

DID THE PHŒNICIANS DISCOVER
AMERICA ?

THE PHŒNICIANS

UPON the Erythrean sea the people live
Who style themselves Phœnicians. These are sprung
From the true Erythrean stock,
From the sage race, who first essayed the deep,
And wafted merchandise to coasts unknown.
These too, digested first the starry choir,
Their motions marked, and called them by their name.

Dionysius—Pliny, v. 965.



AZTEC CALENDAR OR WATER STONE

Frontispiece

Did the Phœnicians discover America?

BY

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WITH FOREWORD BY

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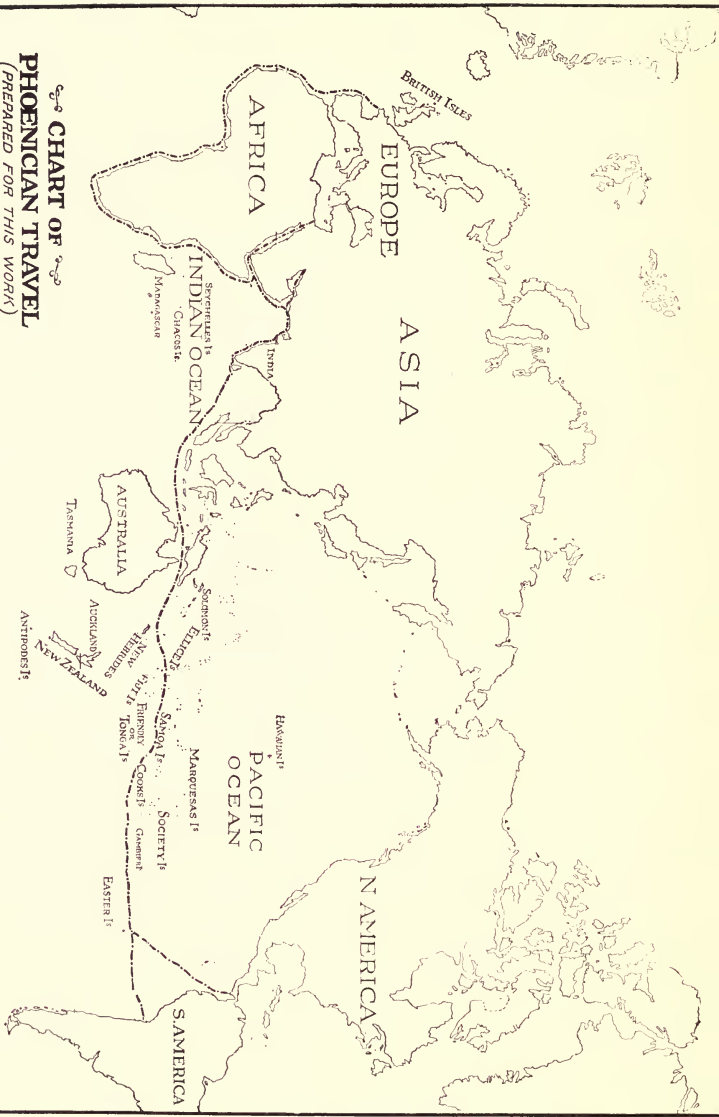
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**CHART OF
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FOREWORD

THE problem of the original discovery of America is no new one. Ever since indisputable traces of the presence of the early Scandinavian Rovers or Vikings were noted on the north-east coast of the great western continent, speculation has been busy as to the character, habits, and race of these primal colonists. One fact soon emerged that the Scandinavians were far from being the first to land on and colonise portions of the vast territory. Traces were discovered of earlier visits that throw the date back upwards of 2500 years or even 3000 years to about the epoch of the Trojan War ; while other theories cast it still further "into the deep backward and abysm of time."

The present volume in many respects breaks new ground in the geographico-ethnological study of the globe. The author, Mr. Thomas Crawford Johnston, studies the remains which the Phœnicians have left in various parts of the world, such as the shores of the Levant, of Spain, and of Britain, where traces of their art, of their trade, and of their commercial and colonial settlements were most in evidence. These he compares with those left in various parts of America, and comes to the conclusion that they are all so closely allied as to have emanated from the same source. Mr. Crawford Johnston wins support for his theory by the calm, methodical, systematic way in which every item of information

bearing on the subject is carefully weighed. He makes out a strong case for the Phœnicians being the original discoverers of America. He also contends that the "Ophir" of Scripture was situated in America, in support of this theory adducing some remarkable evidences of Phœnician settlement on the American mainland. Though the fact has long been known that the early Toltec and Aztec civilisation of Central America was not indigenous, the information which Mr. Johnston cites in support of his theory adds materially to the sum total of our knowledge of the case.

To all interested in ethnological as well as anthropological science, I would warmly recommend this volume as one calculated to please as well as to instruct. They will find here, apart from the argument, a fund of interesting facts that throws light on many disputed points regarding early tribal customs and acts of sacrificial worship. For the land of "Ophir" having been in America, he forges a really strong chain of argument which students of the subject would do well to weigh carefully and calmly. No one will rise from the perusal of the treatise without feeling convinced that it has been written by a man possessed of strong convictions, of keen reasoning powers, of varied scholarship, and of a most reverent mind. I have perused the work with pleasure and profit.

OLIPHANT SMEATON.

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AZTEC CALENDAR STONE . . . *Frontispiece*

INTRODUCTORY

DURING a sojourn that covered the major portion of two years spent among the islands of the Pacific that stretch from the coasts of California to the northern shores of New Zealand, my attention was so powerfully arrested by evidences of the presence in these regions of the early civilisations of the Eastern Mediterranean that I was led to give careful and extended inquiry as to the channels through which they could have been conveyed to this remote and isolated territory.

It did not at first occur to me that any connection could be established between the civilisation of the Eastern Mediterranean and that of Central America, and in consequence of this the scope of the investigation at the beginning was of a much more limited nature than it later assumed.

As I proceeded with the collection of data bearing on this problem I came, in course of time, to realise that I had in my possession material that offered something more than a clue to the solution of the great enigma presented by the population of the American Continent, and in this belief I pursued the research on larger lines until the information gathered was of a sufficiently valuable character to warrant its submission to the scientific world.

In consequence of this I presented a draft of the research and the conclusions to which it pointed

to the Geographical Society of California, which undertook its publication in the form of a special bulletin under the caption "Did the Phœnicians discover America?"

This paper did not claim to be a complete solution of the great enigma, but it provided what was believed to be a clue which, if followed up, would lead to such a solution.

It was not my attention at that time to pursue the investigation further than this point, for other matters of a pressing nature just then demanded my undivided attention. My interest in the subject, however, did not flag, and as in course of time I came to the possession of a larger leisure, I again took up the thread of the investigation. In course of years of somewhat persistent study, I came to realise that the facts ascertained, when woven into a connected and inter-related form, would supply all the light that was really necessary to provide a rational solution as to the source from, and the channels through, which the population of the Pacific Islands, and at least the central portion of the American Continent, were derived. Accordingly that portion of the data in my possession requisite to attain this object has been woven together in the following pages.

When beginning the compilation of this material I fully realised the almost insuperable difficulties that confronted the individual who undertook such a task, for that portion of ancient history with which the research is more immediately concerned transpired in a region of the world so far removed from that inhabited by the more progressive nations of modern times, that our knowledge of what happened

there, apart from the scanty information found in the Scripture narratives and from fragmentary references in the works of ancient writers, is of the most meagre character.

Fortunately the historical researches of Professor Heeren, published in 1828, and later those of Mr. George Rawlinson, published in 1878, brought the major portion of this miscellaneous information within reach of the investigator. It is true that much of Professor Heeren's research has, by reason of the progress of later historical discoveries, become antiquated, still the essential facts have not been materially altered, the section relating to the commerce of the Phœnicians especially, as Mr. Rawlinson says, not having been superseded even now by any later writer.

Of Mr. Rawlinson's own work it is unnecessary to speak. As a guide to the student in thorough systematic study of ancient history his manner has no equal in the English language, nor does any name carry more weight in matters relating to Phœnicia and the Phœnicians than his does.

The very limited character of this research compared with the immense scope of the subject of which it treats necessarily precludes the possibility of the presentation of that circumstantial statement of events on which the value of a regular history depends. Still, in view of the tremendous lapse of time since these events occurred, the paucity of information with respect to the Southern Arabian or Ophir trade and the consequent impossibility of creating more than a mosaic of the historic fragments that are at present available, I may on that account be permitted the liberty of treating the

subject in such a way as will enable me to present the facts in my possession most effectively.

In the construction of the work I have been more concerned with the continuous chain of events than with mere lines of chronological demarcation, still the divisions under which I have grouped the various sections of the research weave themselves naturally into a connected and inter-related whole, which in its entirety throws new, and I believe valuable, light on one of those great movements of the human race of which up to this date we have possessed very unsatisfactory information. The following of this plan is the more excusable since, in addition to this, it affords a convenient way of approach to at least the boundaries of our inquiry.

In some cases it has been impossible to fix dates accurately, but I believe there is sufficient probability in those given to warrant their acceptance.

While prosecuting the final stages of the research it became apparent that it would be necessary to outline a much more comprehensive history than was at first designed. In order to do this, and at the same time keep the work within reasonable limits, it has been necessary in some portions to be more concise than prudence under more favourable conditions would have dictated. It is possible, therefore, that the work as a whole may not be invulnerable to criticism. Still, even if in some instances it is found that errors have crept into the research, it is more than probable that on careful scrutiny these will not be found to be of a nature to render less conclusive the results to which it points.

The first chapter refers to a period of which at

present we have no continuous record available for the purposes of our research. It has been necessary, therefore, to construct one out of such data as exists, and in view of the authorities supporting it I believe it will not be considered without value. When woven into connected form it provides a perspective that makes one phase of our inquiry, and also the later developments of the career and history of the Phœnicians, understandable.

In the second and third chapters we are on much surer ground. Consequently all that was necessary was to arrange and group these essential and well-ascertained facts bearing on the objects of our research.

Such a course, however, was not possible in the chapters on Navigation and the Compass, and in order to arrive at a clear understanding of facts bearing on these two phases of the problem, it has been necessary to deal somewhat drastically with many ancient and popularly accepted theories that have no basis in fact, and to reconstruct them on lines suggested by later and more reliable data.

It is unnecessary to offer any explanation for the selection of the authorities on whom I have relied for information with regard to the state of native society in the insular Pacific when it was first visited by Europeans. It is quite certain that it could not have been drawn from any more careful, painstaking, and reliable source than that provided by Dr. George Turner and Mr. William Ellis, both of whom had a long and continuous residence there before any modifying influence was at work among the native population.

The great obstacle in the way of an acceptable

solution of the Aztec problem has been the attempt to explain it by means of expeditions starting from some Mediterranean base. Any attempt to obtain a solution of the enigma on these lines is as clearly out of the question as an attempt to create correspondences between the civilisation of the Aztec and that existing in Europe in A.D. 1500, for while these civilisations were clearly derived from the same sources they had in course of evolution been developing along lines diametrically opposed to each other, that of the Aztec at no period having passed under the refining influences of Christianity.

To understand this problem correctly, therefore, it is necessary to dismiss from the mind all reference to the later state of European society as it appeared after the introduction of Christianity. It must be viewed in the light of that period when Jew, Phœnician, Scythian, and Thracian were the dominant factors in the national life of the Eastern Mediterranean, namely, about 1100 B.C. And this the more so that both the Jewish and American traditions refer in the clearest manner to this period as that in which these movements, that alone are capable of explaining in any rational manner the origin of the population of the Pacific Islands, and at least the central portions of the American Continent, took place.

Moreover, the so-called physical difficulties that have bulked so largely in the minds of all investigators of this problem are found to melt into thin air. This will be made very clear by a careful study of the section devoted to the navigation of the ancients, for there it will be seen that a consensus of opinion exists among competent authorities,

not least of whom is Lord Avebury, that for at least from two to five hundred years before the date of the setting out of these expeditions of Solomon and Hiram from Eziongeber, which brought the Pacific slopes of the American Continent temporarily within the Phœnician sphere of influence, the shores of Britain and Norway were already tributary to the trade of Tyre and Sidon. Consequently voyages across the Pacific in the latitudes of the steady trade winds must have been an easy feat to a people who had already mastered all the difficulties that beset the dangerous navigation of the tempestuous and storm-driven coasts of Western Europe.

In this connection it has been necessary to reconstruct the history of the compass, which was clearly a Phœnician invention. Fortunately, the data necessary for that purpose was in existence, and I believe that, presented as it now is, all future doubt as to the origin of this invaluable instrument will be set at rest.

That the American Continent was discovered by the Jews and Phœnicians and populated by them in conjunction with the Scythians and Thracians of South Eastern Europe, and that the communication so established between the Asiatic and American Continents continued throughout a period of probably 300 years, are the conclusions submitted in the chapter on America.

In order that the full value of this portion of the work may be easily comprehended by the average reader, this chapter has been supplemented by one containing a list of some of the more apparent correspondences found to exist between the people inhabiting the shores of the Eastern Mediterranean

and those of Central America. These, it will be found, are of such a nature as enable us to recognise the source from which the American population sprang. With a view, however, to eliminating any possibility of doubt, I have thrown the total results of the research into the form of an *inductio per enumerationem simplicem*, to which is appended a list of authorities on which it is based. I trust this may be found satisfying not merely to the general reader but also to the student who may desire a more intimate knowledge of the whole subject.

THOMAS C. JOHNSTON.

DID THE PHŒNICIANS DISCOVER AMERICA ?

CHAPTER I

THE PHŒNICIANS IN THE MAKING

Early history—The Hyksos or Shepherd Kings—Their rule in Egypt—
In Bahrein Islands—Removal from Persian Gulf to Mediterranean
—The Hyksos in Palestine—Union with Phœnicians—Commercial
and manufacturing prosperity—Some results—Phœnician route to
Syria—Babylonian and Egyptian influences—Evolution of the Jew.

THE movements of that people which history styles Phœnician, prior to their settlement on the Syrian sea-board, is a subject full of mysterious interest.

The most reliable authorities describe the first of these as interrelated with the migrations of successive masses of population which moved from the mountainous districts of Kurdistan,¹ near the sources of the Tigris and Euphrates, to which the Scripture narrative (Gen. ii. 11) assigns the cradle of the human race, to the Mesopotamian low lands, where they settled and in course of time split up into numerous tribes and families.

If therefore we accept this view it will be necessary for us to conceive of the Phœnicians at the beginning of their career not as a separate people, but as an integral portion of the Syrian

¹ Heeren, *Hist. Res.*, vol. i. p. 292.

tribes known as "tent Arabs," who, from the dawn of history, occupied the vast plains that lay between the Mediterranean sea-board and the river Tigris, and stretched from the most southerly parts of Arabia to the Caucasian mountains.

That great authority on the Semitic race, M. Renan, speaks of the Phœnicians as a part of the first wave of those great migratory movements which, proceeding to the fertile plains of the lower Euphrates, there developed a civilisation so widely different from that of their pastoral brethren as to set them apart at the beginning of their career as a separate and a peculiar people.

This statement is supported by the Phœnician account of themselves, for says Herodotus (vii. 89): "The Phœnicians, as they themselves say, anciently dwelt on the Red Sea, and having crossed from thence, they settled on the sea coasts of Syria." If we are careful therefore to distinguish between the name Red Sea in its ancient and modern application there should be no difficulty in understanding the case as it is now presented. Herodotus (i. 180) explains that the Red Sea anciently meant "that sea into which the Euphrates, a river broad, deep, and rapid, flows," and must therefore be identified with the Persian Gulf. Strabo gives still further light on the subject, for he writes of two islands in the Persian Gulf, called Tylus and Arados, in which remains of temples and other ruins were found, bearing all the peculiar marks of Phœnician architecture. The similarity of these names with those of Tyre and Aradus, two of the first foundations of the Phœnicians on the Mediterranean sea-board, so strikingly supports this

tradition that we may safely enough accept it as correct.

These early settlers, by the very force of circumstances, led mainly a nomadic life. Only in a very limited sense could they be called one people. Probably enough in the manner of their life and in the nature of the territory they occupied they had much in common, but, splitting up into families and tribes, they seldom co-ordinated unless for some specific purpose or in time of common peril (Gen. xiv. 13).

It is thus that the Scripture narrative presents these populations of the Syrian plains to us. This mode of life was not, however, without its advantages among a primitive people, for it made them observant, resourceful, and self-reliant, and fitted them to endure the hardships of these early ages when men required to wrest their support from reluctant nature by a constant struggle with the elements. It also enabled them without preparation to undertake such campaigns as were forced on them by the periodic raids of the mountain tribes.

It is thus we must understand the first migratory movements of that people whom later were designated Phœnicians. At a very early period they separated themselves from the rude pastoral and migratory tribes who occupied the lower reaches of the Tigo-Euphrates valley and, either before or with the main body of the Canaanites, removed to the eastern shores of the Persian Gulf and undertook on their own account what has been described as the first purely mercantile career.

Near the forefront of this movement of displace-

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ment was that of the Hyksos or Shepherds, a name assumed by the early Chaldæan princes, which proves the primitive pastoral habits of the people and the source from which they came before their settlement in the Nile valley and their absorption by its civilisation.

The ethnographic relation of the Phœnician to these Hyksos has been the subject of much dispute. In Genesis x. 15 Sidon the firstborn of Canaan is classed with the Hamites, and many authorities still plead that in spite of their purely Semitic language the Phœnicians were a distinct race both from the Hyksos and the Hebrews. The opposite view, however, that the Hyksos, Phœnicians, and Canaanites were an early offshoot from the Semitic stock, receives strong support from the fact that the language of the Hebrews was very similar to that of the Phœnicians. Moreover, it is the only view that meets all the necessities of the case.

The story of the Hyksos invasion of Egypt told by Manetho, the Egyptian historian, and preserved in a fragment by Josephus (*Ag. Ap.* i. 15), has therefore, as forming a part of this general movement of the Semitic population from the Syrian plains, a peculiar interest in connection with our inquiry.

The fragment is as follows: "There was a King of ours whose name was Amintimaos. Under him it came to pass, I know not how, that God was averse to us, and there came, after a surprising manner, men of ignoble birth out of the eastern parts, who had boldness enough to make an expedition into our country and with ease subdue it by force, yet without hazarding a battle. So when

they had gotten those that governed us under their power, they afterward burned down our cities and demolished the temples of the gods and used all the inhabitants after a most barbarous manner, nay some they slew and led their children and wives into slavery. This whole nation was called Hyksos, that is Shepherd Kings, for in the sacred language Hyk signifies King, and Sos in the ordinary dialect shepherd."

At length they made one of themselves king whose name was Saites (in some versions Salates). He chiefly aimed at securing the eastern parts, fearing that the Assyrians, then stronger than himself, would be desirous of that kingdom. Saites was succeeded by other kings who with their descendants held Egypt for 511 years.

After this the Theban kings and others of Egypt arose against the Shepherd rule, and a great and long war waged until Mispragmenthoses drove the Shepherds out of all Egypt except Avaris. Herodotus (ii. 28) describes these Hyksos invaders as enemies to the religion of Egypt, who destroyed the temples, broke in pieces the altars and images of the gods, and killed the sacred animals with a view to uprooting the low and degrading system of animal worship which prevailed there.

During the earlier stages of the occupancy, when the barbarities referred to by Manetho and Herodotus were already a thing of the past, the conquerors, succumbing to the masterful influences of ancient civilisation by which they were surrounded, speedily became identified with the country and its traditions, and in place of attempting to create a new form of government in consonance with their

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own antecedents and usages, made a careful study of the institutions of the new territory occupied by them.

Quickly realising how much easier the task of completely subjugating the native population would become by continuing rather than destroying the form of government with which they were familiar, they pursued the easy and peaceful policy of assimilating themselves with the institutions of the conquered peoples. So successfully was this done that in recent times their presence in Egypt has only been detected by means of the long hair, thick beard, and strongly-marked Semitic features found on some of the contemporary monuments.

This prudent policy seems not to have stopped here. Realising how unfitted they were by reason of their previous nomadic life for the management of the complicated system of government adopted by the native rulers, the Hyksos invaders so utilised the skill of the Egyptians as to succeed, without weakening their own power, in making them govern themselves. Those officials, who were familiar with the routine of office, were retained until they were able to train young men of their own race who should be capable of gradually replacing their instructors.

Pari passu with these general movements, the Court with its pomp and magnificence was revived around the new Pharaohs. The usual retinue of officials were installed, taxes were levied for the support of the government, law courts were given authority, religion was protected, and their own god Set or Soutek set up in the Pantheon. Thus the tide of Egyptian life swung back, without

friction, into its accustomed channels, carrying on its broad bosom Hyksos and Egyptian as a united people.

From a remote period it had been the fixed policy of the native rulers of Egypt not to welcome strangers. Consequently the masses of population, displaced by the inroads of the mountaineers into the Syrian plains, who sought shelter in the Nile valley, were treated as slaves, or at least as a subject people. Under the new administration, however, this ancient policy was reversed, with the result that the nomad tribes now found not only a home but employment awaiting them in Egypt.

The length of the occupancy of Egypt by the Shepherds has been the subject of much dispute, but, according to the best authorities (among whom Maspero, the distinguished Egyptologist, to whom I am much indebted, may probably be accepted as representative), the period is said to have extended from 2346 B.C. to 1720 B.C., or in all 626 years. This period proved of unspeakable advantage to both Hyksos and Egyptian. To the Hyksos it afforded an opportunity for an intimate acquaintance with the best forms of civic, commercial, and manufacturing life, and it gave them that training in science and art which is an integral portion of the higher forms of civilisation. To the Egyptians, on the other hand, it proved not less valuable. The influence of their smooth-going civilisation had so sapped the strength of the nation that the invasion of the Hyksos is said not even to have been opposed. But a change for the better had come over the race. The native princes, who had left the old capital at Memphis and with their

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followers retired to Thebes, were in time awakened from their fatal inaction. In their new home there rankled in their breasts memories of the barbarities of the invasion and the loss of the invaluable territory over which they and their fathers had for so many centuries held sway. Without assurance that the invaders would be satisfied with the fiefdom to which they had made them subject, they rallied to their standard the princes and potentates of the south country, and, uniting their forces, fortified Thebes and made it impregnable.

Time ultimately came to their rescue and provided both cause and leader. The slumbering discontent was fanned into a fierce fire of rebellion by the reduction of lower Egypt to a tributary condition to the Hyksos Government. This rebellion, headed by Ra-skeenan-taa, seems to have had only a limited success, but on the accession to the throne of Pharaoh Alisphrogmenthosis, his successor, the native population at last found a worthy leader. The Hyksos were defeated and driven from the capital at Memphis and the entire country to the west of the Delta, and shut up in the immense fortified camp at Avaris.

This war was probably in some particulars the most remarkable in Egyptian annals. It dragged on for years without affording the besiegers any hope of ultimate success. Ultimately the Hyksos were compelled to offer terms of capitulation. In the words of the Egyptian historian Manetho, they "agreed to evacuate the fortress on condition that they should be permitted to leave the country, and, by virtue of this agreement, they withdrew from Egypt with all their families and possessions,

to the number of 240,000 men, and traversed the desert into Syria. Fearing, however, the power of the Assyrians, who were at that time masters of Asia, they turned into Palestine and in that part which is now called Judæa built a city which should be sufficient for so large a number of men, and called it Jerusalem." This exodus, which seems to have been as complete as the later one of the Jews, is believed to have taken place in 1720 B.C.

At this stage it should be pointed out that the removal of the Phœnicians from the Persian Gulf cannot be attributed altogether to a desire on their part to profit by the advent of the Hyksos in Palestine, for, according to Herodotus (ii. 44), the arrival of the first emigrants on the Syrian sea-board took place 2300 years before his visit, which would place the date of their arrival at about 2800 B.C. They must therefore have been settled in Syria at least a thousand years before the exodus of the Hyksos took place.

While the national life of Egypt had been passing through the long period of unrest and transition caused by the invasion, occupancy, and expulsion of the Hyksos, that branch of the Syrian nomads who first separated themselves from the common stock and settled on the lower reaches of the Euphrates had not remained inactive. They had developed a civilisation which constituted a distinct departure from the simple life and manners of their pastoral brethren.

Monument and tradition alike show that from the most ancient times the Canaanites were forced by these early inroads of the mountain tribes, or by the conflicting interests in Mesopotamia, to migrate

from the banks of the Euphrates to the western shores of the Persian Gulf. Those situated nearest to Chaldæa and the sea appear to have first discarded the nomadic life and engaged in cultivating the soil in industrial pursuits and commerce, or in the construction of the first ships that sailed the seas.

A successful commercial career imposed three conditions on these primitive traders. The first was the accumulation at some central emporium of stores of such merchandise as would find a ready sale in available markets. Secondly, the selection of some suitable centre from which they could operate successfully between the markets of supply and demand, and thirdly, the selection of such a position as would afford security for these emporiums and the primitive craft by which the transportation was accomplished. This security was necessary to prevent attack from the predatory nomadic tribes which infested the country and found in these early rich centres of civilisation the booty for which they were constantly on the outlook.

It is more than probable that it was out of the stress imposed by compliance with these conditions, rather than any mere predilection for the sea, that the custom arose (always a marked feature of the Phœnician policy) of selecting for emporiums, wherever possible, islands situated at a short distance from the mainland, as at the Bahrein Islands, Sidon, Tyre, Gades, and other points. The causes which led to transference of the establishments of the Phœnicians from the lower waters of the Euphrates to the Bahrein Islands are not recorded by history, yet we have no difficulty in recognising

them. In becoming the trade intermediaries between the settled portions of eastern and southern Arabia and the populous and cultivated centres of trade in the Tigro-Euphrates valley, it was necessary to accumulate vast stores of Arabian and Babylonian wares at some point midway between these two widely separated regions. At the same time these emporiums would enable them to avail themselves of those manufactured wares of the Nile which were always in active demand in the great centres of population. In view of these circumstances, no more suitable place could have been chosen than the Bahrein Islands. Gerrha, from which the bay where the Bahrein Islands are situated took its name, was famous in antiquity as one of the richest cities in the world in consequence of it being the centre from which radiated the great caravan routes. It was also renowned for its pearl fishing, of which more anon.

The principal authorities on whom it is necessary to rely for information with respect to the Phœnician settlements on the Bahrein Islands are Pliny and Strabo. "On sailing south from Gerrha," says Strabo, "we come to two islands, where are to be seen Phœnician temples, and the inhabitants assure us that the cities of Phœnicia bearing the same name are colonies from them. These islands are two days' sail from Tenedon at the mouth of the Euphrates, and one from Cape Makai." This account is supplemented by the more specific reference of Pliny, "for Tylos," says he, "is situated fifty miles from the Bay of Gerrha." As these statements agree entirely with the position of the islands in the Bay of Lachsa in the present day, there can be no question

that they are those referred to, so that if we conjoin these statements with those of Ezekiel xxvii. 20 and Genesis xxv. 3, in which Dedan is spoken of, which was intended to be understood either as one of the Bahrein Islands or the more northerly one of Cathana, we will probably have before us all that is necessary to a clear understanding of any future reference we may make to Tylos, Arados, or Dedan, since all of these were situated in the Bay of Gerrha and adjacent to the city of that name.

That the Babylonians at a later period possessed a maritime communication with these islands through the Chaldæans seems to be the purpose of the statement of Isaiah xliii. 14, and also of Æschylus, where the sending of ships and the receiving of Arabian and Indian produce, presumably through this channel of trade, is spoken of. This also appears from the works of older writers, who refer to the wealth of Gerrha as the direct result of its being the centre of the Indo-Arabian, Babylonian trade which in those days was the most important, since the province of Oman or Arabia Felix, the native country of frankincense and other valuable perfumes in great demand for religious purposes, was in its immediate vicinity.

In addition, however, to these islands being the distributing centre for Indian and Arabian produce, we are assured by Theophrastus, in his *History of Plants* (iv. 9), that the island of Tylos was occupied by large plantations of cotton, from which were manufactured cloths called Sindones, these being mainly exported to Arabia and India. It is true Herodotus (iii. 106) claims that India was the native soil of this plant, but, if so, its spread to the Bahrein

Islands, Arabia, and Egypt could only have been through Phœnician channels, for at a very early date it formed a considerable branch of ancient commerce. Curiously enough we can trace its progress from this point through the Pacific Islands to America, where, we shall see later, its presence is distinctly attributed to the culture hero Tuetsalcoatl, who is said to have brought maize and cotton into Mexico (*Ency. Brit.*, xvi. 208) on his first arrival.

Valuable, however, as pearls and cotton were to the early settlers on the Bahrein Islands, there was one product found there of infinitely more value to the Phœnicians than either of these, one indeed that had more to do with the fashioning of their future career. If the Bahrein Islands had not afforded an abundant supply of timber, the navigation of the Persian Gulf and even that of the Mediterranean might have been delayed for centuries, and the genius of the Phœnicians diverted into other channels. From such information as may be gathered from Pliny and other sources, there was found in these islands a timber similar to the Indian teak wood, which was reputed to be capable of resisting putrefaction while under water for upward of two hundred years, although decaying much sooner when exposed to the atmosphere.

Among the commodities which formed the staple of exchange at the Bahrein Islands were the ivory, ebony, and cotton of India, the spices, cinnamon, and pearls of Ceylon, and the cotton and pearls of the Persian Gulf. In addition to these were the entire products of the Arabian peninsula and the coasts of Ethiopia adjoining, which found their natural outlet in the great central markets of

Yemen. It will be evident, therefore, that the entire region bordering on the Persian Gulf, with the coasts of India, Ceylon, and Southern Arabia, were familiar to the Phœnicians as to no other nation of antiquity, and that during the earlier portion of their career especially, they must have been without a competitor in the navigation of these seas, as was the case in their navigation of the Mediterranean later.

We have no positive historic information that would enable us to determine the exact spot to which the Phœnicians directed their expeditions in the Red Sea. It is, however, known that at a later date they were accustomed to fit ships from the western bay of the Arabian Gulf, the present Suez, and the Hierapolis of antiquity. Unfortunately we have no satisfactory information with respect to the date at which this trade was inaugurated. But it was certainly very ancient, reaching back to a date long anterior to that of the expeditions of Solomon and Hiram.

As to the causes which led to the transference of the main establishments of the Phœnicians to the Mediterranean, we are equally at a loss for positive historic testimony. The mere fact, however, that their first settlement there was Sidon (Gen. x. 15-19) "the fish town," and that their whole career on the inland sea was beyond all things else identified with fishing for the murex, which provided the material from which their famous dye was obtained, suggests the cause so plainly that it seems useless to seek for another.

It is more than probable that the strategic position of the emporiums of the Phœnicians at

Tylos and Arados, which enabled them in large measure to control the commerce of the ancient world, may have developed a spirit of animosity in the great commercial centres of Babylonia and South Arabia, which it was always the policy of the Phœnicians to avoid. This may have acted as a stimulus to a general movement towards the Mediterranean. Beyond this presumption, however, there is no evidence to show that any exodus of a startling nature ever took place from the Persian Gulf. On the contrary, everything indicates that the movement, however caused, was slow and gradual, probably covering some centuries and the legitimate outgrowth of commercial opportunities developing in the West. Be that as it may, from the new site the Phœnicians were in a position to control the entire trade of the West. The entire Mediterranean sea-board was rapidly being covered by markets capable of absorbing all that was produced by the infant industries of the Phœnicians.

But while it is true that the possibilities of the Bahrein Islands as a connecting link between the Arabian and Babylonian markets, and the security which they afforded for their emporiums and shipping, may have led the Phœnicians to make their first settlements there, it is equally important to remember that from this point they could handle the transport trade between Arabia and Babylonia by sea at a fraction of the expense entailed by caravans. From this point, too, they were well placed with regard to the Indian peninsula, Ceylon, and Egypt, whether by sea *via* some central port in Hydramaut or Yemen, or by way of Gerrha and

Aelana to Thebes, and later Memphis, the first capital of the Hyksos.

What the extent of the marine and caravan trade of the early Phœnicians was during their residence on the Bahrein Islands we have no means of determining by direct testimony. That these people were intimately acquainted with the Arabian peninsula and its markets and products has already been shown. There seems little room for doubt that the caravan trade, which was hardly less important than the sea trade, was either directly in the Phœnicians' hands or, through the instrumentality of the carrying tribes, had been by them exploited to such an extent as to make it the object of the cupidity of the Assyrian monarchs. This view, moreover, is strongly supported by the fact that all the great caravan routes which, so far as we know, have undergone no change since they were first established, found their outlet at the Bay of Gerrha in the immediate neighbourhood of the Phœnician establishments. There the gold, precious stones, pearls, and frankincense of Arabia, the pearls and cinnamon of Ceylon, and the ivory, fine woods, spices, and cotton of India could be exchanged for the manufactured products of Babylonia and Egypt more conveniently than at any other point.

With the close of the revolutions in Egypt the seat of the Phœnician trade seems to have been changed. Thebes no longer remained the chief mart, but the later capital Memphis, from which the products of the African and Egyptian markets could be more conveniently exchanged for those of Arabia and Babylonia. The possession of large central

warehouses there, where an assortment of these goods could be obtained in such quantities as suited the local markets, necessarily proved a great convenience to the Egyptian merchants, who could have found very little in the situation to induce competition with a people who either owned, or were in a position to control, the trade of the Arabian Peninsula. The country was then infested by rude predatory tribes, who were a menace to life and property, and made private operations impossible, so that the carrying trade could only be conducted either by sea or by large armed caravans strong enough to combat successfully the Nomad tribesmen.

It is not less difficult to arrive at a definite understanding with respect to the exact stage to which the allied arts of naval construction and navigation had reached in the hands of the Phœnicians previous to their removal from the Bahrein Islands to the Mediterranean. We can only piece together the few fragments that have survived the wrecks of time. Happily many of these fragmentary references are often illuminative, and when thrown into relief against the black background of antiquity, provide all that is really necessary to a complete understanding of the case. Especially is this so with respect to the few introductory remarks of Herodotus (i. 1) in his volume of research into the state of ancient society. There he writes: "The Phœnicians having settled in the country which they now inhabit, forthwith applied themselves to distant voyages, and having exported Egyptian and Assyrian wares, touched at other places and at Argos, which at that period in every

respect surpassed all those stated which are now comprehended under the general name of Greece." When we connect this with another passage from the same author (ii. 44), we find that these voyages must be referred to a date anterior to 2800 B.C. These facts are extremely valuable, for they enable us to know by direct testimony something of the nature, extent, and direction of Phœnician trade during their residence on the Bahrein Islands, and from this to conclude that the arts of naval construction and navigation were at that period in no such primitive a condition as is usually ascribed to them.

The navigation of the Mediterranean was by no means as simple as that of the Persian Gulf. The eastern end especially was subject to storms of such a character as struck terror in the heart of the boldest navigator of those days. Voyages, therefore, covering a distance of from 1500 to 2000 miles implied an advanced state of naval construction and seamanship.

While, then, we are not in possession of a comprehensive statement with respect to the causes which led to the transference of the main establishments of the Phœnicians from the Persian Gulf to the Mediterranean, we seem, in view of the testimony already adduced, to be forced to the conclusion that in the name Sidon—the fish town—we have an explanation that fits all the necessities of the case. The "fish town" seems to afford a sane and reasonable explanation of the movement from the Bahrein Islands to the Syrian coasts, and not only for the presence of the Phœnicians there, but also in Sicily and Spain and even in the Atlantic,

so far at least as Madeira or the Purple Isles and the coasts of Britain are concerned, for all these points seem in the first instance to have been identified with the murex fishing.

It is also highly probable that in the expulsion of the Hyksos from Egypt, the commercial relations of the Phœnicians with the Egyptians received a considerable impetus. The re-occupation of lower Egypt and the Delta by the Egyptians would naturally create a very active demand for those foreign commodities which they had been accustomed to receive from this source. From the harbours of Tyre and Sidon, the Nile and the towns that lined its banks could be reached in a tithe of the time and at a fraction of the expense entailed by the long and perilous land journey.

The general state of unrest, which the conflict between the Hyksos and Egyptians must have created throughout all Syria, may likewise have been a factor of no small importance in determining a change to a position of greater security for the Phœnician emporiums. Moreover, the advantage secured to the Phœnicians by the central position their new emporiums occupied with respect to the markets of Babylonia, Arabia, Palestine, and Egypt, and the coasts and islands of Asia Minor where the great masses of population were at that time situated, was too obvious to have been overlooked by a people whose career was even then definitely marked out for them. By this time they had overcome all the initial difficulties of naval construction and seamanship, and were in a position independently of any outside assistance to construct and

navigate such vessels as the new situation may have demanded.

Again, the advent of the Hyksos in Palestine offered a magnificent field for further commercial expansion, and this on the most favourable terms. The transference of the main establishments of the Phœnicians to the Syrian coasts was not less advantageous in view of the fact that they were an agricultural people; here they were close to both Palestine and Egypt, the granaries of the ancient world, and their vessels and caravans were able to bring back on their return journeys an abundant supply of such food-stuffs as their densely populated towns needed. In so doing they made doubly certain of an established trade.

The Hyksos, who had just then left Egypt, were, moreover, a very different people from the rude barbarians who entered the Nile valley 626 years before. The leavening influences of the civilisation of the Delta had effected a marvellous transformation. The Hyksos, during that long period, had not been simply identified with Egyptian institutions, they had been Egypt itself. Now they brought to the door of the Phœnicians those markets which, in previous years, it had been necessary for the traders of the Bahrein Islands to cross practically a thousand miles of inhospitable desert to reach.

The new career of the Hyksos was to be one of more importance to mankind than the conquest of the Nile, one in which they would live over again not merely the life of Egypt, but a new and larger life of their own, one in which would be found conjoined the best that the civilisation of Babylon and

Egypt had produced, yet one not less peculiarly their own. Probably this new life in its details might not be so refined as the original, but it was a strong, healthy, and vigorous life, and, beyond doubt, more practical and catholic in its sympathies and more likely to appeal to men as they went to the uttermost parts of the earth, the missionaries of that material civilisation that would probably affect for good and evil every kindred and tribe and people who came within the scope of its influence.

That in the final adjustments of this exodus from Egypt the herdsman would care for his cattle, the husbandman for his farm in the well-watered valleys and plains of Jordan and Sharon, and the tradesmen and scientist drift to Phœnicia, so favourably situated only 150 miles to the north, who can doubt that has studied the migration of mankind? At the time of their arrival Tyre, Sidon, Arados, and probably others in that long series of towns which, like links in a chain, bound together in later years the commonwealth on the Syrian coast, had probably for centuries been busy centres of commercial, if not of manufacturing, activity. With the existence of these the Hyksos could not fail to have been familiar, since their products must often have excited the admiration of the herdsmen, who naturally would prefer the wares manufactured or to be purchased in the Syrian coast towns to those produced in Babylon from which they had been driven.

The Phœnicians likewise would naturally welcome to their cities men of their own race who were skilled in science, art, and manufacture, for through

the active co-operation of these native craftsmen they would be enabled to strengthen their hold on the Egyptian markets. It is more than probable, therefore, that it is to the amalgamation of these two branches of the common stock rather than to any other cause that we must ascribe the pronouncedly Egyptian and Babylonian influence found in the motives of Phœnician decorative designs.

It is scarcely surprising, then, that in those two great movements of what, for convenience sake, may be called the Phœnicians from the Persian Gulf, and those from Egypt, we find the natural culmination of those segregations of what were at one time portions of the nomadic tribes who issued originally from the mountain regions of Kurdistan.

Prior to this amalgamation the population of the coast towns must have been small and their capital trifling, but with the advent of the Hyksos in Palestine not only their numbers but their capital must have been greatly augmented. It is therefore easy to conceive of this period as striking the keynote of a forward movement in the history of humanity of no ordinary kind.

The Phœnicians of the Persian Gulf, with a masterfulness that has perhaps no counterpart in the history of mankind, wrested from nature secrets that enabled them to achieve rare distinction in science, art, and manufacture. They were without a serious competitor in the early world of commerce and transportation. To this distinction they added the creation of navigation, the discovery of the unique qualities of the murex for dyeing purposes, and the manufacture of glass from the fine sands

of the river Belus. Now they were joined by that other branch of themselves, the Hyksos, who had mastered Egypt and were skilled to weave, not only woollen but linen fabrics, to design, to hew stone, to erect pyramids and temples, to make pottery, to engrave gems. They had also a knowledge of the alphabet and of the exact and applied sciences. All this enabled the Phœnicians in coming years to outrival either Egypt or Babylon. Well may we ask what career was impossible to such a people? It is extremely probable that about this period a rupture took place in the commercial relations of Phœnicia and Egypt. Under new conditions there was, however, no reason why in the amalgamation of the Hyksos with the business men of Tyre and Sidon, Egypt should not again become a market of the first importance to the Syrian coast towns, for the Nile was convenient to the Phœnician ports, and transportation by sea was both rapid and cheap. Besides, the Phœnician emporiums were stored not only with their own manufactured wares, but with the varied products of the Babylonian and Arabian markets.

In the world's history it has been no unusual thing to find that out of the ashes of conflict has arisen to friend and foe alike a harvest of better things than seemed possible when men followed the leading of blind passion in the heat of battle. It certainly was so in the case of Egypt, for the national quickening which continued for many centuries to affect Egyptian life is easily traceable to this period. Nor was it less so in the case of Phœnicia. The stimulus received from this movement of displacement lifted them from the ranks

of mere carriers and commercial intermediaries to the high position of the great manufacturing nation of the ancient world. It can hardly be doubted that their genius in creating wares whose quality and artistic skill challenge even to-day comparison with the best we produce, must be traced in some directions to the amalgamation of their population with the displaced Hyksos who received their training in Egypt.

The sifting and shaking down again to a new order of things benefited not only Phœnicia, but, through them, the peoples of the Mediterranean basin generally. At the same time it must have acted as a tonic on the manufacturing centres of Babylonia, for the trade with the west could only have been retained by a corresponding progress there. As an educative force this movement must have quickened the progress of civilisation in Asia as well as Europe, and eventually benefited the world at large.

Perhaps at this point it may be prudent to retrace our steps for a little in order that we may clear away a misunderstanding with reference to a tradition reported by Trogas as to the route by which a portion of the Phœnician people reached the Syrian coast. He says that they travelled as far as the Syrian lake, on whose shores they rested. Some authorities have read this as referring to the Phœnicians from Tylos and Arados, the lake being Bambykes near the Euphrates. Others again seek to identify it with the waters of Merom or the Sea of Galilee, while a third section claim that it refers to the Dead or Salt Sea. From what has already been said it is more than probable that the last

of these (a view which receives the support of that eminent Egyptologist, M. Maspero) must be considered as the only tenable view. If so, then it cannot have reference to the movement from the Persian Gulf.

As the movement of the Hyksos from Egypt was, according to Manetho, in the direction of Jerusalem, and occurred about the time of Abraham, which is usually placed about the eighteenth century B.C., it requires no vivid imagination to realise that the settlers must have been a portion of the displaced Hyksos, for, according to Genesis xiii. 10, the region "was well watered everywhere, even as the garden of the Lord, like the land of Egypt as thou comest into Zoar." Moreover, the lake into which the Jordan flowed, lying like a mirror in a garden of green, must have made the region peculiarly inviting to these exiles, who for so many centuries had been residents of the well-watered and fertile fields of the Delta.

The awful cataclysm which followed in the wake of their settlement and sunk the lake far below sea-level would naturally increase its area, and, swallowing up the cities that lined its margin, turn the fruitful fields into the barren wilderness we find to-day. They would thus be driven to the north and west, to the fertile fields of Siddim (Gen. xiv. 8), to the well-watered valleys of the Jordan, or to the plateaus and low lands of the coast line. Curiously enough the date of all these historic events not only accords with that of the evacuation of Egypt by the Hyksos, but closely with that of the Scripture narrative according to Archbishop Usher's chronology (Gen. xii. 16 and xxiii. 19).

If, therefore, this explanation—one by no means devoid of probability—be correct, we have a simple and natural solution of the difficulty, and one that does no violence to the facts recorded in Egyptian, Phœnician, or Hebrew history. It is equally in accord with the tradition recorded by Herodotus. Naturally enough the Phœnicians would refrain from narrating to the Greek stranger any of those episodes in their composite national career which even at that distance of time must have rankled in the memory of the people as they thought of their severance, even on honourable terms, from a territory so splendid in association and offering such a vantage ground of magnificent possibilities for the furtherance of that unparalleled commercial career on which they had embarked.

If, then, the Phœnicians of the Persian Gulf had established themselves on the Syrian coasts and erected the temple to Hercules 2300 years before the visit of Herodotus (ii. 64), which is usually placed about 457–456 B.C., then they must have been securely settled there about 2756 B.C., and as we have seen that the exodus of the Hyksos took place about 1720 B.C., the Phœnician towns of Tyre and Sidon must have been busy centres of commerce and manufacture for many centuries before this event. It is easy, therefore, to understand how a considerable amalgamation of this common stock with kindred sympathies may have taken place from that time forward, tending not only to elevate the social condition of the fishing towns, but to impart a new influence with a distinctly Egyptian leaning in culture, art, manufacture, and trade, and perhaps more than all in architecture and

construction. With these points made clear, we are now again in a position to take up the course of our narrative.

With the trade of the Mediterranean basin in their hands, backed by long experience in the markets of Babylonia, Arabia, and Egypt, and greatly augmented capital, the Phœnicians were now in a position to control not only the western trade, but to undertake any operations for the extension either of their manufactures or their commerce. With their weaving, dyeing, glass making, metallurgy, and other manufactures in operation, and a supply of skilled labour that can only be explained by the junction of the forces of the Phœnicians with the Hyksos, it is easy to understand the later manufacturing expansion of the Phœnicians and the prevalence of Babylonian and Egyptian motives in their permanent designs.

Prior to this movement, so far as history throws any light on the situation, the Phœnicians were simply traders. We have no record of the existence of any manufacturing establishments on the Persian Gulf, nor, in the beginning, do they seem to have existed at Sidon. The Phœnicians possessed ships, caravans, and warehouses only. In the co-ordination of their forces with the exiles from Egypt, however, a new career opened to them, for with the necessary skilled labour within their own boundaries manufactories of their own were erected and their products thrown on the markets of the ancient world.

By reason of the very peculiar position in which they were placed they were in a position to begin where other nations had left off. They did not require to create the looms to weave, or the vats to

dye, the blow-pipe to fashion glass, or to cultivate the flax for linen. Like the alphabet, they inherited these, but being an eminently receptive people, they did what neither the Babylonians nor Egyptians were capable of doing—they eliminated the less valuable from what they had derived from these sources and superadded something of their own. Thus was produced a new type as distinctly Phœnician as before it had been Babylonian or Egyptian.

The training through which the nation as a united people passed was advantageous in another direction. It specially fitted them to cater with their manufactured wares to the markets of Babylonia and Egypt equally with those regions such as Palestine and Arabia, which had for long centuries been dependent on the older centres of trade.

In looking back over this period of reconstruction, it is impossible to overestimate the value of those varied experiences through which the nation passed in the development of that flexibility of temperament and that catholicity in art that formed so marked a feature of the Phœnician life throughout its long career. Since it was the destiny of unified Phœnicia that she should become to the ancient world the missionary of material civilisation, it was necessary that her people should have a unique training. To apprehend the atmosphere of the traditions of the people, to catch the inspiration of their institutions and customs in order to effectively appeal to the national prejudice and the religious sentiment, it was essential that the artisan even more than the merchant should have received his initial inspiration on the ground, so to speak, otherwise the products of his skill,

while approximating to those ideals which he strove to translate, would always fail in producing that local atmosphere, that intangible something which is the very crux of art and gives it its final value.

The staple products of any manufacturing people, but especially of any semi-civilised people, are apt to be a mere expression of their thought. However successfully they may interpret some more or less familiar phase of external nature, or adapt themselves to the climatic conditions which the region they inhabit imposes, it is obvious that goods manufactured under such conditions and for such a restricted area must be acceptable in few markets. To manufacture for and be the successful commercial intermediaries of the ancient world, it was essential that the Phœnicians should have passed very far beyond this stage and developed among themselves types that were not local but cosmopolitan in their attractiveness. In this respect the Phœnicians eminently distinguished themselves.

The region to which they had come, whether drawn by choice or driven by necessity, was one peculiarly fitted to stimulate the imaginative faculties. It comprised within its boundaries every natural element necessary to the development of a high order of intellect, especially in the case of a people the rudimentary stages of whose education had been obtained in the best schools. The isolation created by the vast deserts adjacent to Phœnicia and Egypt was in some measure a means of security, and had a definite tendency not only to create but to perpetuate certain well-marked types. This isolation, however, did more for Phœnicia than it did for Egypt, for it fitted it to become,

in material things, what the Jew among the same surroundings became in spiritual things. Who could so easily provide for the inhabitants of the frigid north as the Phœnician? He possessed not only the wool of the desert sheep, the distaff to spin, the looms to weave, and the vats to dye, but a population within his own borders in daily need of such goods. Must his produce be adapted to the denizen of the sweltering tropics? He knew what was required. The region to be supplied was one he was familiar with. Was it necessary to find raiment for the wandering Bedouins of the desert? They were his near neighbours, the people who brought from afar the wealth of Ophir. Must he anticipate the wants of those that went down to the sea in ships? Phœnicia was mistress of the seas. Her ships sailed to all ports and traversed all oceans, while her harbours were the havens where the argosies would fain be.

Palestine was necessary for the evolution of the Jew. His mission was a universal one, and a universal sympathy with the idiosyncrasies of men could only have been evolved where nature found its most abundant and highest forms of expression. In order that such a national education should be complete, however, it was necessary that it should have had its beginnings in the valley of the Nile, and that every form of experience from that of slave to lawgiver and priest should have been passed through amid the refining influences of the highest form of civilisation.

But such training was not less necessary to the Phœnician. To be the missionary of material civilisation as of a universal religion a long and

arduous training was necessary. In this respect Phœnicia might well say that other men had laboured and she had entered into their labours. Yet the processes by which this was accomplished were, in the case of the Phœnicians, as effective as those very different methods which operated in the case of the Jews.

The time, however, was appointed for the co-ordinating of what was already in existence of the divine plan, and without this co-ordinating there never could have been superimposed those more advanced forms of religious, ethical, and material civilisation of which these two nations were the fore-runners and exponents. They incorporated in themselves the best that, in these directions, had survived previous races and generations of men.

It is true that neither Jew nor Phœnician achieved their manifest destiny, but will we, in the face of what we now know of the history of these two peoples, believe that the plan of their career was any the less divinely appointed ?

CHAPTER II

THE PHŒNICIAN LAND TRADE

Region of Phœnicia—Colony of Sidon—Phœnician art and craftsmanship—Commercial expansion—Arabian and Babylonian trade—Importance of the former—Its nature and transport—Phœnicians as the carriers of the world—Western trade.

THE little strip of Syrian coast occupied by the Phœnicians was familiar to the Greeks and Romans by the name of Phœniki, interpreted by some as "the palm land" or "the land where the palms grew," by others as "blood red," from the richer shade of their famous purple dye, and the dark red complexion of the people. It is probable, however, that the former of these explanations is the correct one. The Phœnician territory, so far as can be gathered from the Biblical records, was not included by the Hebrews under the name of either Canaan or Phœnicia, but was familiar to them as Chittim. In Numbers xxiv. 24 the name is applied to a western power generally, which at that date and in this connection would be quite satisfactory. This again is corroborated in Jeremiah ii. 10, where the name is applied to the dominant western region as distinguished from Kedar in the east, embracing not only the coasts but also the islands washed by the eastern Mediterranean, these being under the control of a great naval power.

Chittim of the Old Testament narrative may therefore be safely regarded, like Ophir, as repre-

senting no particular spot or place, but rather a region under the control of the dominant naval and commercial power of that period. In this sense, therefore, Chittim to the Jewish mind did not mean Cittium the later Larnika, or even the strip of coast-line occupied by the Phœnicians, but greater Phœnicia, including the colonies on Cyprus, the Sporades and Cyclades, the Hellenic Peninsula or Apia, and the shores of Asia Minor prior to their occupancy by the Greeks. It is highly important to have a clear conception of the nomenclature of the region, for upon this depends, to a large extent, the final elucidation of this complex problem.

Phœnicia proper, as it was known to the Greeks and Romans from whom the name has come down to us, was the little strip of country stretching from Gabula to Dora on the Syrian coast to the north of Palestine. The territory which it embraced was not more than 200 miles long, by an average of 20 miles broad, occupying a superficial area of about 4000 square miles. Even in its most prosperous period Phœnicia proper was therefore one of the smallest countries of antiquity—so small as to be less than Palestine, only a little larger than Yorkshire in England, and a little less than Wales. In spite, however, of the insignificance of Phœnicia's territorial dimensions, its central position with respect to the great seats of commerce and civilisation, the nature of its products, and its commercial affiliations with the contiguous countries, were of such a character as quickly elevated it to a commanding position in the history of the ancient world. Its coast-line was not deeply indented, yet was sufficiently irregular to create a number of natural

harbours, which provided ports of sufficient dimensions to accommodate fleets of considerable size.

The situation of the territory for the development of a commercial career was therefore, apart from its value as the home of the murex, well chosen. The sea that fronted the new home reduced dockage to its simplest terms, for it was tideless, usually calm, and invited to navigation. Cyprus was clearly visible on the western horizon, and led the way to Rhodes and Cyndus, the Sporades and Cyclades, the coasts of Asia Minor and Apia, the later Peloponnesus, which, before many years were past, were studded with their colonies and became tributary to their trade.

We have no information with respect to the population of Phœnicia proper during any portion of its history, but from the restricted territory which it occupied, the impossibility of expansion owing to its mountainous surroundings, and its enormous mercantile operations, there can be no doubt that it must have been very dense.

Owing to trade expansion or to civil disputes, so common in over-crowded communities, all the Phœnician cities were colonies of each other, founded by a species of "budding off" from the first foundations. Thus Sidon was a colony founded by the emigrants from the Persian Gulf, and Tyre and Aradus are usually accredited with being colonies of Sidon. Tripolis—the threefold city—as the name implies, was a joint colony of the three towns—Sidon, Aradus, and Tyre.

Sidon, in spite of the very ancient date usually accredited to the foundation of Tyre (Her. ii. 44), is generally accorded the distinction of having been

the oldest of the Phœnician settlements. Why it was erected we can only conjecture. Still, as Sidon in the native tongue means fish, and as the chief renown of the Phœnicians as a manufacturing people was from the beginning identified with the purple dye obtained from the shell-fish, murex, and purpura found on their coasts, it is probable that in the name Sidon—or the fishing town—we have more than a valuable clue. Especially is this the case in view of the fact that the dye obtained from the shell-fish found on the Syrian coast was always more valuable than that obtained elsewhere, and reached its highest perfection when applied to the fleeces obtained from the adjoining deserts.

From first to last Sidon was in great repute throughout the ancient world, not only for its dyes and its beautiful garments, but also for its glass-ware and its metallurgy; and its history in this respect was simply the history of the other Phœnician towns which sprang from it. It seems clear, then, that in the discovery of the purple-producing murex, the fishing for the shell-fish, the preparation of the dye, and its application to the fleeces of the desert, spinning, weaving, and the manufacture of the cloth into garments, and at a later period, when joined by the Hyksos, the introduction of the allied arts and industries, we have all the information necessary to understand the causes which led to the change of base from the Persian Gulf as well as the phenomenal development which took place in the early Phœnician settlements.

The purple dye which was the potent means of creating Phœnicia was wholly different from that for which Babylonia was famous. It was obtained

mainly from a small sac or vein in the neck of the shell-fish, an object so infinitesimal in size that one is amazed that the discovery of its properties led to results so potent in the distribution of mankind and the spread of civilisation in the ancient world. Though the dye of the murex in later years was by no means the exclusive property of the Phœnicians, they brought the industry to a higher state of perfection than any other manufacturing nation. The scarlet and violet purples of the Sidonians and Tyrians were for centuries the prevailing fashion among the aristocratic and priestly ranks of society. The dyed stuffs issuing from the Phœnician vats were not, however, all obtained from the murex. The Phœnicians were equally skilled in the use of vegetable dyes, and these were doubtless liberally used in the production of the cheaper fabrics, such as cottons and linens. Still the best results were only obtained when the dye of the murex was applied to the fine fleeces obtained from the sheep of the adjoining deserts. The dye being applied to the raw material, there sprang up all along the Phœnician coast weaving centres which made Phœnicia famous the world over.

While a claim has been made that glass was the invention of the Phœnicians, there seems good reason for believing that its manufacture was derived from Egypt. The sands of the Belus, however, lent themselves to the production of an exquisite quality of this commodity, and the glass trade, according to Pliny, was mainly in the hands of the Phœnicians for centuries—the principal seats of the industry being Sidon and Sarepta. As the fine climate in the East made windows unnecessary,

glass was mainly used at this time for decorating the walls and ceilings of the apartments of the wealthy classes, in which the Phœnicians displayed their great artistic skill. Glass was also applied at Sidon and other coast towns to the manufacture of what are known as agry beads, which have been found in tombs in all parts of Europe and Asia, and even at Ashantee on the west coast of Africa. These were made of an opaque glass generally coloured and showing considerable skill in manipulation.

The drinking vessels of the Phœnicians were mainly of stone and precious metals, though at Sidon bottles, vases, drinking cups, bowls, and other utensils were manufactured, while smaller objects, exquisitely fashioned by means of the blow-pipe and engraved either by the use of a wheel or by a sharp graving tool, were produced.

For metallurgy Tyre and Sidon were equally famous. This was undoubtedly a Phœnician invention, and bronze seems to have been their favourite metal. So skilful did the Phœnicians become in this branch of industry that by a method of treatment known only to themselves and the Egyptians, and now lost to mankind, they could form bronze into knives and even razors, that carried an edge like steel. The manufacture of bronze was peculiarly Phœnician art. It was a Tyrian artist who fashioned for Solomon the great bronze molten sea or laver, 45 feet in circumference, supported on the back of twelve oxen, as well as the magnificent bronze pillars, Jachin and Boax, each 40 feet in height, which were accounted among the chief glories of the temple at Jerusalem.

The works of the Phœnicians in metallurgy were not, however, confined to bronze. They were equally skilful in handling the precious metals. It was Hiram, a Phœnician workman, who fashioned for Solomon the altars and tables of gold whereon the shewbread was set ; as well as the ten candlesticks, the lamps, the flowers, the tongs and snuffers, which were the *chef d'œuvres* of the Jewish temple. In ordinary articles of personal adornment the Phœnicians were equally deft. In the great sepulchre at Beyrut, described by M. Renan in his *Mission de Phenice* (p. 39), were found a great number of women's trinkets, including two gold bracelets of fine workmanship, another ornamented with coloured stones, and sixteen finger rings, all of which betokened the astonishing manual dexterity of the Phœnician workmen. Nor was the skill and proficiency of the Phœnicians as engravers of hard stones less remarkable. In this field they were vastly superior to the Egyptians and Babylonians, their designs being drawn with greater spirit and fidelity to life.

Tyre, as has already been remarked, was apparently a colony of Sidon, founded with a view to the further development of the murex fishing, and as a distributing centre for the manufactured products of the older town. The first foundation was on the mainland, and for many centuries was only of secondary importance to Sidon. But on the subjugation of the latter town by the Philistines of Askalon about 1250 B.C., Tyre, which had been growing rapidly in power and affluence, became the principal seat of trade and political influence, and so continued until the time of the thirteen years'

investiture by Nebuchadnezzar in 585 B.C., when the greater part of the inhabitants, taking refuge on the adjacent island, already in some measure occupied by their establishments, founded the island city of Tyre, which, in consequence of its strong position, soon outgrew the town on the mainland. Not only did the island city of Tyre outlive the Babylonian and Persian monarchies, but by reason of their decline continued to increase in power and opulence until it was recognised as the commercial capital of the world. It was captured, however, and in a great measure destroyed by Alexander the Great in 332 B.C.

Although Tyre, Sidon, Aradus, and Tripolis were much more intimately identified with the history of Phœnicia than any of the other towns on the coast, yet these latter, from a commercial point of view, are only less worthy of recognition. About eighteen miles south of Tripolis was Byblus, famous for its temple to Adonis, one of the chief seats of the licentious orgies identified with the Phœnician religious cult. To the south of this was Berytus, now by far the most flourishing city on the Syrian coast, but at that time simply a dependency of Sidon or of Byblus. There were other towns of less importance, but still seats of art and industry.

With the accession of Hiram, the son of Abibaal and the friend of Solomon, to the throne, the trade of Tyre, owing to the tremendous expansion of commerce towards the western Mediterranean, grew to such proportions that it was found necessary to take steps for the enlargement of the island city, and to this end great engineering works were inaugurated. The main island was enlarged to

the east by filling up the shore for a considerable distance with stone and rubbish and closing the channel between the two islands, so making one with a circumference of two and a half miles. At the same time the old temple of Hercules was pulled down, and on a new and more commanding site temples to Melkarth and Astarte, the principal deities of the Tyrians, were reared.

The activities of the Tyrians were not, however, confined to the enlargement of the city and the erection of these temples. Mindful of their enormous commercial expansion the main ports were greatly improved. During the period from 1300 B.C. to 1000 B.C. Phœnician colonisation had reached its furthest limits, covering all the islands and shores of the Mediterranean and reaching as far as the Atlantic, the coasts of Britain, and even Norway. In order that commodious harbours for the ships of Tharshish employed in the Spanish trade might be provided, engineering works of vast dimensions were undertaken at the island of Tyre. Mr. Rawlinson (p. 42), who describes these works with great minuteness, says: "At the north-eastern extremity of the island two piers of solid stone were carried out from the shore into the sea at a distance of about a hundred feet from each other, and to a distance from the shore of about seven hundred feet, which, running nearly due east and west, formed an effective barrier against the north wind, and secured to vessels needed protection. The outer line of wall was a mere breakwater, but the inner one was a real pier so deflected at its eastern extremity as to join a low ridge of rocks which formed a natural protection to the harbour on the east, and secure it

against squalls from Lebanon. Another ridge ran out to meet this and completed the shelter on this side, the mouth of the harbour between the two ridges, which were strengthened by art, having a width of about 105 feet." The extent of space thus enclosed and made absolutely safe in all winds, had an area of about 7500 yards, which was sufficient to accommodate several hundred vessels of the size usually employed by the ancients.

As, however, no harbour could be accessible under all conditions of wind and weather, and Tyrian commerce required that vessels should be able to make port in all seasons, a second harbour was constructed at the southern extremity of the island which, from its looking towards Egypt, was known as the Egyptian harbour. Here a pier was carried out from the south-western part of the island to a distance of 200 yards in a south-westerly direction, and a wall was carried thence to the south-eastern extremity of the islands, a single opening being left which could be closed by a boom. A space of 800 yards long and from 50 to 150 wide was thus walled in. Finally, to secure communication between the two harbours a canal was dug, which enabled vessels to pass from the Syrian to the Egyptian harbours, and *vice versa*.

What portion of these works which made Tyre the most commodious and safest harbour on the Phœnician coast was due to Hiram's initiative it is difficult to determine, but as these works seem to have stimulated Solomon to enlarge and beautify Jerusalem and provide it with an abundant water supply, it is more than probable that they were all

parts of one comprehensive scheme made necessary by the developments in Tharshish.

But the energies of the people during this period were not wholly engrossed in the prosecution of the western Mediterranean trade. The main trend of their commerce was still towards the east and south, but more especially towards Yemen¹ and Gerrha,² which, even before the days of Moses, went by the general name of Ophir.

There is probably no subject connected with the history of early commerce and navigation on which so much has been written as that of Ophir, and probably on no subject has so little been satisfactorily determined. The name was identified with one of the grandsons of Noah (Gen. x. 29), who, with his descendants, occupied the region situated between Bactriana and the Indian Ocean. Like the name of other distant regions in ancient geography, it represented no particular spot, but only a certain roughly defined region of the world.

The trade included under the general name of Ophir proved most important to the Phœnicians, embracing as it did what by later writers has been described as the Arabian East Indian trade. The long residence of the Phœnicians on the islands of the Persian Gulf had made the coasts of India and Ceylon very familiar to them, and there is good reason to believe that they had an equally intimate acquaintance with the Red Sea and its ports. There was also a time when not only the coast line but every portion of the interior of Arabia was as familiar to their caravans as the coasts were to their ships.

¹ Red Sea.

² Persian Gulf.

It is unfortunate that beyond casual references found in Genesis xxxvii. 25 and Judges viii. 24, and more particularly in the 27th chapter of Ezekiel, we have no satisfactory information regarding the trade of Tyre in the region prior to 600 B.C. From the nature of this trade and the fact that the Phœnicians had no ports of their own on the Red Sea, it is apparent that it must have been carried on mainly by caravan. Indeed the passage in Ezekiel to which we have referred seems to indicate that these caravans were formed by the Nomad tribesmen, who, from their mode of life, were better adapted to this business than the dwellers in the coast towns. Tyre in this respect was fortunately situated, for she had on her own borders numerous tribes which she was able to employ in this way, and who wandered over the Syrian and Arabian deserts. Diodorus says "that no small number of these Nomad tribesmen followed the business of carrying to the Mediterranean frankincense and myrrh and other costly spices, which they purchased from the merchants who brought them from Arabia to the northern borders of the country." The destination of the caravans, according to this view, must have been the central mart at Petra, and this, when taken in conjunction with the statement of the prophet Ezekiel, would naturally create the impression on the mind of the reader that the trade was mainly in the hands of the carrying tribes.

It is scarcely possible, however, to conceive of this being so, as far as the Phœnicians were concerned, for they were absolutely the masters of this trade at least in the Mediterranean basin. We know, moreover, that they were as familiar with

the interior regions as they were with the main cross-country and coast routes, and at a later period sought to secure better facilities for direct communication by sea with Yemen from Eziongeber with a view to lessening the expense of the long overland journey (1 Kings ix. 28).

It is quite safe, therefore, to conclude that while the Phœnicians encouraged a trade by barter with the border tribes for wool, spices, gold, precious stones, and other products, yet the great armed caravans which periodically left Tyre and plunged into the Arabian Peninsula could have had no other objective than Gerrha and Yemen, where doubtless the Phœnicians had their own purchasing agents and warehouses, so as to secure at first hand the products of these favoured regions, and also those of India and Ethiopia. The more carefully the subject is canvassed the more apparent does it become that the main sources of supply for such costly and bulky goods as were produced from Yemen must have been kept in channels over which the Phœnicians had a practical control.

Moreover, Arabia was one of the largest countries in the eastern world. It was contiguous to Phœnicia and the Bahrein Islands, while its products and markets were most valuable, for the southern markets—those of Hydramaut and Yemen (which in a special sense may be described as the Biblical Ophir)—were the great emporiums of the myrrh, cassia, cinnamon, and ladanum trade. In addition, there were the great markets of Gerrha on the east coast, and Petra on the northern boundary of Arabia. These seem to have been mainly valuable as the outlet for the Indian, Ceylon, and Persian

Gulf trade and as central emporiums for the southern and interior markets.

The fleeces of the Arabian sheep were even more valuable to the manufacturing centres in Phœnicia than the rich products of the south country were to its merchants, the heat of the climate and continuous exposure to the dry air rendering them peculiarly valuable in connection with the purple trade.

The importance of Arabia to the Phœnicians will therefore be understood. The valuable products of this immense region were in constant demand, the delicate and expensive fabrics which issued from their dye-vats and looms being wholly dependent on the raw products found there. It is not surprising, therefore, to find that the most cordial relations always existed between the merchants of the Syrian coast towns and the Nomads of the wilderness, a cordiality that must have been enhanced by the knowledge that in the Phœnician markets could be obtained a quality and style of goods in exchange for these raw products that could not be excelled, perhaps not even equalled, in any other market.

If, however, Arabia was the direction towards which the Phœnician caravans moved to secure the products of the rich, southern, and central markets, Babylonia was the no less important objective towards which they moved in pursuit of those of the farther east.

It is unfortunate that we know less of this branch of Phœnician commerce than any other, yet, according to Herodotus (i. 1 and iii. 113), it was the most ancient. Whether the direct route to

Babylon was at that time *via* Thapsacus and the Euphrates is exceedingly doubtful. It certainly was then, as it is to-day, the route mainly used for the heavy caravan trade, tapping as it did the northern road leading to China, through which was obtained the products of the farther Asiatic east and north.

All the ancient authorities, including the prophet Ezekiel (xxvii. 20), speak of the Babylonian trade in the most general terms. It is difficult, therefore, to arrive at a clear understanding of its nature. The vagueness may have been caused by the very important character of the Babylonian markets, which rendered any specific allusion to the trade superfluous. The erection of the treasure cities Palmyra and Baalbek, which are specifically ascribed to Solomon (1 Kings ix. 18), shows, however, its importance, and that a participation in it entered into the plans of Solomon.

It is quite probable that the commerce of Phœnicia with Babylonia may, at a later date, have been conducted in some measure with currency and bills of exchange, for the Babylonian mintage passed current in Arabia from a very early period, though, from the political animosities that existed between the nations of the east and west, it is extremely doubtful if, during the period of Solomon and Hiram, the Babylonian mintage passed current with the Mediterranean nations. Indeed, if we read the prophet Ezekiel correctly, the trade of his time, which is usually placed about 600 B.C., was one of barter, pure and simple, an exchange of commodities for commodities, in which even the precious metals, gold and silver, passed as such. If

this was the case, and on this point there is little room for doubt, then the Arabic-Babylonian trade must have been enormously valuable to the Phœnicians, for silver in the east was a scarce metal, and the mines of the ancient world were mainly in the hands of the Phœnicians.

Though Arabia is not to-day included among the gold-producing countries, the testimony of antiquity as to its position in this respect is too precise to leave any room for doubt that either by washing or mining vast quantities of gold were found, especially in the rich southern provinces. Indeed a reference in Judges (viii. 29) makes this quite clear. It is there stated that the Midianites, one of the carrying tribes, had grown so opulent in this business of carrying merchandise, and held gold in so little esteem, that they made not only their own articles of personal adornment, but even the chains of their camels' necks of the precious metal. If, therefore, Phœnicia was the medium through which silver poured into the east, it is easy to understand the commanding position which she quickly attained in the commerce of the ancient world, for all or practically all of the silver mines were either in her possession or under her control as early as 1200 B.C.

The Edomites, who occupied the north-eastern portion of the Arabian Peninsula, were not like the Midianites, a nomadic tribe, but a settled agricultural, pastoral, and commercial people. They were in possession of many cities and of two ports of considerable historic importance, Eloth and Eziongeber, which, there is good reason to believe, the Phœnicians were permitted to use in connection

with the Arabian trade. As the usual trade routes which led from these ports to Tyre passed through the country of the Edomites, it is highly probable that Petra, a mart of only less importance than Yemen, was from a very remote date employed as the distributing centre for the north-west regions.

As Yemen served as a mart for the rich southern countries, especially those of South Arabia, India, and the Ethiopia coast adjoining, where was gathered the gold, precious stones, ivory, frankincense and slaves of these favoured regions, so Gerrha on the east coast served as the emporium for the staples of India, Ceylon, and the Persian Gulf generally, such as cinnamon, spices, ebony, pearls, precious stones, the horn of the sea unicorn, ivory, cotton and silk. These were conveyed thither by the Phœnician colonists, the men of Daden, who acted as intermediaries in the trade between the farther east and the Syrian coast.

Regular caravans were formed at Gerrha which journeyed through the desert, bringing back the manufactured wares of Tyre and Sidon, which were in turn carried by caravan to the southern provinces, or by vessel to India, Ceylon, and the Golden Chersonese. Whether the northern caravans went by Salema and Thema to Aclama at the head of the Red Sea, as the words of the prophet Isaiah (xxi. 13) seem to indicate, or took the more northerly route by Coromanis to Petra, which seems equally probable, it is impossible to determine accurately. Probably both routes were much used, but from what we have already outlined, with respect to the course of the Arabian trade, it would be useless to pursue the investigation further. Whether

we view the trade as being confined to one or as embracing both of these channels, it should be clear that the Phœnicians had a larger vested interest in the Arabian and Ophir markets than any other nation of antiquity.

The distance¹ from Yemen to Petra, on the borders of Palestine, was 1260 geographical miles, which meant a caravan journey of seventy days. This route seems to have been along the borders of the Red Sea, passing through the towns of Macoraba or Mecca, Satripa, and Medina, the present terminus of the railroad from the Mediterranean. For a considerable portion of the way the route was through one of the most fertile regions of Arabia, where at regular halting-places accessions from the interior towns mentioned by Ptolemy were received, which swelled the cavalcade and made the convoy of an armed guard necessary.

With regard to the caravan routes from the east coast we have less positive information. Gerrha was the objective, as it was there that the products of the eastern interior and south-east coasts, also those of India south of the Ganges and Ceylon, were gathered for further transportation. One road seems to have followed the coast-line through the province of Oman to Hydramaut, but the main road ran directly through the desert direct to Yemen, distant as the crow flies about 700 miles.

From Gerrha² to Phœnicia the road debouched at Petra and Aclama, but it is possible that a direct road by a route not now known passed in a north-westerly direction through the desert from the

¹ Heeren, vol. i. p. 356.

² *Ibid.*, vol. i. p. 357.

Persian Gulf port to Tyre. Indeed the reading of Isaiah xxi. 13 seems to indicate as much.

It was out of the South Arabian trade that Petra grew into such importance as to give its name to the whole north-western territory. Even in Phœnician times Petra seems to have been a central mart of great importance, not only for the produce of Central and South Arabia, but also for the wool of the desert.

From what has now been stated, it should be clear that Arabia was the great seat of the Phœnician land trade, and that in consequence of its geographical position and also the magnitude of the operations carried on there, the Phœnicians were in a position to handle its products in a way possible to no other nation of the ancient world. It is also clear that with this trade there was interwoven an intimate connection with that of those other rich countries, Ethiopia and India.

Whether the Phœnicians prosecuted this business with their own caravans or not we have no means of determining. But their well-known policy of reaching the markets with which they did business directly, points clearly in this direction. Under any circumstance caravans composed of the various Nomad tribesmen were regularly hired by the Phœnician merchants, which penetrated the Peninsula in every direction, carrying the wares of the coast towns and bringing back the produce of Ophir to the Phœnician ports, which ultimately became the great centre from which they were shipped either in their raw or manufactured condition to every land with which Phœnicia had established trade relations.

That we have so very little direct testimony with respect to this absorbing topic of the Arabian trade and the methods pursued by the Phœnicians in its prosecution and control, need occasion no surprise, for, being a trade of barter pure and simple, it must have been immensely profitable to these astute sons of Canaan, who would have every reason for throwing a veil of mysterious secrecy over the region. That water communication existed between some of the ports in South Arabia and those at the head of the Red Sea there can be no question, for definite reference is made by ancient authorities to the spice trade with the Egyptian port of Hieropolis, which points clearly to the existence of a similar trade between Yemen and Eziongeber, the Phœnician and Egyptian markets being those on which the Edomites depended for the disposal of their produce.

It is extremely probable, therefore, that the Edomites equally with the Egyptians would have been willing to throw their ports open to Phœnician shipping, though probably enough not on such favourable terms as they accorded to their own shipping employed in the South Arabian trade. All doubt on the point seems indeed to be removed by the specific statement of Scripture (1 Kings ix. 27) that "Hiram sent in the ships of Solomon shipmen that had knowledge of the sea." The Phœnician trade between Yemen and the ports at the head of the Red Sea seems therefore to be assured.

While all that has been written above is necessary to an intelligent understanding of the case, it will nevertheless considerably reduce the com-

plexities of the problem with which we are wrestling, if we simply remember that, either by ship or caravan, the principal marts of Arabia, those of Yemen in the south, Gerrha in the east, and Petra in the north, poured a steady stream of merchandise into Babylonia, Egypt, and Phœnicia, though during the eleventh century B.C. mainly into Phœnicia, which was then the great distributing nation of the ancient world.

The route from Petra to Babylon is represented as running due east to Thapsacus on the Euphrates, whence it followed the course of the river to its objective. That from Gerrha seems to have followed the coast-line to Oman and Hydramaut, but a direct route through the desert is said to have connected both Hydramaut and Yemen. It was, however, through an inhospitable region, and was only followed because of the immense saving in time and distance. Yemen by this route was only about 700 miles distant from Gerrha, the journey occupying a period of not more than forty days in its prosecution (Heeren, *Hist. Research*, vol. i. p. 356).

In view of what has been said, it should therefore be unnecessary to adduce further proof with a view to it being made clear that the Arabian Peninsula was a territory with which the Phœnicians were intimately familiar from a very early date, and that long prior to the twelfth century B.C. the produce of Yemen, Hydramaut, and Oman was carried to Gerrha and Petra *en route* to Tyre, not more than three months being necessary to place in the Phœnician cities the products of Ophir gathered in the emporia of these southern provinces. Tyre, moreover, lay only about 350 miles

in a direct line north of Petra, so that if all necessary allowances were made for stoppages at the various halting-places the return journey from Tyre to Yemen could be comfortably made in nine months.

However we may view this question of transport, one thing seems clear, namely, that by their long residence on the Persian Gulf and the magnitude of their transactions after the transference of their main establishments to the Mediterranean, the Phœnicians acquired a familiarity with the resources and trade routes of the Arabian Peninsula possessed by no other nation of antiquity.

The carrying trade of the world was mainly centred in Phœnicia certainly not later than the twelfth century B.C. It was connected by road and caravan with Arabia and the Persian Gulf, the Euphrates, Armenia, Cappadocia, and Antolia, and by sea with Asia Minor, the Greek Archipelago, Egypt, Italy, North Africa, Spain, and very probably with Madeira, Britain, and the Baltic.

With respect to the western expansion at this date, it will be prudent to say a few words before leaving this phase of our inquiry. Gades, the great Phœnician emporium on the Atlantic for the western trade, is said to have been founded at the same time as Utica, the emporium of the Phœnicians on the African coast, and as the foundation of Utica took place 270 years before Carthage, the foundation of Gades must have taken place 1100 years before the Christian era, or about 100 years after the Trojan war. If, therefore, we make allowance for considerable developments on the Spanish Peninsula before the erection of this city on the Atlantic coast, we may fairly enough assume

that the phenomenal progress in naval construction, to which we referred in connection with the reconstruction of Tyre and the enlargement of its harbours fifty years after this date, can only be viewed as measures compelled by the great developments on the Spanish Peninsula and the increasing trade with the west generally.

That the phenomenal developments in naval construction and navigation among the Phœnicians belong to this period there can be no question, for both science and art seem to have been called into active co-operation in the creation of the great ships of Tharshish, which are usually identified with this period. The whereabouts of Tharshish, like that of Ophir, has given rise to much discussion. In Genesis x. 4 the name is there identified with one of the sons of Javan, who is to have settled with his descendants in Southern Italy. The name, however, seems in time—like that of Ophir—to have become displaced, and as the trade of the Phœnicians moved westward, it moved with the trade until in course of time it came to be applied in a general way to the whole region bounded by the inland sea to the west. The name Tharshish seems never to have been very definite in its application. To the Jewish mind in later years it appears to have been particularly associated with the name of a region rich in silver. It is therefore not difficult to understand how in Holy Writ we have reference to an eastern as well as a western Tharshish, and this the more that the ships employed in the prosecution of this particular business in both directions were ships of Tharshish (1 Kings x. 22, and 2 Chron. xx. 36).

CHAPTER III

NAVIGATION AND SEA TRADE

Extent of the Phœnician marine—Causes of its remarkable development—Nature of early voyages—Phœnician policy non-aggressive—First Phœnician colonial settlements—The ships of Tharshish—Their testimony to Phœnician seamanship—Trade monopoly in the Eastern Mediterranean—Also in the Atlantic—Xenophon's description of a Phœnician armed merchant-ship—Phœnicians pre-eminent as shipbuilders and navigators.

STUPENDOUS as the land operations of the Phœnicians were they were as nothing compared with their sea trade, with which indeed their chief fame will always be identified. To the beginnings of this sea trade we have already referred in dealing with the causes which led to the selection of the Bahrein Islands as a centre from which to control the Arabico-Babylonian trade.

Subject as their emporia on the lower waters of the Euphrates were to the periodic raids of the predatory tribes that swept over the Mesopotamian plains from the north, and harassed in their business operations by the conflicting interests of the great monarchies that grew up in Babylonia, the Phœnicians found very early that not only travel but trade could be conducted more securely and cheaply by sea than by land. In so doing they solved the one great problem of commerce and became the foremost intermediaries of the ancient world.

The centres of trade and manufacture at that

period were mainly confined to Babylonia, Arabia, India, and Egypt, and as these countries were separated from one another by immense deserts or stretches of sea, whoever was in a position to control the carrying trade between them and the outlying territories was necessarily mistress of the commerce of the ancient world, and had the right to dictate on practically her own terms the rate of exchange on such commodities as were handled. The astute and enterprising sons of Canaan seized the opportunity thus presented, and in a short time became factors of the first importance in distributing to the outskirts of the known world the products and manufactures of the more favoured and densely populated regions as well as those riper fruits of civilisation that blossomed in the centres of wealth, culture, and refinement. Thus they brought within the range of their influence practically every centre of population, civilised and uncivilised, known to the ancient world.

During the historic period the navigation of the seas was confined to the Persian and Arabian Gulfs, the Indian Ocean as far as Ceylon, and the coasts of the Deccan. There is good reason for believing that it may even have reached the mouth of the Ganges. Some doubt has been expressed as to the practicability of voyages to the more distant of these regions at an early period, but this doubt seems scarcely reasonable when we admit the existence of a Red Sea navigation (I Kings ix. 27) of the most extensive character in the eleventh century B.C.

There were, moreover, various circumstances which contributed to the development of this naviga-

tion, for none of the voyages need have been more than mere coasting expeditions, the straits of Ormus at the mouth of the Persian Gulf and those of Babel-mandeb at the entrance to the Red Sea reducing the distance from Arabia to India and from Arabia to Ethiopia to a negligible quantity. Again, the directions of the periodic monsoons in the Indian Ocean, which are very similar to those prevailing in the Persian and Arabian Gulfs, were peculiarly favourable to voyages made to and from India and Ceylon, the Arabian Peninsula and the Ethiopian mainland.

Once embarked on this business, even in a small way, the advantages of sea over land transportation, in respect to the territory which was thereby made tributary to the establishments of the Phœnicians, would, apart from all other considerations, have provided a sufficient justification for its adoption as a certain means of securing that monopoly in trade on which their profits depended. And this the more so that the provinces of Hydramaut and Yemen, in which were situated the great central marts for the gold, precious stones, spices, and frankincense of Arabia, the rich products of India and Ceylon, and the equally valuable merchandise of Ethiopia, were easily reached by means of mere coasting voyages over a comparatively smooth sea, whereas the land journey, as we have shown, was through an inhospitable desert.

If, however, a controlling interest in the produce of the Indian and Arabian markets was the magnet which drew the Phœnicians to the Bahrein Islands, and there can be little doubt that it was, it is quite certain that they did not long rest satisfied with the

commercial leverage which they obtained over the Persian Gulf. There is very clear evidence that their navigation was not confined to these waters, but at a very early period embraced the southern boundaries of the Arabian Peninsula, and probably extended to the borders of Egypt. Theophrastus in his *History of Plants*, when speaking of the frankincense trade, mentions the port of Hierapolis, the present Suez, as much used in connection with this business. The magnitude of the transactions of the Phœnicians in the southern markets must have placed them in a peculiarly favourable position for securing such shipping and warehouse facilities in the ports of Hydramaut and Yemen as the exigencies of their business demanded. If, therefore, the Phœnician trade between Yemen and Egypt cannot from positive historic testimony be affirmed, it can at least be reasonably enough assumed. With the route and the value of the trade the Phœnicians seem to have been familiar from the beginning, so much so that they lost no time in making overtures to the Jews for the transference to their own control of the two ports of Eloth and Eziongeber on the Ælantic Gulf, when the practical extermination of the Edomites provided an opening for a more complete control of the Ophir trade (I Chron. xviii. 12, I Kings ix. 27).

The reason for the development of the Red Sea navigation can be easily understood. The Egyptian markets could only be supplied with the products of Ophir, either by direct communication with the southern emporia by caravan or ship, or through Gerrha and the Phœnician headquarters on the Persian Gulf. The advantage of sea transport

from Yemen was, however, so apparent that, as we have seen, it led to the transference of the Phœnician headquarters to the Bahrein Islands. As a means of controlling the Egyptian markets it would have been as effective as in the case of the Babylonian, so that it is unnecessary to suppose any other reason than a desire to facilitate this trade with the south Arabian ports in order to understand the easy and continuous access which the Phœnicians enjoyed to the port of Hierapolis, and, in all probability, to those of Yemen and Hydramaut.

There can be no doubt that it was the recognition of the strategic importance of the Bahrein Islands as a central emporium for the great markets of the ancient world that led the Phœnicians to establish their first settlements there. This view is not dependent on a recognition of the nature and origin of the architectural remains found there, but receives the strongest possible confirmative support in the fact that all the early trade routes which honeycombed the Arabian Peninsula, routes which have undergone no change, always found their outlet at the Bay of Gerrha, opposite to the site of Phœnicia's first warehouses. The erection of the early Phœnician emporia on the Bahrein Islands was, therefore, an act of rare sagacity. It placed the Phœnicians in an unrivalled position to divert into such channels as the exigencies of their commercial enterprises might demand, not only the produce tributary to the Persian Gulf, but equally that which found its natural outlet at the Red Sea. That a trade existed between Yemen and Egypt there can be no question (*Asiat. Res.*, vol. iii. p. 324).

It is more than probable that it extended to the Persian Gulf ports at an early period, because at a later date it was shared in by the Chaldæans. Moreover, the mere fact that the Phœnicians seized the opportunity presented by their political and commercial affiliations with the Jews to secure a port under their own control on the Red Sea in place of one under foreign espionage, seems to indicate that they were already familiar with the navigation, which again implies that they were to some extent at least in possession of the trade, and were desirous of further developing it.

It will, moreover, be seen that the ports of the Phœnicians at Tylos and Arados were admirably situated for handling by sea the trade of Arabia and India with Babylonia, and that of Babylonia with India and Arabia, at a tithe of the expense which such journeys would have entailed by caravan transport. The position placed them in an equally advantageous position with respect to the Egyptian trade. This view provides an adequate explanation of the early navigating skill of the inhabitants of the Arabian Peninsula, and of their possessing in connection with this navigation, as we shall have occasion to show later, the bactellium or loadstone which only could have come to them through Phœnician sources.

The trade with the Arabian Peninsula must likewise have been greatly facilitated by reason of the similarity of the languages of the two peoples (Heeren, p. 360), for they were of the same Semitic stock. Even in later times the language of Phœnicia and of Arabia were so similar that they could be described as two dialects of the same speech.

This advantage alone would have been sufficient to have secured them a predominant influence in the commerce of Arabia, even if the situation of their emporia and their possession of the sea transport had not rendered it practically impossible for any other nation to compete with them.

It is only in this way that it is possible to come to an intelligent understanding of the opening chapter of the first book of Herodotus, where is indicated the existence of a considerable trade on the part of the Phœnicians with the Assyrian and Egyptian markets. Nor is this familiarity with these markets surprising, because the population of the Nile valley, as has been shown, was for at least six centuries part and parcel of Phœnician civilisation, being either the mainstay of the Hyksos invasion or those driven to the eastern shores of the Persian Gulf. The civilisation of Egypt was, moreover, one of the most ancient, and as it had always enjoyed the principal river and land traffic of Africa it would have been passing strange if no intercourse had existed between two such distinctively commercial peoples as the traders of the Balreïn Islands and the Egyptians. Indeed it is only by assuming the existence of such a trade at a very early period that we can understand how it came about that after the expulsion of the Hyksos and the doors of Egypt were double barred against the entrance of all foreigners, especially Semitics, the Phœnicians were permitted to retain their residence in the old Hyksos capital at Memphis.

From the beginning it must have been apparent to the Egyptians that the territorial aggrandisement was no part of the policy of the Phœnicians,

who established themselves within their boundaries and brought to their doors the products of Babylonia and the wealth of Ophir, as well as relieved them of the surplus products of their cotton and linen looms, and those masterpieces of art, the embroideries of cotton on cotton, which were so highly valued throughout the ancient world. If, however, the naval emporia at the Bahrein Islands were in the beginning the key to the Babylonian, Arabian, and Egyptian trade, it is clear that there must have come a time when the success of the traders of Tylus and Arados in controlling these markets must have created a spirit of irritation in both Egypt and Babylonia, probably even among the carrying tribes of Arabia. To what extent business rivalry may have influenced the removal of the Phœnicians to the Mediterranean and their beginning there a new career as a manufacturing as well as a commercial nation cannot be determined. All the probabilities, however, are in favour of the view that if it affected the movement it was only in a minor degree. But there were more important influences at work calculated to produce this result, namely, the discovery on the one hand of the unrivalled dye to be obtained from the purple-producing murex on the Syrian coasts, and on the other the discovery of the Eldorado in the silver mines of Spain, the tin mines of England, and probably the amber of the Baltic.

It is unnecessary to suppose that any political upheaval operated to bring about the change of base for the Phœnician establishments. Ordinary business prudence would have dictated such a policy, more especially as the increasing competition

of the carrying tribes in the southern markets must have made it apparent that the trade between Yemen and India with Babylonia could not much longer remain a monopoly in their hands, whereas in the new territory, as the only navigating people of the ancient world, they had it in their power to block in the most effective manner any attempt on the part of their eastern competitors to secure a participation in the western trade. Moreover, the west at this period was not what it had been at the beginning of the Phœnician career, simply Egypt or the Syrian coasts, for these migratory movements from the further east had covered the islands and shores of the inland seas with settlements which, in many cases, had grown into populous communities, thus offering the widest scope for the mercantile proclivities of the traders of the Bahrein Islands.

It requires no special sagacity, therefore, to recognise the causes which led to the change of base, and at the same time to the remarkable developments in Phœnician naval construction and navigation. On the Syrian coast the durable cedars of Lebanon were substituted for the teaks of the Persian Gulf, and the placid waters of the eastern seas were exchanged for the turbulent and stormy waters that washed the shores of the Mediterranean.

It is true that we have no historic record showing the stage to which the Phœnicians carried their navigation either on the Persian Gulf or the Red Sea further than can be drawn from our knowledge of their trade with India, Arabia, and Egypt. If, however, we even confine it to these seas and read the story in the light of their exploits immediately

on their arrival on the Mediterranean, it will be apparent that both shipbuilding and seamanship must, in their hands, have passed far beyond the primitive stages before they left the Bahrein Islands. Otherwise the statement of Herodotus that, immediately on their arrival on the Mediterranean, they forthwith applied themselves to such distant navigation as that of the Argolic coasts would be wholly incomprehensible. This statement is too precise to leave any room for doubt as to the meaning which Herodotus intended to convey, for Nauplia, which was always the main port on the Argolic coast, was distant as the crow flies some 700 miles from the Phœnician coasts, and could only be reached by navigating the Levant, whose gales at certain seasons are as much dreaded as any that blow.

These early voyages on the Mediterranean were in no sense coasting voyages, nor were they conducted by novices in the art, but by seasoned and experienced seamen. It is curious that this fact should so far have escaped the observation of all writers on the subject of Phœnician navigation, for Herodotus, in his account of this memorable voyage to the Argolic coast, says distinctly that after the completion of their business "they immediately set sail for Egypt." Now, as Egypt lay 800 miles due south of Argos, a coasting voyage was plainly out of the question.

Whether the entire transference of the early navigators from the Persian Gulf to the Syrian seaboard occupied a few years or a few centuries cannot be stated, but at all events it led to great developments in Phœnician naval construction and

navigation. During no portion of their career could the navigation from the Persian Gulf have reached beyond 30° north or south of the equator. For even if at this point we admit, with a view to clarifying the situation, the possibility of an American discovery, certainly all of the region occupied by the early civilised states of Central America lay between these latitudes, and during the season of navigation was well defined to the ancients by the rise and setting of the Pleiades, which the Phœnicians were the first people to put to a practical use.

The situation of the new home of the Phœnicians on the Mediterranean placed them abreast of problems in navigation of a very different character from those with which they had been accustomed to wrestle on the Persian Gulf. The real perplexities of navigation only begin when 35° north or south latitude have been reached, and the major portion of the Mediterranean, including Asia Minor, Greece, Sicily, Italy, North Africa, Spain, the Levantine and Adriatic seas, the Straits of Hercules, and the major portion of the Atlantic in which the main trend of their commerce lay, was beyond these latitudes, so that all the skill the shipbuilders, navigators, and scientists of Phœnicia possessed must have been called into play.

Here, therefore, on the shores of this sea of "the setting sun," in this virgin territory, where transportation was largely reduced to terms of their own choosing, where from its very situation they were for centuries protected from competition, the Phœnicians secured a complete monopoly of the Mediterranean and Atlantic trade and became a

“merchant of the people for many isles” (Ezek. xxvii. 3). At the beginning of the thirteenth century B.C. a great commercial and navigating nation, capable and aggressive beyond all others, occupied the Phœnician coasts. For many centuries it was the good fortune of these pioneers to enjoy an entire monopoly of the trade. But scarcely fifty years had passed after the close of the Trojan war before the Greek tribes, owing to the influx of a mixed population from the north, were thrown into violent confusion. This resulted in the displacement of large masses of population, who, spreading themselves over the adjacent coasts and islands, so increased the boundaries of Greece that it soon came to embrace many of those choice and delightful districts of the eastern Mediterranean that from a high antiquity had been colonised by the Phœnicians.

As a commercial people it was, as has been pointed out, a fixed policy of the Phœnicians to avoid as far as possible all occasions of friction with the various peoples with whom they established business relations. Accordingly, when towards the beginning of the eleventh century B.C. the jealousy of the Pelasgic states, which had been steadily growing in importance, threatened to precipitate conflict, the Phœnicians ceded voluntarily many favoured regions which for long had remained within the sphere of their influence. This policy was rendered easier of accomplishment in that prior to this date they had already pushed into the western Mediterranean, and ere long the tin mines of the Cassiterides and Britain and the fossilised resin or amber of the Baltic

were to become important factors in Phœnician commerce.

With rare good judgment, therefore, the Phœnicians transferred their activities to a region where they enjoyed a complete monopoly in place of disputing for merely sentimental reasons the possession of a territory where profits would necessarily have been rendered precarious by competition. Moreover, under any circumstance the Greeks would still be forced to purchase in the markets of Tyre and Sidon those goods of finer grade which could not be obtained elsewhere.

The coasts of the Mediterranean most celebrated for the murex fishing were, as we have shown, those of Phœnicia, Asia Minor, the Peloponnesus, and Sicily. Only less valuable, however, were the fisheries on the western Mediterranean and on the Atlantic coasts, Britain, and in all probability the modern Madeira.

There can be no doubt that it was the shell-fish producing this invaluable dye that, in the first instance, led to the amazing developments that took place in naval construction and the spread of the Phœnician colonial system. The whole fish was not used in the preparation of the dye, but an almost microscopic quantity obtained from a small sac at the back of the head, which is said to have yielded only one drop, whereas three hundred pounds of the dye, according to some authorities, were required to dye fifty pounds of wool. From this it will be seen that the home fisheries could not for any long period have yielded an inexhaustible supply of the precious fluid. Consequently the fishermen found it necessary to go farther afield,

where, although not so rich in the finer shades of colour, still provided a fluid of great commercial value.

That the first colonial settlements of the Phœnicians were therefore of the nature of mere fishing stations will easily be understood, for nearly all the Mediterranean colonies were in the first place identified with this industry. The name purple, however, must not be understood as representing one distinct colour, but the entire range of colours obtained from the murex, of which nine were simple purple colours from white to black, and five mixed (Heeren, *Phœnicia*, p. 343). As, however, the quality and colour of the dye was determined by physical causes superinduced by the temperature of the sea, sunlight, and the food on which the murex subsisted, an enormous area was necessarily brought under levy to provide suitable pigment for the wide range of colours demanded by the world-wide trade to which the dye-vats of Tyre and Sidon catered.

In a consideration of the causes which led to the phenomenal development of the Phœnician marine, it is necessary that we should not lose sight of the increasing range of these voyages, for in this will be found a sufficient cause not only for the increasing tonnage of the Phœnician ships, but also for the spread of their colonial system as a means of providing harbours to which their vessels might run in case of emergency (*Asiat. Res.*, vol. i. 318). It should also be remembered that the size of the vessels of the Phœnicians would not depend on their fitness to carry the relatively small cargo of a manufactured nature consigned on the outward

voyage, so much as on their carrying capacity for the bulky raw material which formed the staple of the return cargoes.

Probably it is in consequence of the insufficient attention that has been given to this aspect of the subject that there has been a disposition to belittle the advanced state of the Phœnician marine during the period of Hiram and Solomon. This is unfortunate, because it has prevented a true estimate of the progress of the nation, both with respect to the extent of its colonial developments and the growth of its marine. If we conceive of it as represented by types of such craft as are outlined on Phœnician coins and tombs during the period of Phœnicia's greatest expansion, it will clearly be impossible to suppose that the nation was ever employed on such voyages as those that will shortly engage our attention.

Until 500 B.C. no Greek ship had penetrated beyond the pillars of Hercules. Phœnicia was at that time the only navigating power in the world. We may therefore conclude that "the ship of Tharshish" had attained its final developments before 1050 B.C., and was then a permanent portion of the Phœnician marine, for the foundation of Gades as the terminal point of the Mediterranean and the starting-point for the Atlantic trade had already become of considerable importance. If, therefore, any reliance can be placed on the American Votanic tradition of the arrival on the Pacific coasts of that continent of seven large ships about the year 1000 B.C., it will clearly be necessary for us to turn to this only navigating nation of antiquity for information on the subject, for, as we have already

shown, there was no other nation of the ancient world who, either by reason of the state of their marine or familiarity with the southern and eastern Asiatic seas, was capable of making the journey.

Voyages across the open sea are not, as has so often been erroneously stated, the outcome of our acquaintance with the new world from the Atlantic ports, but are the natural result of the evolution of the nautical art and the discovery or invention of the loadstone. So long as navigation was confined to coasting or even stretching from headland to headland along the coast line, very little progress was possible. Once this method of navigation was discarded and steering by a stellar object took its place (which was clearly of Phœnician origin), supplemented by the use of the magnet, which enabled the navigator when the weather was cloudy to determine his position and direction (also, it is equally clear, a Phœnician invention), then the last obstacle to a complete mastery of the sea was removed.

The history of the compass and its evolution from the bactellium or loadstone stage is therefore necessarily involved in the elucidation of our enigma. As, however, it is too complex a subject to be dealt with briefly in connection with navigation, it will be profitable to treat it separately. But we may be pardoned if, at this point, we content ourselves by saying that there is strong evidence to show that the instrument was of Phœnician origin.

It is undoubtedly true that the historic voyages of the Phœnicians were mainly over a fixed course. But besides these they were in the habit of fitting out expeditions for purposes of discovery, which,

as we have shown, often led to an enlargement of their commerce, though sometimes they seem to have had no result beyond the mere extension of geographical knowledge. In one of these voyages, undertaken during the early part of their career, when they set out to explore Europe, they discovered not only the Isle of Thasos but its gold-mines, which for centuries yielded them an immense revenue.

In spite of these historic facts, however, many writers of high repute have not hesitated to question the possibilities of a greater eastern navigation than that of the Red Sea and the Persian Gulf, and even to call in question the trustworthiness of the narrative of Herodotus, who ascribes to the Phœnicians the distinction of being the first people to circumnavigate Africa (Her. iv. 41). But as our investigation hinges more particularly on the evolution of "the ship of Tharshish" than on any other portion of the Phœnician marine, we will confine our attention to this phase of our subject for a little.

The name Tharshish, as we have shown, was not first applied to one of the districts of the Spanish Peninsula, but derived from one of the sons of Javan, who reached southern Italy, where he and his descendants settled. The name indeed only became displaced as the horizon of the Phœnician navigators moved westward. The name Tharshish, therefore, even when Phœnicia was at the zenith of its power, seems to the Hebrew writers especially to have represented only a certain region by which the Mediterranean was bounded on the west, just as to Europeans the West Indies for centuries meant not only the islands which we now call by that

name, but the whole continent of America, both north and south, with the islands that cluster around them.

The vessels, which went by the name of ships of Tharshish, and were employed on these long voyages to Italy and the Adriatic, and, later, to Cadiz and the Atlantic ports, were so called to distinguish them from the smaller craft plying on the eastern Mediterranean. The Tharshish ship, therefore, must be viewed as having been evolved *pari passu* with the extension of Tharshish westward, so that probably it stood for the terminal point of the Mediterranean voyages, when a steady trade between the Spanish Peninsula was in operation. There can be no reasonable doubt as to the Tharshish ship having formed the model after which the Greeks constructed their great Alexandria corn ships, which were famous during the early portion of the Christian era (Acts xxvii. 6). We have no difficulty, therefore, in recognising the class of vessel to which the Tharshish ship was allied, and it would be imprudent to associate it with the sculptured reliefs of the Sargonid period in which the Phœnician galleys are represented.

We should naturally expect that the evolution of these ships of Tharshish would have been all the more regular and certain by reason of the centuries occupied in their development, the increasing range of their navigation, and their better acquaintance with the peculiar difficulties that beset their course on the western Mediterranean. From Tyre or Sidon to the Argolic coast, or rather to Nauplia, which was always the leading port, was a distance of 700 miles as the crow flies, but the distance from Tyre to Gades was 2500 miles. The tin islands

were, however, 1200 miles from Cadiz, and the shores of Norway 2000 miles from the Spanish port, so that if the tin and amber of these distant regions were with the silver of the Iberian Peninsula pouring at that time into the warehouses of Tyre and Sidon, it is easy to understand the causes that were at work in the final developments of the Phœnician marine. The navigation of 900 miles, which the journey from Tyre to the Baltic implies, and this through many degrees of stormy north latitude where steady trade winds and the tideless Mediterranean could not be counted on, must have taxed to the utmost the skill and resource not only of the hardy seamen of Phœnicia, but even of the wise men of Tyre, who, it would seem from the remarks of the prophet Ezekiel (xxvii. 8), were, on account of the arduous nature of some of these voyages, called to the assistance of the State in the protection of its monopolies. It should also be apparent from the nature and extent of Phœnician navigation that their voyages were prosecuted by night as well as by day, even if we had no direct testimony that they were accustomed to steer by the pole star (*Ency. Brit.*, xviii. 804). We also know from Herodotus (iii. 136) that they made charts of those seas in which they did business, and from the remarks of Strabo (xvi. 757) that they used arithmetical calculation for reckoning the ship's progress at night and the relative position of ports, which leads us to suppose that they were in possession of some instrument like the log for determining the speed of their ships. Besides they were not only familiar with spring and neap tides but with their causes.

From a consideration of these facts there should be no great difficulty in realising that the Phœnicians had passed far beyond the primitive stages of seamanship and navigation long before the twelfth century B.C. By reason of their knowledge and practical ability they were entitled to make the proud boast that no navigation was impossible to them.

The needs of an uncivilised, or at best only partially civilised, people are necessarily of a somewhat rudimentary character, so that the outlying settlements opened up by the increasing range of these voyages must have proved extremely valuable to the Phœnicians as a market for their gew-gaws and trinkets, and even more for the disposal of those surplus stocks of manufactured goods no longer in demand in the more civilised centres where custom and fashion gave pattern and design only a temporary value.

The mere fact that the main trend of the business of the Phœnicians was always toward the great centres of civilisation, makes it apparent that it was not only on account of the quality of their goods but equally on account of their manner of disposing of them that they were highly approved. There is, nevertheless, just as little doubt that while the transactions of the larger merchants in the great centres of population such as Babylonia, Yemen, Greece, and Egypt earned for the Phœnicians a reputation for probity and trustworthiness, the commerce of the outlying regions and the more sparsely populated territories opened up by the increasing radius of their navigation was largely in the hands of bold and often unscrupulous ad-

venturers. Still it is difficult to conceive of business being continued on such lines much beyond the incipient stages, especially on the coasts of Asia Minor and the Greek Archipelago, for these regions were at an early period colonised by their own people, who carried with them the leavening influence of a somewhat advanced civilisation. It is, therefore, more than probable that after a few generations the traders with the main centres of civilisation must have recognised that a continuously profitable business could only be conducted by a practical application of the belief that honesty was the best policy.

The magnitude of the Phœnician transactions in the Babylonian, Egyptian, and Arabian markets, in consequence of the position which they occupied as a manufacturing and exporting as well as an importing nation, must have enabled them for centuries to enjoy a complete monopoly of the trade of the eastern Mediterranean. During the period from 1500 B.C., when Cadmus, the son of Agenor, king of Phœnicia, first arrived in Bœotia, carrying with him the sixteen letters of the Phœnician alphabet, until at least 1100 B.C., when the Greeks took possession, the eastern end of the Mediterranean, or at least that portion which includes the Sporades and Cyclades, Cyprus, Rhodes, the Peloponnesus, and the coasts of Asia Minor generally, was colonised by the Phœnicians and wholly occupied by their marine. Here they catered to the inhabitants with articles of the most costly description, for which there was always a steadily growing demand. Among these were the products of Southern Arabia, the manufactures of

Tyre, the purple garments and rich apparel so much in demand among the priestly and wealthy classes, the jewellery of gold and amber, priceless silver ornaments and bronzes, and those trinkets and gew-gaws for which the Phœnician workmen had always been famous. With whatever good grace the Phœnicians may have accepted their dismissal from the markets nearest to the home ports, they speedily adopted a policy with regard to their more distant settlements that seems to have stood the nation in good stead. Henceforth they allowed nothing to transpire either with regard to their navigation to these distant settlements or the character of their colonial expansion. Probably it was this policy of secrecy that was instrumental in the rapid progress of Phœnicia as a manufacturing and navigating nation, for they could not have failed to recognise that it was only to these distant settlements that large consignments of merchandise could be made, the sales in all other markets being of a more or less retail character.

The need of protecting their colonial expansion from invasion by outsiders demanded at the same time the ability to supply all the distant markets required, and that with as good if not a superior character of merchandise to that obtainable elsewhere. Moreover, as this traffic was one of barter pure and simple, Phœnicia was necessarily the final arbiter of values, the ultimate profit to the merchant not depending wholly on the purchasing price of the merchandise that was carried abroad, but on the value of the raw products in the home markets.

There was one branch of their distant sea trade to which the Phœnicians clung with extreme tenacity,

and which at a date long subsequent to the seventh century they prevented even the Romans from sharing with them. This was the tin trade with the Scilly Isles and the coasts of Cornwall, which was one of the chief sources of their wealth, tin being required by nearly all the races with which they had dealings, for hardening into bronze the copper which they used for tools.

Throughout their long career the Phœnicians pre-eminently distinguished themselves in the working of mines. So great was the quantity of silver found by the Phœnicians on their first arrival in the south-western portion of the Spanish Peninsula, that they are said to have loaded their craft with the metal down to the water's edge and, on returning to Tyre, to have so fired the imagination of the nation with their tales of the wealth of this western Eldorado as to cause many of their countrymen to proceed to Spain, which was rich not only in metals but also in corn, wine, oil, wax, wool, and fruits. Thus the sea trade to this distant region became of the most advantageous character to the Phœnicians at a time when they were losing their hold on the more convenient markets of Asia Minor and the Peloponnesus.

Another advantage accruing to the Phœnicians from the Spanish colonies was the service which they rendered in the extension of their commerce on the Atlantic, for Gades was not only the port for the Tharshish trade but likewise the starting-point for a more extended navigation on the Atlantic coasts. The great value of the tin, silver, and amber derived from this further west by the Phœnicians explains quite satisfactorily the care they

exercised that they should not be supplanted in these regions as they had been nearer home. Amber in the Mediterranean markets was as valuable as gold, while silver in the southern countries was even more precious than that metal. Tin was also extremely valuable.

Relatively small vessels have in all ages been considered the most suitable for purposes of exploration and discovery, because many dangers are avoided by the use of vessels of light draft. It would be unwise, therefore, to judge of the possibility of discovery in any region of the world by the Phœnicians by simple reference to the size of the vessels in their possession at any given period. Rather should we view the comparatively small craft which they employed on these expeditions, when well equipped and commanded by the right men, as representing a type of vessel that was thought to be the most effective. Indeed, the mere fact that the small craft of Columbus and Cook fulfilled the expectations of the practical seamen who selected them should not be lost sight of in an inquiry such as this, for the question of the original discovery of America by Igh and Imox (*Nat. Races*, v. 164) is necessarily involved, and this must have taken place some years before the construction of these ships of Tharshish for Solomon and Hiram.

The ship of Tharshish was evolved by combining in one vessel the peculiar features belonging to the round merchant Gaulos and the long lost ship of war. It was the starting-point for the creation of an entirely new type of vessel, which in its main features has survived through succeeding ages, although it does not seem to have become a fixed

model before the twelfth century B.C., when the Tharshish trade as relating to the Spanish Peninsula assumed vast dimensions. History has not left us in complete ignorance regarding this phase of Phœnician naval architecture. By reference to Xenophon (*Oecon.*, viii. 11) we obtain a rather graphic account of a Phœnician armed merchant ship of this type during the Persian period, which is usually placed about 500 B.C. In this passage Xenophon makes one of his characters say, "I think that one of the best and most perfect arrangements of things that I ever saw was when I went to look at the great Phœnician sailing vessels, for I saw there the largest amount of naval tacking separately disposed in the smallest stowage. For a ship, as you know, is brought to anchor and again got under weigh by means of a number of wooden implements and of ropes, and sails the seas by means of a quantity of rigging, and is armed with a number of contrivances against hostile vessels, and carries about with it a supply of weapons for the crew, and has besides all the utensils that a man keeps in his dwelling for each of the messes. In addition it is loaded with a quantity of merchandise which the owner carries with him for his own profit. Now all these things which I have mentioned lay in a space not much larger than a room which could conveniently hold ten beds. And I remarked that they lay in such a way as not to obstruct one another so as to consume time when they were suddenly wanted for use. Also I found that the captain's assistant, who is called the look-out man, so well acquainted with the position of all the articles and with the number of them that even at a distance he could tell where

everything lay and how many there were of each, just as one who had learned to read could tell the number of letters in the name of Socrates, and the proper place for each. Moreover, I saw this man in his leisure moments examining and testing everything that the vessel needed when at sea. Sons, I was surprised, I asked him what he was about, whereupon he replied, 'Stranger, I am looking to see in case anything should happen how everything is arranged and whether anything is wanting or is inconveniently placed, for when a storm arises at sea it is not possible to look for what is wanting or to put to rights what is awkwardly arranged.' "

It should be clear from this description that the navigation of the Phœnicians was neither of the primitive character nor conducted in the reckless manner that some writers have attributed to it, for the apparent purpose of Xenophon is to call attention to the fact that the Phœnician ships were a class by themselves and vastly superior to those of his countrymen. That many of the Phœnician vessels, especially those employed on the Syrian seaboard, were small enough to haul on shore there can be no question, but that many of the vessels were of respectable size and that monster ships, even for modern times, were by no means uncommon, is apparent. The ship in which St. Paul was wrecked carried 276 persons beside her crew and a cargo of wheat (Acts xxvii. 27). Josephus again tells of his being wrecked in the Adriatic in a vessel which carried 600 passengers. These vessels have by competent authorities been computed to have measured from 600 to 1000 tons burthen.

There is at the same time abundant reason for

believing that the seamanship of the ancients and the sailing powers of their vessels were far advanced. It may be safely conceded that they did not sail so close to the wind as our more modern ships, but they could get within seven points, which shows that they were not so dependent on a fair wind as has generally been supposed. The rate at which the vessels sailed was likewise considerable. St. Luke and St. Paul, with a fair wind, made the run from Rhegium to Puteoli (Acts xxviii. 13), a distance of 182 miles, in a day, which gives an average of from seven to eight knots an hour, a rate much superior to the five knot average on the 140 day run over the 15,000 mile course from California to Europe made by grain ships to-day.

The point we seek to emphasize, however, is not that the Phœnicians were in possession of monster ships with great sailing powers, but that they were capable of building and sailing any ships that the exigencies of their private business or the business of the State demanded; that their navigation was over long courses and was conducted with prudence, foresight, and skill, and furthermore, that both the ships and the nautical skill requisite to the discovery of America from the Red Sea port of Eziongeber were in their possession long before the period of Hiram and Solomon.

Indeed it is futile to attempt to intelligently understand the state of the Phœnician marine either at the Solomonian or any other period by comparison with that of other nations of the ancient world. As shipbuilders and navigators the Phœnicians were in a class by themselves. So isolated was their position that for 2100 years, or from

611 B.C., when Phœnician seamen circumnavigated Africa, the world was confronted by a feat which, so far as we know, was not repeated until the fifteenth century of our era, when Vasco da Gama revolutionised the commerce of the world by doubling the Cape of Good Hope from the west. To arrive at the advanced position which we occupy with respect to the nautical arts, we have been compelled to relay the foundations on which the Phœnicians reared their marvellous creations. The more closely we examine the ruins of the Phœnician marine the more we are impressed by the presence of a knowledge which served the needs of those adventurous pioneers for a thousand years. "Are we indeed," asks Heeren, "in a position to judge even with a tolerable degree of accuracy of the perfection to which Phœnician navigation was carried or of its various resources? The long centuries during which they were exclusive masters of the sea gave them sufficient time in which to make that gradual progress which was perhaps all the more regular in proportion to the time which it occupied. They carried the nautical art to the highest point of perfection then required, and gave a much wider scope to their discoveries and enterprises than either the Venetians or Genoese, their numerous fleets being scattered over the Indian and Atlantic Oceans, the Tyrian pennant waving at the same time on the coasts of Britain and Ceylon" (*Hist. Res.*, iii. 340).

CHAPTER IV

THE PHŒNICIANS AND THE COMPASS

The Aztec Calendar or Water Stone described—Its connection with the origin of the compass—Did the Chinese invent this instrument?—The Phœnicians and the compass—Its importance to their naval expansion—Primitive compass familiar to early navigating nations—Instrument closely identified with Phœnician civilisation—Bactellium and the discovery of the Pole Star due to the Phœnicians.

“For I saw that among rude people of early times, inventors and discoverers were reckoned as gods.”—FRANCIS BACON.

“Moreover the god Ouranas devised Bactellia, which were stones that moved as possessing life.”—*Phœnician History of Sanchoniathon*, translated by PHILO OF BYBLIUS.

THERE were four things essential to the successful accomplishment of any voyage undertaken by the Phœnicians. These were the ships of which we have already spoken, charts of the seas frequented, the cross staff, and the loadstone. That the Phœnicians were accustomed to survey by some means the coasts which they frequented there can be no question, for Herodotus (iii. 136) makes a positive statement to this effect, supplementing it with the information that when so doing they tabulated their notes for future reference. Strabo supports the testimony of Herodotus by explaining that the Phœnicians applied their knowledge of astronomy and arithmetic to reckoning a ship's course. The knowledge thus acquired also enabled them to sail by night.

We have no positive information with respect to the date of the invention of the cross staff, but it seems to have been created by the early astronomers for just the purpose for which it would be required in navigation. We may, therefore, assume that it

was known to, if not invented by, the first astronomers and navigators of the Persian Gulf and the Syrian coasts.

But the one instrument on which it is absolutely necessary to obtain further light in connection with our investigation is the loadstone or compass. Without the possession of this instrument it is impossible to conceive of such voyages as the Phœnicians systematically undertook and prosecuted successfully, for while those on the eastern seas were by no means impossible during the well determined season of navigation, those to the west would have been extremely hazardous in the high latitudes.

Had they depended on astronomical help alone it is easy to see that a slight change of weather would have left them at night without any accurate means of determining either their position or the direction in which they were sailing. It is unfortunate, therefore, that we have as little definite information with respect to the origin of the loadstone as we have with regard to the cross staff. This, however, is scarcely surprising when we remember the care that was exercised by the Phœnicians in preserving from the rest of mankind, but especially from competing nations, all knowledge with respect to their navigation and their trade. Still there is sufficient historic data to enable us to solve the enigma satisfactorily if we approach the subject with an open mind.

Among the more prominent features of the remains of the ancient civilisation of Central America there is to be found a monument which seems to provide the guidance necessary to lead us to a clear solution of our problem. Built into the walls of the Cathedral of Mexico is a rectangular parallel

opedon of porphyry 13 feet $1\frac{1}{2}$ inches square, 3 feet $3\frac{1}{2}$ inches thick, and weighing in its present mutilated state twenty-four tons. By some writers this monument has been described as a Calendar Stone and by others as a *Piedra de Agua*, or Water Stone. The sculpture on this strange memorial is of a unique character. Baron Humboldt, in describing it, says "the concentric circles, the divisions and subdivisions without number, are traced with mathematical exactitude, and the more we examine the details of the sculpture the more do we discover that taste for repetition of the same form, that spirit of order, that sentiment of symmetry which, among half civilised peoples, takes the place of the sentiment of the beautiful."

A careful examination of this memorial will, we venture to submit, throw a flood of light on the origin of the compass, this so-called Calendar or Water Stone being neither more nor less than a national memorial of a seafaring people in the form of a mariner's compass to the invention or possession of which they seem to have attributed the discovery of the New Continent. The Calendar Stone presents one or two features that may be counted as giving weight to this view. It will, for instance, be observed that the design possesses not only a north and a south point but also the remaining cardinal points, these being duly emphasized—Kan to the south, Maluc to the east, Ix to the north, and Cuac to the west (Laudas); in addition there are symbols of the four winds that blow. Not only are the cardinal points and winds indicated, but in sub-divisions mathematically correct. The thirty-two points into which what we call the modern compass is divided are all here. Again, in the main

or south point will be observed the faces of Coxcox and Xochiquetzae, the Mexican Noah and his wife, the grandparents of Chan, the progenitors of the Phœnicians, the first recorded navigators (Gen. vi. 14), and underneath these the Aztec symbol for water. All this clearly indicates that navigation was the subject which the stone was originally intended to commemorate.

But the wonder does not end here. If the stone be placed in its correct position with respect to the sun god, the Phœnician Ouranos, it will be observed that the main or emphasized point is not north but south, and that in this respect it agrees with the Chinese compass. Clearly then the design had its origin among a people who were the common inventors of both instruments, and to whom the South Pole had either a special religious significance or whose early navigation was mainly in a direction to the south of the harbours from which they set out. Both of these presumptions are in perfect accord with our knowledge of the Phœnicians. All the early navigating nations considered the south the important point. To the sun worshipper the south was the right hand of the world, the place of power, the region whence emanated the divine influence, and therefore sacred. The early nations therefore reversed our usage, and were accustomed to think of the world as having its south on top and its north underneath.

What in all probability led the Mediterranean nations to make the change in the relative positions of the poles, placing the north above and the south below, was the discovery that the Pole Star was the one constant star in the heavens—a discovery which is universally accredited to the Phœnicians.

Now if this change be placed about the ninth century B.C. our problem will be simplified, for, as Greek navigation never extended to a point south of the equator, the constellations used by them for this purpose were not those of the southern but the northern hemisphere.

The so-called Chinese compass (using the word in its restricted sense) was not in use for purposes of navigation until about the third century of our era, and was a rude and unsatisfactory instrument with only sixteen points, so that it is useless to attempt to make any direct connection between it and the very elaborate design found on the Mexican calendar stone. There has been, however, so much misunderstanding regarding the supposed relation of this instrument to the mariner's compass that it will be profitable to give some attention to the Chinese narrative on which the claim is founded.

The earliest historic reference relative to the discovery of the directive properties of the suspended magnet is, according to these Chinese records, 200 years after the erection of the temple to Hercules at Tyre, by which time the Phœnicians were already the great trade intermediaries of the ancient world. But this Chinese document nowhere refers to the instrument as a Chinese invention. Indeed the fact that it was hastily constructed during the progress of a war leads us to infer that the story was not designed to give an account of its invention, but simply to show the surpassing value of the instrument to the Chinese during a period of national stress. This story was not translated into any European language until Klaproth published his letter to Baron Humboldt in 1834. It was entitled "La invention de la Console." A translation from

the French was made by Mr. T. S. Davies in his "Early History of the Compass," published in the *British Annual* of 1837, to which we now advert. The document refers it to 2634 B.C. and is entitled "Honang-ti punishes Tchi-Yeon at Tchon-lon."

"The Wai-ki said Tchon-Yeon bore the name Khiang: he was related to the Emperor Yan-ti. He delighted in war and turmoil. He made swords and lances and large cross-bows to oppress and devastate the empire. He called and brought together the chiefs of all the provinces; his grasping disposition and avarice exceeded all bounds.

"Yang-ti was obliged to retire and seek an asylum in the plains of Tchon-lon. The latter then raised a thick fog that by means of the darkness he might spread confusion in the enemy's ranks, but Honang-Yonan, which is the proper name of the Emperor Yang-ti, constructed chariots for indicating the south in order to indicate the four cardinal points by means of which he pursued Tchi-Yeon and took him prisoner. He caused him to be ignominiously put to death at Tchong-ki, the spot from this circumstance receiving the name of the broken curb."

It is on this bald statement of the manufacture of a land carriage, surmounted by a loadstone for the purpose of indicating the south and north points, that the Chinese claim to the invention of the compass is founded. But this is not the only reference to these magnet cars found in Chinese literature. A passage from the Sze-ki, a historical memoir of Szi-ma Tseen, the restorer of Chinese history, compiled in the early part of the second century of our era from authentic documents, says

that in the second year of the reign of Chang-wang, the second emperor of the Cow dynasty (1110 B.C.), five of these magnetic chariots, called Fse-nan or indicators of the south, were presented to the ambassadors of Tonquin and Cochin China to direct their course over the immense grassy plains which it was necessary for them to cross on their return journey. These chariots are said to have been finished with a little manikin clad in a vest of feathers, having his outstretched arm so suspended that, despite the movement of the car, the magnetised hand pointed steadily to the south. In addition to this figure a hodometer was attached to each car, which by strokes marked the distance covered on a bell so arranged as to exhibit a sort of dead reckoning

The use of these magnetic cars does not seem to have altered in any particular throughout the succeeding centuries, for their presence in Tartary as late as the fifteenth century of our era is vouched for by Baron Humboldt. Mr. Klaproth, in his study of the subject, calls attention to the use to which the Chinese put the magnet and magnetised iron. The most ancient of the two was the employment of the loadstone or magnet in the manufacture of magnetic cars. The other was the employment of magnetised iron in making compasses either to float or to balance on a pivot, which enabled them, without obstruction, to move in the Polar direction. Many writers, failing to grasp this distinction, have confounded the land chariot with the compass, and consequently have erroneously supposed that these chariots were directed by a magnetised needle instead of the loadstone. China, so far as we know, during the period 2634

B.C. did not extend to the sea, the capital of the old emperors being situated in the central plains either on the Yellow River or on one of its affluents. The construction of the magnetic chariot, therefore, did not involve the invention of the sea compass which, according to our best authorities, was not known in China before the third century of our era, or about 3000 years after the construction of the first magnetic car by the Emperor Honang-ti.

From all this it should be apparent that prior to A.D. 300 China did not possess a sea compass. On the other hand, it was in possession of a knowledge of the directive properties of the loadstone or suspended magnet as early as 2634 B.C., and applied it then in the only direction in which it could have been of any service to them, namely, for land journeys and to enable them to cross uninhabited territory at a period when land transportation over the Asiatic continent was in the hands of the Phœnicians.

There is nothing in Chinese history but the stories, to which we have referred, to indicate that the compass, any more than their systems of astronomy, numerals, or religion, were of indigenous birth. The astronomical system of the Chinese was Babylonian, and their numeral and religious systems Indian. If, therefore, we take these as affording any light regarding the origin of the compass, it will be necessary to look to some more ancient civilisation for the source from which it was drawn.

The earliest reference to the magnet and its peculiar properties is that found in the Phœnician history of Sanchoniathon preserved in a fragment translated into Greek by Herenius Philo, better

known as Philo Byblius. In this fragment Sanchoniathon ascribes to the god Ouranos the construction of the first suspended magnet or bactellium. The passage is as follows : “ But in process of time, whilst Ouranos was still in banishment, he sent his daughter Astarte, being a virgin, with two other of his sisters, Rhea and Dione, to cut off Chronus by treachery, but Chronus took the damsels and married them, notwithstanding they were his own sisters. When Ouranos understood this he sent other auxiliaries to make war against him, but Chronus gained the affection of these also and detained them with himself. *Moreover the god Ouranos devised bactellia-contriving stones that moved as having life.*”¹ Ouranos, one of the progenitors of the Phœnician race, by a comparison of Phœnician and Hebrew chronologies, is identified with Noah, who lived many centuries before the arrival of the Chinese in the region of the Yellow River. We have, therefore, a historic or at least traditional account of the discovery and invention of the suspended magnet from a source where the stress of the national life of its possessors would naturally lead us to look for its presence.

Now it is as impossible to suppose that this discovery would have been one of the few surviving fragments of Phœnician history unless it had a very definite association with the national career of the people, as it would be to carefully observe the vibratory, life-like movement of the suspended bactellium without one’s attention being conscious that it only continued so long as the bactellium was turned from the Polar direction, and that, however turned or set in motion, it always came to

¹ *Sanchoniathon*, Rt. Rev. R. Cumberland, 1720.

rest when pointing to the Kibleh or sacred point. It seems reasonable, therefore, to assume that the discovery of the directive power of the bactellium was synchronised with the discovery of the vibratory, life-like movement of the suspended magnet.

Can we suppose then that the Phœnicians, who were the discoverers of the Pole Star and used it as the principal sign in their navigation, never observed the connection that existed between the Polar directive properties of the bactellium and the Phœnician or Pole Star? The Phœnicians were accredited by the ancient world with having outstripped all other nations in navigation, largely on account of the discovery that the Pole Star alone remains constant in the heavens, so that if the use to which the suspended bactellium was put by them was that of locating the position of this Phœnician star in stormy and cloudy weather, we are able to establish a most important relation between the two discoveries.

It is, however, unnecessary to presume merely that this was the case, for all the early writers on the compass, while still in the bactellium or loadstone stage, emphatically state that it was an instrument used for finding the Pole Star when the sky was clouded. It is a very significant fact that the Phœnician nation evidently placed a higher practical value on the invention of the bactellium than they did on the discovery of the Phœnician or Pole Star. The first is incorporated in their history of themselves as among their crowning achievements, whereas the discovery of the Pole Star is not recorded by themselves but by Greek historians. The reason is obvious. The discovery that the Phœnician Star was the one constant star in the

heavens would not of itself have solved the problem of navigation, nor would the invention of the bac-tellium have done more for Phœnicia than provide a plaything for the children of Tyre and Sidon if it had not been known to provide a definite and un-failing guidance from its suspended polar direction to the Pole Star. It is in the due conjunction of these two great discoveries that we find the key to the phenomenal naval expansion of the Phœ-nicians.

To suppose that the Phœnicians actually ventured on such long voyages as those to Ophir (1 Kings ix. 28) and carried valuable cargoes (the return cargo in gold alone on one voyage amounted to four hundred and twenty talents or about four million pounds sterling), with no better guide than the coast line, when caravan transport would not only have eliminated risks but cut down the journey to eight months, is to exhibit amazing credulity with respect to the sagacity of the Phœnicians and gross ignorance as to the means by which they be-came the greatest navigating power of the ancient world. We find traces of their presence in localities which, as we shall see later, they would never have sought and from which it would have been prac-tically impossible to return unless they had been in possession of some instrument that rendered them independent both of a stellar object and weather conditions.

The more this subject is considered the more does it become apparent that the stress of the national life of Phœnicia demanded the compass. Indeed, it is more than evident from the fragments of their history surviving, to which attention has been called, that it existed, though the secret of

its existence was guarded with as scrupulous care from the other nations of antiquity as the secret of the destination of their most distant voyages. The invention and development of the compass from the crude bactellium or suspended magnet to the *Piedra de Agua* found in the first centres of civilisation on the American continent, stands in much the same relation to the commercial and colonial development of the Phœnicians that the invention and development of the steam-engine does to the commercial and colonial development of our day.

In order to understand the full significance of the compass to the Phœnicians, it will be necessary to follow the evolution of the instrument from the simple bactellium, a Bethel or house of God, in which was supposed to be resident the indwelling, vibrating life of the Deity.

It has been said that one of the first uses to which the south-pointing chariot was applied was locating to the worshipper the Kibleh or sacred south point when the sky was obscured. What truth there may be in this statement it is difficult to discover, but if true it would at least enable us to trace the existence of a connection in the mind of the early Semite between the south point of the bactellium and that of the supposed residence of the deity to whom he presented his devotions. Among the Semites sacrifices originally were not burned. The god was not conceived of as seated aloft but as present in the place of sacrifice, inhabiting the sacred stone, the bactellium. To understand this belief it is necessary, in our conceptions of the ideas associated with stone worship and true worship, to think of both as containing evidences

of life, otherwise the symbolism would be wholly meaningless. The presence of life in the tree is self-evident, but it is not so in the stone, so that the construction of *bactelloi* that manifested the divine immanence was a feat of no ordinary significance to the subtle oriental mind. At the outset, therefore, we must not conceive of the *bactellium* as a mass of inert magnetic ore like the *Caaba*—the great black stone at Mecca—but as a manufactured and suspended instrument whose vibrating, life-like movement suggested a spiritual infilling.

How long a period, it will be asked, was occupied in the evolution of the compass from the *bactellium* or *Bethel* stage until it arrived at a really effective instrument? The answer is that it was an effective instrument from the date on which it was discovered that the Polar axis rested when the *bactellium* pointed in a north and south direction. Although the compass was moving steadily towards perfection from 3400 B.C. (which date some of our authorities identify with the life of *Ouranos*) it was only finally perfected at the hands of Lord Kelvin in 1876. If, therefore, the final constructive stages of the compass took 600 years it should surely teach us to view with complacency the apparently slow progress of its early development.

That the Phœnicians possessed some instrument that enabled them to steer a definite course through the trackless deep, irrespective of obstacles interposed by sea, coast line, or sky, seems to be incontrovertible. But if further proof were needed one might point to the statement of the prophet Ezekiel (xxvii. 8): “Thy wise men that were in thee, O Tyre, were thy pilots.” Why should the wise men of Tyre go to sea to direct the navigation of a ship on a port to

port coasting voyage where the practical experience of any captain in the marine familiar with the coast line would have been of more practical value? Of course the prophet is not referring to the coasting trade but to the more distant navigation of the Phœnicians, when a direct course thither was steered either by a stellar object, when this could be seen, or by the use of some instrument which would infallibly determine the ship's position by day or night. In navigation of this kind the wise men of Tyre, who were expert in astronomy and the use of numerals and possessed the *bactellium*, would be invaluable.

For overland travel, where the contour of the country provided an infallible means of determining direction and position, a rude map or chart of the general course pursued, when accompanied by the primitive *bactellium* or magnetic cross, was all that was necessary. This likewise was sufficient for the navigation of the eastern Mediterranean, the Persian Gulf, and the Red Sea. When, however, the Phœnicians began to venture on long voyages with valuable cargoes and large ships requiring much tacking in the open sea, the use of an instrument of finer adjustment must have been necessary, and it is from this date, which Herodotus places about 1200 B.C., when Cadiz became the port of entry for the Atlantic trade, that substantial improvements were made which constituted a distinct departure from the primitive *bactellium*. It is impossible to conceive of the phenomenal expansion that took place in Phœnician naval construction and navigation at this period, which culminated in the great ship of Tharshish, unless it is assumed that a corresponding advance had been made in the

means by which both ships and cargoes were safeguarded.

The first form in which we find what, for simplicity's sake, we will designate the Amalfi or western compass, was divided into eight points, whereas the Chinese compass of that date was divided into sixteen, and, according to some authorities, into twenty-four parts. Both compasses, however, used the same method of suspending the needle just a little below the centre of gravity with a view to increasing the sensitiveness of its movement, yet the one compass had a determined north and the other a determined south point, whereas what we may call the Aztec compass, the so-called calendar stone or *Piedra de Agua*, had the divisions carried to an infinitely finer degree, it being possible to read to a sixty-fourth part, as would be convenient, if not necessary, in navigating the tremendous stretch of ocean that lay between Torres Straits and the American continent. It is interesting, therefore, in this connection to notice that the compass, although a unit in its basic principles, seems to have been adapted in the various stages of its construction to the particular needs of the navigation on which it was employed. But the perfect instrument is only found where we would expect to find it, namely in Phœnicia's most distant colony, in that place the navigation to which would call for the finest possible adjustment.

To navigate from the Red Sea or the Persian Gulf through the Indian and Pacific Oceans to America would not have required the use of superior ships or finer seamanship than that on the Atlantic voyages, but it would certainly have demanded a

compass with a much finer degree of adjustment. The situation is therefore suggestive of the origin of the *Piedra de Agua* or calendar stone, more especially in view of the fact that we find it in a place where the plainest evidences of the presence of the Phœnician occupancy exist.

In order that the whole scope of this inquiry may be clearly understood it will now be necessary to forge again some of the links that in a remote past seem to have united these various forms of the compass in a common symbol.

The Arabs, as was indicated in an earlier chapter, were from the beginning the most intimate neighbours of the Phœnicians. Arabian tribes were their carriers and commercial correspondents in connection with the produce of the Arabian Peninsula. It is not surprising, then, that we find them in possession of a compass, which, though rude, fulfilled all their needs. The Arabs used not only the *bactellium* but the Phœnician Star in the prosecution of their journeys, and the relation of these two facts is, to say the least, very significant of the source from which their knowledge was derived. There was, moreover, no good reason why the Phœnicians should have withheld this information from the Arabs. Every reason indeed was present why they should not have withheld knowledge that would safeguard the transportation of the valuable merchandise of the central and southern markets of that country on which they were so dependent for their Mediterranean trade.

Koulak Kibdjalick, an Arabian author, who made a voyage across the Indian Ocean in A.D. 1242, describes vividly the manufacture of one of these primitive compasses under his own observation.

It incorporated all that was thought to be necessary when the bactellium was first applied to navigation, and at that early period seems to have been such common property that the mariners did not hesitate to make it known to a stranger. Says the traveller : " They took a cup of water which they sheltered from the wind, they then took a needle which they fixed on a reed or straw so as to form a cross, they then took the loadstone in their hand and turned it round for some time above the cup, moving from left to right, the needle following ; they then withdrew the loadstone, after which the needle stood still pointing north and south."

It will be evident from what has been said that the earliest statement from Arabian sources does not afford us any more satisfactory light on the origin of the compass than does the Chinese stories. And this will be more evident as we proceed, for it will be found that all the information conveyed by this Arabian author was possessed by the Icelanders 400 years before this date, a fact all the more startling because we can establish no historic connection between either China or Arabia and Iceland.

But there is very little difficulty in tracing the movements of the compass in its progress from Phœnicia to Europe. Exasperated at the assistance which the Phœnician seamen rendered to the Persians in their wars against the Greek States, Alexander the Great determined on an expedition with a view to terminating for all time the menace which this co-operation presented to his absolute sovereignty of the ancient world. He therefore set about the reduction of the Phœnician towns and the destruction of their fleets. After a relentless war he secured not only the capitulation of the main

Phœnician towns, but he took island Tyre by storm and massacred 8000 of the inhabitants.

It was, however, through the erection of Alexandria much more than the destruction of island Tyre that the purposes of the conqueror Alexander in the ruin of the Phœnician hegemony were secured, for Alexandria was speedily transferred to that proud pre-eminence as the great emporium of the trade between the East and West that had for so many centuries been the distinction of the Phœnician towns.

Shortly after the rise of Alexandria came the death of the Greek conqueror, and Tyre, which had ceased to be a city, speedily sprung into life again. But its greatness as a naval port and the central emporium for the eastern and western trade was a thing of the past. Carthage meanwhile had sprung into power, peopled with the fugitives from the Phœnician towns. These carried to their new home not only an intimate knowledge of the western Mediterranean trade, which speedily became tributary to their port, but also the ability to administer the government of Carthage and stimulate the commerce of the adjacent regions. The usual result from such a division followed. Alexandria, profiting by the disaster to Tyre and the growth of Carthage which began to monopolise the western trade, steadily grew in importance and wealth, so that the great Alexandria corn ships soon took the place of the stately ships of Tharshish.

Of all the nations engaged in the eastern Mediterranean business the Italians had the shortest and most direct voyage to make in order to reach Alexandria, so that a practical monopoly of the eastern trade fell into their hands before the end of

the thirteenth century A.D. First among the Italian cities to profit by this change were Amalfi and Pisa. It was as the result of the transference of the Tyrian trade to Alexandria and the growth of Amalfi to be an independent republic regulating the commerce between Alexandria and Italy, that the compass made its appearance in a definite commercial form.

It has been claimed that the compass was first introduced into Italy from China by Marco Polo, the Venetian traveller, in A.D. 1260. This claim is largely based on the fact that the Amalfi and Chinese compasses used the same method of suspending the needle. It does not, however, accord with other well-established historic facts, for a reference to the use of a rude compass as early as A.D. 868 is made by Hanstein in a quotation from an Icelandic historian of the eleventh century. He again is followed by Alexander Neckham, the foster brother of Richard Cœur de Lion, who speaks of the instrument not as a secret of the learned, but as a guide of the mariner. Guiot de Provence also sheds some light on the hold which the compass had taken on the public mind of his day in a poem dated A.D. 1190. Says he, "The mariner can sail to the north star without seeing it by simply following the needle floating on a straw in a basin of water after it has been touched with the magnet." Brunetto Latini, author of *Le Tresor* and Dante's tutor, refers to a visit to Roger Bacon in A.D. 1258, when the friar showed him the magnet and explained its properties. The Cardinal de Vitray, who visited Palestine during the fourth Crusade, also refers to the instrument. In chapter xci. of his *Historia Orientalis* he notes the use of the *bactellium* in almost identical terms to Guiot de Provence. He says, "The needle after

contact with the magnetic stone constantly turns to the north star which, as the axis of the firmament, remains immovable, whilst the others revolve, and hence it is essentially necessary to those who navigate the ocean"—words as explicit as they are remarkable.

From these references it should be clear that the form in which the primitive compass was familiar to all the early navigating nations was either the bactellium or loadstone or the magnetised needle.

As to the Chinese claim to the invention the documents already referred to determine absolutely nothing. The Chinese were not deep water sailors. They were river navigators, and although they seem to have cultivated the coasting trade they did not venture out of sight of land, being ignorant of the islands adjacent to their own shores. Even the large island of Formosa was unknown to them until it was discovered by the Dutch.

To sum up, we seem to have no option but to turn away from China, Arabia, Amalfi, and all other sources to Phœnicia if we would obtain any satisfactory solution of the difficulty that has for so long surrounded the origin of the compass. It should now be apparent that five things were necessarily involved in the evolution of the compass, and that at least four of these were intimately identified with the national life of Phœnicia. (1) The invention of the bactellium or suspended magnet and the observation that its vibrant, life-like movement only continued so long as the instrument remained out of the Polar direction. (2) The knowledge that the Phœnician or Pole Star was the only constant star in the firmament, and therefore supremely valuable to the traveller by land and by

sea. (3) A sea and land trade of so extensive a character that it would be impossible to conceive of it being conducted without the possession of such an instrument. (4) That the later forms of the compass point clearly to their derivation from the first rude bactellium. (5) That a connection should have been established between the Polar directive properties of the suspended bactellium and the Phœnician or Pole Star. In answering this last point as to whether there is any sufficient reason for believing that the Phœnicians did establish this connection between the Polar directive properties of the suspended magnet and the Phœnician Star which solved the great problem of navigation for all time, we at the same time settle the question of the origin of the compass.

Now it is important to remember that the invention of the bactellium and the discovery of the Pole Star are peculiarly Phœnician, no nation of antiquity but Phœnicia laying claim to either. Furthermore, it was through the discovery of this star that a means was found by which to steer the compass. It cannot, however, be supposed that Phœnician navigation can be explained by the mere fact of their having discovered the Pole Star, for centuries after the death of Ouranos the trend of their navigation was in a direction where the Pole Star could not be seen. If, therefore, it was used as a constant it must have been through the medium of such an instrument as the bactellium, which was capable of locating its position when the object to which it pointed was not in sight.

Apart therefore from a definite statement from the Phœnicians themselves as to the use to which the bactellium was applied, there can be no question

that they were not only capable of establishing but actually did establish the connection existing between the Polar directive power of the bactellium and the Phœnician Star, and so used it in their navigation. The paramount value of the compass to the Phœnicians was undoubtedly the cause of their long retention of the secret of its existence at least on the Mediterranean coasts, for there was much to be feared, as they found, from Greek expansion.

It has been said with a considerable show of learning that sea charts did not exist until the end of the thirteenth century A.D. This is clearly a mistake. It is probable that the first Italian or Pisan compass charts which cover the whole Mediterranean belong to this period. The first, of which we have any exact information, are those of P. Visconti in A.D. 1311, and these seem to have been made from data obtained in the same manner as that ascribed by Herodotus (iii. 136) to the Phœnicians, who, he says, "surveyed the coasts of Hellas, taking notes in writing." Either of these charts would, however, have been of very little value to seamen if they had not been correctly platted by a compass and the seas they represented navigated by the same instrument. So that we may fairly enough assume that all that was involved in the discovery and invention of the bactellium and compass was clearly of Phœnician origin.

Well may the prophet Ezekiel (xxviii. 3) say of such people, "Behold thou art wiser than Daniel, there is no secret that they can hide from thee."

CHAPTER V

PHŒNICIAN AND JEW IN CO-OPERATION

Phœnician desire for Eastern expansion—Trade with India—Persian Gulf Settlements the base of more distant navigation—Phœnicians and Israelites unite for commercial purposes—Friendship of Hiram, King of Tyre, and David, King of Israel—Its important results—Phœnicia's obligations to the Jewish people—Jewish influence on Phœnician religious thought—Commercial treaty of Solomon and Hiram—How it profited both countries—Fleet of Solomon and Hiram and its destination—Phœnicians as silver importers.

THE two great empires which grew up side by side on the banks of the Tigris and Euphrates were so closely united that the temporary power of the one was simply the measure of the weakness of the other, both territories possessing the same racial types, speaking the same language, and historically passing through the same changes.

Until very recent years it was customary to speak of this entire region as Assyria,¹ but later research makes it plain that the first place should have been accorded Babylonia, since, with the exception of a few centuries, Assyria seems always to have occupied a subordinate position. This at least is the Scriptural view, for in Genesis x. 10 the first foundations of Nimrod are made to include Babel and Accad in the land of Shinar. This view is further supported by the fact that the arts, science, literature, and religion of Assyria always bore the impress of Babylonia. We will not therefore impeach the veracity of history if we

¹ *Ency. Brit.*

speak of the territory so embraced as Babylonia rather than Assyria. Up to the year 1130 B.C. Babylonia was the great centre of science, art, trade, and manufacture in eastern Asia, and at the same time the seat of the dominant power of the East. In the year referred to, however, the rise to power of Tiglath Pileser I of Assyria created a period of serious unrest throughout all Syria and Mesopotamia, which resulted in Babylonia becoming for a time a dependency of Assyria. The paralysis of the Babylonian trade resulting from the widespread operation of this monarch's forces, and the rise to almost supreme power of Assyria in eastern Asia, provided an opportunity for eastern trade expansion that seems to have been eagerly seized by the Phœnicians, whose emporia on the Persian Gulf provided that wealth of imported and manufactured wares of Tyrian and Sidonian woven and dyed stuffs and the products of the Indian, Arabian, and Egyptian markets, of which Babylonia at that time stood in need.

This market was one with which the Phœnicians had been familiar from the beginning, and it was from their association with it that the inspiration of much of Phœnicia's skill in gem engraving, weaving, and dyeing was derived. While, therefore, the campaigns of Tiglath Peleser were paralysing commerce on the Syrian caravan routes, the Phœnicians, by means of their emporia on the Bahrein Islands, were able to enter Babylonia with their own products and those of the Egyptian, Arabian, and Indian markets. It is, however, scarcely possible to believe that the Phœnicians, who were notorious for their business sagacity, did not, while rejoicing in the success of their operations

in the East, recognise the precariousness of the tenure they had secured in the Babylonian markets.

The main trend of the colonial development of the Phœnicians prior to this date had been, as we have already shown, mainly in a western direction. Indeed from the situation of their home ports it could hardly be otherwise, for their true dominion never extended either to the Persian Gulf nor to the Red Sea. As soon, however, as the land trade through Asia became paralysed by reason of the unrest in Babylonia the Indian trade *via* Crocola, the modern Kurachi at the mouth of the Indus, and that of Ceylon, which found its natural outlet either at the Bahrein Islands or at Hydramaut and Yemen, received more careful attention. This territory was not only the first but remained until the later Assyrian period, the most valuable to the Phœnicians. It is reasonable, therefore, to suppose that the need of further expansion eastward with a view to securing their hold on the commerce of the territory then in their possession, was not lost sight of. Evidences of such a movement reaching back to a very remote period are not wanting, for the retention of their trade connection with the Bahrein Islands and their use of the Egyptian port of Hierapolis on the Red Sea, which must have provided a very powerful leverage on the Babylonian and Egyptian markets, make it apparent that a further development in the East, paralleling that in the West, was an object which the Phœnicians had cherished with the utmost eagerness.

It is extremely unfortunate that we know so little about the Persian Gulf settlements and the movements which took place from them. Although their possession of the ivory, ebony, pearls,

and cinnamon of India and Ceylon indicate that from a very early period the Phœnicians had an intimate acquaintance with the Deccan and the East Indian peninsulas and islands, they could not have been the sole possessors of this trade, for the Chaldæans equally with the Phœnicians had a share in it (Ezek. xxvii. 15). So far as can be gathered this business was not conducted from Phœnicia direct, but like the trade with the Cassiterides, the shores of England, and the Baltic, which was controlled by the Gadeans, seems to have been handled by the Dedanites, who inhabited the islands in the Bay of Gerrha and controlled the navigation of the Persian Gulf and the Indian seas.

That a considerable navigation existed on the Persian Gulf carried on by the Chaldæans, "whose cry is in the ships" (Isa. xliii. 14), and by the Phœnicians through their correspondents the Dedanites, there is no room to doubt. Some light on the matter is obtainable from a consideration of the nature of the commodities which were exported. These were ivory, precious stones, pearls, ebony, cinnamon, apes, and peacocks, the latter of which could only have been obtained from Java and Sumatra, the native home of the bird, or from the islands adjoining the Indian peninsula. This clearly indicates that from a very early period the extremities of the Asiatic continent to the south-east had been made tributary to the trade of the Bahrein Islands (2 Chron. ix. 21).

In view therefore of the tremendous expansion which had taken place in Phœnician commerce towards the West, it is not surprising to find traces of an effort on the part of the establishments on the Bahrein Islands to obtain some corresponding

information with respect to the resources of the further East. Emporia like these at the entrance to the Persian Gulf in the hands of so enterprising and progressive a people as the Phœnicians naturally leads us to assume a more distant navigation than the mouth of the Indus or Ceylon. The same causes which operated to bring about the western developments and draw Tharshish and the English coasts within the sphere of their commerce were equally at work here, for the Babylonians, who had so long dominated the eastern trade and the Indian and Arabian markets, were still a power to be reckoned with although suffering temporary eclipse.

It is necessary, then, to view the colonies on the Persian Gulf not as the end of Phœnician navigation to the East, but, like Gades in the west (which formed the base from which the Atlantic and Baltic trade was handled), as the starting point for more distant navigation. Fortunately, there is a mass of undigested historic data that leaves no room for doubt that the enterprises were directed to very remote regions. As the elucidation of this phase of our problem comes, however, more naturally within the scope of another branch of our inquiry, we will leave the subject at this point for the present, contenting ourselves with having called attention to the need which existed at that time for expansion in the East.

The great developments which took place in Phœnician naval construction and navigation on the Mediterranean were, as we have already shown, brought about by two causes. The first was the practically unlimited quantity of durable and easily worked timber found on the mountain chains which surrounded their new homes, and was likewise obtainable from the adjacent Cyprus, which

later became the rendezvous of the Phœnician fleets. The second was the nature of the navigation which the residence of the Phœnicians on the eastern shores of the Mediterranean imposed. More strongly built and roomier craft were necessary when their commercial operations and the establishment of their more pretentious colonies drew them westward.

But there was no special need for such naval developments on the Persian Gulf. Yet vessels of considerable tonnage seem, from the Hebrew narrative (2 Chron. viii. 18), to have been employed there. Can there be any other explanation than that these vessels were specially constructed with a view to investigating the possibilities of a further eastern expansion?

Whatever causes may have led to the system of expansion at the Bahrein Islands, there can be no doubt that this system of expansion was inaugurated in the East equally with the West, and that the developments which resulted were of so far reaching a character as to rivet the attention of the nation for some time to the exclusion of matters nearer home.

Somewhere about the middle or end of the eleventh century B.C. information of a somewhat startling character with respect to discoveries in the further East paralleling those made in Tharshish in the West seem to have reached Phœnicia through its correspondents, the Dedanites. The information was of so specific and definite a character as to create an international departure in the association of Phœnicia and Palestine in business enterprises of a nature that has probably no exact counterpart in history.

About the beginning of the eleventh century B.C.

David, the son of Jesse the Bethlehemite, had been anointed king of Israel, and with his accession to the throne the commerce of the Phœnicians began to be of the most prosperous character. Not only was the territory to the westward in their undisputed possession but that of the East speedily received a new commercial value. Phœnician commerce was at the same time strengthened by the complete pacification of Palestine owing to the subjugation of the Canaanites and Philistines, and the advantages accruing from the institution of a stable government which stimulated a mutual exchange of commodities between the two kingdoms. Phœnicia was dependent in a large measure on Palestine for its supplies of foodstuffs, its wheat and barley, its oil and wine, and Israel was equally dependent on the Phœnician markets for those manufactured articles and luxuries which the growing independence and wealth of the population naturally led them to desire.

Stimulated by these favouring conditions of mutual advantage the association between Hiram, king of Tyre, and David, king of Israel, soon came to be of the most intimate character, and resulted in a friendship which seems to have continued unimpaired throughout the varied careers of the two kings. It is true that we have no record of personal association between them, but that such existed may reasonably be assumed since we have the explicit statement of Scripture (I Kings v. 1) that Hiram was ever a lover of David, an assumption, moreover, supported by the fact that Hiram built a palace for the king of Israel in recognition of this friendship and of the obligations under which Phœnicia lay to David.

The great Syrian campaign of David did more than bring about the voluntary or forced submission to Israel of all the lesser kingdoms that lay between the Orontes and the Euphrates. It reduced Damascus, the terminus of the great overland routes through western Asia and southern and eastern Arabia to the Mediterranean to the position of a Hebrew dependency, and restored to a state of security a route which for a long period must have been viewed by the Phœnicians as most perilous. But the association with Israel resulted in even more important advantages to Phœnicia. In his campaign against the Edomites, who occupied the hill country to the east and north of the Red Sea, David raised the embargo which this commercial nation had placed on the navigation of the Red Sea towards its own ports.

With the object of these campaigns successfully accomplished a long period of profound peace ensued, advantageous alike to Phœnicia and Palestine. This period, which comprised the latter half of the reign of King David, seems to have been devoted by the Jewish king to gathering tribute from the rulers and princes of the subject provinces and in the reorganisation of the kingdom and its defences. Probably, too, it was devoted to cementing the friendship with the great commercial state on the sea coast and to consultations with Hiram about plans for the improvement of the Israelitish capital and the erection of a magnificent temple, the construction of which David was instructed by God to entrust to his son Solomon (1 Chron. xxviii. 3).

Whatever the financial condition of Palestine may have been under the rule of the judges of King Saul, there is evidence that at this period a new and

startling departure from the primitive simplicity of the national life took place and continued throughout the latter years of King David's reign. At his death the Jewish monarch bequeathed to his son Solomon not only the most minute instructions relative to the carrying out of the plans for the erection of a temple to Jehovah, but enormous sums of money. According to 1 Chron. xxii. 14 the actual treasure provided by King David for the building of the temple amounted to one hundred thousand talents of gold and a thousand thousand talents of silver, a sum calculated by Dr. Hastings, editor of the *Dictionary of the Bible*, to be equivalent to £1,025,000,000 sterling, but by Lever and Prideaux to amount to £833,000,000 sterling.

That Hiram was intimately familiar with David's plans there can be no question, for in the final design of the temple there was observable a considerable departure from the primitive simplicity of the Tabernacle structure of a clearly Phœnician origin. Moreover, immediately after the accession of Solomon we find Hiram taking the initiative and "sending his servants unto Solomon, for he had heard that they had anointed him king in the room of his father, for Hiram was ever a lover of David" (1 Kings v. 1). That this embassy conveyed much more than mere congratulations on the accession of a neighbouring prince is certain. All the probabilities indeed favour the view that Solomon and Hiram had many times met at the summer palace in Lebanon constructed for David by the Tyrian king (2 Sam. v. 11), where the captivating personality of the young prince could not fail, apart from the fact that he was the favourite son of the great Hebrew monarch, to have won the

kindly recognition of the Phœnician king. At all events Solomon's reply to the Phœnician embassy was of such a familiar character as to warrant the belief that a definite understanding on the subject of the erection of the temple existed between David and Hiram, and that, relying on the strength of a friendship cemented by many years of intimate association, Hiram sought, and that not unadvisedly, a continuance of the good understanding that had been of such advantage to Phœnicia.

As a means to this end Hiram's embassy seems to have made overtures to the young monarch to place at his disposal the resources of Phœnicia for the furtherance of the projects which had been entrusted to Solomon's care by his father. And this proposal must have been warmly welcomed by Solomon, for his people at that time were devoid of the talent necessary to the successful prosecution of those great enterprises which had been entrusted to his care.

The beautification of Jerusalem and the erection of the national temple, it must be remembered, were not private enterprises. David had for at least one half of his reign been in the habit of levying the enormous tax of 10 per cent. on the produce of the nation, and we may safely assume, from the loyalty of the king to his religious convictions, that the tax had a specific relation to the purpose for which it was ultimately used. The kingly estate in Palestine during this formative period, even when closely associated with the Phœnician court and probably enough taking colour from it, could never have demanded for its own support such a drain on the resources of the people as this tax represented. On the other hand, the advantages accruing to

Phœnicia through the final pacification of the territory contiguous to its own and the opening of the Red Sea ports for the successful control of the Yemen or Ophir trade were benefits which did not revert to Hiram alone but to Phœnicia at large. Both time and circumstance, therefore, were pre-eminently favourable to the furtherance of these developments sought by the two neighbouring kingdoms and their respective rulers. The overtures of Hiram on behalf of the Phœnician people to consummate the promises evidently made to David during his lifetime, were not only such as good statecraft would have suggested, but showed that both king and people recognised the great obligation under which they rested to the house of David and to the Jewish people. It was none the less a beautiful and touching tribute of affection from Hiram to the young king, of whose father he had ever been a warm friend.

In order to understand clearly the sequel to this exchange of courtesies it will be necessary again to emphasize the overwhelming obligations under which Phœnicia at this period stood to the Jewish kingdom, for the sequel of these overtures presented a startling innovation in the national career of the Jews. During no portion of its history but this did Palestine exhibit the traits of an aggressively territorial mercantile nation. That a trade may have existed between the Jews and the carrying tribes of the adjacent deserts with a view to securing myrrh and frankincense for the temple services is extremely probable, but this trade during the earlier period could only have been of the most limited character, probably amounting to nothing more than an exchange of commodities. The whole

system of government among the Hebrews, no less than their traditions and religion, set them apart at the beginning of their career as a peculiar and isolated people (Deut. xiv. 2). The overtures of Hiram to Solomon could not fail, therefore, to have been viewed with grave suspicion by the priesthood, if the affection existing between the Tyrian and the Jewish monarchs had not had its root in a religious sympathy of a wholly different character from that which could have been possible at any later date, for between the pure and exalted worship of Jehovah and that of Baal there was a whole world of difference.

It is supposed, and with good reason, that the personal influence of David over Hiram may have been a factor of no small importance in producing a modification in the trend of Phœnician religious thought and practice. Certainly the intensely religious nature of Hiram shows in these communications with the Jewish king strong leanings towards the early cult of the Semites, which in itself may account for the magnificent contribution of one hundred and twenty talents of gold or about £40,000 sterling, which Hiram made for the adornment of the temple at Jerusalem (1 Kings ix. 14), as well as the complacent acceptance of the situation by the Jewish priesthood. Were we in possession of a detailed and authoritative statement regarding the progress of Phœnician religious thought, it would probably be found that the spiritual conception of the Deity received a peculiar emphasis at this period. Originally the Phœnicians, like the Jews, were monotheists, and possessed a lofty estimate of the power which created and ruled the universe, whom they called El-great, Baal-lord, Bel-samin, lord of heaven. But this

belief was soon overlaid and corrupted by means of the tribal totemism which was always a marked feature of the Semitic belief, with the result that the different names of God passed by degrees into the nomenclature of different gods. Polytheism and religious symbolism then took the place of the primitive monotheism. Be that as it may, it requires no special sagacity to realise that Phœnicia, while dominated by so masterful a sovereign as Hiram, who was in affectionate sympathy with the pre-eminently religious monotheist,—at that time master of all Syria,—may have thrown the whole weight of its influence towards bringing into life again the earlier and purer ideas of the national religious cult.

The tendency to religious symbolism was not confined to Phœnicia. Traces of it are clearly visible in Hebrew literature, where the Lord God is represented as a sun and shield (Psalms lxxxiv. 11). This view receives still further emphasis in Numbers xxi. 8, where incense is offered to the brazen serpent of Moses (2 Kings xviii. 4). It is probable, therefore, that the primitive conceptions of the Hebrews, which in some measure survived in their later and purer belief, may not have differed in any marked degree from those of the Phœnicians (whose principal symbols were the sun and the serpent) when their common ancestors occupied the plains that lay between the Tigris and Euphrates.

Whether the commercial treaty which arose out of this *rapprochement* between Solomon and Hiram was in the first place international in its scope is uncertain, even though we view it as resulting in the erection of the fortified cities of Petra, Gezer, Baalath, and Tadmor or Palmyra in the wilderness

(1 Kings ix. 16 ff.), in which the merchandise collected by the various caravans might be stored for further distribution. Indeed all the probabilities indicate that the partnership partook of the nature of a monopoly conducted for the private advantage of the two sovereigns.

The annual income of Solomon is stated in 1 Kings x. 14 and 2 Chron. ix. 13 to have amounted to six hundred and sixty-six talents of gold or a little more than £4,000,000 sterling. But, besides payments in money, he received payments in kind both from his own subjects and from the subject princes, so that his income from all sources was not less than six or eight million pounds sterling per annum, a sum which would represent a very literal fulfilment of the promise (1 Kings iii. 13), "I have also given thee that which thou hast not asked, both riches and honour; so that there shall not be any among the kings like unto thee all thy days."

The chief place among the Phœnician cities which from the beginning seems to have been occupied by Sidon was transferred to Tyre about 1250 B.C., when Sidon was besieged and taken by the Philistine king of Ascalon. It is an open question whether the commercial causes to which we have already referred did not operate to bring about the change without the intervention of this extraneous cause. The commercial ascendancy of the city took place about 1250 B.C., when the results of the western expansion and the opening of Tharshish began to be felt. From that date Tyre continued in the ascendant for a period of about 400 years when, owing to the defection and flight of Dido, Carthage was founded by the fugitives from Tyre.

There seems to be no room for question as to this being the correct view of the situation, for it was at this period that the advantages to be derived from an extension of their colonial system seems to have been most clearly recognised by the Phœnicians. It was then also that her merchants began to realise the uncertainty of their hold on the great centres of trade on the eastern Mediterranean. Fortunately this did not occur before the period when Phœnician expansion to the westward had become so profitable that the nation could, without serious inconvenience to its trade, transfer its activities to regions where friction and competition were non-existent.

Phœnicia, at a time of unparalleled commercial expansion, could very well afford to consider how it could best utilise to its own advantage the growing resources of the new kingdom in Palestine. Hiram had in some measure already paved the way to this more intimate association by erecting for David a palace in keeping with his kingly dignity. But this was not sufficient. It was also necessary to cement a union between the two nations, and to this Hiram devoted his energies.

Phœnicia was a purely commercial state, and was wholly dependent on a mercenary force for its defence. Israel, on the other hand, constantly liable to attack on every hand, possessed an army on foot of 240,000 men, who served David without expense to the State (1 Chron. xxviii. 1). When, however, war broke out during David's reign 288,000 men and 12,000 officers, or an effective fighting force of 300,000 men, were available at a moment's notice. But the ambition of Solomon does not seem to have been satisfied with even this provision, for, with the extension of the boundaries

of the kingdom and Jewish participation in the eastern commerce, arrangements were made for the erection of a number of fortified cities and outposts which necessitated a large increase in the standing army. We have no specific statement in the Scriptures as to the additions to Solomon's forces during his reign, but we are probably not very far off the mark if, during the period of greatest expansion, we apply to it the figures recorded with respect to the reign of Jehoshaphat, who did not extend the boundaries of the Solomonic empire. According to 2 Chron. xvii. 12 the army of Jehoshaphat amounted to one million one hundred and eighty thousand men besides the garrisons in the fenced cities.

The magnanimity of Hiram and of the Phœnician people towards the Jewish king and his subjects is therefore easily understood, although the situation does not in any way militate against the sentiments that may have actuated Hiram as an individual in the proposals he made to Solomon. So far as history sheds light on the subject, the Phœnicians, while under the protection of Israel, were never called on to pay tribute, so that their proposals with respect to the erection of the temple and a participation in commercial enterprises setting out from parts under Jewish jurisdiction was, to say the least, statesmanlike. Moreover, these proposals could not fail to be of great advantage to both peoples. Solomon needed a temple and palaces, and desired the enlargement and beautification of his capital, objects which Hebrew skill and resources could not provide. Hiram, on the other hand, required protection for Phœnician commerce, ports for his shipping on the Red Sea, and a granary from which supplies for the support of the teeming

populations of the Phœnician towns could be drawn. Out of this common need and the desire and ability to meet it arose these favouring conditions which led to a conjunction of the forces of Phœnicia and Palestine culminating in those joint expeditions which led to such far-reaching results.

The initiative towards this desirable end seems to have been taken by Hiram. According to Eusebius (*præp.* Evan. x. 99) a marriage was contracted between Solomon and a daughter of Hiram as the most satisfactory way of cementing the union. This was followed later by a marriage with the daughter of Pharaoh Vapres (*præp.* Evan. ii. 30), who is said to have sent as a marriage portion 80,000 workmen to assist in the building of the temple. The time was peculiarly opportune for the prosecution of this enterprise. A profound peace, which the Jewish nation then enjoyed as the result of the aggressive policy of David, stimulated the industries of the entire population. Abundant labour was available. The tribes beyond the Jordan had become rich by plundering the Hagarines, and found a ready market for their cattle. The agricultural tribes again enjoyed a soil and climate peculiarly fitted to produce in richest abundance all that was most desirable of semi-tropical products. For exportation the Jews possessed wheat and barley, wine, oil, wool, hides, and other raw products all extremely valuable to the Phœnicians.

The commercial *rapprochement* between Phœnicia and Israel, from a purely business point of view, was therefore desirable in the highest degree. It tended to keep the peace between two neighbouring states mutually dependent on each other at a

time when cupidity provided an excellent reason for ruthless war.

In order to understand clearly how the services of the enormous army of labourers were utilised in the building of the temple it will be necessary to obtain some light regarding the peculiar characteristics of Phœnician architecture. "The foundation of Phœnician architecture," says Renan,¹ "is the carved rock, not the column as with the Greeks. The wall replaces the carved rock without entirely losing its character. Nothing conduces to the belief that the Phœnicians ever made use of the keyed vault.

"The principle of monolithism which ruled the Phœnician and Syrian art even after it had adapted much from the Greek is very contrary to the art of the Hellenes. Grecian architecture starts from the principle of the division of the stone into small pieces and avows this principle boldly. Never did the Greeks derive from Pentelicus blocks of a size at all comparable to those of Baalbek and Egypt. They saw no advantage in them. On the contrary, they saw that with masses of this kind, which are to be used entire, the architect has his hands tied; the material, instead of being subordinate to the design of the edifice, runs counter to the design."

The Syrian and Phœnician architects, and even those of Egypt, were at the command of their material. The stone did not submit to the shape which the artist would have impressed upon it; it continued to be with them mere rock.

From the accounts which have come down to us it seems safe to conclude that the material employed in the construction of the Phœnician build-

¹ *Mission de Phenice*, p. 822.

ings themselves was wood, and that mainly the cedar and fir from Lebanon. Stone as a rule was only employed in the substructions of the edifices. These substructions were, nevertheless, like those of Palmyra and especially Baalbek, of remarkable size, some of the stones weighing as much as a hundred tons. It is, however, to the peculiar feature of wooden superstructures in Phœnician architecture that we must look for an explanation of the dearth of remains of ancient buildings in Phœnicia, for, naturally, these wooden buildings would entirely disappear in the course of a few centuries.

The time consumed in the building of the Great Temple, we learn from 1 Kings vi. 38, was seven years, and from 1 Kings vii. 1 we gather that thirteen years were occupied in the erection of the summer palace in Lebanon. From 1 Kings (iv. 20 and x. 21), however, we gather some information that on the face of it seems even more wonderful than the erection of the temple and palace, namely, that while this enormous drain was sapping the resources of the kingdom, "Judah and Israel were many as the sand which is by the sea in multitude, eating and drinking and making merry." "And all the vessels of the house of the forest of Lebanon were of pure gold; none were of silver: it was nothing accounted of in the days of Solomon." In the 27th verse of the tenth chapter we read that during this period Solomon "made silver to be in Jerusalem as stones," whereupon the writer, as if appreciating the incongruity of the facts related, offers what is intended to be a satisfactory explanation, which, curiously enough, makes no reference to the enormous amount of treasure left by David, but simply to the fact that the workmen were paid from a

wholly different source, "for the king had at sea a navy of Tharshish with the navy of Hiram: once in three years came the navy of Tharshish, bringing gold, and silver, ivory, and apes, and peacocks" (1 Kings x. 22).

We have already shown that Phœnician enterprise had from a very remote period opened a way by land over the western side of Asia, thus placing the nation in communication with the Babylonians and Arabians. The great point to which their operations in the East were directed, apart from the Bahrein Islands, was undoubtedly Babylon. The route thither was through a desert where the traders were subject to raids from the people who shortly before had been brought into subjection to Israel. As a participation in the Phœnician trade was apparently the intention of Solomon, he either built or rebuilt Baalath and Tadmor or Palmyra, which were fortunately situated on the route, and garrisoned them with a view to safeguarding his operations (1 Kings ix. 18).

Whatever access the Phœnicians possessed by that route to the Red Sea and the Indian Ocean prior to this date must have been by favour of the Egyptians, whose port of Hieropolis they are known to have used. Through the conquest of the Edomites, the Jews, however, had come into possession of the two ports of Eloth and Eziongeber on the Gulf of Ælana, and knowing how valuable they would be to the Phœnicians they turned them over to them under Jewish protection. The gift must have been invaluable since it gave the Phœnicians access to the Red Sea without the necessity for undesirable Egyptian espionage. At the same time it placed in their hands facilities for the con-

struction of such vessels as were necessary for the conduct of the Yemen and Indian Ocean trade, and that of the Persian Gulf.

Our story up to this point is simple. The cordiality of the relations existing between Hiram and Solomon and the nature of the obligations under which the Phœnician nation rested to the house of David for the tranquillising of Syria, on which so largely depended the successful prosecution of its trade with the further South and East as well as for the settled state of Palestine, providing a safe route to Egypt, led Hiram to make overtures to Solomon for a joint participation in certain expeditions in pursuit of the produce of the new territory discovered shortly before, and at the same time for securing those precious wares of Ophir which were deemed essential to the completion and adornment of the temple then in course of construction: for the house that Solomon built was great, for great was his God above all gods (2 Chron. ii. 5).

To the prosecution of these enterprises the two kings contributed both ships and money. The question of transportation had first to be considered, for the expeditions were not voyages of discovery demanding vessels of light draft with only accommodation for the crews and the necessary provisions. It was accordingly decided to begin the construction of a new double fleet of seven ships (*Nat. Races*, iii. 270) of the largest type. Those were to be modelled after the pattern of the large armed ships of Tharshish engaged in the trade between Tyre and the Atlantic ports of Spain, which were capable of weathering any storm and carrying large and valuable cargoes. As neither

Phœnician or Jewish jurisdiction extended to the Persian Gulf it was decided to use the two ports of Eloth and Eziongeber on the Red Sea as dock-yards for the construction of the two fleets. Solomon, taking the initiative, "made a navy of Tharshish at Eziongeber, which is beside Eloth, on the shore of the Red Sea, in the land of Edom. And Hiram sent in the navy his servants, shipmen that had knowledge of the sea, with the servants of Solomon. And they came to Ophir, and fetched from thence gold four hundred and twenty talents, and brought it to King Solomon" (1 Kings ix. 28). "For the king's ships went to Tharshish with the servants of Hiram: every three years once came the ships of Tharshish bringing gold, and silver, ivory, and apes, and peacocks" (2 Chron. ix. 21). "And the servants also of Hiram and the servants of Solomon, which brought gold from Ophir, brought algum trees and precious stones" (2 Chron. ix. 10).

These accounts, it will be observed, differ somewhat both with respect to the name of the destination and the constituents of the cargoes. As a result some writers have volunteered the opinion that the co-partnership extended to the Mediterranean trade, but of this no evidence can be obtained except such as may be derived from the name of the type of craft employed in the expeditions or that applied to the region for which the ships set out.

It is quite apparent that the expeditions did not proceed to Spain, the western Tharshish, from a Mediterranean port, for by reference to 2 Chronicles xx. 36 it will be seen that the fleet of Jehoshaphat which, it is expressly stated, sailed for this same Tharshish, sailed likewise from the port of Eziongeber on the Red Sea.

That the Ophir which supplied in such abundance the gold, ivory, apes, and peacocks of the text (1 Kings x. 22) was that of India and South Arabia there can be no question. When, however, we ask where was that Ophir which could be reached from Eziongeber that provided silver in such abundance that it became a drug in the Jewish markets and as stones in the streets of Jerusalem (1 Kings x. 27), we are at once confronted by a problem that will require very careful handling.

“Those who are acquainted with Asia,” says Heeren in his *Historical Research*, “must be surprised at the quantity of silver which existed there as early as the times of the Persian monarchy. The tribute was collected in silver except in the case of the Ethiopians and Indians, for silver, though not so abundant as gold, was used for purposes of decoration. At the same time silver mines were of much rarer occurrence in Asia than those of gold, and the mountain districts where the metal was found in greatest abundance is the western district of the Caucasus or the country of the Chalybees, which is celebrated on this account by the author of the *Iliad*, ii. 856, ‘From Abybi remote whence comes the silver ore.’ The inhabitants of this district have at all times engaged in mining, and many ages after, when the Genoese were masters of the Black Sea, they also opened silver mines of which traces still exist.

“Silver is also found in Siberia and in China or South Asia, but the large annual importations of the metal from Europe in consequence of the high price it bore in the East sufficiently prove that it was found there in small quantities. We may therefore conclude with certainty that the greater portion of the silver possessed of old by the Asiatic

nations was imported, and there can be no question that the Phœnicians were the channel of importation."

Testimony such as this from so reliable an authority is extremely valuable. The Spanish peninsula, being in this case clearly out of the question when considered in connection with the staple of the cargoes of these expeditions of Solomon and Hiram, it will be necessary to carry our investigation further afield if we would discover that Ophir which produced this precious metal in such abundance. As, however, the elucidation of so complex a problem will necessarily occupy much space it will be prudent to devote a chapter exclusively to it.

CHAPTER VI

THE WHEREABOUTS OF OPHIR

The Ophir of the Hebrews—Route pursued by Solomon and Hiram's fleet—Evidence afforded by crew and cargo—Testimony of the Scythians and Thracians—Evidences of Phœnician civilisation on American mainland—Early civilisation of Central America not indigenous—Votanic tradition and its significance—Nomenclature of Pacific Islands as a clue—Polynesians of Eastern Mediterranean origin.

THOUGH much has been written about the region called Ophir, which was the ultimate destination of the expeditions of Hiram and Solomon, the amount of positive information is extremely small. In this chapter an endeavour will be made to treat the subject somewhat fully from an entirely new point of view that offers, we believe, a complete solution of the enigma.

The first historic reference to the name Ophir is found in Genesis x. 29, which reads as follows: "And Ophir and Havilah and Jobab; all these were sons of Joktan. And their dwelling was from Mesha as thou goest unto Sephar a mount of the east." This information is supplemented by Josephus vi. 4, who says: "Now Joktan one of the sons of Heber had these sons, Ehnodad, Jaliph, Asermoth, Jera, Adoram, Aziel, Desla, Abermail, Sabeus, *Ophir*, Emilat, and Jobab, these inhabited from Cophenand Indian River and parts adjoining it."

With this specific information respecting the location of the territory inhabited by the descendants of Joktan, there is no difficulty in ascertaining

the position occupied by the region with which the name Ophir in the Scripture narrative was originally identified, for by reference to any atlas of ancient geography it will be seen that the Cophen has its rise in Bactriana and joins the river Indus just south of Pencelaotis in India. The original settlement going by that name must clearly, therefore, have embraced the territory lying between Bactriana and the Indian Ocean.

From the Jewish point of view, with which we are at present more particularly concerned, the name Ophir may safely be viewed not as a particular place but as the general name for the rich southern countries lying on the African, Arabian, and Indian coasts which found their common centre of commercial exchange in the provinces of Hydramaut and Yemen in Southern Arabia. This view is by no means an arbitrary one. It will be found to have no small support in a consideration of what was said in earlier chapters on the channels of commerce in connection with the caravan trade of the Arabian Peninsula.

The distance from Yemen to Petra, the northern emporium for Arabian staples from which the caravans debouched to Jerusalem and Tyre, was 1260 geographical miles, and as the daily rate of travelling for a caravan was 18 miles the entire journey occupied seventy days. If allowance is made for the journey from Petra to Tyre or Jerusalem with the necessary stoppages the return journey from Tyre or Jerusalem to Yemen could comfortably be made by caravan in from eight to nine months (*Hist. Res.*, i. 356).

The other route from South Arabia ran from Hydramaut, the adjoining province to Yemen, by

a direct course through the desert to Gerrha on the north-west coast of the Persian Gulf. This was only a distance of 700 miles, and could be covered at the same rate of travel in forty days, but as Gerrha was much farther distant from Tyre or Jerusalem than Petra, the total length of the journey from either of the South Arabian provinces was to some extent equalised, and the journey by either route in consequence easily accomplished in the time mentioned.

It should, therefore, be clear that it was not with a view to a better control of the Yemen-Ophir trade that these astute monarchs, Solomon and Hiram, created the costly fleet of large armed ships of Tharshish, for, according to the Scripture narrative (2 Chron. ix. 21), the fastest time in which the vessels could make the return journey was three years.

Ophir, then, as far as it relates to India, Arabia, or Ethiopia is clearly out of the question. This view receives the strongest confirmative support in the significant fact that, according to the Scripture narrative (2 Chron. ix. 20, 21), silver was a part of the return cargoes which, as has been shown, could not have been obtained in Southern Asia in such quantities as to account for the extraordinary reversal of the values of the precious metal as obtained in Arabia.

According to Agatharchides (*cf.* Bochart, p. 139) silver was so scarce in the Arabian Peninsula that it was assessed at ten times the value of gold, which was there in such abundance that the Midianites, one of the carrying tribes that had grown exceedingly wealthy, were accustomed to make of gold their own articles of personal adornment, even their

collars, and the chains of their camels were also made of gold (Judges viii. 26).

Silver again during the Solomonic period became as common as stones in Jerusalem. Clearly, then, Ophir of the Scripture narrative must be looked for in the farther East, and in a territory that was not only capable of supplying silver in practically unlimited quantities, but of affording conclusive evidence of occupancy by the Jews and Phœnicians.

While we do not possess the same specific information with respect to the naval operations of the Phœnicians on the eastern that we do on the western side, it by no means follows that movements equal in importance were not in operation on the Red Sea and Persian Gulf.

The control of the South Arabian markets could not have been the sole object of the expeditions of Hiram and Solomon, for if three years were necessarily consumed in these short coasting voyages of not more than 2500 miles from Eziongeber to Yemen and back, as this view suggests (2 Chron. ix. 21), the cost of the ships, the expense of working them, interest on capital invested over so long a period, and the necessary deterioration of the cargoes in such a climate would have much more than counterbalanced any advantage gained by sea transport. Moreover, the silver, on which the Scripture narrative lays great emphasis, could not have been obtained there.

On the other hand, it seems scarcely possible that expeditions to so near a region as Yemen could have awakened such enthusiasm in their prosecution as to have taken Solomon and his court (in all probability accompanied by Hiram) from the security of their capital into the heart of a dis-

affected country to witness the departure of the ships and their crews (2 Chron. viii. 17).

Although no information seems to have reached the outside world relative to the proposed destination of the fleets, there can be no doubt that Solomon and Hiram and those in command of the expeditions were in possession of information of a very definite character, both with respect to the destination and the route thither (1 Kings ix. 27). But this was clearly no part of their policy to divulge. If, therefore, we desire a more intimate knowledge respecting the destination of these fleets we must look for it to some other and less direct source.

Some light can without doubt be obtained by a consideration of the constituents of the cargoes carried by the ships on the return voyages, likewise by a consideration of the class and nationality of the men who manned the great ships of Tharshish employed on these longer voyages, for, as we have already shown, Phœnicia could never have supplied a tithe of the population necessary to the equipment of their mercantile, manufacturing, and colonial enterprises. The presence, therefore, of this composite nationality may enable us to trace the route pursued and the destination arrived at with even more definiteness than is possible by any other method.

That portion of the Scythian nation which certainly hired itself out as a mercenary force and entered the service of the Phœnicians belonged to the royal tribe who thought it derogatory to be employed either in mercantile or agricultural pursuits. According to Herodotus (iv. 5) the nation claimed to be autochthonous and to be descended

from Targitaus, who lived 1500 B.C. on the banks of the Dneiper. This account of their origin can scarcely be received at its face value.

Nevertheless it is difficult to place the Scythians in the category of nations, for the description of them given by Hippocrates has led many writers to suppose that they were of Mongolian extraction. But this supposition cannot be reconciled with the fact that all the Scythian deities had an apparent Aryan origin, their language likewise supporting the view that they were Aryans. Their highest deity was Tabiti, the goddess of the hearth. Next in importance came Papeus, the god of heaven, with his wife, Apia, the earth, and after these Apollo, Venus, Urania, Hercules, and Mars (Her. iv. 59). It is advisable that the names of these deities be remembered, because they play a very important part in enabling us to trace the course pursued by the ships composing the expeditions to the farther East.

The whole Scythian nation was peculiarly tenacious of its customs, and studiously avoided employing foreign peoples. They not only killed two of their kings for the adoption of foreign customs but, on this account, erased their names from the tablets of the nation. Some of the Scythian customs were of the most extraordinary character, and provide an infallible means of tracing the course of these expeditions not only in the Pacific but on the American Continent.

The Scythians always fought on horseback. In the use of the bow and arrow they were the most expert nation of antiquity. The foeman drank the blood of the first enemy he slew in battle, believing that the prowess of his adversary was in this way

transferred to himself. It was obligatory, too, that the warrior should present the heads of the slain to the king, otherwise he would not be permitted to share in the booty. The heads thus secured were scalped by making a circular incision round the ears and shaking the skin loose from the skull; and he was accounted the most valiant warrior who had the greatest number of these scalps hanging from his saddle.

Among the Issedones, another branch of the nation, when a man's father died the relations brought cattle, and, having slaughtered them, they cut up the flesh of the dead parent and, having mingled all together, they prepared a banquet at which the skull, which meantime had been cleansed and gilded, presided, under the supposition that it was the habitation of the spirit of the deceased parent. Henceforth it was preserved as a sacred memorial, annual sacrifices being performed to it (Her. iv. 26).

The Scythians did not bathe the body in water, but when they desired to become clean had recourse to a unique substitute, which was the undoubted origin of the Turkish bath. Throughout the region occupied by them there grew a species of hemp of the nettle tribe similar to that from which the eastern hasheesh is extracted, and this they employed in the production of their vapour bath. Having thoroughly washed and dried the head, they set up three pieces of wood leaning against each other in the form of a triangle, round which were wrapped woollen cloths closely joined together. They then placed in the centre of the space so enclosed a vessel into which red-hot stones were thrown, then, taking in their hands some seed of the hemp

plant, they crept under the woollen cloths, and, scattering the seed upon the hot stones, at once produced a steam bath and a hasheesh intoxication whose intensity was regulated by the number of stones and the quantity of seed used.

Another populous section of the nation, the Budini, painted the body a deep blue and red, especially in war, and the Neuri, who seem clearly enough from their practice of totemism to have been of Aryan extraction, had the reputation among the Greeks of being magicians, because once a year they assumed the form of the wolf, their tribal token, after which they returned to their normal state (Her. iv. 105). The Androphaghi, who were Nomads and spoke a language peculiar to themselves, were, like the Lystrigians of Sicily, actual cannibals, and feasted on any hapless wretch whom they could get into their power (Her. iv. 106).

In spite, however, of these racial peculiarities, the Scythians as a people were held in the highest esteem among the ancients. They practised a species of literal communism, holding all things in common, even their wives and children, these being made a common charge on the community who cared for their welfare. By Homer and Strabo they were described as the justest of mankind, being more sincere, frugal, and self-denying in their habits than any other of the ancient peoples. They had likewise invincible courage.

After the death of Scylas, who seems to have been slain shortly before the visit of Herodotus to Obja (Her. iv. 78), a great deterioration seems to have taken place among the Scythians in consequence of their association with the outside world, Phœnicia, on account of the wide range of its

operations, apparently being the predominating cause, for large numbers of Scythians appear to have been employed on the Phœnician fleets either in the capacity of marines or seamen.

There has been considerable discussion as to whether the Scythians were a small or a numerous people, but the testimony both of Herodotus (i. 104) and Strabo (B. I., ii. 28) is quite explicit. During many centuries they seem indeed to have been one of the most powerful nations in Southern Europe. They invaded Media, where they gained a great victory, after which they overran Asia, which they held in complete subjection for twenty-eight years, from 636 to 606 B.C.

According to the Scythian tradition (Her. iv. 10) their kings were descended from Scythes, the son of Hercules and Queen Hylea. As the story of this association provides another valuable link in the chain of evidence connecting the Eastern Mediterranean with the Pacific we will briefly refer to it.

According to this story Hercules, after the restoration to him of his lost mares by Queen Hylæa, desired to return to Erythraia, his native land, and Hylæa, at last consenting, asked whether, when their three sons were grown up, she should establish them in the land over which she ruled or send them to him. Hercules is said to have replied: "When you see the children arrived at the age of men you can make no mistake if you follow this course. Whoever is able to gird himself with this girdle and bend the bow of Hercules retain him as an inhabitant of this country, but whoever is unable to fulfil these tasks dismiss him." Then, having drawn out the bow as a test of strength, he gave it to her, likewise the belt. When the young men had

arrived at maturity Hylæa enforced what Hercules had enjoined. Two of her sons, Agathrysis and Gelonis, being unable to accomplish the feat, were driven out of the country, but Scythes, having proved himself equal to the task, remained and succeeded his mother. The succeeding kings of the Scythians were thus descended from Scythes the son of Hercules and Hylæa (Her. iv. 10).

The Thracians, who occupied the territory adjoining the Scythians, were not only of the same Indo-European stock but likewise accustomed to hire themselves out as mercenaries. They, too, seem to have drifted into the employment of the Phœnicians as seamen and marines. Famous as swordsmen and javelin throwers, the Thracians were one of the greatest nations in Southern Europe. According to Herodotus (v. 3), if they had been governed by one man and had at any time acted in concert they would have been invincible. Like the Scythians they had some peculiar customs, which are noteworthy because of their having been found in regions very remote from Thracia.

Among the Thracians tattooing was regarded as a mark of noble birth. Again, in the equipment of the mercenary forces the use of the sling was a prominent feature. No fewer than two thousand slingmen were employed by Xerxes in his campaigns. Flint arrow heads were another distinguishing feature, these being used not only in the chase but in war.

Before proceeding further there is still one point to be noted which will be found of great value in arriving at a final elucidation of our problem; we refer to the almost universal practice of naming new abodes after former homes or religious beliefs and experiences. We lay great stress on the evi-

dence of this custom, for it practically affords an outline of the route pursued by the ships of Hiram and Solomon.

The enterprise of the Phœnicians during the period 1050 B.C. was so extraordinary that it seems scarcely possible to overrate it. Tyre was then in the ascendant and Phœnicia at the summit of its glory, the business establishments of the nation stretching not only from the shores of Norway and Britain to Tyre but likewise from the Red Sea to India and the Golden Chersonese.

What need was there, then, for the creation of a new and double fleet of vessels of the largest tonnage and the Tharshish model to pursue a course or engage in a trade already prosecuted in a satisfactory manner by caravan or ship? Why employ the wise men of Tyre in the navigation of a course with which they were already intimately familiar?

If we take up a map of the world we will probably receive some valuable light as to the course pursued and the destination of the fleets of Hiram and Solomon. By drawing a line from the Ælantic Gulf of the Red Sea to the Straits of Babelmandeb, and from that point passing it round the coast of Arabia into the Persian Gulf, thence continuing it along the west side to the Bahrein Islands to the mouth of the Euphrates, and thence down the east side of India to Ceylon and the Golden Chersonese, we have before us the well-authenticated track of Phœnician sea commerce. But if we continue the line to Java and Sumatra we will have reached the native home of the peacock. Proceeding still farther by Torres Straits we pass into the Pacific, to the Caroline Islands, Tonga, Samoa, Rappa, and Tahiti, thence to Easter Island, connecting Tahiti

with the coasts of America at Mexico and Peru. By so doing we will have located a series of islands and points on the American mainland which contain not only substructions of the Phœnician type but traditions for the presence of which no satisfactory explanation has so far been offered. Moreover, these give evidence of occupancy by a civilised people of that curiously composite type which was the very remarkable feature of the personnel of the expeditions of Hiram and Solomon.

If we select the more northern route, connecting Samoa and Tahiti with the American Continent, and enter Mexico from the Pacific side, we are immediately confronted by evidence of an even more startling nature. Here are to be seen buildings, of a character so ancient that the date of their erection cannot be even approximately arrived at, yet in which the predominant features are wholly Phœnician. Here may be seen the wall referred to by Renan, likewise the composite decoration containing unmistakable traces of Greek, Egyptian, and Assyrian types, and overlaid by that serpent symbolism which was peculiar to Phœnicia. Of all these we have an impressive reminder in the first foundations at Nachan, whose designation was clearly enough derived from Nashon, the family name of Solomon, the principal partner in these joint expeditions.

After even a cursory examination of the evidence afforded by these substructions the question may well be asked, What navigating power of antiquity but Phœnicia was capable of making such a voyage as the discovery of America involved, or possessed such a commercial and manufacturing association with Greece, Egypt, and Assyria as would induce

it in other lands and among new surroundings to reproduce these artistic types ?

It has been already shown that for long centuries the Phœnicians were the only people who had a continuous and uninterrupted traffic with the large centres of civilisation in the East, in consequence of which they carried to the shores and islands of the Mediterranean, that there were subject to their commercial enterprise, types that were not peculiarly Phœnician, but the riper fruits of the older civilisations. We would scarcely expect to find much similarity between Greek and Egyptian art for the reason that the intercourse between the two countries, especially during the Greek formative period, was too casual. But from our knowledge of the very intimate character of the association that existed between both of these nations and Babylonia and Phœnicia we are warranted in expecting very clear evidence of the influence of all three on Phœnician remains, especially when we remember that the manufacturers of Phœnicia were mainly employed through long centuries in catering for these markets.

Now it is very significant of the source of the inspiration which was at work in the production of the types found in early American art and architecture, that we find present in these remains traces of that composite design that we would naturally expect to find in Phœnician remains where the restrictions of a local market and a peculiar need were withdrawn and the artist and artisan had a free hand to follow their own peculiar bias. Nor will we ever be able to account for the conglomerate types found in the civilisation of the New World unless we can account for the presence of Phœnicia

there, because there was no other nation around whose national life there revolved those conditions out of which such types as are found there could have been evolved. To suppose that such a combination of old world units as are found on the Central American ruins are simply the result of the evolution of an autochthonic people who never were in touch with the old world centres of civilisation is, on the face of it, absurd.

It is possible that the Old World may originally have been peopled from the New ; but the facts in our possession point in a wholly different direction. It is to the Asiatic continent that we must look for such evidence as exists for the origin of the civilisation that from a very remote period inhabited the central portions of America. Humboldt has pointed out (*Exam. Crit.* ii. 68) that the monuments, methods of computing time, systems of cosmogony, and many other myths of America offer striking analogies with the ideas of Eastern Asia, analogies which indicate an ancient communication and are not simply the result of that uniform condition in which all nations are found in the dawn of civilisation. Prescott's (*Mexico*, iii. 418) conclusions are equally to the point. "The coincidences," he says, "are sufficiently strong to authorise a belief that the civilisation of Anahuac (the territory in which Nachan is situated) was in some degree influenced by that of Eastern Asia, and, secondly, that the discrepancies are of such a nature as to carry back this communication to a very early period, a period so remote that the foreign influence has been too feeble to interfere materially with what may be regarded in its essential features as an indigenous civilisation."

"Even after making every allowance," says

Gallatin (*Amer. Eth. Soc. Trans.*, i. 179), "I cannot see any possible reason that should have prevented those who, after the dispersion of mankind, moved towards the east and north-east, from having reached the extremities of Asia and passed over to America within five hundred years after the Flood. However small may have been the number of these first emigrants, an equal number of years would have been more than sufficient to occupy in their own way every part of America." "Indeed," remarks Naidullæ, "between the men of the New World and those of the Old there exists no essential physical difference, the unity of the human race standing out as the one great law dominating the history of humanity."

In view of these facts it is somewhat startling to find that the written records of the early civilised nations of the American nation explicitly and emphatically declare that their civilisation was not indigenous but imported and of foreign origin. The Abbé Brasseur de Bourbourg, an authority second to no other on the early history of the American civilised states, says that he found in the native documents referring to the Votanic period, translated by him, that two strangers named Igh and Imox, who hold the first place in the Izendal calendar, came to the continent by ship from some foreign land, and that Igh founded the first colony.

These expeditions of Igh and Imox, preceding those of Votan, explain satisfactorily the source through which the startling intelligence of the new discoveries in the farther East reached the Persian Gulf colonies. They also explain the transmission of the news to Tyre with a view to securing vessels of larger tonnage for the prosecution of the enter-

prises which resulted in the commercial partnership between Solomon and Hiram, and the building of the two fleets at Eziongeber with a view to the exploitation of the territory.

That this is no merely gratuitous assumption will be made evident from a consideration of additional facts which we will present later, for whatever value we may attach to the details of these traditions transmitted to us by the native records, there can be no doubt that they established two general propositions, namely, that there existed in the remote past in the Usumacinta region of Central America a great and powerful empire of which Nachan—the city of serpents—was the capital, and, second, that there was a general belief among the residents of that kingdom that its beginnings and greatness were due to a hero or demi-god called Votan, who, following in the footsteps of Igh and Imox, claimed to have come from Vitim or Chittim, and that he arrived on the Pacific coasts accompanied by seven ships about 1000 B.C., or just at the time when the joint expeditions of Hiram and Solomon proceeded from the head of the Red Sea to Ophir, a destination that so far has not been satisfactorily determined, although sufficiently distant to necessitate a voyage of three years.

It will be prudent, therefore, to keep these important facts prominently before us and at the same time to remember that while the expeditions were under Jewish and Phœnician direction, they carried crews and marine force of composite nationality, for the strongest evidence of the presence of these expeditions over any portion of the route laid down, either in the Pacific Islands or on the American Continent, will be found not in the traces of one

surviving type so much as in the presence of a composite civilisation revealing the racial characteristics produced by an amalgamation of these various peoples.

It would be contrary to the manifest teaching of history to suppose that four such nations as those of the Jews, Phœnicians, Scythians, and Thracians, who at that period dominated Western Asia and Eastern Europe, nations who possessed such pronouncedly racial characteristics, could even for a short space of time conjointly occupy any virgin territory without leaving behind them ineffaceable traces of their presence. Much, therefore, may reasonably be expected from a careful examination of the evidences still remaining of their presence in these regions.

That some very remarkable developments had taken place in the farther East during this period whose value to Phœnicia was great in consequence of the loss of the territory on the Eastern Mediterranean, through Greek aggression, is evident, for the Phœnicians had just then made overtures to the monarch of the adjoining kingdom of Israel for joint commercial expeditions into that region. The inducements must indeed have been of an extraordinary character since it led the Jews to participate in enterprises contrary to all their antecedents.

At the same time it must be recollected that in thus projecting these expeditions the Phœnicians in very large measure only took more definite possession of a previously well-established trade that for centuries had been successfully handled by other means. So far as the Arabian and Persian Gulf, the Indian Ocean, and the Golden Chersonese were concerned, it was not a voyage of discovery.

That the expeditions pushed into regions much more distant than these is, however, apparent from the three years consumed in the double voyage. Yet it is evident that their course must have been in the general direction of the Farther East, for the peacocks could only have come from Java or Sumatra. Pushing at once, therefore, beyond Torres Straits into the Pacific and proceeding to Samoa, we will receive some information of a rather startling character with respect to the course of these expeditions.

The native name of these islands is not Samoa, but Samo, no other pronunciation of the word ever being used by the natives of the group from the time of their discovery by Bougainville. Now this was the native name of Samos of the Sporades on the coasts of Asia Minor (Pliny, v. 37), which was one of the Phœnician colonies. The name Samo, according to the same authority, means a mountain height by the sea, and was, therefore, indicative of the natural features of the island. Again, there is a remarkable analogy, the name applying with equal aptness to the Samo of the Pacific, which are regularly denominated "high islands" by modern navigators to distinguish them from the low islands or coral atols by which they are surrounded for hundreds of miles in every direction.

Again the principal island in the Samoan group is named Upola, which it will be seen is the equivalent of the Scythian deity Apollo, and the chief town on the island Apia, which was the name of the Scythian deity, the Earth (Her. iv. 59), and likewise the name of the Peloponnesus (Strabo, i. 493) before the advent of Pelops, from which the Phœnicians shortly before had been driven by the Hellenic invasion.

If we now leave Samoa and proceed to the Society group, which was apparently the next stopping place of the fleets, we are at once confronted by evidence equally significant.

The name usually written Tahiti is the same as Tabiti, the Scythian Vista (Her. iv. 59). The native pronunciation of the word makes this quite clear, for if we cut out or make mute the disputable consonants " b " and " h " which distinguish the words it will be found that both names spell and sound Taiti, which, curiously enough, is the only form in which the name is pronounced by the natives of the Society group to-day, and is the same as that reported by Bougainville on his discovery of them (*Ency. Brit.*, xxiii. 22). The first and principal settlement erected on this group of islands, situated like Apia at the main opening of the lagoon, is Papeete, which is only a slightly modified form of the name of the Scythian Jupiter or father, Papeus; while separated from Papeete by a narrow strait lies the island of Mona, so named from a portion of the Greek Peloponnesus or Apia.

From a review of these data it would seem that the Phœnicians pursued in the Pacific the same policy as was followed in the Mediterranean by establishing stations or colonies for the ships to call at on these long voyages. Moreover, it seems clear that these settlements were placed under the care of reliable superintendents or governors, drawn from the Scythians of the marine corps, for practically all the names to which we have called attention were clearly drawn from this source. Apart from their association with the Phœnicians as marines on their ships (Her. vii. 96) there are no historic

facts that will explain the presence of the Scythians in the heart of the Pacific.

Here, then, in these Pacific Islands was found people clearly of Eastern Mediterranean origin whose skill in building and handling their primitive craft won from Bougainville, on his discovery of them, the name "les îles des navigateurs"—a people so skilful in naval affairs that the unanimous voice of the scientific world declares that they penetrated to all the islands of the Pacific from Hawaii to New Zealand and from Tonga to Tahiti; a people whose numeric skill, astronomical knowledge, cosmogony, and religious system were plainly Phœnician. Their traditions of the creation of the first man and his wife from the red earth, of the Flood, and of the sun being commanded to stand still, along with their practices, circumcision, and test of virginity, were clearly Jewish. Their tattooing and spear and javelin throwing were as clearly Thracian, as their nomenclature of islands and towns, their cannibalism, their use of the bow and arrow as a test of strength, and their worship of the skulls of ancestors were peculiarly Scythian. Moreover, their implements of war and their festivals and games, as a means of training for the exigencies of war, were the same as those of the nations of the Eastern Mediterranean. It will, therefore, be seen that we are in possession of a series of facts and a clue leading to a solution of our enigma. The presence in combination of four such races in mid-Pacific as Jew, Phœnician, Scythian, and Thracian cannot be accounted for unless through the instrumentality of the historic expeditions of Hiram and Solomon.

CHAPTER VII

HEBREW, PHŒNICIAN, SCYTHIAN, AND THRACIAN IN THE PACIFIC

Samoan traditions, beliefs, and usages—Their Phœnicio-Hebraic source
—Phœnician source of the Tahitian religious cult.

DESCRIBING the physical characteristics of the Phœnician people in his scholarly work, *The Story of Phœnicia*, Mr. George Rawlinson says: "They were of a complexion intermediate between the pale faces of the north and the swart inhabitants of the south, having abundant hair, sometimes curly but never woolly. They were about the medium height and had features not unlike the Aryans or Caucasians, but sometimes less refined and regular, the nose broadish and inclined to be hooked, the lips a little too full, and the frames inclined to stoutness and massiveness, while both in form and feature they resembled the Jews, who were their near neighbours, and not infrequently inter-married with them."

It would be impossible to spend even a short time in Samoa without coming to realise how apt such a description is when applied not only to the Samoans but to all the more intimately related portions of the Polynesian race. Each day's observation of the people and their habits and customs would only deepen the conviction of the observer that he was in contact with a race whose traditions,

beliefs, and usages could only have been derived from Phœnicio-Jewish sources.

The only point in Mr. Rawlinson's delineation in which there is any weakness is the nose; and this is easily accounted for by a peculiar custom which prevails universally in the islands of the Central Pacific of manipulating the cartilages while the child is still very young, so that the disfigurement of the "canoe nose," as they call it, of the Semitic may be removed. This custom is so universal that when omitted, even after long centuries of isolation, as is sometimes done in the case of the long sickness or death of a mother, the retention of the nasal feature of the Semitic invariably earns for the individual so disfigured the name of "Native Jew."

Marriage, too, is hedged about with restrictions which clearly are either derived from the Jewish law of consanguinity or defined according to Phœnician, or, perhaps, to speak more correctly, Aryan Totemism. Again, the intensely spiritual ideas of the Deity possessed by the islanders and the marked presence of the Totemic institutions afford further evidence of a connection that at some remote period must have existed between the regions of the Central Pacific and the Eastern Mediterranean.

As would naturally be expected from the very long period that has elapsed since the date of the first settlements many other types of people are found in the Pacific; this, however, does not weaken but rather strengthens the weight of such evidence as has survived of the presence of the composite nationality of the fleets of Hiram and Solomon found in this region. There can be no question that a high type of civilisation of apparently identical

origin prevailed at some possibly remote period throughout Central Polynesia. No one who is familiar with the Samoan language, comprised of only sixteen letters, which are apparently the same as carried by Cadmus into Greece (Her. v. 88), is acquainted with the native usages or the stone remains to be seen on Rappa, Easter, Ascension, Gilbert, Marshall, Samoan, Hawaiian, and Society Islands, can for a moment doubt its origin.

The relation of Strongs Island to this aspect of our research is peculiarly interesting. At the entrance to the main harbour are to be seen a quadrangular tower and some stone-lined canals, while on the adjacent island of Lele may be observed cyclopean walls formed of very large and well-squared stones. These walls are twelve feet thick, and in them are vaults and secret passages, all the work of a stone-building people. The startling feature about this island, however, is not the masonry so much as a native tradition, which says "That an ancient city once stood round this harbour which was occupied by a powerful people called Anut, who had large vessels in which they made long voyages, many moons being required in their prosecution."

Turning eastward and entering Mexico at the line already indicated we are at once confronted by the presence of the composite nationality intensified a thousandfold, for there we find not only the evidence of a stone-building people, but architectural remains which bear these conglomerate decorations so peculiar to the bent of the Phœnician genius. Here also are to be found some essential portions of the Jewish Levitical code, the system of regal succession in use among the Jews at the time of

Solomon, the nomadic life, steam bathing, scalping, and cannibalism of the Scythians, the tattooing, and the use of buckskins and moccasins, and the lasso common to the Thracians (Her. vii. 75).

On the bronzes, also, are to be seen the winged disc of Egypt and Phœnicia. More amazing still is the calendar stone or *Piedra de Agua*, or water stone, preserved in the walls of the cathedral in the ancient and capital city of Mexico. As we have before referred to this memorial nothing more need be said, save that one may see at a glance that it is a national monument of a seafaring people in the form of a mariner's compass, to the invention or discovery of which they clearly enough seem to have attributed the discovery of the New World.

We have already shown that of all the islands constituting the group called Sporades that lie off the coasts of Asia Minor, Samos, throughout antiquity, was most famous. Under the enlightened though tyrannical rule of Polycrates it became the chief of all the Hellenic cities, and was adorned with some of the greatest public works ever executed by the Greeks.

Samos was likewise the great naval emporium of the Ionic fleet and the port from which Colacus sailed on his memorable voyage in the first Greek ship that penetrated beyond the pillars of Hercules to the Phœnician port of Gades.

The transference of the name Samos or Samo of the Sporades from the Mediterranean to the Pacific, with the very unusual pronunciation of the word, was no mere coincidence but a simple and natural evolution of certain well-determined historic events. In the long journey from Asiatic coasts to those of the New World a harbour to which the ships could

run in times of stress, or at which repairs could be made, or water and provisions secured, would be absolutely necessary. In the Samoan group, then, on the direct line of these voyages they discovered a place affording the best natural harbours in the Pacific. So in this sea, studded in every direction with verdant palm and crowned coral atols, these hardy pioneers of civilisation found a group of islands whose lofty summits, densely wooded crests, verdant foot-hills, and commodious natural harbours reminded them of home. The perfumed zephyrs that blew over Samoa were sweet as those of "Araby the Blest." Its wooded shores were washed by seas that rivalled in azure beauty the tideless Aegean, and must have carried them in memory to the Mediterranean, to Tyre, to Chittim, to Samos. Need there be wonder, then, that some of those disembarking here to form the nucleus of a colony where the fleets might call on their outward or their homeward journey, should name it after the fair home on the Aegean from which they had been so lately severed ?

The navigation of the Atlantic in the latitudes parallel to Gades and the pillars of Hercules is of a wholly different character from that of the Pacific from Torres Straits to Samoa and the Pacific shores of the American Continent. The Atlantic is a stormy sea, offering no shelter, whereas the Pacific, especially on the route of these voyages, is nowhere so destitute of islands as to prevent it from being regarded, like the Indian Ocean, as an inhabited sea, a view, curiously enough, that is clearly in consonance with the American Votanic tradition, which correctly and beautifully describes this route across the Pacific as the "island-strewn laguna de

terminos," or island-strewn lake at the end of the world (*Nat. Races*, iii. 45).

This description, moreover, makes it clear that the tradition was founded on positive information supplied by those who were familiar with the navigation of the Pacific and with the islands which studded its surface on the journey from Eziongeber to Mexico. Reference has already been made to Strabo's remarks relative to the Sidonian-Phœnician skill in the use of arithmetic and astronomy in their commerce and in navigating their ships by night. In his view this set them apart from all nations of the ancient world. Now it is a rather interesting fact that it is through the possession of this knowledge that we are able to forge two of the links of the chain of evidence that connects the Polynesians with the Eastern Mediterranean.

Mr. William Ellis, for many years the representative of the London Missionary Society in the Society Islands, writing of the state of society as he found it there on his arrival, says in his painstaking and scholarly work, *Polynesian Research*, (vol. ii. 422), "The acquaintance of the Society Islanders with, and their extensive use of, numbers is surprising. They did not reckon by forties after the manner of the Sandwich Islanders, but by a declined method of calculation. They had no higher numbers than millions; they could, however, by combinations, enumerate with facility tens, hundreds, thousands, tens of thousands, or hundreds of thousands of millions. The precision, regularity, and extent of their numbers has often astonished me, and how a people having, comparatively speaking, but little necessity to use calculation and being destitute of a knowledge of figures,

should have originated and matured such a system is in itself wonderful, and appears more than any other fact to favour the opinion that the islands were peopled from a country whose inhabitants were highly civilised."

The natives of most of these islands, adults and children alike, appear to be remarkably fond of figures and calculation, and receive the elements of arithmetic with great facility and seeming delight, and many of their numerals are precisely the same as those used by the people of the Asiatic Islands and also on the remote and populous island of Madagascar.

This testimony, coming from an independent and reliable source before the islands were invaded by the outside world, is extremely valuable, because it provides such information as is absolutely necessary to the solution of our enigma. Mr. Ellis's only object in reporting his observations, was a desire to communicate to Christian communities who had undertaken the financial responsibility of this great work of uplifting the dark places of the earth, correct information with respect to the actual conditions that confronted those to whom the active work was entrusted. It is necessary to make this clear, as we shall have to rely much on the report of Mr. Ellis in our further investigation.

The astronomical correspondence between the Society Islands and the Eastern Mediterranean is even more striking. To the ancients, but especially to the seafaring Phœnicians, some method of determining the season of safe navigation was imperative, and this, as we have shown, they secured by means of their astronomical observations. The

group of stars known to the Greeks as the Pleiades was found to furnish just such an infallible guide as they required; the date of their rising and setting agreeing respectively with the beginning and end of the season during which navigation was found to be safe. It is more than probable that the first observation of the value of this group was made by the Phœnicians, and that through them valuable astronomical and navigating knowledge was communicated to the Egyptians and Jews. Josephus, in one of his few references to astronomical phenomena, employs the setting of the Pleiades to mark a date, and the reference in Job xxxviii. 31: "Canst thou bind the cluster of the Pleiades or loose the bands of Orion?" has undoubted reference to the rise and overflow of the Nile, which was heralded each year by the heliacal rising of Sirius on the day of the summer solstice. Mr. Ellis, in writing of the astronomical knowledge of the Society Islanders, calls particular attention to the similarity of the names of some of the stars and groups and the use to which this knowledge was applied in the early centres of civilisation in the old world and Polynesia, as indicating an early communication between these two widely separated regions of the world. He says (vol. iii. 167): "The natives of the islands were also accustomed in some degree to notice the appearance and position of the stars especially at sea. These were their only guides when steering their fragile barks across the deep. When setting out on a voyage some particular star or constellation was selected as their guide during the night. This they called their *aveia*, and by this name they now designate the compass, because it answers the same purpose. The Pleiades were a favourite *aveia*, and

by this we now steered on the present voyage during the night."

Interesting as the connection is, it does not by any means exhaust the evidence available for proof of a Mediterranean origin for the Polynesian. Polynesians possessed two traditions of exclusively Jewish and Phœnician origin associated with the sun. These are recorded by Mr. Ellis as a portion of the Tahitean folklore, which are so closely identical in form with those of the sources from which they were drawn, that it is impossible to conceive of them reaching the islands of Central Polynesia except at first hand from Phœnicia and Palestine; and this the more so that one of them refers to a historic event of the first importance in Jewish history which took place only 400 years before the date of these expeditions.

In Joshua x. 12-14 it is written: "And Joshua said in the sight of Israel, Sun, stand thou still upon Gibeon; and thou Moon, in the valley of Ajalon. And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies. Is not this written in the book of Jasher? So the sun stood still in the midst of heaven, and hasted not to go down about a whole day. And there was no day like that before or after it, that the Lord hearkened unto the voice of a man; for the Lord fought for Israel."

The Society Island tradition which corresponds to this is, as might be expected after the lapse of nearly thirty centuries, much garbled; still, in its essential features, its identity with the Jewish original is most striking.

"One of the singular traditions respecting the sun," says Mr. Ellis (vol. iii. 170), "deserves special

attention from the analogy which it presents to a fact recorded in Jewish history. It is related that Mani, an ancient priest or chieftain, was building a marae or temple which it was necessary to finish before the close of day, but perceiving that the sun was declining and that it was likely to sink before it was finished, he seized it by its rays and bound them by a cord to the marae or an adjacent tree and then proceeded with his work till the marae was completed, the sun remaining stationary during the whole period." Mr. Ellis adds: "I refrain from all comment on the singular tradition, which was almost universally received over the islands." The other tradition is even more remarkable in that it is clearly identified with the presence of both Jew and Phœnician in the Pacific and is reproduced with more exactness. The Jewish account is found in Genesis i. 16 and reads as follows: "And God made two great lights, the greater to rule the day and the lesser to rule by night, he made stars also." This view differed wholly from that of the Phœnicians among whom Baal was represented as the son of El and the practical ruler of the world during the current cycle with a solar aspect being actually identified with the physical sun. Among the Phœnicians the myth took a peculiar form, for from the pillars of Hercules the world was supposed to end. The sun, plunging nightly into the ocean flood with a hissing sound, was believed to pass by some subterranean passage to the place of his rising in the East.

If we compare these two traditions with that of the Polynesians it will be seen that there is no possible room for doubt as to the sources from which they were received. Mr. Ellis says (vol. iii. 170):

“With respect to the sun, which they formerly called Ra and more recently Mahoma, some of the traditions state that it was the offspring of the gods and was an animated being, others that it was made by the supreme deity Taaroa. The latter supposed it to be a substance that resembled fire. The people imagined that it sank every evening into the sea and passed by some subterranean passage from west to east, where it rose again from the sea in the morning. In some of the islands the expression for the setting sun is the falling of the sun into the sea. They say that some people in Bora-bora, the most westerly island in the group, once heard the hissing sound occasioned by its plunging into the ocean.”

These correspondences with the Jewish and Phœnician traditions are sufficiently startling to arrest the attention of the most casual inquirer and make it clear that it will be profitable to prosecute the study still further, for the observation and knowledge of the heavenly bodies among the Polynesians was not confined to the sun and Pleiades; they steered by the Southern Cross as well as the Pleiades.

According to the Scripture narrative the method of computing time among the Jews was by generations. For example Genesis v. says: “This is the book of the generation of Adam,” and Genesis x. 1, “These are the generations of Shem.” Among the Phœnicians at the date of these expeditions time was measured by the Solar Year, and the seasons of agriculture and navigation, as we have shown, by the rising and setting of the Pleiades, so that it is interesting to find not one but both of these systems in operation in the Society Islands where they were

first discovered. Says Mr. Ellis : " One method of computing time in the Society Islands was by Uis or generations, but the most general mode of calculation was by the year which they called Matahiti, and which consisted of twelve or thirteen lunar months, by the tan or Matarii season or half-year, by the month of thirty days or by the day and night having a distinct name for each month and being in general agreement about the length of the year. Another method commenced the year at the month of Apaapa or the middle of May and gave different names to several of the months. The year was divided into two seasons of Mata-rii or Pleiades. The first was called Mata-rii-i-nia or Pleiades above. It commenced when, in the evening, the stars appeared on or near the horizon, and the half-year during which immediately after sunset they were seen above the horizon was called Mata-rii-i-nia. The other season commenced when at sunset the stars were invisible and continued until at that hour they appeared above the horizon. This season they called Mata-rii-i-raro or the Pleiades above."

Let us now pass from the consideration of the evidence which the astronomical knowledge of the Society Islanders affords of the presence of the Phœnician-Jewish expeditions in the Pacific and see what evidence can be obtained of the presence of the Scythians and Thracians who formed a portion of the command and crews of the ships of Hiram and Solomon.

While tattooing was strictly forbidden to the Jews, it was common in the Mediterranean basin, especially among the Illyrians of the Adriatic and the Thracians. That it was a Canaanitish and Phœnician custom is more than probable from the

injunctions against the practice given by Moses to the Jews before their entry into the promised land.

Dr. George Turner, for over twenty years the representative of the London Missionary Society in Samoa, and the author of *Nineteen Years in Polynesia* and *Samoa*, two of the most valuable works existing on the state of native society in that part of the Pacific when it was first discovered by Europeans, makes what is undoubtedly the right connection with the custom of tattooing as he found it on his arrival in Samoa when he says: "Herodotus found among the Thracians that the barbarians could be exceedingly foppish, for among them the man that was not tattooed was not respected. It was the same in Samoa, for until a man was tattooed he was considered in his minority. He could not think of marriage, and was constantly exposed to taunt and ridicule as being poor and of low birth and having no right to speak in the society of men. When, however, he was tattooed he passed into his majority and was entitled to all the respect and privilege accorded to those of mature years. When, therefore, a youth reached the age of sixteen he and his friends were all anxiety that he should be tattooed, and he was on the outlook for the tattooing of some young chief with whom he might unite, six or a dozen young men being tattooed at one time, and for these four or five tattooers were employed."

The process was a long and painful one, and the instruments employed were usually made from a piece of human bone, the "os ilium," "oblong in shape and about an inch and a half long by two inches broad, being cut on one side like a small tooth comb and the other fastened to a piece of

cane, so that it looked like a small serrated adze. In using the instrument they dipped it into a mixture of candle nut ashes and matter, and, tapping it with a small wooden mallet, it sank into the skin, and in this, as among the Thracians, punctured the whole surface over which the tattooing extended."

In Samoa the greater part of the body from the waist down to the knee was thus covered, variegated here and there with regular strips of the untattooed skin which, when well oiled, made the natives appear in the distance as if they wore black silk knee breeches, from which it will be seen that the tattooing was of Thracian and not of Phœnician origin.

Tattooing attained its highest development as a decorative art among the Marquesan islanders and the Maoris of New Zealand. The practice, however, both from the Totemic and the Thracian point of view, was almost universal on the American Continent from Alaska to Mexico, and was performed as in Samoa by regular professors of the art, submission to the process being demanded from the young men as a sign of bravery (*Nat. Races*, ii. 733).

In the practice of embalming we have another valuable means of establishing a correspondence between the Eastern Mediterranean and the Pacific. Among the Egyptians this practice was carried to great perfection, not only human remains but those of cats, crocodiles, and other sacred animals being subjected to embalming. This was thought to indicate a high degree of civilisation, yet it is found to have prevailed among the Polynesians (*Poly. Res.*, i. 44), among the ancient Toltecs of Mexico, and, to some extent, in the entire Pacific states of the Continent (*Nat. Races*, ii. 603).

Equally remarkable is the evidence showing that the cannibalism of the Polynesians and the early American races was derived from the Mediterranean. The Læstrygians of Sicily were cannibals. According to Strabo, iv. 5, to eat human flesh was a Scythian custom. Herodotus gives a description of it among the tribes (the Issedones, iv. 26) who ate their own parents after sacrificing them, and the Androphagi (iv. 106), who, like the Læstrygians of Sicily, seem to have been indifferent who the victim was. Like tattooing and embalming this horrible practice was not confined to the insular Pacific, but extended to the Pacific slopes of the American Continent. The Aztecs especially being notorious, like the Scythians, for their cannibalism.

There are other evidences of the presence of the Scythians in the insular Pacific and America of a most remarkable kind, to which it is desirable to call attention. But before doing so it will be advisable to revert for a little to the subject of the language of the Polynesians, for, viewed in connection with the other correspondences, it seems as if further research in this direction would lead to far-reaching results.

Herodotus (i. 142), in speaking of the dialectical differences to be found in the language used by the peoples who occupied the territory from which the Phœnicians were drawn by the Ionic Greeks, makes this significant statement: "These people do not all use the same language, but have four varieties of dialect. Miletus, the first of these, lay to the south, next came Myus and Prine, which were situated in Caria and used the same dialect. Ephesus, Colophon, Lebidus, Teos, Phocia, Clazomene, cities in Lydia, did not agree with the language

spoken in Miletus, Myus, and Prine, but spoke a dialect common to themselves. There still remained three Ionian cities, two of which inhabited islands, Samos and Chios, and one, Erythræ, situated on the Continent. The Chians and Erythrenes used the same dialect, *but the inhabitants of Samos had one peculiar to themselves.*"

Here is the crux of the situation, for the probabilities are that by dovetailing this passage with another from the same author (v. 58) some valuable information will be obtained as to the source from which the sixteen letters of the Polynesian language were derived. Says Herodotus: "When the Phœnicians who came with Cadmus settled in this country they introduced the sixteen letters of the Phœnician alphabet, which, in my opinion, were not before known in Greece. At first they used the characters which all the Phœnicians made use of, but afterward, in process of time, *together with the sound they also changed the shape of the letters*, and as at that time the Ionian Greeks inhabited the greater part of the country round about them, they, having learned these letters from the Phœnicians, changed them in a slight manner and made use of them, and in making use of them designated them Phœnician, as justice required they should, since it was the Phœnicians who introduced them into Greece."

Let us now return to a consideration of such further evidence of the presence of the Scythian in the Pacific. To one of these it is advisable to call particular attention, for the usage is so significant of the presence of that people "who were all equestrian archers" (Her. iv. 46). "The King and his Consort," says Mr. Ellis, "always appeared in public

seated on men's shoulders, and travelled in this manner wherever they journeyed by land. The bearers were generally stout athletic men, and their persons, in consequence of the office to which they were appointed, were considered sacred. Their majesties thus elevated seemed to sit at ease and in security, holding slightly by the head while their feet hung down on the breasts of the bearers and were clasped in his arms. They usually travelled at a tolerably rapid pace, even as much as six miles within an hour being covered. A number of these bearers accompanied the royal pair, and when the men who carried their majesties grew fatigued they were relieved by others. The change from the shoulders of one bearer to another was accomplished with great dispatch, but as the King and his Consort were forbidden on these occasions to allow their feet to touch the ground when they required to change, the men on whose shoulders they were sitting made only a temporary halt, and the bearer who was appointed to take them forward on their journey stepped in front and, placing his hands on his thighs, bent his head slightly forward, and when he had assumed this position the royal riders, with apparently but little effort, vaulted over the head of the man on whose neck they had been riding, and, alighting on the shoulders of his successor in office, proceeded on the journey with the slightest possible detention.

“ The seat occupied by the rider was probably not the most comfortable, yet it indicated the highest dignity of the nation, none but the King and Queen and occasionally their nearest relatives being permitted the distinction it exhibited, and there is no doubt that it was viewed by them with com-

placency and satisfaction as a means of commanding the respect of their subjects whenever they left their hereditary districts. It is said that King Pomare the Second was so possessed by this idea that he once remarked that he was a greater man than King George of England, because he only rode a horse while he rode a man " (vol. iii. 102).

Still further evidence of the Scythians in Tahiti is found in a custom to which Herodotus (iv. 26) called attention as in use among the Issedones, *i.e.* the preserving of the skulls of deceased ancestors and of treating them as sacred memorials. The custom was equally in use among the Tahitians (*Pol. Res.*, iii. 272), the skulls of ancestors being preserved with the greatest care as the dwelling-places of the spirits of the deceased who at death became the guardian divinities of the family. Indeed on the occasion of the marriage of any member of the family these were brought to the Maræ, or temple, and placed on a piece of white cloth before the contracting parties as witnesses to the assumption of the marriage vows.

Again the usage of the Carian women (Her. i. 146) of Samos, who established a law and imposed it on themselves with an oath, and transmitted it to their daughters, that they would never eat with their husbands because they had killed their fathers, husbands, and children, and forced them to become their wives was, to some extent, even in spite of the adoption of Christianity, still operative in Samoa and Tahiti. This custom has by some writers been referred to as derived from the institutes of Menu, which forbade a Brahmin to eat with his wife (*Pol. Res.*, i. 116), but the attempted allocation of the custom to this source is clearly in error, for

we can establish no connection between India and the Samoan and Society Islands, whereas we have no difficulty, as we have shown, in making such a connection between Samos of the Sporades and these islands.

From these correspondences established between the strange customs of the Eastern Mediterranean and the Pacific, which are only a few of many available, it will be seen that a very intimate and continuous intercourse must have existed between these distant regions for a considerable period, resulting in the importing of a mixed population which made permanent settlements. There is to be found among the islands of the Pacific not only Thracian tattooing and Scythian cannibalism, equestrianism, archery, and skull worship, but sling-men, boxers, wrestlers, javelin-throwers, spearmen, the whole being overshadowed by the prevailing influence of Jewish religious tradition and Phœnician naval skill, scientific knowledge, and religious practice.

In order that the case may, however, be presented in a manner that will remove all possible doubt, let us look for a little at some of the early Polynesian myths, which show how impossible it is for us rationally to refer the origin of the race to any other source than that to which we have assigned it.

A tradition very generally received in Tahiti when it was first discovered was that the first human pair were made by the supreme deity Taaroa. They said that after Taaroa had formed the world he created man out of the aræa, or red earth, which was also the food of man until bread fruit was created. The tradition goes on to say that one day Taaroa

called for the man by name, and when he came he caused him to fall asleep, and that while he slept he took out one of his *ivi*, or bones, and with it made a woman, whom he gave to man to be his wife, and that this pair became the progenitors of the human race.

Now it is interesting to observe that this account of the creation of the first human pair appeared to the first of the missionaries arriving there to be so clearly derived from the Mosaic sources that they were at their wits' end to know how they came by it.

The singular fact about the tradition is, however, that it explicitly states that the name of the woman was *Ivi*, which is pronounced among them as if written *Eve*.

Mr. Ellis, speaking of the singularity of these facts, says: "It always appeared to me as a mere recital of the Mosaic account of Creation which they had learned from some European source, and I have never placed any reliance on it, although they have repeatedly told me that it was a tradition among them before any foreigners arrived." He then adds: "Should, however, more careful and minute inquiry confirm the truth of the declaration and prove that the account was in existence among them prior to their intercourse with Europeans, it will be one of the most remarkable oral traditions of the human race known."

Fortunately enough we are not left in doubt as to the reliability of the native tradition, for Mr. Ellis is corroborated by Dr. George Turner, whom we have already quoted. He says in his *Samoa*: "The natives of Fakaofu or Bowditch Island say that man had his origin in a small stone or Fakaofu. The stone became changed into a man

called Vase-fanu. After a time he thought of making a woman. This he did by collecting a quantity of earth and forming an earth model on the ground. He made a head, body, and legs of earth, then took out a rib from his left side and threw it inside the earth model, when suddenly the earth became alive and up started a woman on her feet. He called her Ivi (Eve) or rib. He took her to be his wife and from them sprang the race of men."

Dr. Turner, who lived in Central Polynesia before the arrival of Europeans, had no hesitation in accepting the tradition as of native origin, and says: "To this day the children play on the sands making men, body, hands, feet and face and holes for eyes."

Now a comparison of the Tahitian and Bowditch Island traditions with the Hebrew narrative will make it clear that these traditions reached the Pacific Islands from no other source than that of the Jews, for in Genesis ii. we read: "And the Lord God formed man out of the dust of the ground and breathed into his nostrils the breath of life and man became a living soul. And the Lord God caused a deep sleep to fall on Adam, and he slept, and he took one of his ribs and closed up the flesh instead thereof, and the rib which the Lord God had taken from man, made he a woman and brought her unto the man, and Adam said: This is now bone of my bone and flesh of my flesh, she shall be called Woman because she was taken from Man." "And Adam called his wife's name Eve because she was the mother of all living" (Gen. iii. 20).

Having called attention to the evidences which still exist of the presence of Thracian, Scythian,

and Jew in the Pacific, it will be profitable now to look at the evidence which the region affords of its occupancy by the Phœnicians, for after all it is upon it rather than upon that supporting the presence of any other of the nations that we must rely for the final results of our investigation. Why? Because, as had been shown, Phœnicia was the only navigating power of that period, and the only nation capable of making either this voyage or including such a combination of races in the undertaking. It is well, therefore, to bear in mind that while the presence of these other various peoples at such a distance from the Mediterranean basin is interesting, indeed invaluable, as a means of proving the correctness of our induction, still the existence of Jew, Scythian, and Thracian could not in themselves solve our problem unless it could be shown, in the clearest possible manner, that after all Jew, Scythian, and Thracian were only a minor premise in the major proportion of the presence of Phœnicia in the Pacific. The Phœnicians were a pre-eminently religious people, and in this respect, indeed, only represented the general trend of the thought of the Semitic race at large. The temple in each community was the common centre round which the life of the people revolved. The piety of the inhabitants manifested itself, as a rule, in the abundant and costly gifts with which they adorned the temple. Much of this statement is equally true of the Jews and the Egyptians, but, as it is necessary in a study of this nature to avoid generalities, we will only emphasize those points in which the Phœnicians were not in general agreement with their neighbours, so that there may be no possibility of error in our recognition of the characteristics of

the Phœnician belief and practice when we discover them in Central America.

There are some phases of the Phœnician religious cult that seem clearly enough to distinguish it from all the other religious systems of antiquity. These were an intensely spiritual conception of the duty, which later degenerated into Polytheism with Totemism and human sacrifice, and the cult of the Galli or priest of Astarte, with which was associated a boundless licentiousness.

“The essential feature of the Phœnician religion and the people who hold it,” says Professor Sayce, “was at once impure and cruel. It reflected the sensualism of nature. Intoxicated with the frenzy of nature worship under the burning sky of the East, the Canaanite destroyed his children, maimed himself, or became the slave of consecrated lust. Men and women sought to win the favour of Heaven by sodomy and prostitution in the temple of Astarte. This practice, indeed, was brought from Babylon along with the sacrifice of the first born, and though we may ascribe the origin of the latter to the Accadians, an Accadian text expressly stating that sin may be expiated by the vicarious sacrifice of the eldest son, yet the immorality practised in the name of religion was the invention of the Semitic race itself.”

The principal seat of the Phœnician religious prostitution was Apheca, near the sources of the river Adonis in Lebanon. So fascinated were the people with this mode of expressing their religious conceptions, that the temple became enormously rich.

Dr. Döllinger, than whom there is no greater authority on the subject, gives a brief but vivid

account of the practice of religion in Phœnicia during the reign of Ethbaal, which is so luminous when read in connection with the statement of Professor Sayce that we cannot do better than quote it *in extenso*. The quotation is taken from his *Heidenthum and Judenthum* (vol. i. 426). "In early times Baal had been worshipped without an image in Tyre and its Colonies, but for a long time now his worship had grown into an idolatry of the most wanton character directed by a numerous priesthood, who had headquarters at Tyre; his statue rode upon bulls, for the bull was the symbol of the creative power, and he was also represented with branches of grapes and pomegranates in his hands. As the people of Asia distinguished, properly speaking, only two deities of nature, a male and a female, so Baal was of an elemental and sidereal character at once. As the former he was God of the creative power, bringing all things into life, and in particular God of Fire, but he was Sun God besides, and as such to human lineaments he added the Crown of Rays about his head peculiar to this God. In the one quality as well as the other he was represented at the same time as sovereign of heaven and the earth impregnated by him. The Canaanite Moloch was not essentially different from Baal, but the same God in his terrible and destroying aspects, the god of consuming fire, the burning sun who smote the land with unfruitfulness and pestilence, dries up the springs and begets poisonous winds. When the Prophet Jeremiah (xxxii. 35) says such as in the Valley of Ben Hinnom built high places to Baal to lead their sons and daughters through the fire of Moloch, and again, the Jews had built high places to Baal to burn their children

by fire as a burnt-offering to Baal (Jer. xix. 5), there is no mistaking the essential identity of the two. Besides the incense consumed in his honour bulls also were sacrificed to Baal, and probably horses too. The Persians at least sacrificed the latter to the sun god. *But the principal sacrifice was children.* This horrible custom was grounded, in part, on the notion that children were the dearest possession of parents, and part, that as pure and innocent beings, they were the offerings of atonement most likely to assuage the anger of the deity, and again, that the god of whose essence the generative powers of nations was, had a just right to that which was begotten of man, and to the surrender of the lives of his children. The sacrifices were consumed by fire, for the life given by the fire god he should also take back by the flames which destroy life. The Rabbinical description of the image of Moloch, that it was a human figure with a bull's head and outstretched arms, is confirmed by Diodorus in the account which he gives of the Carthaginian Kronos or Moloch. The image of metal was made hot by a fire kindled within it and the children placed in its arms, rolled from thence into the lap below. Voluntary offerings on the part of parents were essential to the success of the sacrifice, even the first-born, nay, even the only child of the family was given up. The parents stopping the cries of the children by fondling and kissing them, for the victim ought not to weep, and the sound of complaint was drowned by the din of flutes and drums; mothers, according to Plutarch, stood by without tears or sobs, for if they wept or sobbed they lost the honour of the act thereby, and the children, notwithstanding, were sacrificed. Such sacrifices

took place either annually or on an appointed day, or before great enterprises, or on the occasion of public calamities to appease the wrath of the gods.

“ Another form of Baal was Melkarth, the city king, tutelary god of the city of Tyre, whose worship was carried far and wide by the colonies proceeding from the shores of the Mediterranean. This protector of Tyre was the Phœnician Hercules to whom we have before referred, and as god alike of sun and fire a perpetual fire was kept on his altars ; he was a race king and hero of the people’s expeditions.

“ In the Astarté of the Western Asiatics we recognise that great Nature Goddess standing by Baal’s side, regent of the stars, queen of heaven, and goddess of the moon, the mother of life and goddess of women’s fecundity. Under the name of Astarté she was guardian goddess of Sidon and not essentially different from Baaltis of Byblus and Urania of Askalon. The Greeks and Romans sometimes took her for Juno, as she was the supreme divinity of the Asiatics, sometimes for Apaphrodité on account of the licentious character of the worship sacred to her. Her statue rode next to that of Baal in a chariot drawn by lions, a precious stone placed on her head illuminating the temple at night. She was considered one with Derceto, who was honoured under the form of a fish on the Phœnician coasts, a combined worship being offered to the goddess and Baal.

“ In the court of the temple at Aplieka there were sacred beasts in a tame state in great numbers and also a pond containing holy fish, and priests and temple ministers were present in such numbers that Lucien counted above three hundred employed in one sacrifice, *but beside these were a number of flute players, Galli and women frenzied with inspiration.*

At the spring festival, called by some the 'Brand Feast,' by others the 'Feast of Torches,' which was attended by streams of visitors from every country, huge trees were burned with their offerings suspended on them. Even children were sacrificed; they were put into a leathern bag and thrown down the whole height of the temple to the bottom with the shocking expression that they were not children but calves. In the foreground of the temple were two gigantic Phalli, and to the exciting din of drums, flutes, and inspired songs the Galli cut themselves on the arms, and the effect of this act and the music accompanying it was so strong upon mere spectators that all their bodily and mental powers were thrown into a tumult of excitement, and they, too, seized by a desire to lacerate themselves, inflicted wounds upon their bodies by means of potsherds lying ready for the purpose. Thereupon they ran through the city bleeding and received from the inhabitants a woman's attire. Not chastity but barrenness was intended by this act, whereby the Galli only desired to be like the goddess. The relation which they henceforth occupied towards women was regarded as a holy thing and was generally tolerated."

Under the Jewish kings Ahaziah and Jeroboam and under Athaliah, the daughter of Jezebel, it was for a period the state religion of Judah, and from the proselytising efforts of these two queens and the relentless persecution which followed, the downfall of Israel and Judah, which culminated in the captivity, is distinctly attributed by the Hebrew historians (2 Kings xvii. 16).

The temple dedicated to Melcarth or Hercules, it may be mentioned, had this marked peculiarity

that, according to the best authorities, they were without images, no women, dogs, or swine being permitted to enter them under penalty of death.

Such was the religious system of Phœnicia, which after the lapse of two thousand eight hundred years is found faithfully reproduced in the Pacific. The picture which Dr. George Turner and Mr. William Ellis print of the religious traditions and practices of the Samoan and Society Islands is clearly Phœnician.

Mr. Ellis says: "They supposed in Tahiti that the gods were powerful spiritual beings in some degree acquainted with the affairs of the world and generally governing them, yet never exercising anything like benevolence towards even their most devoted followers, but requiring homage and obedience with constant offerings, denouncing their anger and dispensing destruction on all who either refused or hesitated to comply. But while the people supposed them to be spiritual beings they manufactured images either as the representatives of their form and emblem of their character, or as vehicles or instruments through which their communications might be made to the God and his will revealed to them.

"Their idols were either rough unpolished logs of the Aito or Casuarina tree, wrapped in numerous folds of sacred cloth, rudely carved images or shapeless pieces covered with curiously-netted cent of finely-braided cocoanut husk and ornamented with feathers. These varied in size, being six or eight feet long, others not more than as many inches. These were representatives of the Tiis. Into these they supposed the gods entered at certain times or seasons, or in answer to the prayers of the priest. During

the indwelling of the gods they supposed that even the images were very powerful, but when the spirits had departed, though they still remained among their most sacred things, their extraordinary power had disappeared.

“ Their maraes or places of worship were open places—a sort of arena in the form of a parallelogram formed by a stone wall 4 to 6 feet high, and terminating at one end of the extremities in an immense mass of stones of pyramidal form, less long than broad. The inside of these singular enclosures was usually large enough to contain some small buildings to house the images and lodge the priests and guardians. In some of the maraes the pyramid that ended the enclosure was not less than 300 feet long and 100 feet broad at the base, and 60 feet high, but diminishing gradually from the base to the summit.

“ Ruins of such temples are found in every situation ; on the summit of the hills at Maeva, where Tanes Temple, nearly 120 feet square, enclosed with high walls is still standing, almost entirely on the extremity of a point of land projecting into the sea, or, in the recesses of an extensive and overhanging grove. *The trees growing within the walls were considered sacred*, and the interwoven and umbrageous branches frequently excluded the rays of the sun so that the contrast between the bright glare of a tropical day and the sombre gloom in the depths of these groves was peculiarly striking. The fantastical contortions of the trunks and tortuous branches of the aged trees, the plaintive and moaning sound of the wind passing through the leaves of the casuarina trees often resembled the wild notes of an æolian harp, and the dark walls of the temple

with the grotesque and horrific appearance of the idols combined to inspire extraordinary emotions of superstitious terror, and nurture that deep feeling of dread which characterised the worship of Tahiti's sanguinary deities.

“The trees with which they surrounded these maraes were the Tomam and the Aito or Casuarina, *the leaves of which moved by the wind produced a whistling moan which they attributed to the gods.* These trees, like everything else within the enclosure indicated by the trees, were sacred, and the fruit could only be gathered and eaten by the priests. There was seldom any habitation in the neighbourhood, and, except on feast days and religious ceremonies, there always reigned a solemn silence that could not be broken even by the guardians and priests who lived within the enclosure. Nobody entered there no matter what the necessity, and all kept the most religious silence when passing near by, uncovering the body to the girdle a long time before reaching it. *Women could not enter the maraes, and that upon pain of death, for the least contact defiled the holiness of the place.*

“The priests of the national temples were a distinct class, the office of the priesthood being hereditary in all departments. In the family, according to the patriarchal usage, the father was the priest, and in the village or district the family of the priest was sacred, and his office was held by one who was also a chief. *The king was sometimes priest of the nation, and the highest sacerdotal dignity was often possessed by a member of the reigning family.*

“Animals, fruits, &c., were not the only articles offered to the idols; the most affecting part of the sacrifice was the frequent immolation of human

victims, *which in the technical language of the priests were called fish.* They were offered in seasons of war, at great national festivals, during the illness of rulers, and on the erection of temples. I have been informed by several of the inhabitants of Mæva that *the foundation of some of the temples for the abode of the gods were actually laid in human sacrifices.*

“ The only motives by which they were influenced in their religious homage on service were, with few exceptions, superstitious fear, revenge toward their enemies, a desire to avert the dreadful consequences of the anger of the gods, and secure their sanction and aid in the commission of the grossest crimes. Their worship consisted in proffering prayers, presenting offerings, and sacrificing victims. Their *ubus* or prayers, though occasionally brief, were often exceedingly long and protracted, containing many repetitions, and appearing as if the suppliant thought that he should be heard for his much speaking ” (1 Kings xviii. 26).

Of the Areois Society, which, as we shall see as we proceed, must unquestionably be identified with the Galli or priests of Astarté, Mr. Ellis has been compelled to write with great reservation. The whole subject is indeed so repulsive that it would under ordinary circumstances have been desirable to have avoided all reference to it. The presence of the Phœnician in the Pacific and on the Pacific slopes of the American Continent can, however, be so easily recognised by traces of the presence of the strange cult in the two extremes of the Phœnician sphere of influence that it is highly advisable to hear what Mr. Ellis has to say on the subject.

“ The Gods which presided over the two divisions of the Areois Society,” says he, “ were monsters

of vice, and of course patronised every evil practice perpetrated during the season of public festivity. Many of the regulations of the society cannot be made public without doing violence to every feeling of propriety, but so far as it can consistently be done it seems to be desirable to give some particulars.

“The two brother deities who were the progenitors of the society, the Kings of the Areois, lived in celibacy and consequently had no descendants. On this account, although they did not enjoin celibacy on their followers, they prohibited their having children. Hence one of the standing regulations of the institution was the murder of children. On the initiation of the candidate *he was commanded to seize the cloth garment worn by the chief woman present and by this act he became a member of the seventh class.*

“Amusement was not the only purpose for which these assemblies were convened. They included all monstrous and prodigious things, as well as those that were abominable, unutterable. In some of their meetings they seem to have placed the imagination on the rack to discover the worst pollutions of which it was possible for man to be guilty, and to have striven to outdo each other in the most revolting practices. The mystery of iniquity and acts of more than bestial degradation to which they were at times addicted must remain in the darkness to which even they sometimes feel it expedient to consign them.

“The Areois were esteemed by the people as a superior order of beings closely allied to the gods and deriving from them sanction for their abominations and their heartless murders. Their life was a life of luxurious ease and lascivious indulgence

and crime, and for them, it was believed, was reserved that Elysium which their mythology taught them to believe was reserved for those pre-eminently favoured by the gods.”

Any comment on this somewhat bare outline of the Tahitian religious cult is clearly unnecessary, for the source from which it was derived is stamped indelibly across its entire face. Even after the lapse of three thousand years there is not in the history of mankind another religious system to which its origin could in reason be assigned. Phœnicia is so plainly depicted that he who runs may read. We have therefore in our possession one means effective beyond all others of determining the route followed by the joint fleets of Hiram and Solomon on their voyages to Ophir.

CHAPTER VIII

THE PROBLEM OF THE AZTEC

Problem of the unity of the human race—How related to the Biblical account of the Creation—Ancient civilisation of Central and South America—Problems which it suggests—Did the fleet of Solomon and Hiram discover America?—Asiatic origin of the first American population—Was the Ophir of Solomon and Hiram's fleet the Pacific slopes of the American Continent?—Testimony of native records of Mexico and Central America—Humboldt's opinion—What may be learnt from the constitution and structure of the native society of Central America.

THE problem of the unity of the human race still awaits solution by the anthropologist. So far the preponderance of argument has been on the side of those who represent the theory of various centres of creation. Those, however, who uphold the Biblical account of creation have by no means exhausted the arguments available for the establishment of their belief, for with a more intimate knowledge of the various forms of uncivilised and civilised life existing on the American Continent when it was first discovered by the Spaniards, it becomes increasingly apparent that the solution of the enigma is by no means so hopeless as has been generally supposed.

The advocates of the Biblical account of creation have been regarded by advanced anthropologists as labouring under a somewhat serious disadvantage in consequence of the fact that orthodoxy has always taught that mankind has only existed on

the earth for the short period of six thousand years—a period which seems much too short for the evolution of man.

Great care must, however, be exercised in interpreting the Biblical account of creation. The Scripture narratives nowhere teach that man at the beginning issued from the hands of his Maker in what has been described by the opposing school of anthropology in a primitive or aboriginal condition. On the contrary, they indicate that he was created in a perfect, though not fully unfolded, condition, in which there was a complete dovetailing of the spiritual and mental faculties which made communication between himself and the lower forms of creation possible (Gen. ii. 19, and iii. 1), and between himself and his Creator not only possible but, to some extent at least, habitual (Gen. ii. 16, and iii. 8). Furthermore, that his endowment was not wholly confined to the first generation of men (Gen. iv. 6), but, to some extent, was possessed by succeeding generations (Exod. xxxiii. 11; 1 Sam. x. 2; 1 Kings xvii. 2; Isa. vi. 1; Zec. ii. 5; John i. 6; Acts vii. 2 and xix. 27; Rev. i. 12).

If, therefore, we adopt this view of Scriptural teaching on the subject and admit that the fall of mankind consisted in a rupture, more or less complete, of the dovetailing of the spiritual and mental faculties as explicitly set forth in such passages as those of Ezekiel xii. 2 and Matthew xiii. 14, then we shall better understand what is meant by the unity of the human race. As heirs to the deteriorated physical attributes which for so many generations have dominated the career of humanity, it is inevitable that we should become less and less the possessors of that glorious endowment which was

the crown and glory of the human race at the beginning. If the Scriptures teach anything concerning the fall of man it is this, for sin, or the Saxon root from which the word was obtained, *zin*, in its last analysis, means deficiency. That is to say, the Scriptures teach that in consequence of the Fall through unrighteousness and the tendency towards this deficient condition, men had lost and were continuing to lose faculty, and that as generations were being swept down the stream of time they were drifting ever farther from this first sublime state until, after four thousand years, the movement had acquired so much momentum that the divine intervention became absolutely necessary to the salvation of the human race. It is indeed impossible to arrive at any intelligent understanding of the Scriptural doctrines of the Fall and the Redemption of mankind, or of the retention and use of the supernormal faculties by some nations for a longer period than others, as was clearly the case among the Hebrews, and probably, as we will show by quotation from the prophet Ezekiel, among the Phœnicians, unless we take this view of the case.

Once we admit the doctrine of the transgression of all of the progenitors of mankind from the high estate in which they were created and the demoralising effects of unrighteousness on succeeding generations, the story of the ancient civilisations of Central and Southern America become at once an impressive object lesson with respect to the state of human society and the fate that confronted mankind at the beginning of the Christian era. At the same time it provides a working basis for our investigation, since it enables us to conceive of a time when a portion of the human race were in possession

of faculties that were more legitimately developed and admirably adapted to the exigencies of the period in which they were exercised. This point is strikingly emphasized by Professor Heeren in his *Asiatic Research* (p. 34). He says: "We should not therefore doubt of what appears to us extraordinary, because, judging from our own experience, it does not seem probable, for this does not enable us to decide what may have been possible under another clime and other circumstances, for do not the Pyramids of Egypt, the wall of China, and the rock temple of Elephantis stand out as it were in mockery of that criticism that would arrogate to itself the privilege of fixing boundaries to the capabilities of congregated nations."

Professor Heeren's view is supported by the history of the entire civilised portion of the human race. Those who have cast aside the seductions of unrighteousness and placed themselves wittingly or unwittingly in alignment with the written or unwritten law of righteousness have thereby attained to a breadth of knowledge and a success in handling the spiritual and material forces of nature that have arrested the attention of all succeeding generations. As nearly three thousand years have elapsed since the expeditions sent by Solomon and Hiram from Eziongeber on the Red Sea that led to the discovery and occupancy of America, it is well not to expect too much in the way of absolute correspondence between the institutions of the Mediterranean basin a thousand years before the Christian era and those existing on the American Continent in A.D. 1500, when the arrival of the Spaniards opened the way to a scientific examination of the problem as to the source from which the population composed

of uncivilised and civilised races inhabiting the New World had been derived. During the long period of isolation, changes in the state and constitution of society that have probably no exact counterpart in human history must have taken place.

Nor must we be surprised if we find that the hybrid civilisation that blossomed from this strange admixture of races confronts us with problems of the most perplexing character. In this new territory, when the original purposes of the expeditions had been accomplished, the different races—Jew, Phœnician, Scythian, and Thracian—by habits of thought and speech would in large measure segregate themselves and occupy territory where each race, without let or hindrance, would live over again its own national life in surroundings congenial to its antecedents. There would, however, remain a strong residue of each which, attracted by a commercial career, would unify around a common centre. Now this was exactly the condition of affairs that confronted mankind when the American Continent was rediscovered by Europeans in the fifteenth century of our era. The religious, scientific, artistic, civil, commercial, and manufacturing state of the civilised communities could then easily, despite the long period of isolation, be related to an Eastern Mediterranean basin origin. The religious and material influence dominating the region was mainly Phœnician, while the moral influence was unmistakably Jewish.

Much surprise has been expressed that ancient history should have provided so little information with regard to the course pursued by the ships of Hiram and Solomon, likewise their destination, but when we consider the state of society at that period,

the limited means for the communication of information, and the jealous care that was exercised in preserving intact knowledge of this very nature from the rest of mankind, this is scarcely to be wondered at. Nevertheless, the references of Plato, Seneca, and Aristotle to the existence of a continent hid in the western ocean makes it clear that the knowledge of the discovery of America by the Jews and Phœnicians was not confined to the leaders of these nations. Indeed we are forced to conclude that as history makes no reference to any other expeditions either of a national or an international character setting out from the Mediterranean ports for very many centuries after this date that the references of these classical authors must be understood as an echo reaching Greece from Thracian, Scythian, Phœnician, or Jewish sources of the discovery of America by the fleets of Solomon and Hiram.

But while we have no knowledge of any Mediterranean expeditions to the American Continent prior to the voyages of Columbus that are worthy of serious consideration, we are none the less confronted by a statement in the Votanic tradition of so extraordinary a character as to make it clear that these early voyagers were in possession of sufficient astronomical and geographical knowledge to warrant them in believing that a journey thither from the western seas was not only possible, but one which it was their intention should be undertaken at a later date. Votan, the first culture hero, on reaching the Atlantic coasts, where he erected his first city of Nachan or Palenque, is reported to have prophesied "that in a future age his brethren, white men and bearded like himself, would arrive on

these shores from the land where the sun rises and come to rule the country." Whether we may, from his statement in the Votanic tradition, understand that the sphericity of the earth was known to the Phœnicians, who will undertake to say?

Humboldt (ii. 68), writing on the subject of the populating of the American Continent, says: "It appears most evident to me that the monuments, methods of computing time, systems of cosmogony, and many myths of America, offer striking analogies which indicate an ancient communication and are not simply the result of that uniform condition in which all nations are found in the dawn of civilisation," an opinion that is abundantly supported by the results of our research. For as easier means of communication are sweeping the outlying and hitherto less accessible portions of the world into active contact with the great centres of population and culture, it becomes increasingly apparent that the unity of the human race is the one great law dominating the history of humanity, and that any seeming infractions of this law have simply been caused by our ignorance of the forces that have been operating in the distribution of mankind.

The belief that America received its first population from Asia has long been held by reputable scientists, and is based on a logical foundation. If we discard the autochthonic theory of origin, it is certainly to Asia, the reputed cradle of the human race, that we must first look for proof of the migration of races that would account for the peopling of these distant regions. Till now there has been a consensus of opinion among those who have most carefully studied the subject that the first settlement of the American Continent is a problem which

can never be solved, an opinion that, in some limited measure, is likely to prevail to the end of time so far at least as this inquiry may effect the so-called indigenous races of the extreme north-west territories. So little is known of the movements of the population which ultimately occupied the extreme limits of the Asiatic continent to the north and adjacent to the Alaskan boundaries that we have no satisfactory working basis for an induction leading to a solution of the problem.

When, however, we come to a consideration of the civilised races of Central America and the populations that have sprung from them we are on much surer ground. In an artificial state of society types are produced that are easy of recognition when found in territories far remote from those in which the peculiar conditions evolving these types existed. Now the results of later research, when placed *pari passu* with certain well-ascertained movements in Asia and Europe, make it clear that the early trend of exploration, population, and commerce was not, as is generally supposed, mainly westward, but, radiating from a common centre in Babylonia, was as aggressively active in other directions, especially to the East, where the great centres of population are still to be found.

It is not, however, with these movements that we are at present concerned, but with those that took place in the south and south-east and resulted in the occupancy of the Indian and Arabian peninsulas. The exploration of the territory that lay to the farther East depended wholly on the Phœnicians, who were a navigating people. Unfortunately, direct testimony with regard both to the direction and extent of their activities in this

region is most fragmentary. But it sufficiently confirms the testimony of the Hebrew historians that the efforts of the Phœnicians were by no means so entirely directed towards the development of the western trade as has generally been supposed. In consequence of information supplied by exploring parties sent out from the Persian Gulf settlements, Phœnicia and the neighbouring kingdom of Israel, or at least the rulers of these adjacent territories, who were at that time intimately associated in great public works of mutual advantage, determined to fit out some expeditions with a view to the joint occupancy and exploitation of the territory.

The finding, therefore, of a people on the western shores of America who claimed to have emigrated from the Asiatic coasts need not, owing to the supposed difficulty of navigating the Pacific, occasion surprise. The people who made this claim were not rude tribes but settled nations in possession of a highly organised civilisation with an Eastern Mediterranean origin. In view of all this, the question may well be asked if we have not at last found the clue to the destination of the joint fleets of Solomon and Hiram, Ophir, or, as it is sometimes called, Tharshish. Was it not the voyage to this region and return, which occupied three years? Was this not the unknown region from which silver was brought in such abundance as to glut the markets of Palestine?

A careful examination of the civilisation of this region clearly shows that it cannot be regarded as indigenous. Humboldt says in his *Venes de Cordillons*, when comparing the Mexican calendar with that found in use among the Thibetans, Mongols, and Chinese, that "all of them had their apparent

origin in the ordinary Babylonian Zodiac, from which was drawn that with which we are familiar in its Greek form."

Again the civil year of the civilised nations of the Pacific slopes of the American Continent was made up of 365 days, divided into eighteen months of twenty days each and five supplementary or intercalary days, each day of the month having a distinct name. This, Humboldt gives strong reasons for believing, was derived from the same source as the Zodiac, which was made use of from the remotest antiquity in India and Thibet. A calendar that moreover equalled, if it did not surpass in accuracy, the systems in use among contemporaneous nations in Asia and Europe when America was discovered by Columbus, points clearly to an early communication between the two continents of which history has apparently failed to preserve any definite record.

Confronted as we are by perplexities of this nature, it is extremely fortunate that we find the native records of Mexico and Central America entitled to much more respect than can be accorded to the traditional lore of the general run of aboriginal tribes in other portions of the world. This native literature, in the opinion of Humboldt and others, is wonderfully reliable, for it was the work of native historians appointed by the various governments who were accustomed to punish with rigorous severity all attempts at falsification. Here we find the names of persons and places and the dates of events which enable us to trace not only the basic facts in connection with this imported civilisation, but the course of events from generation to generation.

The best account that we possess of these native records is that given by the Abbé Brasseur de Bourbourg, whose familiarity with the Nahua and Central American languages and his indefatigable industry and erudition pre-eminently qualify him for the task of unravelling the mysteries of American primitive history. According to these records (*Ency. Brit.*, vol. i. 704) Votan, the first of the American culture heroes, and his companions arrived on the Pacific coasts of the continent in seven large ships about the year 1000 B.C. Coasting along the shore from California to Darien they found it occupied by a barbarous people to whom they communicated a knowledge of the Supreme Deity. All of these histories assert that at the beginning the civilisation was imported by strangers, who brought with them not only a knowledge of the Supreme Deity but of the sciences and the mechanical arts. In addition, they introduced cotton and maize, cultivated potatoes, plantains and other vegetables, taught spinning, weaving, and dyeing, and this not from vegetable products only but from the juice of the murex. They also taught the mining of tin and copper, and the amalgamation of these metals into bronze, likewise the making of paper from the fibre of the magney plant into sheets which, in some cases, measured 120 feet in length by 6 feet in breadth and a finger in thickness. On these were recorded historic events, while sheets of lighter weight were used for religious and decorative purposes.

Identified with this imported civilisation we find Semitic totemism, which, so far as is known, was never borrowed, phallicism, circumcision, tattooing, scalping, steam bathing, lassoing, picture writing, the system of intercalation, the use of quipus,

gymnasiums in which games like the Greek palastrae were celebrated, and all the implements used in the chase and in warfare common to the early Asiatic and European nations.

Another evidence showing that the communication which resulted in the first settlement of the American Continent reached back to the date of these historic expeditions, is the fact that foundations of the oldest towns are erected on massive substructions which were characteristically peculiar to the Syrian and Egyptian architects.

It is true that these ruins contain very different types, which suggest a long and continuous residence in these regions by a vast population, who may have built them at different times, but those which are most clearly identified with the earliest traditions of the people are uniform in using the substruction in their erection, in their decorative types, and in the ability shown in the cutting and handling of immense masses of masonry such as those at Nachan, Mayapan, and other places to which tradition points the cradles of the civilised races.

Admitting, then, that the problem of the peopling of America still requires to be solved, it is clear that any attempt to do so must necessarily resolve itself into two divisions. First, what was the origin of the uncivilised? and, second, what was the origin of the civilised nations? If we accept the Votanic tradition that the civilisation was an exotic, we are naturally forced to a consideration of the enigma whence emanated the barbarous people found on the Pacific coasts by this culture hero.

To the first of these questions it is probable that we will never be able to give a wholly satisfactory answer, for we have no information with regard to

the date at which Igh and Imox arrived or to the movements of those who may have accompanied them and been the progenitors of these people.

The presence of some of these types, identified in a peculiar manner with both the uncivilised and the civilised races on the American Continent, can only be accounted for by accepting the Votanic tradition at its face value, and by believing what we have already shown to be the case, that those expeditions which brought and planted on the Pacific slopes a ripened civilisation brought at the same time a larger proportion of population that was only a short way removed from the barbaric state. These in the main did not amalgamate with, but separated themselves from, the seats of civilisation, and, returning to their old nomadic habits and barbarous customs, overran the entire country and ultimately, during the 2500 years of isolation that elapsed from the date of the first settlement until the continent was rediscovered by Columbus in 1492, occupied every portion of it from Mexico to Alaska.

When, however, we come to a consideration of the source from which the civilised nations derived their origin we are on much surer ground. Some of the types found among the civilised states of America are so distinctive in their artificiality and so closely identified with certain circumscribed centres of culture in the Old World that they provide an infallible means of determining the source from, and the channel through which, they were derived. The date which the American traditions provide for the arrival of the emigrants who carried thither this civilisation, moreover, corresponds exactly with those historic movements of the foremost nations of

Asia at that period, the destination of which, when identified with the traditions found on the Pacific shores of America, supply every fact that is essential to a complete solution of our enigma. It is a curious and startling fact that the peculiar characteristics of the four nations which comprised the personnel of the fleets of Hiram and Solomon can be clearly traced to this region. These written records emphatically state that Votan placed the four nations in separate territories (*Ency. Brit.*, i. 704), which probably enough corresponded to the peculiar antecedents of the people. Furthermore, they show that Nachan, or the city of the serpents, the first city erected by the newcomers, is practically synonymous with that of Nashon—the serpent—the family name of the leading partner in these expeditions of which tribe or family Votan claimed to be a member.

The claim that America was the destination of the expeditions of Hiram and Solomon will, however, be found as we proceed not to rest solely on these strange and significant facts, but to be supported by a mass of co-ordinate evidence of the most startling and convincing character supplied by a careful analysis of the constitution and structure of the so-called native society found there. The interrelation, too, of many of the customs on the American Continent which originally marked off the nations practising them from the rest of mankind, make it apparent that the representatives of these nations must for some considerable period after their arrival have lived in amity.

According to the native documents referred to, Votan, the first of the American legislators, is said himself to have written a history of the race to which

he belonged. He claimed to be descended from the same stock as Igh and Imox, and to have come from a country which he called the land of Chivim, separated from the new continent, which he called the land of Votan, by seas and lands which necessitated a long and perilous journey. Votan also claimed to have proceeded by divine command to America and there portioned out the land. On one of those journeys which, as plenipotentiary, he made from the land of Votan to the land of Chivim, which is clearly enough to be identified with the Phœnician and Jewish Chittim on the Eastern Mediterranean, he claimed to have visited the dwellings of the thirteen serpents, which were those of the thirteen tribes of Israel who held the reptile in special veneration. While there he saw a magnificent temple in course of construction which, clearly enough, was that being erected for Solomon by an army of Jewish, Egyptian, and Phœnician workmen. He further states that, in the course of this journey, he passed the ruins of an old building, undoubtedly that of Babel in Borsippa, a suburb of Babylon, which men had erected with a view to reaching heaven, and which, according to the men who lived in the neighbourhood, was the place where God had given to each family its own peculiar language.

On returning from the first of four voyages which he claimed to have made from this land of Votan to the land of Chivim, Votan said that he found some portion of the first emigrants—in all probability the Scythians, who, we have shown, tolerated the presence of no foreign customs among themselves—had fomented a rebellion and attempted to disrupt his kingdom. In consequence, and with a view to

retaining his authority, he divided the people into four sections, which corresponded with the four nations which comprised the personnel of the fleets of Hiram and Solomon, and placed them in territories corresponding to their peculiar traditions and antecedents.

According to the Quiché tradition, the first emigrants came from the land of the setting sun, and were white men taller and of larger build than the present inhabitants of the region. They carried the mechanical arts and the sciences to a high degree of perfection. They were likewise pearl-fishers, and used the juice of the murex as well as vegetable juices in the manufacture of their dyes. They were also well acquainted with the medicinal properties of plants, and kept books for the purpose of recording their observations on the cause and progress of disease. Their astronomical knowledge embraced all those features peculiar to the nations of the Eastern Mediterranean.

It is true, for reasons already stated, that the attempt to show that the architecture of the Central American States was directly derived from any Old World type has not been successful. Yet the unique method of employing immense substructions in the erection of their buildings, likewise the curiously composite character of their decorations, which show clearly Phœnician, Assyrian, Egyptian, and Grecian influence, combined with much that is indigenous, gives such clear evidence of an Old World origin as to leave little room as to the source from which the initial impulse was derived.

It will be unnecessary, however, to pursue this investigation further on these lines, for in our induction it will be found that the solution of the problem of the origin of the Aztec depends solely

on the number, strength, and aptness of the correspondences which can be established between the Mediterranean basin and the Pacific Islands, and between the Mediterranean and the Pacific coasts of the American Continent.

It will be prudent, therefore, to arrange these correspondences under the various headings to which they belong and allow the reader to draw his own conclusions, which he will have the less difficulty in doing in that the authorities quoted are, without exception, first-class.

CHAPTER IX

THE ANCIENT AMERICAN CIVILISATION

Constituent parts of ancient American civilisation—The region described—Maya and Nahua civilisations—Their identity of origin—Aztec as the representative of Nahua civilisation—The foreign civiliser in Mexico—Composite source of Pacific civilisation explained—The part played by the Phœnicians.

As what has been said in the preceding pages supports entirely the view of the scientific world in regard to the antiquity of the American civilisation, further amplification of the subject would be superfluous. With a view, however, to clarifying the problem, a few words relative to the constituent parts of this ancient American civilisation may not be inappropriate.

That portion of the Pacific States of America, with which the development of this civilisation was identified, stretches from north-west to south-east along both shores of the continent between latitudes 23° and 11° north of the equator. Outside of these limits few traces exist that are of much service in the solution of our problem, but within them few tribes lived who were not profoundly influenced and improved by contact with the ancient American civilisation. The central or Usumacinta region was the most ancient home to which by monument, tradition, or record this civilisation could be traced. For many centuries prior to the Christian era it was the seat of the Maya Kingdom of the Chans or Serpents, whose capital was Nachan or Palenque,

to which reference has already been made. From this centre, which embraced one of the most delightful and fertile regions of the New World, the Votanic power gradually extended northward towards Anahuac, whose people appear in the traditional records either as physical or intellectual Quinames or giants. It also penetrated eastward into Yucatan, where the culture hero, Zamna, appears as its reputed founder, with the Cocomes and Itzas as his subjects. The mean temperature of this region is about 60° F., so that the climate may generally be described as similar to that of Southern Europe. The soil originally was fertile, although now, in consequence of the excessive evaporation common to lofty plateaus exposed to a tropical sun and the depletion of the forests since the Spanish Conquest, which tends to reduce the rainfall, many portions present a bare and parched appearance.

The two great divisions under which, for convenience sake, the civilisation which occupied this territory was grouped, were called respectively the Maya and the Nahua, the former of these representing the Maya Quiché civilisation of Central America and the latter the Toltec and Aztec civilisations of America.

The Mayas are invariably represented as the most ancient of these two divisions of this civilisation, and to them is attributed the wonderful stone remains found at Nachan or Palenque, Uxmal, and Copan with which the Votanic traditions are most clearly and intimately identified. Nearly all the knowledge we possess with respect to the institutions and people of the Maya empire has been derived from the traditions and records of the Nahua

nation, which in the earlier stages of its growth seems to have been profoundly influenced by the older civilisation. In some respects the Nahua nation seems to have stood in much the same relation to the older Maya kingdom in the New World that Carthage did to Phœnicia in the Old.

Owing to the meagre information relative to the first movements of population, there is great difficulty in drawing divisional lines between two nations mutually acting and reacting on each other as these must have done during several centuries. And this difficulty is increased when it is recollected that these two nations and their subdivisions constitute the central figure around which revolves practically all that has been either observed or written on the subject of the American civilisation by the few travellers who came in personal contact with it.

The identity of origin in the Maya and Nahua civilisations, however, does not rest on slender foundations but on the religious, scientific, manufacturing, commercial, and caravan systems. The similarities that can be established between these are so striking as to make it clear that there is both good reason for and convenience in speaking of the American civilisation only in connection with these two main branches, the Maya the more ancient, the Nahua the more modern and widespread. It is true that in comparing these two branches of this very ancient civilisation many points of difference crop up. Yet they can be explained satisfactorily by supposing that for some centuries prior to the Spanish Conquest the two nations had been progressing along independent lines. The language of the two peoples especially shows little affinity, though it is well not to attach too much importance

to evidence which language alone affords, more especially in view of what has been said of the conglomerate character of the fleets which brought this civilisation to America.

The Nahua, which succeeded and overshadowed the Maya civilisation, included both that of the Toltecs and Aztecs, and also that now embraced by the Mexican Republic north of Tehuantepec. Modern writers always make the Aztecs the representatives of the Nahua civilisation, although the limits of the Aztec empire, exclusive of their possessions in Texcuco and Tlacopan, were only from 18° to 21° north of the equator on the Atlantic, and from 14° to 19° on the Pacific, which would not embrace the whole of the civilised states. This choice of the Aztec as the representatives of the Nahua civilisation is, however, quite fitting, for they were certainly the most powerful branch, and what we know of this people has furnished the material for nine-tenths of all that has been written on the general subject of the American civilisation. Accordingly the name Aztec has been adopted as a generic term.

Whether it is possible to distinguish between Votan, who is always accorded the distinction of being the original culture hero, and Quetzalcoatt, Zamna, and Cuculcan, who are accredited with having taught some portions of this region the sciences and mechanical and fine arts, as well as a knowledge of the Supreme Deity, it is hard to determine, since the career of these minor culture heroes seem in all respects to have been identical with that of Votan in Chiapas. Be that as it may, it is clear that all of them claimed to belong to the same race and to the same totem clan, for Quet-

zalcoatt in the native tongue means the royal or feathered serpent, and the name Cocomes, worn by the oldest line of kings and nobles in Yucatan to which Zamna carried his civilisation, signifies, like the name Chan applied to the companions and followers of Votan, a serpent.

If, in view of what has been said, we admit that there existed on the American Continent a body of tradition worthy of the highest respect, one peculiar circumstance regarding it, as Humboldt remarks, demands serious consideration, viz., that in these ancient records of the civilised American races we find no less than three apparently independent and remarkable traditions of the planting of a superior civilisation among separate sections of the native peoples on the western shores of the continent, and that in each case they attributed this to the sudden and mysterious appearance of persons who differed from them in dress and nationality—Bohica among the Mozca Indians, who occupy the plains of Bogota, Manco Capuc, accompanied by his sister wife, Mama Oello among the Peruvians, and Votan in Mexico.

The clearest and most circumstantial account of the mysterious appearance of the foreign civiliser is not, however, found in Bogota or Peru, but in Mexico, where, as has been shown, he is sometimes called Votan and sometimes Quetzalcoatt, Zamna, or Cuculcan. Yet in every instance he is described in the native records as a white man of commanding appearance, with broad brow, wearing long flowing robes, and designated a serpent. He gave to the people good laws, taught them refinement of manners, communicated to them a knowledge of the one true God, and succeeded in dissuading them from the horrible custom of human sacrifice.

But we are not wholly dependent on traditions and native records for the solution of the perplexing problem, whence emanated the population of the Pacific Islands and the American Continent. Our task is simplified by finding over the entire route from Eziongeber to Mexico traces of the presence of a somewhat advanced civilisation of the most ancient character which corresponds in all essential features with that found in the first centres of civilisation, in Peru, Bogota, and Mexico. Furthermore, all of these are pervaded by a common influence easily recognisable as having emanated from the combined elements of Phœnicia in its religious, scientific, and material, and of Israel in its moral aspects, but with which are interwoven still other elements clearly derived from the semi-civilised nations of the Eastern Mediterranean of that period. Now their presence on the Pacific shores can only be explained satisfactorily by believing that at some very remote date, the four great nations of the Mediterranean basin, the Jews, Phœnicians, Scythians, and Thracians, were by some peculiar combination of circumstances united in the prosecution of some naval expedition which started from an Asiatic port, and proceeding through the central insular Pacific to the west coasts of the American Continent, made these territories tributary to their enterprises.

If we admit this presumption, then we are at once forced to a consideration of the reliability of the data on which we have founded in our research with respect to the historic movements and the similarity of the essential features of the early Asiatic and European and the American civilisations.

Now we have been careful to show that the

authorities on which we have relied are of so reliable a character that they leave practically nothing further to be desired, so that when their testimony is supplemented by still further information with respect to the Pacific drawn from equally reliable sources, we are in possession of a body of evidence enabling us to account in a very practical way for every complexity with which at the outset we found the problem to be invested.

Moreover, the evidence satisfactorily explains the enigma of the presence of the many racial types and linguistic differences and usages found on the Pacific slopes. For the changes that took place in the evolution of society from the curiously composite source that formed the elements of their first migrations were not always either in the same direction or of the same intensity, and must, therefore, through the twenty-five hundred years of complete isolation have produced departures from the original types of the most startling character which, with the meagre information in our possession, it would be unwise to attempt to follow.

But after making due allowances for the changes that took place between the date of the first settlements on the Pacific Islands and the European re-discovery of America, there still remains sufficient data to enable us to solve this perplexing enigma.

If the American Continent was discovered and peopled by a nation that carried thither the advanced civilisation with which the Mediterranean basin was identified a thousand years before the Christian era, then it is to the Phœnicians and to that nation only that we must look either for its origin or its intermediation. This view will be readily endorsed after a consideration of the correspondences estab-

lished between the American and the Mediterranean basin civilisation, which we now append, and of the “*Inductio per enumerationem simplicem*” supported by the authorities which follow and on which it is based.

These we believe represent the only rational conclusions that can be drawn either from the situation itself or from the data on which the research is founded.

CHAPTER X

EASTERN MEDITERRANEAN AND AMERICAN CIVILISATIONS COMPARED

Similarities as shown by commercial system, use of dyes, woollen and cotton manufactures, precious metals, glass manufactures, pearl-fishing, tanning, tattooing, implements of war, gymnasia, religion, laws, &c.

DURING the heyday of its prosperity the carrying trade of the ancient world was in the hands of Phœnicia. The land trade of Tyre alone was of the most extraordinary character. It extended to Cappadocia and Armenia in the north, to Mesopotamia, Assyria, Babylonia, and the Persian Gulf in the east, to Palestine and Egypt in the west, and to Central and Southern Arabia in the south. From all these widely separated regions caravans, formed of numerous bodies of armed merchants, plunged into the heart of the continent and, penetrating through inhospitable regions, brought back that wealth of raw and manufactured material which was necessary for the prosecution of their enterprises.

With the establishment of systematic trade routes the caravansary or building for the accommodation of the caravans at the various halting-places sprang into existence. These caravansaries were usually large quadrangular enclosures with a well in the centre. They, however, possessed no accommodation further than was supplied by a row of single or double chambers where the traveller

was at liberty to take up his quarters for the night, being left to provide for himself such further comfort and food as might be necessary for himself and his beast.

This system of commerce was not confined to Asia and Africa, but, as we shall see later, extended to America.

In ancient times the only place of resort for merchants in Egypt was at Naucratis (Herod. ii. 109), so at Tlatelulco, an independent city in Mexico, was situated the great commercial centre of the civilised states of Anahuac. The merchants of this city were not only a separate class of the population, but so far as the higher grades were concerned possessed the same privileges as the nobles. They also had tribunals like those at Naucratis, to which alone they were responsible for the regulation of matters affecting trade and commerce. So powerful were these merchants that they formed a commercial corporation controlling the whole trade of the country, the leading merchants of other cities only being enrolled as subordinate members. As among the early Asiatic nations so among the Nahuas trade was mainly carried on by barter, no coined money being used. Several convenient substitutes were, however, found among the civilised peoples of America to furnish a convenient medium of exchange. Chief among these were nibs or grains of cacao, which were known as *Ratlacti*. Another was gold dust, which was kept in translucent quills. Copper cut into small pieces like a T was much used, and was the nearest approach to coinage, while tin was not only mined, as among the Phœnicians, but cut into pieces of determined size and weight and circulated as money. Merchandise among the

Nahuas was likewise sold by count and measure, both of length and capacity.

The principal markets were in the city of Mexico, and at Tlatelulco. Thither, as Torquemada says, flocked the workers in gold and jewellery, potters, painters, shoemakers, huntsmen, fishermen, fruit-growers, and matmakers from the surrounding regions to display their wares to possible purchasers, who gathered there in such numbers that, according to Las Casas, each of the two markets in the city of Mexico could easily accommodate 200,000 persons, and into that at Tlatelulco 60,000 persons crowded daily. The general commerce of the country, while finding an outlet at these markets as did the trade of Ophir at Yemen and that of ancient Egypt at Naucratis, was not confined to these distributing centres, but, like that of Asia, extended over the whole country, the outlying towns and districts being brought, by means of caravans, into active association with the central markets.

TRADING EXPEDITIONS

The absence of the horse and camel in Central America was not an insuperable obstacle to the prosecution of an extensive export and import trade, for regular carriers, trained in the same way as camels in Asia, were found to provide an admirable substitute. The burden apportioned to each duly qualified carrier was from sixty to eighty pounds. This was placed on the back and was supported by a strap which passed round the forehead. Twelve to fourteen miles a day were easily accomplished by a carrier when so loaded.

Nor were the expeditions so equipped of a limited

character. Distant provinces were kept within the range of operations of the merchant princes of Tlatelulco, who sent out caravans periodically either for commercial purposes or under the direction of the king for political objects, when the merchants were armed soldiers in disguise. Such expeditions in America, as in Asia, were undertaken by large numbers travelling in company for mutual protection, one of the prominent members of the expedition being selected as leader and directing the movements of the whole caravan. On the route the carriers, as in the regular Asiatic caravans, marched in single file, a sharp look-out being kept on the road and at camping-places for robbers who, as in the older seats of civilisation, infested the mountain passes.

Rulers of the various districts through which the caravans periodically passed recognising, as in Asia, the benefits which accrued to their territory from an uninterrupted commercial communication, constructed roads, built bridges, and erected at regular intervals along the routes caravansaries where the traveller could find rest and shelter.

CARAVAN SYSTEM

Among the ancient Maya nations a brisk commerce existed, merchants traversing the country in every direction. Yucatan did a large foreign trade with Tobasco and Honduras, and imported from these regions large quantities of the cacao.

The Nahua merchants were not less enterprising. They crossed the entire isthmus of Tehuantepec to trade among the Mayas, while the Mayas, equally familiar with the northern markets, kept up an

active exchange of commodities year in and year out by means of caravans.

The caravan system of the merchants of Tlatelulco was most extensive. When setting out the caravans usually pursued a south-easterly course to the town of Tochtepec, near the banks of the Rio Alvarado, which, like Damascus in Syria, seems to have been the radiating point from which they split up into sections, as the destination at which they aimed might demand roads leading to Goazocoalco or to the Miztec and Zapotec towns on the Pacific, or to the more distant provinces that lay across the isthmus of Tehuantepec.

The routes so used were usually well-defined, but in order that no mistake might be made, maps, as seems to have been customary on the Mediterranean (Herod., iii. 136, and v. 49), were regularly used.

This custom of map-making seems to have extended along the entire Pacific coast as far north as the Columbia River, for Di Smet says that the aboriginal tribes of that region were accustomed to make maps of the country on bark and skins. More remarkable still, they used the Phœnician or Pole Star in the prosecution of their journeys by night.

PURPLE DYE

There is probably no stronger evidence of the presence of the Phœnician in the New World than can be drawn from the use of dyes. In the preparation of dyes and paints derived from animal, vegetable, and mineral substances the natives of the Pacific Coast States were found to be in possession of a skill much in advance of that existing

among contemporaneous European nations when the continent was rediscovered by Columbus.

The remarkable fact in connection with this branch of Nahua art is not that the people were expert in the preparation and use of dyes, but that those drawn from the juice of the murex held a pre-eminent position, the inhabitants of the state of Jalisco in Mexico and those of Nicaragua obtaining the much-prized purple from the murex or purple fish that were found on the coast. Bailey says that the dyeing among the natives was, moreover, as among the Phœnicians, done in the wool, the material to be dyed being taken to the seashore where, after procuring a sufficient quantity of shell-fish and extracting the colouring matter, each thread was dipped in it separately and then laid aside to dry.

WOOLLEN AND COTTON MANUFACTURE

But it was in the manufacture of woollen and cotton stuffs that the people of the civilised American states chiefly excelled. The natives of Jalisco in Mexico were from the beginning celebrated for the mantuas and blankets which issued from their looms. But the art was by no means confined to Mexico. Among the Mojave and Axua Indians both weaving and dyeing were carried to a remarkable degree of excellence. The Navajos likewise were famous for their blankets.

India, as we have shown by reference to Herodotus (iii. 106), was the native home of the cotton plant, certain trees there bearing wool instead of fruit. According to Theophrastus (*Hist. of Plants*, iv. 9), this plant was carried from India to the

Bahrein Islands, presumably through Phœnician intermediation, and it is a curious fact that the American traditions distinctly attribute the introduction of cotton and maize into that country to the culture hero Votan or his lieutenant and successor Quetzalcoatt, thus enabling us to determine definitely the point from which the ships which carried these first culture heroes set out.

The finer grades of cloth manufactured in the civilised states of America in the early period were invariably made of cotton or rabbit's hair and not infrequently from both combined. The introduction of spinning and weaving, like that of cotton itself, was distinctly attributed to the first culture heroes.

PRECIOUS METALS

The Phœnicians were not only the first systematic traders but the first miners and metallurgists. The early Americans followed the same lines identically. In the working of gold and silver they specially distinguished themselves. Among the Nahua nations the ornamental working of these metals was carried to such perfection that the Spaniards frankly acknowledged that the products of their art not only surpassed that manufactured in the civilised centres of Europe, but were of more value than the precious metal from which they had been manufactured.

The direction in which this branch of Aztec art moved was in the main that of imitating natural objects such as animals, birds, reptiles, and fishes, and these with such consummate skill that movable heads, tongues, wings, and legs were common. What amazed the Spaniards most, however, was

the skill of the Aztecs in casting the various parts of an object in different metals, each distinct from the other, yet forming without soldering a homogeneous unit.

GLASS MANUFACTURE

The extent to which glass was manufactured (for which Sidon was so famous) among the early civilised peoples of America is not known, but that they had a knowledge of it seems certain. The Chevalier Charnay, while prosecuting a mission on behalf of the French Government, went to Zula, and while superintending the excavation of mountains of rubbish that for centuries had covered the relics of the ancient Toltecs, found not only fragments of pottery of all kinds but portions of a bottle made of iridescent glass like that for which the Phœnicians had been famous throughout antiquity.

PAPER

In the manufacture of paper we have further remarkable evidence of the presence of the Eastern Mediterranean nations in America.

The widespread use of papyrus throughout the ancient world as a writing material is well known. The process of manufacture among the ancients seems to have been much the same as that still in use among the South Sea islanders in the production of tappa from the paper-mulberry tree.

This product both in America and in the Pacific looked more like coarse parchment than paper, but it sufficed for the purposes to which it was applied. While mainly used in the Pacific as an article of

dress, it was in America chiefly utilised as a material on which to paint the hieroglyphic records.

PEARL FISHING

One of the very valuable commodities obtained by the Phœnicians from their Persian Gulf settlements was pearls.

The industry had a like importance among the peoples of the Pacific states. The Yaquis Indians were famous not only as miners but as pearl fishers, pearls, turquoises, emeralds, coral, and gold being the medium of exchange among them. In Potolan the dresses of the nobles were embroidered with figures of animals and birds formed of pearls. They were also much in request among the Nahuas, where strings of precious stones with pearl pendants were worn round the neck.

TANNING

Tanning was an important industry among the Phœnicians, though curiously enough the authorities are silent as to the processes used. The same, however, is true with respect to this art among the Central American nations. The leather so produced was as a rule applied to the manufacture of articles of dress, ornament, and armour, but it was not infrequently used as parchment.

QUIPPAS

It has been said with a considerable show of learning that the absence of the quippa, a system of recording dates and events by means of knotted

cords, afforded irrefragable evidence that the population of America was not derived from any Old World source. This objection is not, however, well founded, for Herodotus (iv. 98) refers to the use of the instrument in the exact form in which it is found among the peoples of the civilised states of America.

This method of recording historic events and the passage of time was not confined to the Asiatic and American Continents but was employed for a similar purpose by the Pacific Islanders. But the most complete correspondence with the quippa of Darius mentioned by Herodotus is that found in Mexico. It is peculiarly interesting, because not only is the form but the use to which it was applied found to be identical in both places.

TATTOOING

This custom provides another remarkable correspondence between the peoples of the Eastern Mediterranean and America. Tattooing was practised almost universally from Alaska to Central America, although the methods employed varied according to locality.

In Yucatan and Nicaragua the tattooing was effected by cutting the skin with stone lancets and rubbing powdered charcoal into the wound, which left an indelible mark. Stripes, serpents, and birds were the favourite designs. In other parts of the country fish-bones were employed to puncture the surface. This practice was common to both the Maya and the Nahua nations and engaged in by regular professors of the art.

Body painting was universally practised among the Maya nations as among the Scythian Budine

(Her. iv. 108), black and red being the colours most in use. This custom was not confined to the Mexican and Central American nations, but existed throughout the entire Pacific States and among the aboriginal tribes of North America.

That this barbarous custom, apparently of Asiatic origin, was practised by all the ancient Maya races there can be no question, for on the sculpture ruins found in Chiapas, Honduras, and Yucatan prominence is given to it.

The Columbia River is not infrequently referred to as the centre from which the custom radiated ; but this opinion must clearly, in the light of our research, not be received at its face value. The sculptures at Nachan or Palenque, the seat of the first population, show that, although the outline of the human figure was drawn in various attitudes and with great variety of dress ornaments and insignia, the flattened forehead always prevailed, making it apparent that the custom radiated from this and not from a Columbian River centre.

This peculiar cranial form was considered by the early Americans to be a mark of nobility. Like tattooing it is highly probable that it had a totemic origin, for, on close inspection, it will be observed that the form sought to be reproduced was that of the flat serpent head, thus indicating that head flattening had its origin among the serpent branch of the totemic cult to which Votan, the first culture hero, claimed to belong.

No essential difference existed between the various races in America in this usage.

The Chinooks of the Columbia River, as did the Mayas, considered a straight line from the end of the nose to the crown of the head a prime requisite

in facial beauty, to obtain which a process was set in operation shortly after the child's birth. This process usually consisted in placing the child on its back on a piece of flat wood with the head slightly raised by means of a block. Another piece of wood, or preferably bark, was placed over the forehead and fastened to that on which the child lay by means of senet cords, which were tightened at intervals until the head had assumed the desired form. Among all of these peoples a round head was considered a reproach.

IMPLEMENTS OF WAR, &C.

Those identified with the Mediterranean nations were one and all found not only in the civilised but among the uncivilised races of the American Continent. One peculiar weapon clearly identified with the Mediterranean was the curved throw-stick or boomerang. Its antiquity is beyond question, for among the subjects depicted on the tombs, the Egyptian is frequently shown going into the marshes in a boat accompanied by his children to spear the hippopotamus or knock down birds with the curved throw-stick. The bow and arrow were in general use among the nations of America, while those of Salvador and Nicaragua were so expert in the use of the sling that game and even birds on the wing were secured by it.

ARMIES

The armies of the American nations were like those of the Asiatic nations, large, well drilled, and fully equipped. They usually consisted of several

divisions numbering 8000 each, divided into regular companies commanded by captains and furnished with standards. In warfare the attack was made at a distance with arrows, slings, and javelins, but in the hand-to-hand fight which later ensued, dart, spear, sword, and club were used. The arrows throughout Mexico and Central America were winged with two and sometimes three feathers and pointed, as were the spears, with bronze, obsidian, or flint points as on the Mediterranean.

GYMNASIA

Among the Mediterranean nations it was usual to train in the gymnasium those fitted for a military career. This system also existed on the Pacific Islands, and was likewise common among the civilised nations of America. There the young men were not only trained in those exercises best suited to the development of bodily agility but to the use of weapons of warfare.

TOTEMISM

As we have already shown, totemism on the Mediterranean basin was a cult of Arian extraction and common to the Egyptians, Phœnicians, Scythians, Greeks, and Romans, and to some limited extent present among the Jews. It was a cardinal feature of the religious cult of the Phœnicians, each tribe or family being named after its own totem, an animal, plant, or heavenly body, which was worshipped by it and regarded as its protecting divinity. This practice also prevailed throughout Central Polynesia and on the American Continent from

Alaska to Mexico. Among the Samoans the child at birth was supposed to be taken under the care of some particular god or *aitu*. Several of these were invoked in succession on the occasion, the one which happened to be addressed as the child was born being selected as the child's god for life. These gods were supposed to make their appearance in visible form, and the particular thing in which it was believed to incarnate was to the individual an object of religious veneration.

The forms in which these *aitus* were supposed by the Samoans to incarnate were multitudinous, embracing the eel, crab, shark, turtle, lizard, fish, dog, owl, &c. If the individual found one of these in which he supposed his particular god to incarnate dead on the roadside, he immediately sat down beside it and began to weep, beating his forehead until the blood came, an act which was believed to be pleasing to the deity. This belief, expressed in almost identical form, prevailed, and, to some extent, exists even still among the Zapotecs, a pre-Toltec nation of Yucatan. Prior to confinement the relatives of the woman assembled in the house and commenced to draw on the floor figures of different animals, rubbing out each figure as soon as it was completed. This was continued until the moment of birth, when the figure that remained on the floor was selected as the child's *tona* or guardian spirit, it being obligatory on the part of the child, when it grew up, to procure one of the species which the drawing represented and care for it, as it was believed that not only the health but the life of the individual was bound up with that of the totem.

The prevalence of totemism on the American Continent was widespread. Among the North

American Indians the tribes when on the march always camped together in separate totem clans. Like the Scythian Neuri and the Phœnicians, these clans believed that their ancestors sprang from the totem and that at death they resumed the totem form. This view certainly prevailed among the Moqui Indians, who, believing that the ancestors of their clans were respectively rattlesnakes, deer, bear, &c., said that at death each man according to his tribe became one of these animals. This belief was not confined to any particular locality. Among the northern Omalia Indians the dying clansman, wrapped in a buffalo skin, with his clan totem painted on his face, was invariably addressed by his friends: "You are going to the buffaloes; be brave, be strong."

This was peculiarly a Phœnician belief, for Cadmus, the son of Agenor, king of Phœnicia, the founder of Thebes, who introduced the sixteen letters of the Phœnician alphabet into Greece, was accredited, along with his wife Hamonia, with having been transformed at death into the totem form of the serpent tribe to which they belonged.

TREE AND STONE WORSHIP

Among the Semites sacrifices were not originally burned, nor was the god supposed to be seated aloft but present in the baccellium, the bethel or sacred stone or sacred tree, which among them served at once as the later altar and the later idol. That this form of belief was familiar to the Polynesians is clear, for we have shown in our references to the cult of the Areois in Tahiti that a species of tree veneration existed there.

The belief had a corresponding place in the religious systems of the early Americans, the Miztecs and Zapotecs, two ancient branches of the Mayas of Yucatan claiming that the ancestors of their people sprang from two trees. The belief also prevailed in other parts of Central America and in Mexico where cypresses and palms, generally in groups of three within the temple enclosures, were tended with great care and received gifts and offerings of incense.

Nor was the adoration confined to trees. The worship of stones, more especially aerolites, is equally well demonstrated. Quetzalcoatt, sometimes identified with Votan, the culture hero, was represented either by a black stone or several small green ones. These were supposed to have fallen from heaven and were adored in his service.

SUN WORSHIP

With these forms of belief Phallus-worship was clearly identified in the Old World centres of civilisation. Indeed in most mythologies the Sun, as the principle of fire, the Moon, and the Earth were always associated with this worship. These were the parent principles, their obvious symbols being the Phallus and the Kteis.

So widespread was the cult that it embraced not only India, Egypt, and Phœnicia, but extended to the Greek and Latin races. It was, however, strictly forbidden to the Jews (Num. xxv. 3). Its presence in the Pacific and America is very apparent. The prevalence of sun worship, which was always intimately connected with Phallicism, would in itself go very far to prove its existence.

But we are not dependent on such evidence, for Stephens and Catherwood, Squires and the Abbé Brasseur de Bourbourg, all of whom were intimately familiar with the monuments of Central America, emphatically testify to the presence of the cult among the peoples of the civilised states.

MOLOCH

According to Dr. Döllinger and other authorities the image of Moloch among the Phœnicians was a human figure with a bull's head and outstretched arms. This image during periods of sacrifice was made red-hot by means of a fire kindled within, and the victims laid in its arms rolled into the fiery furnace below, the din of flutes and drums drowning their cries while they were being consumed. This system of sacrifice was also found in identical form among the ancient Maya races of Yucatan, especially among the Itzas, one of the most ancient branches of this nation. The chief idol of the Itzas was Hubo, and, like the Phœnician Moloch, was represented by a hollow metal figure, half human and half brute, which in times of sacrifice was heated by a fire kindled within. When sufficiently hot the human victims were passed through an opening between the shoulders into the fire below, charged to implore the favour of the gods. Their cries, as they were being roasted to death, were drowned by the beating of drums, the blowing of horns, and the shouts of the assembled friends, who meanwhile danced around the image. The correspondence does not, however, cease here, for in the temple services of the Itzas to Hubo, as in

those of the Phœnicians to Hercules, women were excluded under penalty of death.

In view of the mass of evidence which has been advanced showing the striking similarities between the Scythians, Thracians, and the Phœnicians of the Mediterranean basin and the peoples occupying the Pacific States of America it would be superfluous to continue our investigation further.

We will now deal with the evidence proving the presence of the Hebrews in the same territory.

MONOTHEISM

The one central feature distinguishing the Hebrew religious system from that of the surrounding nations was its Monotheism (2 Chron. vi. 18). Around this great central concept the life of the Israelite revolved. During the earlier and purer period of the Phœnician history the monotheistic idea seems also to have been prevalent, but we are unable to say just when the departure from the worship of one central divinity to that of his personified attributes took place. From the message of Hiram to Solomon (2 Chron. ii. 11) there can be no doubt that at the date of the joint expeditions from Eziongeber it still held a prominent place in the minds of the ruling and priestly classes.

The presence of such a belief among the early inhabitants of the Pacific States can scarcely, therefore, in view of what has already been said, be considered remarkable. To these peoples the highest invisible god was familiar under the name of Teoth. The more advanced school of Mexican cosmogony always ascribed the origin of this idea to the ancient Toltecs, so that we may safely enough

assume that it was derived from the teachings of the first culture hero. This school, it is asserted, taught that all things had been created by one God, invisible and omnipotent. That this monotheistic idea was not confined to the earliest period is apparent, for all the writers who have treated the later history of the American nations authoritatively assure us that at the time when the Spaniards landed on the continent there was not one that did not recognise the existence of a supreme and absolute Ruler of the universe.

It is quite true that this in itself would not demonstrate the presence of the Hebrew in America, nor is this fact, unsupported, offered as evidence of it, but in connection with the data to be submitted it will, we believe, demonstrate this fact beyond a doubt. It will also be shown that the influence behind this monotheistic idea must have been a dominating one since it was sufficiently powerful to have survived throughout long centuries of isolation.

While all the early traditions of the human race were held in common by the peoples who migrated from the Mesopotamian plains, still among none of them have they survived in the same pristine purity as among the Hebrews.

If, therefore, we keep the Jewish text prominently before us we should have little difficulty in determining the source from which corresponding traditions found among the native races of the Pacific States were derived, for in most instances they will be found to follow the Hebrew text almost *verbatim et literatim*.

The story of the creation of mankind follows the Hebrew text much more closely in the Pacific than

it does on the American Continent. This is not the case, however, with that of the Flood. Nearly all the painted manuscripts found among the Mexicans, the Tlascaltecs, Zapotecs, Meztecs, and Michoacans invariably depict a man and woman seated in a boat floating over a waste of waters. According to the Mexican tradition only one man and one woman escaped the catastrophe, and these saved themselves in the hollow trunk of a cypress tree, the name of the man being Cox Cox and that of his wife Xochiquetzal. The ark, according to this tradition, is said to have grounded on the Peak of Coluacan, the Ararat of Mexico, where the man and his wife multiplied and increased, their children being all born dumb. This calamity was nullified by the advent of a dove, which brought to them tongues innumerable, so that only fifteen of the descendants of Cox Cox could understand each other, but these became the heads of families, and from them were descended the Toltecs, Aztecs, and Acolhua nations.

This Michoacan account more closely corresponds to the Hebrew text. In it Tezpi is credited with having constructed a spacious vessel in which he not only saved himself and his family but also his children, together with several animals and grain sufficient for their common support. The correspondence does not, however, cease here, for, according to this tradition, when the waters began to subside, Tezpi sent out a vulture that it might return when the dry land appeared and bring him word. Finding abundant food in the carcasses floating in every direction the vulture did not return, and Tezpi sent out other birds and, among them, a species of humming-bird which, when the sun

began to cover the earth with verdure, came back to Tezpi bearing leaves in its bill. This tradition locates the spot where the vessel grounded in the mountains of Cothnacac, and there, it is said, Tezpi and his family disembarked.

The tradition most closely corresponding to the Hebrew and Chaldæan story of the building of the Tower of Babel is found in Mexico and is said to be of pre-Toltec origin, from which we presume it is necessary to associate it with the culture heroes.

According to this account Xelhua, a giant surnamed the Architect, went to Cholula immediately after the Flood and began the erection of an artificial mountain as a memorial of thanksgiving to the god Tlatoc, who had saved him and his family from the devastation which had swept over the land. The tradition goes on to say that the bricks necessary for the erection of this structure were made at Talamanalco at the foot of the Sierra de Cocoth Mountains, and passed from hand to hand along a file of men that stretched from the Kilns to Cholula. As, however, the pyramid rose slowly towards the heavens the jealousy and anger of the gods was aroused, and they launched fire from the clouds which killed so many of the builders that the work was stopped.

Passing now to a consideration of further evidence found in the territory pointing to Hebraic occupation we find traces of laws corresponding in some measure to those that were identified in an exclusive way with the Hebrews. Moreover, the methods of inflicting the penalties attached to their infraction were of such a character that it is impossible to err in relating them to Hebraic sources.

We have already referred to the presence of the

rite of circumcision in the Pacific as forming part of that cumulative evidence which enables us to determine the route pursued by the expeditions of Hiram and Solomon on their way to Ophir (1 Kings ix. 28). It is undoubtedly true that the practice of circumcision is much better attested among the later Nahuas and Aztecs than it is among the Mayas. But the rite does not seem to have been in general use among the Nahuas and Aztecs, which may be explained by the very mixed constituents of the imported civilisation. That it was practised, however, in the early seats of civilisation is well attested by Las Casas, Mendiota, and Brasseur de Bourbourg.

LEGAL SYSTEM

In order that the law among the Jews might be applied with the strictest impartiality instructions of the most rigorous character were given by Moses to the judges (Deut. i. 17). The sense of justice was also particularly keen among the Aztecs. One of the most notable characteristics of their monarchs was their efforts to secure justice. The need for it was impressed upon the king in the most serious manner at his coronation. The consequence was that the Aztec laws were severe in the extreme. No favouritism was shown, all alike, from the highest to the lowest, being made amenable to them.

In order that they might be protected from temptation to malfeasance the judges were appointed to the position for life. None were eligible who were not sober and upright. A judge who was known to have been intoxicated was, on the first occasion, severely reprimanded by his fellow judges, but on a repetition of his offence his head

was shaved in public and he was deprived of his office. If he was found guilty of making a false report of the business transacted in his court to the king, or convicted of taking a bribe or rendering an unjust decision, he was promptly punished with death.

In order that the administration of the law might receive due weight it was surrounded with the necessary pomp and circumstance. The two most important tribunals of the Nahua nation were held in the palace of the king, a large quadrangular building enclosing two open courtyards, the largest of which was used as a market-place over which a regular judicial tribunal presided, and to which was carried for adjustment all disputes that arose in the conduct of the day's business. The smaller court was situated in the interior of the palace, and was devoted to the consideration of cases of a more complex character. In the court a fire was kept perpetually burning. Here the two principal tribunals of the kingdom were situated. The highest of these courts was on the right-hand of the palace as one entered the gateway. In the interior was a throne of gold studded with turquoises, emeralds, and other precious stones, and on a stool which stood in front of the throne were arranged a shield, or heavy double-handed sword of justice, with a row of sharp flints set along the edges, a bow with a quiver of arrows, a skull surmounted with an emerald of pyramidal shape, in which was inserted a plume of feathers, and along with these precious stones and other insignia of law and royalty. The walls of the court, according to Prescott, were hung with rare tapestries manufactured from the hair of various animals of rich and varied colours and

lavishly embroidered with figures of birds and flowers. This tribunal was called the Tribunal of God.

The inferior tribunal called that of the king also contained a throne but of lower height. It was adorned with a canopy which bore the royal coat-of-arms. In this court the ordinary business of the king was transacted, and there he gave audiences. When decisions were to be given in important cases, or when it was necessary to impose sentence of death, the court proceeded to the Tribunal of God. In passing judgment there the king ascended the throne, put on the golden tiara, which resembled a half mitre, placed his right hand on the skull and with his left hand held aloft the golden arrow, which among the Nahuas served as a sceptre.

In another hall adjoining these two supreme tribunals were held subsidiary courts. In the inner and principal of the two divisions was a tribunal presided over by eight judges, one-half of whom were nobles and gentlemen and the other half citizens. The outer division was occupied by a higher court composed of four superior judges called the Presidents of the Council, and between this court and that presided over by the king was a wicket so arranged that the judges could pass through and refer to him all difficult cases (Deut. i. 17).

Perjury in all these courts was punishable by death, and not only was it expressly forbidden to a judge to receive even the most trivial present from the litigants, but the violation of this law was accompanied by deposition from office and the infliction of other exceedingly rigorous punishments.

That this judicial system was derived from the

Hebrews there can be no question. The name Hebrew is written in very legible character across its face. It will, therefore, be profitable to examine the Scripture narrative somewhat closely with a view to seeing what light it sheds on the problem.

In Exodus xviii. 15 Moses, in explaining to his father-in-law the reasons why he personally performed the onerous duties of judge to the people, said that he did so solely on account of his familiarity with the statutes of Jehovah and his desire to communicate them to the people. The office was, however, too arduous for one man to continue to sustain without suitable support, and Jethro, solicitous for the welfare of his son-in-law and not less so for the honest administration of the law, counselled Moses to alter his system and appoint a many-centred Court of Appeal to adjust minor differences and offences, and to confine his attention to the more important ones in which it was necessary for him to stand in the place of God to the people. That this was the system in use among the Nahua nations is apparent on the face of it.

The laws relating to gluttony, drunkenness, and honour to parents were fundamental among the Jews, and were clearly and explicitly stated, as were the punishments attached to their infraction. As these had no exact counterpart among the other nations of the period it will be profitable to give some attention to them, more especially as they will be found to be identical with those in operation among the Nahua nations of America.

In Deuteronomy v. 16 the Hebraic law reads, "Honour thy father and thy mother, as the Lord thy God hath commanded thee, that thy days may be prolonged and that it may go well with thee in

the land which the Lord thy God giveth thee." This, again, is supplemented in Deuteronomy xxi. 18 with very stringent regulations as to the punishment of disobedience to parents, gluttony, and drunkenness, and reads as follows: "If a man have a stubborn and rebellious son which will not obey the voice of his father or the voice of his mother, and that when they have chastened him will not hearken unto them, then shall his father and his mother lay hold on him and bring him out unto the elders of the city and unto the gate of his place. And they shall say unto the elders of the city: This our son is stubborn and rebellious, he will not obey our voice, he is a glutton and a drunkard. And all the men of his city shall stone him with stones till he die, so shalt thou put away evil from among you and all Israel shall hear and fear."

The counterpart of these laws is found among the Nahua nations and were derived from the Mayas. The son who raised his hand against his father or mother not only suffered death, but his children were debarred from inheriting the property of their grandparents. The law of gluttony and drunkenness was enforced with equal strictness. The young man found drunk was conveyed to jail and there beaten to death with clubs, while the young woman who so disgraced herself and parents according to a more literal interpretation of the Jewish law was stoned to death.

The law of material evidence bulked very largely in the Jewish code, and seems to have held a corresponding place in that of Egypt, as may be seen by reference to Genesis xxxix. 13 and Exodus xxii. 4. This law had a like prominence among the Maya

nations. It was deemed of great importance there to take the thief while in actual possession of the stolen property, while to secure judgment against a man accused of rape it was necessary for the prosecutrix to seize and produce in court some portion of the offender's wearing apparel.

There is again the same startling similarity in the Jewish and Aztec laws regarding theft. Among the Jews it was required of a man that stole an ox or a sheep and killed it that he return five oxen for an ox and four sheep for a sheep, but in the event of his having nothing then he was sold for his theft and restitution made from the proceeds of the sale (Exod. xxii. 1). If, on the other hand, he stole money or goods the thief was required to pay double, or if the goods were found in his possession alive, whether ox, ass, or sheep, he was required to pay double (Exod. xxii. 9).

According to Ortega the petty thief among the Aztecs was considered the slave of the person from whom he had stolen, yet the injured party had the privilege of refusing to accept the thief as his slave, and in such cases he was sold by the judge and the complainant was reimbursed from the proceeds of the sale. In cases where a compromise was effected the thief was not only required to reimburse the injured party for his loss, but to pay into the court treasury an equal sum which was tantamount to the Hebraic law of paying back double the amount stolen.

The Levitical law regulating business transactions was not less stringent than that which affected the public at large. According to Torquemada there was in each market-place a commercial tribunal which seems to have been similar in its

purposes to that referred to by Herodotus (ii. 178) as existing in Naucratis in northern Egypt. This tribunal among the Nahuas was presided over by twelve judges who regulated both measures and prices. Guards under their authority constantly patrolled the markets to prevent disorder, any attempt at extortion or palming off inferior goods on the purchaser, or taking advantage of the seller, discovered by them being at once reported to the judges, who not only punished severely all offenders, but even inflicted the death penalty in flagrant cases.

Among the Hebrews both in the earlier and later periods, as may be seen by reference to Genesis xx. 12 and 2 Samuel xiii. 13, marriage to a sister was allowable provided the relationship was on the father's side only. This custom, curiously enough, prevailed also in the early American civilised states. Among the Guatemalans the same permission was given, provided only that the woman was sister by a different father, no relationship on the mother's side being recognised among them.

More curious still was the existence in the civilised states of the Hebraic law which compelled a man to marry his deceased brother's widow in the event of there being no issue. The Hebraic law on this point was very explicit: "If brethren dwell together, and one of them die, and have no child, the wife of the dead man shall not marry without unto a stranger: her husband's brother shall go in unto her and take her to him to wife, and perform the duty of an husband's brother unto her, and the first-born shall succeed to the name of his brother who is dead, that his name be not put out of Israel" (Deut. xxv. 5).

This law was not instituted for the protection of

the Hebrew people during the sojourn in the wilderness solely, but was a prominent feature of the national polity during its entire career.

Among the early civilised American races this law was also in operation.

This obligation to marry the childless widow it will, however, be remembered was among the Hebrews not confined to a surviving brother but extended to the nearest surviving kinsman (Deut. xxv. 5). The story of Ruth, the Moabitess, centres in the application of this law, Boaz, the ultimate husband, being unable to marry the young widow until the claims of a nearer kinsman had been legally set aside. A similar law existed among the ancient Maya races of Central America. There a widow was invariably married to the brother of the deceased husband, and that even in the event of his having a wife of his own living at the time, the widow being considered the property of the dead man's family. The analogy can be carried even further. The obligation to marry the widow there, as in Palestine, was not confined to a surviving brother but extended, as among the Hebrews, to the nearest surviving male relative on the husband's side.

Concubinage, it is needless to say, was common among the Hebrews, not only in the earlier period but in the most extraordinary form, during the reign of Solomon who, according to 1 Kings xi. 3, had seven hundred wives and three hundred concubines who turned away his heart from the service of God.

Throughout the Mexican empire concubines were not only permitted but regulated by law. Among the Nahua nations concubines were divided into three classes, nor was the usage confined to the common people, but found the widest field for its

to 1 Chronicles xxiii. 1 and 1 Kings ii. 14, where it will be seen that Solomon, the youngest son, was chosen in place of Adonijah, the eldest.

During the period, likewise, the custom seems to have been adopted of training the chosen heir for the functions of the kingly office while the old monarch was still alive.

There may be room for difference of opinion as to the origin of such a system of government, but if we follow the Scripture narrative there can be no question that the system of government was the outgrowth of two factors—first, the explicit instructions of God to David that Solomon should succeed him on the throne of Israel, and second, the solicitous desire of David to carry out these instructions in such a way that Solomon would be firmly established on the throne before his demise. In 1 Chronicles xxviii. 5 this is clearly set forth, for there David says: “Of all my sons the Lord hath chosen Solomon to sit upon the throne of the Kingdom of the Lord over Israel,” a statement that receives corroboration not only in the complaint of Adonijah (1 Kings ii. 14) that the kingdom was his and that all Israel had set their faces on him that he should reign over them, but in 1 Chronicles xxiii. 1, where it states explicitly that “When David was old and full of days he made Solomon, his son, king over Israel.”

Anointing and coronation among the Hebrews seem in consequence of this departure to have been two separate ceremonies among them. Not only was Solomon anointed by Zadok the priest and Nathan the prophet (1 Kings i. 39) during the life of David, when he temporarily took up the reins of office, but a second time on his regular accession to the throne on the death of his father (1 Chron. xxix.

22). On the accession of the Hebrew monarch to the throne it was, moreover, obligatory for the princes of the royal house, the generals of the army, the governors of the provinces, and all high in authority to proceed to the royal palace and swear allegiance to him, none of these being permitted, under the most severe penalties, to absent himself from the ceremony (1 Chron. xxix. 24).

Among the Nahua nations the order of royal succession as among the Hebrews was lineal and hereditary. The reigning king, however, always retained the right to select from among his sons the one whom he thought best fitted to govern. In order, however, that no mistake might be made in the selection it was customary for the Nahua king, when he felt that his end was drawing near, to place on the throne, as David did Solomon, the son whom he had selected in order to familiarise him with the routine of government under his personal direction. The chosen heir, therefore, really began his reign from the date of his appointment.

The ceremony of anointing among the Nahuas likewise always preceded and was distinct from that of coronation. The *de facto* king despatched messengers throughout the kingdom when the old monarch grew sick, summoning the nobles and grandees of the kingdom to repair at once to the capital and swear allegiance to him, no one being permitted to absent himself under the most severe penalties.

REMOVAL OF LANDMARKS

Removal of landmarks among the Hebrews was a heinous offence. "Cursed be the man," said the

Hebraic law, "that removeth his neighbour's landmark" (Deut. xxvii. 17). This law was equally drastic in Central America, for in Mexico he who by force took possession of another's land or removed his neighbour's landmark was summarily put to death.

SORCERY

Sorcery was forbidden to the Hebrews. "The man or woman that hath a familiar spirit, or is a wizard, shall surely be put to death: they shall stone them with stones, their blood shall be upon them" (Lev. xx. 27).

This law was also in effect in the civilised states of America, for, according to Ximenes, the balam or sorcerer in Guatemala was burned, and, according to Torquemada, the same offence in Verapaz caused the guilty party either to be beaten to death with clubs or hanged.

SLAVERY

Among the Hebrews slavery seems to have been a very mild institution amounting to little more than a moderate subjection, which was not allowed to interfere with the slave possessing sufficient time in which to work for his own advantage and the support of those dependent on him. Scripture (Exod. xxi. 2 and Lev. xxv. 39) leaves no room for doubt on this point. The case can, however, be better understood by reference to the institution during the reign of Solomon, when the assistance to be secured from the subject people was ascertained by numbering all the strangers in the land, and, as these were found to amount to 153,600, they were apportioned to the work in three sections

of 51,800 each, who laboured one month in Lebanon and were two months at home (1 Kings v. 14).

These strangers were the Amorites, Hittites, Perisites, and Jebusites left in the promised land after its occupancy by the Hebrews on whom was levied a tribute of bondservice. The Hebrews were exhorted to treat these subject people with great consideration and to remember that they and their forefathers had been bondservants in Egypt (Deut. xv. 12).

The Phœnicians were the great slave dealers of the ancient world, and slavery among them was a very different institution from what it was among the Israelites. The population of Tyre, indeed, at the period of its destruction by Alexander the Great is said to have included some 30,000 of these unfortunates, whose average value of £3 per head was assessed at little more than that of ordinary cattle.

In the ancient states of America slavery was an institution of considerable importance. The chief slave market seems to have been in Azapazalco. Slavery was an immensely profitable business, for the trades, with a view to advantageous sales, are said to have fed and clothed those about to be exposed in the public markets, and to have encouraged them to dance and look cheerful with a view to securing good masters.

Slavery in Mexico was, as among the Hebrews, little more than an obligation to render a certain amount of personal service when this was demanded. But it would seem that this could not be exacted without allowing the slave a certain amount of time in which to labour for his own advantage and the support of those dependent on him. Slavery, however, was not altogether of this patriarchal character among the peoples of the civilised states of America,

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for we learn from the ancient records that slaves who were neither prisoners of war, deformed persons, nor criminals were in some cases put to death in large numbers. But this difference in the treatment of slaves does not hinder but rather helps us to understand the source from which the American institution was derived. It was neither Jewish nor Phœnician but a conjunction of both.

MAN STEALING

Among the Jews man stealing was a capital offence. The law on this point was explicit—"If any man be found stealing away one of his brethren of the children of Israel and making merchandise of him and selling him, that thief shall die, and thou shalt put away the evil from among you" (Deut. xxiv. 7; Exod. xxi. 16). The parallel to this law was found operative in the Central American States, for, according to Las Casas, the crime of kidnapping, while common in Guatemala, was punished with great severity. He who sold a free native into slavery was clubbed to death, while in Texcuco the man who kidnapped a child and sold it into slavery was hanged.

The redemption of slaves among the Jews was explicitly provided for, perpetual bondage, unless deliberately chosen by the slave, being forbidden (Exod. xxi. 6): "If a sojourner or stranger wax rich by thee, and thy brother that dwelleth by him wax poor, and sell himself unto the sojourner or stranger by thee, or to the stock of the stranger's family: after that he is sold he may be redeemed again; one of his brethren may redeem him" (Lev. xxv. 47). The humane provision for the redemption of

the slave was likewise provided for among the ancient Mayas, for while, as in Palestine, it was permissible for a father to sell himself or his children into slavery when circumstances compelled, in Nicaragua the slave so sold always retained the right of redemption.

CITIES OF REFUGE

The sanctuary or city of refuge which was in the early ages peculiar to the Jews provides another valuable correspondence with Central American institutions. The Vanquech or place of worship among the Californians, like the marae among the Tahitians, was a large unroofed enclosure, and, like it, not to be approached without reverence. Each Vanquech was a city of refuge, and with rights of sanctuary like those among the Society Islanders that exceeded any ever granted in a Jewish or a Christian community. Not only was the criminal who entered the Vanquech safe, but even contact with the sacred enclosure was deemed sufficient to purge the criminal from his offence, so that he was at liberty to return to his home.

In the face of such a list of correspondences as have been given it is needless to continue this investigation further, for while it is highly probable that Chinese and Japanese junks, driven by storm or swept by currents, may have reached the western shores of America, and that the eastern sea-board was visited at long intervals by Icelanders, Scandinavians, Welsh, Irish, and Scotch, still it is clear that it is not to such sources that we must look for a solution of the problems that are presented by the civilisation of the American Continent. These

visits were in the very nature of things accidental. They were not the result of any concerted movement either of a national or of an international character. Moreover, if the strangers who succeeded in reaching either the eastern or western shores of the continent had been spared they naturally would have settled among the people and imparted knowledge and ideas that in some form would have moulded the thought of future generations. Still, even with this admission, we would be without a solution of our problem, because it is impossible to suppose that this information or the physical peculiarities so transmitted could have survived the lapse of a few generations of intermarriage with the strong aboriginal stock. Unless, therefore, we were able to show that there was an importation of emigrants in sufficient numbers and of a civilisation superior to that existing there and capable of dominating the aboriginal population, our investigation would have been fruitless.

Now the trend of our entire research has gone to show that the discovery of America was not a mere accident in the Phœnician career but a discovery that was followed by aggressive colonisation in conjunction with the Hebrews, and that these two nations drew into their service still others of a semi-civilised character, who went with them in the capacity of seamen or marines. How long this intercourse between Asiatic and American Continents continued we have no means of determining accurately, although there seems to be good reason why it should not be limited to a period of less than 380 years, or from 1050 B.C., when the expeditions of Solomon and Hiram took place, and 670 B.C., when Esdrahaddon I, the youngest son of Senna-

cherib, performing the feat, never since attempted by a civilised power, penetrated to the heart of Africa and, capturing the cities of that desert-guarded region, reduced the peninsula to the condition of an Assyrian province. This incident for a period closed the navigation of the Persian Gulf to the Phœnicians.

The great difficulty in arriving at a solution of our problem has not been the lack of information so much as a certain unwillingness to believe that the men of past ages outran us in many directions and were in possession of such knowledge and such appliances as the navigation to and the discovery of the American Continent demanded. In view of what has been submitted, however, it should, we think, be apparent that neither the men, the knowledge, the initiative, nor the resource were lacking at that period to accomplish all that was involved in the discovery of the American Continent.

For many years there has existed among investigators of this problem a belief that it is one that never can be solved, and, so far as dependence on the information provided by the ancient monuments in the New World itself is concerned, there can be no question that this is no erroneous belief, the light which these monuments provided being one-sided and incomplete. It is rather to the traces of an advanced civilisation which, up to a comparatively recent date, have survived among the people themselves along the route of the voyages of Hiram and Solomon that we must look.

We have, moreover, shown in the clearest possible manner by means of existing traditions and records found among the early civilised peoples of America the destination to which these expeditions

of Solomon and Hiram were directed, and that the remoteness of this region explains in a wholly satisfactory manner the long period of time that was spent on the return voyages. Moreover, abundant evidence has been produced indicative of the presence of all the nations comprising the personnel of these expeditions over the entire course pursued by the ships. We have, therefore, explained in a rational way the causes which operated to plant in the New World simultaneously, a somewhat advanced civilisation, alongside a rude state of society which we are accustomed to call aboriginal or semi-civilised. How long, it will be asked, did the Hebrew participation in these expeditions last? Fortunately, there does not seem to be much difficulty in answering the question if the Scripture narrative is followed and Archbishop Usher's chronology adopted.

That a complete rupture in the cordial relations that had for so many years existed between Israel and Phœnicia followed the massacre of the priests of Baal by Elijah (1 Kings xviii. 40) is more than probable, and under any circumstance could not have survived the assassination of Jezebel the wife of Ahab and the daughter of Ethbaal, King of Tyre (2 Kings ix. 36), for the Hebrew writers inform us in 2 Chronicles xx. 36 that Jehoshaphat attempted to open up the eastern Tharshish trade on Jewish account by building a special fleet of ships at Eziongeber. This expedition, however, ended disastrously, and so far as we have any information on the subject no other attempt in this direction was ever made. This, therefore, would narrow down the period of Jewish participation to the dates between 1050 B.C. and 897 B.C., or in all 157 years, quite

sufficient time, however, through which to account for the very pronounced Hebrew influence which we found pervading the civilised Central American States.

Nothing further now remains except to sum up the evidence submitted, so that it may be presented in a form easy of comprehension by the average reader.

CHAPTER XI

CONCLUSION

List of some of the more apparent correspondences found to exist between the people inhabiting the shores of the Eastern Mediterranean and those of Central America—Quotation of or reference to authorities on which the argument is founded.

1. THE civilisation of the Aztecs, using the name as a generic term, came from the eastern shores of the Mediterranean.

AUTHORITIES.—Prescott, *Mexico*, iii. 418; Wilson, *Prehistoric Man*, p. 615; Gallatin, *Amer. Ethno. Society Trans.*, i. 158; Humboldt, *Exam. Crit.*, ii. 68; Nadullac, *Prehistoric America*; Bancroft, *Nat. Races*, v. 30.

2. Its intermediaries were the Hebrews and Phœnicians with whom were associated as seamen and marines on the large armed ships of Tharshish representatives of the two great nations of South-eastern Europe, the Thracians and Scythians, who were accustomed to hire themselves out as mercenaries.

AUTHORITIES.—1 Kings x. 22; Strabo, B. vii.; Herodotus, vii. 96; Strabo, ii. 221; Herod., iv. 59; *Ency. Brit.*, xxiii. 22; Ellis, *Poly. Res.*, iv. 431; Bancroft, *Nat. Races*, iii. 165.

3. The expeditions which succeeded in planting what is popularly known as the Aztec civilisation on the American Continent were sent by Solomon and Hiram. They sailed from Eziongeber on the Ælantic Gulf of the Red Sea to a destination called

Ophir, whose location we have not so far succeeded in determining satisfactorily.

AUTHORITIES.—1 Kings x. 27 ; 2 Chron. viii. 17.

4. From the fact that these joint expeditions of Solomon and Hiram occupied three years in the prosecution of their voyages, and that they brought back silver as the staple of their cargoes, it is evident that Ophir of India or South Arabia cannot be viewed as the destination for which the ships set out, although Ophir of South Arabia or India may reasonably enough be regarded as the general direction pursued by the fleets. The difficulty in determining the actual destination of the ships should, however, occasion no surprise, for, after the displacement of the Phœnicians on the Eastern Mediterranean by the Greeks, a century and a half before the date of the expeditions that sailed from Eziongeber, the Phœnicians adopted a policy of secrecy as to the route and destination of their more distant voyages, so that competing nations might not invade valuable territory in their possession.

AUTHORITIES.—Heeren, *Asiat. Nations*, i. 31 ; Josephus, vi. 4 and vi. 147 ; Longmans' *Classical Atlas*, Map 7 ; Heeren, *Asiatic Research*, iii. 320 and iii. 328 ; Rawlinson's *Story of Phœnicia*, p. 60 ; Heeren, *Phœnicia*, ii. 315.

5. Light on this enigma may, however, be obtained by observing such traces as still exist of the presence of the nations which formed the personnel of these expeditions in distant regions, because the Phœnicians were accustomed to establish along the route of their more distant voyages, stations for repairing and revictualling their ships and ports of call, to which their vessels might run in times of

stress. These were placed under the direction of responsible agents, who must necessarily have been of Hebrew, Phœnician, Thracian, or Scythian extraction.

AUTHORITIES.—Heeren, *Asiatic Research*, ii. 314, ii. 322, and iii. 328.

6. Following this method of procedure, we are enabled to satisfactorily determine the route which the vessels pursued, for in consequence of the well-known integrity of the race and their association with the Phœnicians as marines on their ships, a Scythian would appear to have been selected as the governor or superintendent of the Pacific colonies erected on the Navigator and Society group of islands. This conclusion is amply warranted by a consideration of the following facts as well as those already submitted.

(a) Tahiti, the principal island in the Society group, is so named after Tabiti, the Scythian Vesta or queen of heaven. The native pronunciation emphasizes in a peculiar way this fact, for by eliminating the disputable consonants " b " and " h " which distinguish the two names, both will be found to spell and sound Taiti, which agrees with that found in use among the natives of the Society Islands when discovered by the navigator Bougainville.

(b) Papeete, the name of the chief town on the principal island, is clearly derived from that of Papeus, the Scythian Jupiter or father.

(c) The religious traditions of the Society Islanders were clearly derived from Hebrew sources, as may be seen in their story of the creation of the first man and his wife, Eve, from the red earth and

their traditions of the flood, and of the sun being commanded to stand still.

(d) While, however, the presence of the Scythian and Jew can be thus clearly established, it is evident that they occupied the islands in conjunction with the Thracians and Phœnicians, for the tattooing is clearly Thracian, and the religious system of the Society Islanders is unmistakably that of Phœnicia, as may be seen in their sacred groves and open-air temples or marais and their human sacrifices, but especially in a consideration of the Areois Society, whose methods of initiation and practices were identical with those of the Galli or priests of Astarte.

(e) The presence of the Phœnicians in the Society Islands is, moreover, made evident by a comparison of Strabo's description of the Sidonian-Phœnician's skill in the use of numbers and astronomy with that of the Society islanders given by Mr. Ellis in his *Polynesian Researches*. Mr. Ellis calls attention to the extraordinary skill of the Society islanders in the use of numerals, and to the very significant fact that their names of stars and groups and the use to which they applied their knowledge of the heavenly bodies was the same as that of the inhabitants of the eastern shores of the Mediterranean.

AUTHORITIES.—Herod., iv. 46; Strabo, B. vii. and vii. 8; Ezek. xxviii. 16; Herod., vii. 96; Strabo, ii. 221; Herod., iv. 59; Taiti, *Ency. Brit.*, xxiii. 22; Ellis, *Poly. Res.*, iv. 431; "Clay Eating," Ellis, *Poly. Res.*, i. 115; Bancroft, *Nat. Races*, iii. 165; "Creation Tradition," Ellis, *Poly. Res.*, i. 115; *Samoa*, Dr. Turner, art. "Bowditch Island"; Genesis ii. 9, ii. 20, and iii. 20; "Flood Tradition," Ellis, *Poly. Res.*, i. 114 and iii. 170; Joshua x. 12; "Temples," Ellis, *Poly. Res.*; Rawlinson's, *Story of Phœnicia*, pp. 109 and 252; 2 Kings xviii. 4; Stanley, *Lectures on the Jewish Church*, ii. 246; Renan, *Mission de Phenicie*, p. 39; "Totemism," Sayce, *Anct. Empires*

of the East Phœnicia ; Bancroft, *Nat. Races*, iii. 281 ; Herodotus, iv. 59 ; *Nat. Races*, iii. 442 ; Ellis, *Poly. Res.*, articles "Temples" and "Gods" ; "Galli or Priests of Astarte," *Story of Phœnicia*, p. 116 ; Dr. Döllinger, *Heidenthum*, p. 425 ; *Nat. Races*, iii. 508, and iii. 482 ; Strabo, xvi. 757 ; *Poly. Research*, ii. 422 and iii. 170 ; *Story of Phœnicia*, p. 39 ; *Ency. Brit.*, xviii. 804 ; *Nat. Races*, i. 274 ; Hastings' *Dictionary of the Bible*, article "Pleiades" ; *Poly. Res.*, iii. 167 ; Genesis i. 16 ; *Story of Phœnicia*, pp. 29 and 90 ; *Poly. Res.*, iii. 170 and i. 87 ; *Ency. Brit.*, viii. 158 ; *Poly. Res.*, i. 401 ; *Nat. Races*, ii. 603.

The name Morea applied to an island separated from Papeete, the principal town in the Society group, by a narrow strait ten miles wide, is the same as that of one of the principal districts of the Hellenic Peninsula, colonised by the Scythians shortly before this period. It is said to have received its name in consequence of the contour of the shore line of the peninsula resembling the form of a mulberry leaf. If this explanation is correct then the name would be equally applicable to Morea of the Society Islands.

AUTHORITIES.—*Ency. Brit.* and *Naval Charts of the Peloponnesus and Society Islands*.

8. Samos of the Sporades, which lie off the coasts of Asia Minor, was clearly the source of Samoa of the Pacific. This conclusion is warranted by a consideration of the following facts, among others :

(a) The native name of Samos of the Sporades, according to Pliny, was not Samos but Samo, which is also the native name of Samoa of the Pacific. Although resident there for the major portion of two years I do not recall a single exception to this pronunciation of the name by a native Samoan in any part of this group of islands.

(b) The name of the principal island in the

Samoan group is Upolo, the equivalent of Apollo, the Scythian deity. The name of the principal town—and since it faces the main entrance to the lagoon the first town—is Apia, the same as that of the Scythian deity, the earth, and the name of the Peloponnesus before the displacement of the Scythians by the Greeks under Pelops.

(c) The alphabet received from the Phœnicians and introduced into Greece shortly before this period by Cadmus, the son of Agenor, King of Phœnicia, consisted of sixteen letters, the same as the Samoan. The language of the Samians of the Sporades was a dialect of the Ionic peculiar to themselves. We have, therefore, in the connection what will probably be found to be a clue leading to a solution of the perplexing enigma as to the source from which the Polynesian language was derived.

(d) The natives of both islands were famous as seamen. Samos of the Sporades was the headquarters of the Ionian fleet, and the Samians, shortly after the date of their expeditions, were the first to lead the Greeks through the Pillars of Hercules into the Atlantic. The Samoans of the Pacific were named navigators by the discoverer Bougainville on account of their nautical skill. To the Samoans, likewise, is accredited the distinction of having peopled the Pacific Islands from Hawaii to New Zealand.

(e) The name Samos or Samo, according to Pliny, means a mountain height by the sea, and was therefore descriptive of the physical features of the island in the Mediterranean. The name is, however, equally applicable to all the Pacific Samoan Islands, for they are composed of what seamen frequenting

these regions call high islands to distinguish them from the low coral attols by which they are surrounded for hundreds of miles in every direction.

AUTHORITIES.—Pliny, v. 37 ; Strabo, viii. 503 ; Smith's *Dictionary of the Bible*, article "Samos" ; Heeren, *Asiat. Nations*, p. 311 ; *Ency. Brit.*, xvii. 279 ; Herodotus, iv. 59 ; Strabo, i. 493 ; Herod., i. 142 ; Ratzel's *History of Mankind*, article "Polynesians" ; Heeren, p. 309 ; Herod., v. 58 ; *Ency. Brit.*, vii. 279 ; Thucydides, i. 13 ; Herod., iv. 152.

9. In consequence of the international character of the expeditions of Solomon and Hiram, the crews of the joint fleets were undoubtedly picked men from the Phœnician craft then in port, but as Phœnicia, from the very limited area of its territory, could not have provided men in sufficient numbers to supply the insistent demands made on its population by the various enterprises in which its people were engaged, the difficulty clearly enough seems to have been overcome by securing suitable men from among the various seafaring nations adjacent to their own coasts, with whom they had friendly and commercial relations. And as the Scythians and Thracians, at that time the greatest nations in South-Eastern Europe, were seamen and accustomed to hire themselves out as mercenaries, it is reasonable, in view of what has been said, to ascribe the tattooing of the Pacific Islands and the American Continent to the Thracian and the cannibalism to Scythian origin.

(a) This conclusion is, moreover, further warranted by a consideration of the fact that the gymnastic system in use on the Mediterranean as a means of training for the exigencies of war, as well as all the implements used in its prosecution

(including bow and arrow, spear, javelin, dart, falchion, sword, and sling, as well as the curved throw-stick or boomerang used in the chase), are found over the entire course pursued by the ships on their voyages across the Pacific and on the Pacific slopes of the American Continent.

AUTHORITIES. — Herod., v. 3 ; Strabo, B. i. ii. 28 ; Xenophon, B. i. i. ; "Mercenaries," Dr. Smith, *Greek and Roman Antiquities* ; Herod., i. 171 ; Pausanius, iv. 8 ; Herod., vii. 26 ; Thucydides, i. 121, vi. 25, and vii. 27 ; *Ency. Brit.*, vii. 720 ; Xenophon, vi. 2 ; Memorabilia, ix. 2 ; Syffert's *Dict. of Classical Antiquities*, article "Mercenaries" ; *Ency. Brit.*, ii. 502 ; Games, *Ency. Brit.*, x. 63 ; Homer, *Iliad*, xxiii. 710 ; Dr. Smith, *Greek and Roman Antiquities* ; *Poly. Res.*, i. 204, i. 208, i. 290-312 ; Dr. Geo. Turner, *Samoa* ; "Spear and Javelin," Ellis, *Poly. Res.*, i. 217 ; "Bowmen," Herod., iv. 9 and iv. 59 ; *Poly. Res.*, iv. 431 ; "Circumcision," Herod., ii. 104 ; John vii. 22 ; Dr. Geo. Turner, *Samoa*, p. 81 ; Bancroft, *Nat. Races*, iii. 439 ; *Ency. Brit.*, v. 790 ; "Tattooing," Herod., v. 6 ; Rawlinson, *Story of Phœnicia*, p. 88 ; Dr. Geo. Turner, *Samoa*, article "Tattooing" ; Bancroft, *Nat. Races*, ii. 733 ; "Cannibalism," Strabo, iv. 5 ; *Story of Phœnicia*, p. 88 ; Herod., iv. 26 and iv. 106 ; Strabo, B. vii. iii. 9 ; *Ency. Brit.*, xvi. 210 ; *Nat. Races*, iii. 316 and iii. 443 ; *Ency. Brit.*, xvi. 168 ; Wait's *Polynesia*, vi. 158 ; Ellis, *Poly. Res.*, i. 309 ; Dr. Turner, *Nineteen Years in Polynesia*, p. 194 ; "Equestrian Archers," Herod., iv. 46 ; *Poly. Res.*, iii. 102 and iii. 272 ; "Skulls of Ancestors," Herod., iv. 26 ; *Poly. Res.*, iii. 272 ; "Wives do not eat with Husbands," Herod., i. 146 ; *Poly. Res.*, i. 116 ; *Nineteen Years in Polynesia* ; "Marines and Seamen," Herod., vii. 96 and vii. 184 ; Strabo, ii. 221 and B. vii. ; Ezek. xxviii. 12.

10. Samoa was, on account of the archaic form of its language as well as the traditions of the Pacific Islanders, the source from which the population of the Pacific Islands from Hawaii to New Zealand and from Tonga to Tahiti was derived. We are therefore in a position to account satisfactorily for the origin of the Polynesian race and for its distribution,

and probably also for the source from which its language was derived.

AUTHORITIES.—*Ency. Brit.*, vii. 279; *U. S. House Executive Documents*, No. 238; *U. S. Blue Book on Samoa*; *International Ency.*, article "Samoa"; *Ency. Brit.*, xvii. 471; Herod., i. 142.

11. The date of the voyages of Votan of the American tradition agree absolutely with those of Solomon and Hiram, which proceeded in this general direction, namely, about 1050 B.C.

AUTHORITIES.—Bancroft, *Nat. Races*, iii. 17, iii. 45, iii. 452; *Ency. Brit.*, i. 704, xvi. 208; *Nat. Races*, v. 23, v. 164; "Long flowing robes," 2 Kings iv. 29; Herod., iv. 29; 2 Kings ix. i; "Circum Africa," Herod., iv. 41; Heeren, *Asiat. Nat.*, ii. 317; Rawlinson, *Story of Phœnicia*, p. 179.

12. The American civilisation, its religious cult, its traditional lore, its science, art, and manufacture, its strange customs and usages found among the civilised and uncivilised peoples were one and all derived from the Eastern Mediterranean basin, having been carried thither by those crews of composite nationality and the marine corps which formed the personnel of the fleets of Solomon and Hiram. The religious traditions, and at least the prominent features of the moral code, were derived unquestionably from Jewish sources; the scientific, artistic, and manufacturing, as well as the commercial and caravan systems and the ruder phases of the religious practices, including human sacrifices and totemism, from Phœnician; the tattooing from Thracian, and interwoven with these the peculiar masks of the Scythian in scalping, steam-bathing, body painting, adoration of skulls of ancestors, &c.

AUTHORITIES.—Bancroft, *Nat. Races.*, vols. i. and ii.; *Ency. Brit.*, vii. 720; Boomerang, *Ency. Brit.*, vii. 721;

Nat. Races, i. 541 ; " Bow, Arrow and Sling," *Nat. Races*, i. 696 ; *Gymnasiums*, vol. ii. 244 ; " Weaving and Dyeing," Heeren, *Asiatic Res.*, i. 342 ; *Story of Phœnicians*, p. 285 ; *Nat. Races*, i. 630, i. 698 ; " Cotton," *Ency. Brit.*, xvi. 208 ; Heeren, i. 38 ; Herod., iii. 106 ; *Commerce and Caravan*, Heeren, i. 20 ; *Story of Phœnicia*, p. 154 ; Herod., v. 52, ii. 177 ; *Nat. Races*, ii. 380, ii. 736 ; *Maps and Routes*, Herod., iii. 136, v. 49 ; *Nat. Races*, ii. 386, i. 274 ; " Pole Star," *Ency. Brit.*, xviii. 804 ; *Nat. Races*, i. 274 ; " Pleiades," Hastings' *Dict. of the Bible* ; *Nat. Races*, ii. 755 ; Worship of One True God, Gen. i. 1 ; 1 Kings viii. 27 ; 1 Tim. i. 17 ; *Nat. Races*, iii. 55, iii. 183 ; Flood Tradition, Gen. vi. 13 ; *Nat. Races*, iii. 65 ; Tower of Babel, Gen. xi. 2 ; *Nat. Races*, iii. 67 ; Honour to parents, Deut. v. 16, xxi. 20 ; *Nat. Races*, ii. 461, ii. 463 ; Judges, Exod. xviii. 15 ; Deut. i. 17 ; *Nat. Races*, ii. 440, ii. 446 ; Law of Evidence, Gen., xxxix. 12 ; Exod. xxii. 4 ; *Nat. Races*, ii. 656 ; " Totemism," Sayce, *Phœnicia*, *Nat. Races*, i. 661 ; " Tree Worship," Sayce, *Phœnicia*, *Ency. Brit.*, xxi. 133 ; *Nat. Races*, iii. 459 ; " Phallic Worship," *Story of Phœnicia*, p. 112 ; *Ency. Brit.*, xviii. 802 ; *Nat. Races*, iii. 501 ; " Human Sacrifice," Döllinger, *Heidenthum*, i. 425 ; Diodorus, *Ency. Brit.*, xviii. 803 ; *Nat. Races*, iii. 482 ; Theft, Exod. xxii. 1-7 ; *Nat. Races*, ii. 456, ii. 658 ; False weights, Lev. xix. 35, Deut. xxv. 13 ; *Nat. Races*, ii. 664 ; Marriage to deceased brother's widow, Deut. xxv. 5 ; Matt. xxii. 24 ; *Nat. Races*, ii. 466 ; Widow property of deceased husband's family, Deut. xxv. 5 ; Ruth iii. 11 and iv. 10 ; *Nat. Races*, ii. 466 ; Concubinage, Judges xix. 1 ; 1 Kings xi. 3 ; *Nat. Races*, ii. 182, ii. 164 ; Adultery, Lev. xx. 10, John viii. 4 ; *Nat. Races*, ii. 464, ii. 465, ii. 674 ; Incest, Deut. xxvii. 20 ; *Nat. Races*, ii. 659 ; Law of Consanguinity, Lev. xviii. 6, xx. 11 ; *Nat. Races*, ii. 665 ; Royal Succession, 1 Chron. xxiii. 1 ; 1 Kings ii. 14 ; 1 Chron. xxix. 23 ; *Nat. Races*, ii. 140 ; Anointing and Coronation, 1 Kings i. 39 ; 1 Kings ix. 22 ; *Nat. Races*, ii. 144, ii. 422, ii. 641, iii. 435 ; Removal of Landmarks, Deut. xxvii. 17 ; *Nat. Races*, ii. 462-3 ; Sorcery, Lev. xx. 27 ; *Nat. Races*, ii. 659 ; " Slaves," Heeren, *Asiatic Res.*, i. 367 ; *Story of Phœnicia*, 240 ; 1 Kings ix. 20 ; 2 Chron. ii. 17 ; Deut. xxiv. 7 ; *Nat. Races*, ii. 450, ii. 650 ; Redemption of Slaves, Lev. xxv. 47 ; *Nat. Races*, ii. 650 ; Cities of Refuge, Num. iii. 167 ; " Head-Flattening," Nadullac, *Prehistoric America*,

p. 512; Dr. Geo. Turner, *Nineteen Years in Polynesia*, also *Samoa*; *Nat. Races*, i. 150; see also vols. i.-ii. and iv.; "Circumcision," Herod., ii. 104; John vii. 22; *Ency. Brit.*, v. 790; *Nat. Races*, ii. 278; "Glass Manufacture," Charnay, *Ancient Cities of the New World*; Nadullac, *Prehistoric America*, p. 396; Heeren, *Asiatic Nations*, i. 345; *Story of Phœnicia*, p. 283; "Bronze," *Ency. Brit.*, xvi. 213; *Story of Phœnicia*, p. 285; *Nat. Races*, ii. 473, iv. 519, iv. 557; Paper, *Ency. Brit.*, xviii. 232; *Nat. Races*, ii. 307, 322, 334, 485; "Pearls and Pearl Fishing," Heeren, *Asiatic Res.*, p. 446; *Nat. Races*, i. 583, 584, ii. 481, ii. 732, ii. 850; "Quippas," Herod., iv. 98; Lumholz, *Unknown Mexico*, ii. 128; "Tanning," *Nat. Races*, ii. 486; "Boomerang," *Ency. Brit.*, vii. 721; *Nat. Races*, i. 541; "Implement of War," *Ency. Brit.*, vii. 720; *Nat. Races*, ii. 742; "Flint Arrow Heads," *Ency. Brit.*, ii. 554, vii. 720; *Nat. Races*, i. 342, 541, 627, 655; "Bow, Arrow and Sling," *Ency. Brit.*, vii. 720, xvi. 211; *Nat. Races*, i. 626, 696; "Gymnasiums," *Ency. Brit.*, x. 63; Dr. Smith, *Dictionary of Greek and Roman Antiquaries*; Ellis, *Poly. Res.*, i. 204; *Nat. Races*, ii. 244; "Weaving and Dyeing," Heeren, i. 342; *Story of Phœnicia*, p. 285; *Nat. Races*, i. 502, 650, ii. 484, 486, 752; "Cotton," Theophrastus, *History of Plants*, iv. 9; Herod., iii. 106; Heeren, i. 38; *Ency. Brit.*, xvi. 208; "Purple Dye," Heeren, i. 342; *Story of Phœnicia*, p. 275; *Nat. Races*, i. 630, 698, ii. 486; "Tattooing," Herod., v. 6; *Story of Phœnicia*, p. 88; Dr. Geo. Turner, *Samoa*, *Nat. Races*, ii. 733; "Scalping," Herod., iv. 64; Turner, *Samoa*, *Nat. Races*, i. 269, 344, i. 357, 407, 582, 629; "Flaying," Herod., iv. 64; *Nat. Races*, iii. 308, 355, iv. 420; "Nomads," Herod., iv. 46; *Nat. Races*, i. 426; "Plucking out Eye of Victim," Ellis, *Poly. Res.*, i. 357; *Nat. Races*, i. 344; "Steam-Bathing," Herod., iv. 73; *Nelson's Ency.*, art. "Hemp"; *Ency. Americana*, art. "Hemp"; Dr. Geo. Turner, *Samoa and Nineteen Years in Polynesia*, art. "Fine Mats"; *Nat. Races*, i. 83, 202, 537, iii. 159; "Moccasins and Buskins," Herod., i. 155, vii. 75; *Nat. Races*, vols. i., ii., iii.; "Lassoing," Herod., vii. 85.

13. Votan, the culture hero of the American tradition, clearly avowed his origin when he affirmed that he had made four voyages from Valum Votan,

the new country over which he ruled, to Valum Chivim, his native land, and *en route* had visited a place where men had erected a tower with a view to reaching heaven, which the inhabitants had informed him was the spot where the confusion of tongues had taken place. From there he had journeyed to the dwellings of the thirteen serpents, where he had seen a magnificent temple in course of construction. This was tantamount to saying :

(a) That he had returned to the Mediterranean seaboard not by the Red Sea but by the Persian Gulf, calling at the Phœnician ports or colonies of Tylos and Arados in the Bahrein Islands at the Bay of Gerrha, where he had bartered his first cargo of silver for gold (1 Kings ix. 28) and repaired and revictualled the ships ; that while the vessels were so employed, he had disembarked and, crossing the gulf to the mouth of the Euphrates, had ascended the river to Borsippa, one of the suburbs of Babylon, where he visited the ruins of the Tower of Babel ; that then he took the short desert route to Jerusalem (passing *en route* the treasure cities of Baalbek and Palmyra), where he reported to the Israelitish king, the principal partner in these joint expeditions.

(b) That, accompanied by King Solomon, he had inspected the great temple then in course of construction at Jerusalem under the direction of a Phœnician architect called Hiram.

(c) That following the inspection of the temple he, along with King Solomon, had made a tour of the principal cities of the thirteen tribes of Israel. The cognomen serpents used in the American tradition being easily explained by the fact that the

reptile was not only the totem of Hiram and the Phœnicians, but also in some measure, that of David and Solomon, who belonged to the family of Nashon, the serpent after whom Nachan or the City of the Serpents, the first city on the American Continent, was named.

AUTHORITIES.—“American Tradition,” *Ency. Brit.*, i. 704; *Nat. Races*, iii. 45, 452; *Nat. Races*, v. 22; *Ency. Brit.*, xvi. 208; *Nat. Races*, iii. 26, v. 164; “Long flowing Robes,” *Ency. Brit.*, xvi. 208; Herod., i. 72; *Nat. Races*, iii. 269, v. 23; 2 Kings iv. 29; 2 Kings ix. 1; Navigation of Persian Gulf, Strabo 110; Heeren, *Phœnicia*, i. 438, ii. 322, ii. 333, 676, iii. 336; Maspero, *Origin of the Phœnicians*, vol. iv.; Heeren, *Babylonians*, p. 444; *Story of Phœnicia*, p. 22; Tower of Babel, Gen. xi. 1-9; *Ency. Brit.*, iii. 178; *Nat. Races*, v. 27; Eziongeber, 2 Chron. ii. 11, viii. 17; “Short Desert Route,” Heeren, *Phœnicia*, i. 369, iii. 113, iv. 356; 1 Kings ix. 18; *Story of Phœnicia*, p. 167; *Scribner’s*, March 1908 (art. “Damascus”); “Bagdad Railway,” Heeren, *Phœnicia*, i. 362; “Silver for Gold,” Heeren, *Asiat. Nat.*, i. 31, iii. 327; 1 Kings ix. 28; 1 Kings x. 27; 2 Chron. viii. 18; *Ency. Brit.*, xvi. 276; Heeren, iv. 353; Baalbek and Palmyra, 1 Kings ix. 18; 2 Chron. viii. 4; Heeren, *Phœnicia*, i. 364; “Navigation of Euphrates,” Heeren, *Asiat. Nat.*, i. 364, i. 438; Solomon at Eziongeber, 2 Chron. vii. 17; “Votan goes by Divine Command to America,” *Nat. Races*, iii. 452 and v. 159; Temple at Jerusalem, 1 Chron. xxix. 1, 2 Chron. ii. 1, and iii. 1; Hiram the Workman, 1 Kings vii. 31; 2 Chron. ii. 13; Army of Workmen, 1 Kings v. 13; 1 Kings ix. 21; Eusebius, *Praep. Evan.*, x. 77; “Totemism Serpents,” *Ency. Brit.*, xxiii. 471; *Nat. Races*, iii. 45; Sayce, *Ancient Empires of the East*, p. 200; Num. xxi. 8, 2 Kings xviii. 4; *Nat. Races*, iii. 452.

14. That from Jerusalem Votan proceeded to Tyre and made his report in duplicate to Hiram, Solomon’s partner in these joint expeditions, after which he crossed over to his own home at Vitim or Chittim on the island of Cyprus, then a Phœnician colony.

(a) This conduces to the belief that Votan, prior to his being selected for the command of these expeditions which annexed the Pacific Islands and the American Continent to Phœnicia, had been Governor of Cyprus with headquarters at the town of Chittim, and that as plenipotentiary to the American colony he was succeeded in office by Hiram, the workman. Hiram, on account of the invaluable services which he had rendered to Phœnicia and Israel in the erection of the temples at island Tyre and Jerusalem and the palaces for Solomon at Jerusalem and Lebanon, which cemented the friendship between the two monarchs and led to these expeditions, which had become so immensely profitable to both nations, had, under the conferred name of Quetzalcoatt—the royal or feathered serpent—been appointed the personal representative of Solomon and Hiram in the New World.

Accompanied by nineteen of his leading superintendents of works he, on his arrival, began the systematic instruction of the inhabitants of this new colony, called the land of Votan, in the knowledge of the exact sciences and mechanical arts of which throughout antiquity Phœnicia had been the leading exponent.

(b) That Votan established in the new colony a central government, gave to the people a code of good laws, taught them a pure and humane religion, and communicated to them a knowledge of the Supreme Deity, the God of all Truth.

(c) Discovering, however, the impossibility of creating a homogeneous people out of so many racially discordant elements, he divided the land into four sections, which corresponded to the peculiar

needs of the four nations which were represented in the personnel of these expeditions—Hebrews, Phœnicians, Scythians, and Thracians—and so secured peace and a stable government.

AUTHORITIES.—*Ency. Brit.*, i. 704 ; *Nat. Races*, iii. 451, v. 23, v. 159, and v. 164 ; *Ency. Brit.*, xvi. 208 ; 1 Kings vii. 13 ; 2 Chron. ii. 13 ; "Serpent Symbolism," Sayce, *Phœnicia, Totemism, Nat. Races*, iii. 240, iii. 451 ; Chittim, *Hastings' Dictionary of the Bible* ; Heeren, i. 305, ii. 311 ; Herod., vii. 90 ; Cicero, *De Finibus*, iv. 20 ; Herod., i. 105 ; Diod., v. 55 and v. 77 ; *Ency. Brit.*, xi. 90 ; *Nat. Races*, v. 159.

15. That the Scythian contingent, who tolerated the presence of no foreign customs, were the malcontents who fomented the insurrection against the Votanic government, which necessitated the segregation of the various discordant racial elements. That they in all probability, accompanied by their conquerors the Thracians, separated themselves from their more civilised neighbours and returned to their semi-barbaric life on the new continent. That the body painting, totemic, steam-bathing, equestrian archers, the Scythians of South-Eastern Europe ; the Phœnician commercial correspondents, with the Thracian tattooers (both of whom were accustomed to hire themselves out as mercenaries), were the marines and in all probability a portion of the crews manning the ships of these joint fleets ; and that these were the authors of those strange customs of South-Eastern European origin found in Samoa, Tahiti, the American Continent, and among the Nomad equestrian archers of the New World.

AUTHORITIES.—*Nat. Races*, v. 159 ; *Ency. Brit.*, i. 704 ; "Scythians avoid use of Foreign Customs," Herod., iv. 76 ; "Body Painting," Herod., iv., 108 ; *Nat. Races*, i. 426 ;

“Nomads,” Herod., iv. 46 ; *Nat. Races*, i. 426 ; “Totemic,” *Ency. Brit.*, xxiii. 471 ; 2 Kings xviii. 4 ; *Nat. Races*, i. 661 ; Herod., iv. 105 ; “Steam-Bathing,” Herod., iv. 73 ; *Nat. Races*, i. 83, i. 537, iii. 159 ; “Equestrian Archers,” Herod., iv. 46 ; “Tattooing,” Herod., v. 6 ; *Nat. Races*, i. 332, ii. 730 ; “Seamen,” Strabo, ii. 221 ; Strabo, B. vii., Ezek. xxviii. 12 ; *Marines*, vii. 96.

16. That the staple of the cargoes brought back from America was mainly silver, but that calling at Java, Sumatra, Ceylon, Tylos, and Arados or other parts in Ophir of India or Arabia for barter and repair, or for water and provisions, they disposed of this cargo of silver for gold and purchased the remainder of the merchandise. That this remainder consisted of East Indian and Arabian wares much in demand at Jerusalem and Tyre, viz., ivory, apes, peacocks, algum trees, frankincense, spices, pearls, and precious stones, the purchase of which was rendered the easier, in that silver in Arabia, according to Agatharchides, was ten times the value of gold, which latter metal was there in great abundance. While, according to Heeren, possibly, bartered silver for gold, weight for weight, had still an exchange value very much in favour of silver, they were able by means of this mixed cargo to pursue their usual policy of enveloping the destination of their more distant voyages with a veil of mysterious and impenetrable secrecy.

AUTHORITIES.—1 Kings x. 27 ; *Nat. Races*, ii. 474 ; *Ency. Brit.*, xvi. 216 ; Heeren, iii. 327 ; “Smelting at Mines,” Rawlinson, *Story of Phœnicia*, p. 70 ; Barter silver for gold, 2 Chron. viii. 18 ; Gold in Arabia, Judges viii. 24 ; Heeren, *Phœnicia*, iv. 353 ; 1 Kings ix. 28 ; “Silver in Asia,” Heeren, *Asiatic Nations*, i. 31 ; Peacocks, *Ency. Brit.*, xviii. 443 ; Nelson’s *Ency.* ; Heeren, *Phœnicia*, iv. 346 ; “Frankincense and Spices,” Herod., i. 183 ; Herod., iii. 107 ;

Heeren, *Phœnicia*, iv. 346; "Precious Stones and Pearls," Heeren, iv. 346; "Commercial Jealousy of Assyrians," *Ency. Brit.*, iii. 192; "Policy of Secrecy," Rawlinson, *Story of Phœnicia*, p. 60; Heeren, ii. 316, and ii. 326.

NAVIGATION AND DISCOVERY

AUTHORITIES.—Heeren, *Phœnicia*, ii. 320 and iii. 338; *Story of Phœnicia*, pages 179 and 309; Xenophon, *Œcon.*, vii. 4; Herod., iv. 41; Strabo, xvi. 759; "Ships of Tharshish," Ragozin, *Story of Assyria*; Perrot and Chipiez, *History of Phœnician Art*; "Torr's Ancient Ships, 1896," Cotterill and Little, *Ships Ancient and Modern*, p. 11; *Ency. Brit.*, i. 709 and xviii. 804; Robert Louis Stevenson's *In South Seas*, Scribner's Sons (see chart); Alfred Brittain, *History of North America, Ships of Columbus*, Dent & Co., London: *Cook's Voyages*, p. 9.

FINANCE

"Solomon's Wealth," Hastings' *Dictionary of the Bible*, iv. 566; M'Clintock and Strong, *Cyclopedia Biblica*, p. 837.

RELIGIOUS DECADENCE

AUTHORITIES.—2 Kings xvii. 16; Ezek. xxvii. 6-18 and xxviii. 12; *Story of Phœnicia*, p. 108; Dr. Döllinger, *Heidenthum and Judenthum*, i. 425; Ellis, *Polynesian Researches*, section "Religion," *Nat. Races*, iii. 442 and v. 23; *Ency. Brit.*, xvi. 208.

PRACTICAL ABILITY OF PHŒNICIANS

Rawlinson's *Story of Phœnicia*, pp. 38 and 346.

FOUNDATION OF GADES. EXPLORATION

Strabo, vol. i. 255 (B. iii. c. v. 5).—Concerning the foundation of Gades, the Gaditanians report

that a certain oracle commanded the Tyrians to found a colony at the Pillars of Hercules. Those who were sent out for the purpose of exploring, when they had arrived at the Straits of Calpe, imagined that the capes which form the straits were the boundaries of the habitable world as well as of the expedition of Hercules, and consequently were what the oracle termed the Pillars. They landed on the inside of the straits at a place where the city of Exitani now stands. Here they offered sacrifices, which, however, not being favourable, they returned. After a time others were sent, who advanced about 1500 stadia beyond the straits to an island consecrated to Hercules and lying opposite to Onoba, a city of Iberia. Considering that here were the Pillars, they sacrificed to the Gods, but the sacrifices being again unfavourable they returned home. In the third voyage they reached Gades and founded the temple in the eastern part of the island and the city in the west. On this account some consider the capes are the Pillars, others suppose Gades, while others again believe they lie still farther beyond Gades.

MOREA. MULBERRY LEAF

Strabo, vol. ii. 5 (B. viii. c. ii. 1).—The Peloponnesus resembles in figure the leaf of a plane tree. Its length and breadth are nearly equal, each about 1400 stadia.

Footnote.—For the same reason at a subsequent period it obtained the name of Morea, in Greek (Mogea), which signifies Mulberry, a species or variety of which tree bears leaves divided into five

lobes, equal in number to the principal capes of Peloponnesus. Vol. ii. (B. ii. c. i. 30)—To compare the Peloponnesus to a plane leaf.

SAMOS OR SAMO

Strabo, ii. 168 (B. x. c. ii. 17).—The poet also gives the name of Samos to Thracia, which we now call Samo-thracia. He was probably acquainted with the Ionian Islands, for he seems to have been acquainted with the Ionian migration. He would not otherwise have made a distinction between islands of the same name, for in speaking of Samo-thrace he makes the distinction sometimes by epithet—

“On high above the summit of woody Samos the Thracian.”

In the valley of Alessandro in Cephalonia there is still a place called Samo.

Footnote 6.—Those are more entitled to credit who say that the heights are called Sami and that the island obtained its name from this circumstance.

PELOPONNESUS PRIOR TO PELOPS. APIA

Strabo, i. 492 (B. vii. c. vii. 1).—Hecateus of Miletus says of the Peloponnesus that before the time of the Greeks it was inhabited by barbarians; perhaps even the whole of Greece was anciently a settlement of barbarians, if we may judge from former accounts. For Pelops brought colonists from Phrygia into the Peloponnesus, which took his name. Danaus, King of Argos, 1570 B.C., brought colonists from Egypt, Orgopes, Cancones, Pelasgi, Leleges, and other barbarous nations partitioned

among themselves the country on this side of the isthmus.

Footnote 2.—The Peloponnesus which before the arrival of Pelops was called Apia.

Note, T. C. J.—The Scythian invasion of South-Eastern Europe took place about 1500 B.C., and the probability, therefore, is that the Peloponnesus received from them the name of Apia, so named after their deity the earth.

ALPHABET

Lucian, *Pharsalia*, iii, 216.—The Phœnicians first (if belief is given to report) ventured to represent in rude characters “the voice destined to endure.” Not yet had Memphis learned to unite the rushes of the stream, and only animals engraved upon the stones, both birds and wild beasts, kept in existence the magic tongues.

Anthropology, E. B. Taylor, D.C.L., F.R.S., Appleton & Co., p. 176.—Tacitus, in a passage in his *Annals*, describing the origin of letters, says that “The Egyptians first depicted thoughts of the mind by figures of animals, which oldest monuments of the human mind are to be seen stamped on the rocks, so that the Egyptians are the inventors of the letters which the Phœnician navigators brought thence to Greece, obtaining the glory as if they had discovered what really they had borrowed.” This account may be substantially true, but it does not give the Phœnicians credit for the practical good sense which they certainly showed, being strangers and not bound by the sacred traditions of Egypt. No doubt the Phœnicians

or some of the Semitic nations, when they had learned the Egyptian hieroglyphics, saw that the picture signs mixed with the spelt words had become mere surplusage, and that all they really wanted was a sign wherewith to write the sound of the word. Thus was invented the so-called Phœnician alphabet.

Page 176.—Now what confirms the historic fact that the Phœnicians had the alphabet first and that the Greeks learned the art of writing from them is that the Greeks actually borrowed the Phœnician names of the letters.

The adoption of the alphabet was the great movement by which mankind rose from barbarism to civilisation.

CADMUS, SON OF AGENOR

Strabo, vol. i. 493 (B. vii. c. vii. 2), footnote 4.—Cadmus, son of Agenor, King of Tyre, arrived in Bœotia, 1550 B.C. The citadel of Thebes was named after him.

CADMUS BRINGS LETTERS INTO GREECE

Pliny, vol. ii. 220 (B. vii. c. lxxvii.).—"I have always been of the opinion that letters were of Assyrian origin, but other writers, Gellius for instance, suppose that they were invented in Egypt by Mercury. Others again will have it that they were discovered by the Syrians and that Cadmus brought from Phœnicia sixteen letters into Greece," &c.

Note 49.—The account of the original introduction of the alphabet into Greece, here given, was the one generally adopted in his time. Most readers will be aware that the actual invention of letters,

the share which the Egyptians and the Phœnicians had in it, the identification of Cadmus and still more of Mercury with any of the heroes or legislators of antiquity, of whom we have any correct historical data, and the connection which the Greek alphabet had with those of other nations, are among the most vexed questions of literary discussion, and are still far from being resolved with any degree of certainty, &c., &c.

THRACIANS

Pliny, vol. i. 302 (B. iv. c. xviii.).—"Thrace now follows, divided into fifty strategies or prefectures, and to be reckoned among the most powerful nations of Europe."

OLYMPIAN GAMES

Pliny, vol. ii. 232 (B. vii. c. lvii.).—Hercules first instituted the athletic contests at Olympia.

Footnote 33.—The Isthmian games were originally instituted by Sysiphus, King of Corinth; after having been interrupted for some time they were re-established by Theseus, who celebrated them in honour of Neptune.

Note 34.—The celebrated Olympic games. Diodorus Siculus (B. iv. c. iii.), Pausanias, and other ancient writers, as well as Pliny, ascribe their origin to Hercules. Pausanias, however, says that some supposed them to have been instituted by Jupiter.

TATTOOING

Pliny, vol. ii. 8 (B. vi. c. iv.).—We find here the nations of the Genetae, the Chalybes, the town of

Cotyorum, the nations of the Tabareni, and the Molossi who make marks upon their bodies.

Note 77.—Similar to what we call tattooing.

SCYTHIAN CANNIBALISM

Strabo, i. 461 (B. vii. c. iii. 17).—"Thus they say it was through ignorance Homer and the ancients omitted to speak of the Scythians and their cruelty to strangers, whom they sacrificed, devouring the flesh and afterwards made use of the skulls as drinking-cups, for which reason the sea was named the inhospitable."

CANNIBALISM AND HUMAN SACRIFICE

Strabo, vol. ii. 122 (B. vii. c. ii.).—We have already stated that there are certain tribes of the Scythians and indeed many other nations which feed upon human flesh. This fact itself might perhaps appear incredible did we not recollect that in the very centre of the earth in Italy and Sicily nations formerly existed with these monstrous propensities, the Cyclopes and the Lystrygonians for example; also that very recently on the other side of the Alps it was the custom to offer human sacrifices after the manner of these nations, and the difference is but small between sacrificing human beings and eating them.

Pliny, vol. v. 426 (B. xxx. c. iii.).—At least in the year of the city 657 Cneius Cornelius Lentulus and P. Licinius Crassus, being consuls, a decree forbidding human sacrifices was passed by the

Senate, from which period the celebration of these horrid rites ceased in public and for some time altogether.

HEAD-FLATTENING IN SAMOA

Samoa, Dr. Geo. Turner, p. 79.—During the first two or three days the nurse bestows great attention on the head of the child that it might be modified and shaped after the notions of propriety and beauty. The child was laid on its back and the head surrounded with three stones. One was placed close to the crown of the head and one on either side. The forehead was then pressed with the hand that it might be flattened. The nose, too, was carefully flattened out, “Canoe noses,” as they call them, being blemishes in their estimation.

CITIES OF REFUGE IN SAMOA

Samoa, Dr. Geo. Turner, p. 64.—“In another village in Upolu, Vave was incarnate in a pigeon which was carefully kept and fed by the different members of the family in town. But the special residence of Vave there, was an old tree inland of the village, which was a ‘place of refuge’ for murderers and other capital offenders. If that tree was reached by the criminal he was safe, and the avenger of blood could pursue no further but await investigation and trial.”

CASSITERIDES AND CONCEALING ROUTES

Strabo, vol. i. 262 (B. ii. c. v. 1).—“The Cassiterides are ten in number and lie near each other

in the ocean towards the north from the haven of the Artibari. One of them is desert, but the others are inhabited by men in black cloaks, clad in tunics reaching to the feet, girt about the breasts, and walking with staves resembling the furies we see in tragic representations. They subsist by their cattle, leading for the most part a wandering life. Of the metals they have tin and lead, which, with skins, they barter for merchandise, for earthenware, salt, and brazen vessels. Formerly the Phœnicians alone carried on this traffic from Gades, *concealing the passage from everyone*, and when the Romans followed a certain shipmaster that they might find the market, the shipmaster, from jealousy, purposely ran his vessel upon a shoal, leading on those who followed him into the same destructive disaster. He himself escaped by means of a fragment of the ship, and received from the State the value of the cargo he had lost."

MARRIAGE OF DECEASED BROTHER'S WIFE IN SAMOA

Samoa, Dr. Geo. Turner, p. 98.—"The brother of a deceased husband considered himself entitled to have his brother's wife and to be regarded by the orphan children as their father. If he was already married she would nevertheless live with him as a second wife."

CONCUBINAGE

Page 96.—"When the newly married woman took up her abode in the family of her husband she was attended by a daughter of her brother, who was in fact a concubine."

POLYGAMY

Page 96.—The marriage ceremony being such a prolific source of festivity and profit to the chief and his friends, the latter, whether he was disposed to do it or not, often urged on another and another repetition of what we have described. They took the thing almost into their own hands, looked out for a match in a rich family, and, if that family was agreeable to it, the affair was pushed on whether or not the daughter was disposed to it. She, too, as a matter of etiquette, must be attended by her complement of one or more young women. According to this system a chief might have ten or a dozen wives and concubines in a short time.

TOTEMISM IN THE NEW HEBRIDES

Samoa, Dr. Geo. Turner, p. 334.—Household gods were supposed to be present in the shape of stones, trees, fish, and fowl. These incarnations were never eaten by their respective worshippers. In oaths and imprecations they invoked punishment from the gods. Cannibalism was restricted to bodies taken in war. Adultery and murder were punished by death.

STEAM-BATHING IN TAHITI

Ellis' *Polynesian Researches*, vol. iii. 41.—The natives had no method of using the warm bath, but often seated the patient on a pile of heated stones strewn over with green herbs and leaves, and kept them covered with a thick cloth till the most profuse

perspiration was produced, something like that produced by the fashionable vapour bath. In this state, to our great astonishment, at the most critical season of sickness, the patient would leave the heap of stones and plunge into the sea, near which the oven was usually located. Though the shock must have been very great, they appear to sustain no injury from the transition.

GOLD IN ARABIA

Pliny, vol. ii. 90 (B. vi. c. xxxii.).—The Sabæi are the richest of all in the great abundance of spice-bearing groves, the mines of gold, the streams for irrigation, and the ample produce of honey and wax.

Footnote 20.—Arabia at present yields no gold and very little silver. The Queen of Sheba is mentioned as bringing gold to Solomon (1 Kings x. 2 and 2 Chron. ix. 1). Artemadorus and Diodorus Siculus make mention on the Arabian Gulf of the Sabæ, the Alilaei, and the Gessandi, in whose territories native gold was found. These last people, who did not know its value, were in the habit of bringing it to their neighbours the Sabæi, and exchanging it for articles of copper and iron.

GOLD, EBONY, AND IVORY

Vol. iii. 108 (B. xii. c. viii.).—Virgil (B. ii. c. xi.) has spoken in glowing terms of the ebony tree, one of the few which are peculiar to India, and he further informs us that it will grow in no other country. Herodotus, however, has preferred to ascribe it to Ethiopia, and states that the people of that country

were in the habit of paying to the King of Persia every third year, by way of tribute, one hundred billets of ebony wood together with a certain quantity of gold and ivory. Nor ought we here to omit the fact, since the author has so stated it that the Ethiopians were also in the habit of paying by way of tribute twenty large elephants' teeth.

PETRA TO RHINOCOLURA IN PHŒNICIA

Strabo, vol. iii. 211 (B. xvi. c. iv. 24).—Merchandise conveyed from Leuce, comes to Petra, thence to Rhinocolura in Phœnicia near Egypt, and thence to other nations. But at present the greater part is transported by the Nile to Alexandria. It is brought down from Arabia and India to Myus Hermus; it is then conveyed on camels to the Thebais, situated on a canal of the Nile and Alexandria.

TYLOS AND ARADOS

Southern Arabia, by Theodore Bent (Smith, Elder & Co., 1900).

Page 20.—“Leaving the palm groves of the Portuguese fortress behind us we re-entered the desert to the south-west, and just beyond the village of Ali we came across that which is the great curiosity of Bahrein, to investigate which was our real object in visiting the island, for there begins that vast sea of sepulchral mounds, the great Necropolis of an unknown race which extends far and wide across the plain. The village of Ali forms, as it were, the culminating point; it lies just on the borders of the dark groves, and there the mounds reach an eleva-

tion of fifty feet above the level of the desert and some more circular heaps of stone. There are many thousands of these tumuli extending over an area of mounds in other parts of the island, and a few solitary ones are to be found on the adjacent islets on Moharik, Arad, and Sitrah.

Complete uncertainty exists as to the origin of these mounds and the people who constructed them, but from classical references and the result of our own work there can be no doubt that they are of Phœnician origin. Herodotus, ii. 89, gives us a tradition current in his time that the forefathers of the Phœnician race came from these parts. The Phœnicians themselves believed in it. It is their own account of themselves, says Herodotus, and Strabo (B. xvi. c. iii. 4) brings further testimony to bear on the subject, stating that two of the islands called Bahrein were called Tyros and Arados. Pliny follows in the steps of Strabo, but calls the islands Tylos instead of Tyros, which may be an error in spelling or may be owing to the universal confusion of R and L.

Ptolemy in his map places Gerrha, the mart of the Indian trade and the starting-point for caravans, on the great road across Arabia on the coast, just opposite to those islands near where the town of El Katif now is, and accepts Strabo and Pliny's names for the Bahrein Islands, calling them Tharros, Tylos, or Tyros and Arados. The fact is that all information on the islands prior to Portuguese occupation comes from the *Periplus* of Nearchus. Eratosthenes, a naval officer of Alexander, states that the gulf was 10,000 stadia long from Cape Armoaum, *i.e.* Hermuz to Teredon (Koweit) and the mouth of

the Euphrates. Androstheneſ of Thasos, who was of the company of Nearchus, made an independent ſurvey of the gulf cloſe to the iſlands of Tyloſ and Aradoſ, which have temples like thoſe of the Phœnicians, who were (the inhabitants told him) coloniſts, had a town called Sidon or Sidolona in the gulf which he viſited, and on an iſland called Tyriri was ſhown the tomb of Erythraſ, which he deſcribes as an elevated hillock covered with palms juſt like our mounds, and Erythraſ was the king who gave his name to the gulf. Juſtin accepts the migration from the gulf as certain, and M. Renan ſays: “The primitive abode of the Phœnicians muſt be placed on the lower Euphrateſ in the centre of the great commercial and maritime eſtabliſhments of the Perſian Gulf.” As for the temples there are no traces of them left, and this is alſo the caſe in Syrian Phœnicia; doubtleſs they were all built of wood, which will account for their diſappearance.

As we ourſelves, during the courſe of our excavations, brought to light objects of diſtinctly Phœnician origin, there would appear to be no longer any room for doubt that the mounds which lay before us were a vaſt Necropolis of this mercantile race. If ſo one of two ſuppoſitions muſt be correct, either, firſtly, that the Phœnicians originally lived here before they migrated to the Mediterranean, and that this was the land of Punt from which “Punic” was derived, a land of palms from which the race got the diſtorted Greek appellation of Phœnicia, or, ſecondly, that theſe iſlands were looked upon by them as a ſacred ſpot for the burial of their dead, as the Hindoos look upon the Gangeſ and the

Persians regard the shrines of Kerbila and Mished. I am much more inclined to the former supposition, judging from the mercantile importance of the Bahrein Islands and the excellent school they must have been for a race which was to penetrate to all corners of the globe, to brave the dangers of the open Atlantic, and to reach the shores of Britain in their trading ventures, and if nomenclature goes for anything, the name of Tyros and the still existing name of Arad ought to confirm us in our belief.

TYRE, ARADUS, AND SIDON FROM PERSIAN GULF

Strabo, vol. iii. 187 (B. xvi. c. iii. 4).—On sailing further there are other islands, Tyre and Aradus, which have temples resembling those of the Phœnicians. The inhabitants of these islands say that the inhabitants and cities bearing the same name as those of the Phœnicians are their own colonies. These islands are distant from Teredon ten days' sail and from the promontory at the mouth of the gulf at Macæ one day's sail.

Footnote to above.—"Besides the islands Tyre and Aradus, there existed, even at the time of Alexander and near the present Cape Gherd, a city called Sidon or Siddona which was visited by Nearchus, as may be seen in his *Periplus*. The Phœnician inhabitants of these places appear to have afterward removed to the western side of the Persian Gulf and to the Bahrein Islands, to which they give the names Tylos or Tyre and Aradus.

The latter name still exists ; it was from this place that the Phœnicians moved to establish themselves on the shores of the Mediterranean, and transferred the name Sidon, the ancient capital, and those of Tyre and Aradus to the new cities which they there founded."

GERRHA AND TYLOS AND PEARL FISHERIES

Strabo, vol. iii. 186 (B. xvi. c. iii. 3).—Having coasted along the shore of Arabia to the distance of 2400 stadia, there lies in a deep gulf a city of the name of Gerrha belonging to Chaldæan exiles from Babylon, who inhabit the district in which salt is found and who have houses constructed of salt. As scales of salt, separated by the burning heat of the sun, are constantly falling off, the houses are sprinkled with water and the walls are thus kept firmly together. This city is distant 200 stadia from the sea. The merchants of Gerrha generally carry the Arabian merchandise and aromatics by land, but Aristobulus says, on the contrary, that they frequently travel into Babylonia on rafts and thence sail up the Euphrates to Thapsacus with their cargoes, and afterwards carry them by land to all parts of the country.

Pliny, vol. ii. 84 (B. vi. c. iii. 2).—Here we find the city of Gerrha five miles in circumference with towers built of square blocks of salt. Fifty miles from the coast, lying in the region of Attene and opposite to Gerrha, is the island of Tylos, as many miles distant from the shore ; it is famous for the vast number of its pearls and has a town of the same name.

PALMYRA

Pliny, vol. i. 445 (B. v. c. ii.), Note 4.—It is so called from the circumstance that Palmyra stood in the midst of (a grove of palm trees) them. It was built by King Solomon in an oasis of the desert in the midst of palm groves from which it received its Greek name, which was a translation of the Hebrew “Tadmor,” the city of palm trees. It lay a considerable distance from the Euphrates. Its site presents considerable ruins, but they are all of the Roman period and greatly inferior to those of Baalbek or Heliapolis.

CARAVAN ROUTE FROM YEMEN TO ÆLANA
AND GERRHA

Strabo, vol. iii. 191 (B. xvi. c. iv. 4).—Catabania (Yemen) produces frankincense and Chatramotibes (Hydramaut) myrrh there, and other aromatics are the medium of exchange with the merchants. Merchants arrive in seventy days at Minæa from Ælana. Ælana is a city on the other recess of the Arabian Gulf, which is called Ælanites, opposite to Gerrha as we have before described it. The Gerrhæi arrive in Hydramaut in forty days.”

PHŒNICIAN OR POLE STAR

Strabo, vol. i. 6 (B. i. c. vi.).—“Let no one blame Homer’s ignorance for being merely acquainted with one ‘Bear’ when there are two. It is possible that the second was not considered a constel-

lation until the Phœnicians specially designated it, and employing it in their navigation it became known to the Greeks.”

THE DIOSCURI (CASTOR AND POLLUX)

Strabo, vol. i. 76 (B. i. c. iii. 2).—“Castor and Pollux, the guardians of the sea and deliverers of sailors. The sovereignty of the seas exercised by Minos and the navigation carried on by the Phœnicians is well known. A little after the period of the Trojan War they had penetrated beyond the Pillars of Hercules and founded cities on the African coast.”

BRIDGE OVER THE ISTER OR DANUBE

Strabo, vol. i. 469 (B. viii. c. iii. 15).—“Near the mouth of the Danube is the large island called Pence. This the Bastarnæ possessed and were hence called Pencini. There are also other islands much smaller, some above this and others nearer the sea. The Danube has seven mouths; the largest is called the sacred mouth, the passage by which to Pence is 120 stadia. At the lower end of this island Darius made his bridge. It might likewise have been constructed at the upper part. This is the first mouth on the left-hand side as you sail into the Black Sea.”

QUIPPAS IN THE PACIFIC

Samoa, Dr. Geo. Turner, p. 302.—“Nui or Netherlands Islands.” “King Tapakea praised Mano’o for bravery and called out to the onlookers

on the beach to mark Mano'o as victorious. The marking was done by setting up a cocoanut leaf and tying a knot on top of it. Tying a number of knots on a piece of cord was also a common way of writing and remembering things in the absence of a written language among the South Sea Islanders."

TANNING

Pliny, vol. iii. 200 (B. xiii. c. xxxiv.).—In the vicinity of Carthage is claimed more particularly as the home of the Punic apple, though by some it is called granatium. The skin, while the fruit is still sour, is held in high esteem for tanning leather.

AMERICA

Nat. Races, vol. ii. 486, Nahuas.—“The skins of animals killed by the Nahua hunters were tanned both with and without hair by a process of which the authorities say nothing, although universally praising the results. The leather was used in some cases as a sort of parchment, but oftener for articles of dress, ornament, or armour.”

CURVED THROW-STICK OR BOOMERANG

Pliny, vol. v. 47 (B. xxiv. c. lxxii.).—“The tree called ‘aquefolia’ planted in town or country houses is a preservative against sorceries and spells. The blossom of it, according to Pythagoras, congeals water, and a staff made of the wood, if when thrown at any animal for want of strength in the party

throwing it, falls short of the mark, will roll back again towards the thrower of its own accord, so remarkable are the properties of this tree. The smoke of the yew kills rats and mice."

Note 82.—"One would be induced to think that this story is derived from some vague account of the properties of the boomerang. Although supposed by many to have been the invention of the natives of Australia, representations of it are found on the sculptures of Nineveh. It is not improbable that Pythagoras may have heard of it from the Magi during his travels in the East."

Vol. iii. 253 (B. viii. c. vii.), see footnote 42. "The exercise with the boomerang, which was known to the ancient Assyrians and has been borrowed in modern times from the people of Australia, seems to have been somewhat similar to this."

ARROW POISONING

Pliny, vol. iii. 97 (B. xi. c. cxv.).—The Scythians dip their arrows in the poison of serpents and human blood; against this frightful composition there is no remedy, for with the slightest touch it is productive of instant death."

AMERICA

Nat. Races, vol. i. 436, Californians.—"Arrows are occasionally poisoned by plunging them into a liver which has previously been bitten by a rattlesnake."

Vol. i. 579.—"The Ceris, Jovas, and other tribes smeared the points of their arrows with a

very deadly poison, but how it was applied it is difficult to determine. Some travellers say that the poison was taken from rattlesnakes and other venomous reptiles, which by teasing were incited to strike their fangs into the liver of a cow or deer which was presented to them, after which it was left to putrefy, and the arrows, being dipped into the poisonous mass, were placed in the sun to dry, but other writers again assert that the poison was produced from a vegetable substance. The wound inflicted by the point, however slight, is said to have caused instant death."

POISONS

Nat. Races, vol. i. 762.—"Different varieties of poisons have been described by writers and travellers. Herrera speaks of one which he says was made of certain green roots found along the coast, which were burnt in earthen pipkins and mixed with a species of black-ant; to this composition were added large spiders, some hairy caterpillars, the wings of a bat, and the head and tail of a sea-fish called tavorino, very venomous, besides toads, the tails of snakes, and manzanillas.

"All these ingredients were set over a fire in an open field and well boiled in pots by a slave till they were reduced to a proper consistency. The unfortunate slave who attended to the boiling almost invariably died from the fumes. Another poisonous composition is spoken of as having been made of fourteen different ingredients and another of twenty-five. One that killed in three days, another in five, and another later, &c."

BURIAL OF SCYTHIAN KINGS

Herodotus, iv. 73.—“ The body of the dead king is laid in the grave prepared for it, stretched upon a mattress, spears are fixed in the ground on either side of the corpse, and beams are stretched across above it to form a roof which is covered with a thatch of osier twigs. In the open space around the body of the king they burn one of his concubines, first strangling her, and also his cupbearer, his cook, his groom, his lacquey, his messenger, some of his horses, firstlings of all his possessions, and some golden cups, for they use neither silver nor brass. After this they set to work and raise a vast mound above the grave, all of them vying with each other and seeking to make it as tall as possible.”

AMERICA

Prehistoric Races, Foster, Tabuer & Co., 1874. “ Greek Grave Mounds.”—“ Another observer, Dr. Clemens, states that in carrying on the horizontal excavations at a distance of twelve or fifteen feet were found numerous masses composed of charcoal and burnt bones. On reaching the lower vault from the top it was determined to enlarge it for the accommodation of visitors, when ten more skeletons were found.

These facts show that the principal occupant of this mound, as indicated by its magnitude, was a royal personage, and can we not draw the further inference that many of his attendants were strangled and others were sacrificed as a burnt offering? Have we not explanation, indeed, of many of these

facts in the ceremonies which attended the burial of a Scythian king as described by the Father of history."

PURPLE DYE

Pliny, ii. 44 (B. ix. c. lxi).—"There are two kinds of fish that produce the purple colours; the elements in both are the same, the combinations only are different. The smaller fish is that which is called 'buccinum,' from its resemblance to the conch by which the buccina or trumpet is produced, and to this circumstance it owes its name; the opening of it is round. The other fish is known as the purpura or purple, and has a grooved and projecting muzzle, which, being tibulated on one side, in the interior forms a passage for the tongue. The buccinum attaches itself only to crags and is gathered about rocky places.

"Purples have another name, that of pelagæ; there are numerous kinds of them which differ only in their elements and place of abode, &c."

COTTON

Strabo, vol. iii. 86 (B. xv. c. i. 23).—Aristobulus says of the wool-bearing trees that the flower pod contains a kernel which is taken out and the remainder is combed like wool.

COTTON ON ISLAND OF TYLOS

Pliny, vol. iii. 117 (B. xii. c. xxi).—On an elevated plateau on the island we find trees that bear

wool but of a different nature from those of Seres of India, as in these trees the leaves bear nothing at all, and indeed might very readily be taken for those of the vine were it not that they are of smaller size. They bear a kind of gourd about the size of a quince which, when arrived at maturity, bursts asunder and discloses a ball of down from which a costly kind of linen cloth is made."

Note 2—Cottonei.—To this resemblance of its fruit to the quince the cotton tree which is here alluded to not improbably owes its modern name.

Pliny, vol. iii. 108 (B. xii. c. viii.).—Cotton trees. "In describing the country of the Seres we have already made mention of the wool-bearing trees which it produces, and we have likewise touched upon the extraordinary magnitude of the trees of India."

SIDONIAN ASTRONOMY AND ARITHMETIC

Strabo, vol. iii. 173 (B. xvi. c. ii. 24).—The Sidonians are said by historians to excel in various kinds of art, as the words of Homer (*Il.* xxiii. 743) also imply. Besides they cultivate science and study astronomy and arithmetic, to which they were led by the application of numbers and night sailing, each of which branches of knowledge concerns the merchant and the seaman. In the same manner the Egyptians were led to the invention of geometry by the mensuration of ground, which was required in consequence of the Nile confounding, by its overflow, the respective boundaries of the country. It is thought that geometry was introduced into Greece from Egypt and astronomy and arithmetic

from Phœnicia. At present the best opportunities are afforded in these cities of acquiring a knowledge of these and of all other branches of knowledge.

TIDES

Strabo, vol. i. 259 (B. iii. c. v. 8).—"I cannot tell how it is that Posidonius, who describes the Phœnicians as sagacious in other things, should have attributed to them folly rather than shrewdness, &c." This passage refers to observations on the causes producing spring and neap tides.

VOYAGES OF EXPLORATION

Pliny, vol. i. 98 (B. ii. c. lxxvii.).—All of this chapter refers to the exploration of the Asiatic and European seas. "On the other side of Gades, proceeding from the same western point, a great part of the southern ocean along Mauritania has now been navigated. Indeed the greater part of this region, as well as of the East as far as the Arabian Gulf, was surveyed in consequence of Alexander's victories. When Caius Cæsar, the son of Augustus, had the conduct of affairs in that country it is said that they found the remains of a Spanish vessel that had been wrecked there. While the power of Carthage was at its height Hanno published an account of a voyage which he had made from Gades to the extremities of Arabia (Hood, ii. 393). Hamilco also was sent about the same time to explore the remote parts of Europe. Besides we learn from Cornelius Nepos that one Eudoxus, a contemporary

of his when he was flying from King Lathyrus, set out from the Arabian Gulf and was carried as far as Gades.”

SPEEDY VOYAGES

Pliny, vol. iv. 136 (B. xix. c. i).—“To think that there is here a plant, flax, which brings Egypt in close proximity to Italy, so much so in fact that Gaberius and Balbillus, both of them prefects of Egypt, made the passage to Alexandria from the Straits of Sicily, the one in six days and the other in five. It was only this last summer that Valerius Marianus, a senator of Prætorian rank, reached Alexandria from Puteoli in eight days and that too with a very moderate breeze all the time. To think that there is a plant which brings Gades near the Pillars of Hercules within six days of Ostia, ‘Nearer Spain’ within three, the province of Gallia Narbonensis within two, and Africa within one, this last passage having been made by C. Flavius when legate of Vibius Crispus, the proconsul, and that too with little or no wind to favour the passage.”

KNOWLEDGE OF THE SPHERICITY OF THE EARTH

Strabo, vol. i. 78 (B. i. c. iii. 3).—“Again, having discoursed on the advance of knowledge respecting the geography of the inhabited earth between the time of Alexander and the period when he was writing, Erastosthenes goes into a description of the figure of the earth, an account of which would have been very suitable, but of the whole earth which should certainly have been given too, but not in this disordered manner. He proceeds to tell us

that the earth is spheroidal, not however perfectly so, inasmuch as it has certain irregularities. He then enlarges on the successive changes in its form occasioned by water, fire, earthquake, eruptions, and the like, all of which is entirely out of place, for the spheroidal form of the whole earth is the result of the system of the universe, and the phenomena which he mentions do not in the least change its general form, such little matters being entirely lost in the great mass of the earth."

GADES AND ERYTHREA

Pliny, vol. i. 368 (B. iv. c. xxxvi.).—"At the very commencement of Bætica and twenty-five miles from the Straits of Gades is the island of Gades, twelve miles long and three broad, as Polybius states in his writings. At its nearest part it is 700 feet distant from the mainland, while in the remaining portion it is more than seven miles. Its circumference is fifteen miles. On the other side, which looks towards Spain, at about one hundred paces distant, is another long island three miles wide, on which the original city of Gades stood. By Ephorus and Philistides it is called Erythrea. It is called Erythrea because the Tyrians, the original ancestors of the Carthaginians, were said to have come from the Erythrean or Red Sea. In the island Geryon is by some thought to have dwelt, whose herds were carried off by Hercules."

TYRE. NAVIGATION AND DYEING

Strabo, vol. iii. 172 (B. xvi. c. ii. 25).—"Tyre is wholly an island built in the same manner as Aradus.

It is joined to the continent by a mound which Alexander raised when he besieged it. It has two harbours, one close the other open, which is called the Egyptian harbour. The houses here, it is said, consist of many stories, of more even than Rome. On the occasion, therefore, of an earthquake the city was nearly demolished. It sustained great injury when it was taken by Alexander, but it rose above these misfortunes and recovered itself both *by the skill of the people in navigation, in which art the Phœnicians in general have always excelled all nations*, and by their expertness in purple-dye manufactures. The Tyrian murex from which dye is procured is caught near the coast, and the Tyrians have in great abundance other requisites for dyeing. The great number of dyeworks renders the city unpleasant as a place of residence, but the superior skill of the people in the practice of this art is the source of its wealth."

SYSTEM OF INTERCALATION AND DIVISION OF THE YEAR

Herodotus, ii. 4.—“ But as concerns human effort they agree with one another in the following account, *that the Egyptians were the first to discover the year which they divided into twelve parts*, and they say that they made the discovery from the stars, and so far I think that they act more wisely than the Grecians, in that the Grecians insert an intercalary month every year on account of the seasons, whereas the Egyptians reckon twelve months of thirty days each *and add five days* each year above that number, and so with them the circle of the seasons comes round to the same point.”

MEXICO

Nat. Races, vol. ii. 508.—“The civil year was again divided into eighteen months *and five days*. Each month had its particular name, but *the five extra days* were only designated unlucky days.”

PHŒNICIANS IN BRITAIN AND NORWAY,
1500–1200 B.C.

Prehistoric Times, Sir John Lubbock, Appleton & Co., 1878, p. 73.—“We are therefore surely quite justified in concluding that between 1500 B.C. and 1200 B.C. the Phœnicians were already acquainted with the mineral fields of Spain and Britain, and under these circumstances it is, I think, more than probable that they pushed their explorations still further in search of other shores as rich in mineral wealth as ours. Indeed we must remember that amber, so much valued in ancient times, could not have been obtained from any nearer source than the coasts of the German Ocean, &c.” See what follows for proof.

TYRE AND BRITAIN, 1200–1050 B.C.

Story of Phœnicia, Rawlinson, p. 164.—“But there was one branch of their sea trade whereto they clung with extreme tenacity, and which at a date long subsequent to the seventh century they prevented even the Romans from sharing. This was the trade for tin with the Scilly Islands and the coasts of Cornwall already mentioned in an earlier section, which was one of the main sources of Phœ-

nician wealth, tin being found in a few places only, and being largely required for the hardening of copper into bronze by almost all the races inside the Pillars of Hercules with which the Phœnicians had dealings. Tyre at the height of its greatness sent her ships year by year through the stormy Atlantic to the British Islands to fetch a commodity which has largely flowed back to the country of its birth as ingredients of the precious bronzes that are to be seen in English collections."

PHŒNICIAN EXPANSION IN 1050 B.C.

Manual of Anct. History, Rawlinson, Clarendon Press, 1880, page 39.—“The commercial spirit of the Phœnicians was largely displayed during this period, which till its close was one of absolute independence. The great monarchies of Egypt and Assyria were comparatively speaking weak, and the states between the Euphrates and the African border, being free from external control, were able to pursue their natural bent without interference. Her commercial leanings early induced Phœnicia to begin the practice of establishing colonies, and the advantages which the system was found to secure caused it to acquire a vast development. The coasts and islands of the Mediterranean were rapidly covered with settlements, the Pillars of Hercules were passed, and cities built on the shores of the ocean. At the same time factories were built on the Persian Gulf and conjointly with the Israelites on the Red Sea. Phœnicia had at this time no serious commercial rival, and the trade of the world was in her hands.”

GALENA

Pliny, vol. vi. 3 (B. xxxiii. c. xxxi.).—"Silver is never found but in shafts sunk in the ground, there being no indications to raise hopes of its existence, no shining sparkles as in the case of gold. The earth in which it is found is sometimes red, sometimes of an ashy hue. It is impossible, too, to melt it except in combination with lead or with Galena, this last being the name given to the vein of lead that is mostly found running near the vein of silver ore. When submitted, too, to the action of fire part of the ore precipitates itself in the form of lead, while the silver is left floating on the surface like oil on water."

Prehistoric Times, Sir John Lubbock, Appleton & Co., 1878, page 258.—"The powerful nations of Central America were, however, in an age of bronze while the N. Americans were in a condition of which we find in Europe scant traces, namely, in an age of copper. Silver is the only other metal which has been found in the ancient tumuli, and that but in very small quantities. It occurs in a native form with the copper of Lake Superior, whence in all probability it was derived. It does not appear ever to have been smelted. From the large quantities of *Galena* which is found in the mounds, Squire and Davis are disposed to think that lead must have been used to a certain extent by the N. American tribes; the metal itself, however, has not yet I believe been found."

Nat. Races, Bancroft, vol. iv. 778.—"The only metals found in the mounds are copper and silver, the latter only in small quantities. A few gold

trinkets have been reported, but the evidence is not conclusive that such were deposited by the mound builders. Iron ore and Galena occur, but no iron or lead."

Nat. Races, vol. iv. 779.—"Mr. Dickson speaks confidently of gold, silver, copper, and Galena money left by the mound builders."

Prehistoric Races of the U. S., J. W. Foster, LL.D., Trübner & Co., Lond. 1874, page 271.—"Lead, though easily reduced, does not appear to have been used to any considerable extent. *Galena* is frequently met with in the mounds as far south as the Ohio River."

PHÆNICIANS

Story of Phœnicia, Rawlinson, p. 163.—"The silver mines of Southern Spain were rich in the extreme and the soil so abundant with the product that even the lead was to a large extent alloyed with it, and the amalgam was known to the Greeks as a peculiar metal which they called *Galena*."

LASSOES

Herodotus, vii. 85.—"There is a certain nomadic race called the Sarmatians, of Persian extraction and language, who wear a dress fashioned between the Persian and the Bactrian fashion; they furnish 8000 horse, but they are not accustomed to carry any arms, either brass or iron, except daggers; they use ropes of twisted thongs, trusting to these they go to war. The mode of fighting of these men is as follows: When they engage with the enemy they throw out the ropes which have a noose at the end,

and whatever anyone catches, whether horse or man, he drags to himself, and they that are entangled in the coils are put to death. This is their mode of fighting, and they are marshalled with the Persians."

History of Mankind, Ratzel, vol. ii. 81. "The Patagonians."—"The weapons of these nomads are not the bow and arrow which elsewhere are in use among rude pastoral races but the javelin, the bolas, and the lasso, from which the bolas seems to have arisen."

International Encyclopedia, vol. xi. 10. "Lasso."—"A rope of hair, hemp, or hide from sixty to one hundred feet long with a running noose at one end. It is thrown mostly from horseback with a whirl which takes the expanded noose over the horns or legs of the animal to be captured, a snatch tightens it and disables the quarry. It was in Mexico and South America before their discovery by the Spaniards, and is still used for catching wild cattle. It is a favourite hunting equipment of the cowboys of North-Western Texas and Mexico."

Nat. Races, Pacific States, vol. i. 493.—"Throughout Arizona and New Mexico the bow and arrow is the principal weapon both in war and in the chase, to which are added by those accustomed to move on horseback the shield and lance, with such also the Mexican riata or lasso may occasionally be seen."

Note 58.—"The weapons of war were the spear or lance, the bow, and the lasso."

Nat. Races, vol. i. 724. "The Mosquitos."—"Beside the implements already referred to under fishing and weapons may be mentioned the lasso, in the use of which they are very expert."

TRADE WINDS

Nelson's Ency., vol. xii. 147.—“ So called from their steady course, are met with between the latitudes of 7° to 29° north, and 3° to 20° south. North of the equator these winds blow almost constantly from the north-east, while south of the equator the prevailing direction is south-east. The distribution of barometric pressure which brings about the permanency of the trade winds is a belt of comparatively high pressure from 30° to 30° inches, which circles the globe at the tropics both north and south of the equator, causing the north-east trades of the tropic of Cancer and the south-east trades of the tropic of Capricorn.”

Note, T. C. J.—Beyond these are the periodic and variable winds, consequently the real perplexities of navigation begin approximately at from 20° to 30° north and south of the equatorial line.

Ency. Brit., vol. xvi. 144.—“ North and south trade winds also prevail in the Pacific Ocean separated by a region of calms, which would appear, however, to be less clearly defined than in the region of calms in the Atlantic.”

CHITTIM

Hist. of Phœnician Art, Perrot and Chipiez, vol. ii. 92.—“ This was the oldest and most important of all the Phœnician settlements on the island of Cyprus, and carried on the liveliest trade with the continent and the interior of the island, and we find that the Hebrew prophets applied it indiscriminately to the whole of the western world, which they looked upon as a dependency of Phœnicia.”

BETYLLIUM

Story of Phœnician Art, Perrot and Chipiez, vol. i. 58.—“The worship of Betylæ, which we encounter in every country, reached by Phœnician influence, may be traced to the same source. The word we have used comes to us from the Greek, and they took it with some slight alteration from the Semitic group Beth-el, which means the house of God. This was a generic term used to denote all sacred stones, that is to say all stones credited with the possession of any special and peculiar virtue. We are told that some were aerolites, a circumstance which greatly enhance their credit.”

HUMAN SACRIFICES

Hist. of Phœnician Art, Perrot and Chipiez, vol. i. 76. *Note I.*—Philo of Byblius speaks of human sacrifices as a rite peculiar to the Phœnician race (*Frg. Hist. Greece*, vol. iii. 570).

FIJI: ORIGIN OF NAME

Ain-Fiji is the name of a large gushing spring which supplies water to the Abana, one of the rivers of Damascus. These Fiji Islands in the Pacific are noted for their large gushing streams. These similarities in name, &c., have been referred to by Mr. John Macgregor in his book *The Rob Roy on the Jordan*, and the point has also been discussed by Sir Arthur Gordon, Sir W. Des Voeux, Governor of Fiji.

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