, belong in origin to gesture and not to speech.

A remarkable series of researches by a distinguished scholar, Dr. Carl Abel, are just beginning to attract attention in Germany and England, but are little understood. In original investigations of ancient Egyptian and Coptic he found that the same or similar sounds had opposite meanings and were affirmative or negative.

On following this up in other languages with which he is familiar he came across the same facts, though not so strongly apparent as in Egyptian.

The real explanation is to be found in the original relationship of speech language to gesture language, where the

meaning of a sign depends on the significant gesture, affirmative or negative, applied. Hence in some languages adjectives are made—not good, not great, not black, &c.

It is possible the explanatory tones applied to give meanings to words in Chinese, &c., are due to the same influence of origin.<sup>1</sup>

Two circumstances must, however, be taken into account: that in gesture the real centre is the lower part of the body, and that the effective application of speech—labials, for instance—is due to the transposition of the centre to the mouth in the upper half of the body. This enables the labial sounds, *m*, *b*, &c., to be applied to round characters and ideas expressive of a round object, but from the very beginning of speech a cause of disturbance was thereby introduced. The labial forms are generally regarded as female and the nasal as male, but under various conditions of symbology and classification a labial may be displaced by another sound. This is notably the case with the eyes. A common type is labial, but, as in American languages at present, a nasal or dental may be more prominent. One cause is that under symbolism the two eyes themselves are distinctly male and female, with separate names. Hence dissyllable names for the eyes.

Under the conditions of male and female languages (that is, separate words used by males and separate words used by females), as is found in America, interference and disturbance will be observed, but the general and fundamental law is that the labial, nasal, and dental were applied according to certain psychological considerations.

Hence it appears that the foundation of speech, which must have taken place in the eastern world and been transmitted to America, is not due to one primeval language in the accepted sense, but to the relations to be observed among all languages, and particularly those of the western hemisphere to those of the eastern, and which are to be attributed to the application of one law and not of one type. Thus if we take labials we do not find one labial dominating, but the

<sup>1</sup> See my *Comparative Grammar of Egyptian, Coptic, and Ude*.

labial may be *m*, *b*, *w*, &c., as if a law had been given forth by the propagators of speech that the round forms were to be represented by a labial. Of course it has been laid down that, according to Grimm's law, such forms are only degradations in series, but on careful observation it can be seen that many of the existing forms are aboriginal, and that they must come under Dr. Tylor's doctrine of differentiation.

There is no opportunity here, perhaps no necessity, for developing all the considerations of the subject, but at all events we get what we never had before, a consistent explanation of the phenomena of the distribution and coincidences of speech language, as also of those of gesture language and of characters, as bases for historical research.

By the founders of speech must these new speech languages have been distributed in America, and the suggestion naturally is that such intercourse had already taken place equally in the epoch of gesture language. The effect of introducing speech language was to produce in the world a psychological revolution, and this appears to be represented in the legends either as the creation of man or as the second creation of man, and in the legend of the ark when new men were carried over the waters (commonly called the deluge legend).

The rapidity and completeness of the occupation of the world by the races which propagated the new culture, and the reduction of so many thousand tribes, must have depended not on warlike conquests, but upon the divine influence of speech, introduced by missionaries and emissaries. In many traditions we find these bearded white men coming by sea, introducing speech and other arts, and founding kingdoms or being treated as divine personages.

One of the most interesting examples for study is perhaps that of Tierra del Fuego. The missionaries have lately put into print one of the three languages, the Yahgan, spoken by a few hundred savages. On examining the vocabulary, as stated by me at the last meeting of the British Association (1883), most of the words can be sharply identified with those of West Africa, and further they can be compared with lan-

