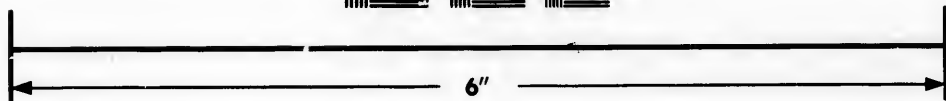
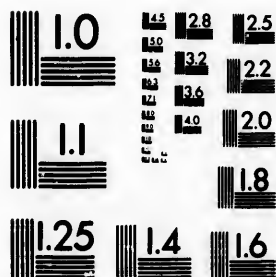


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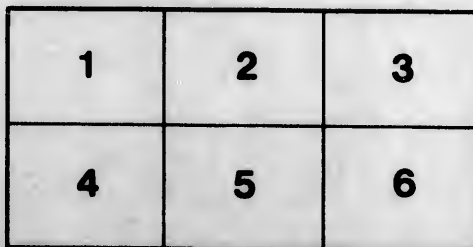
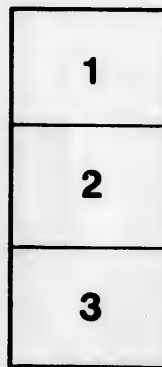
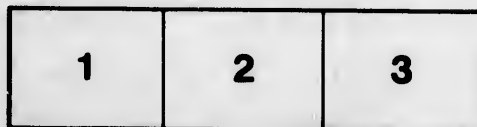
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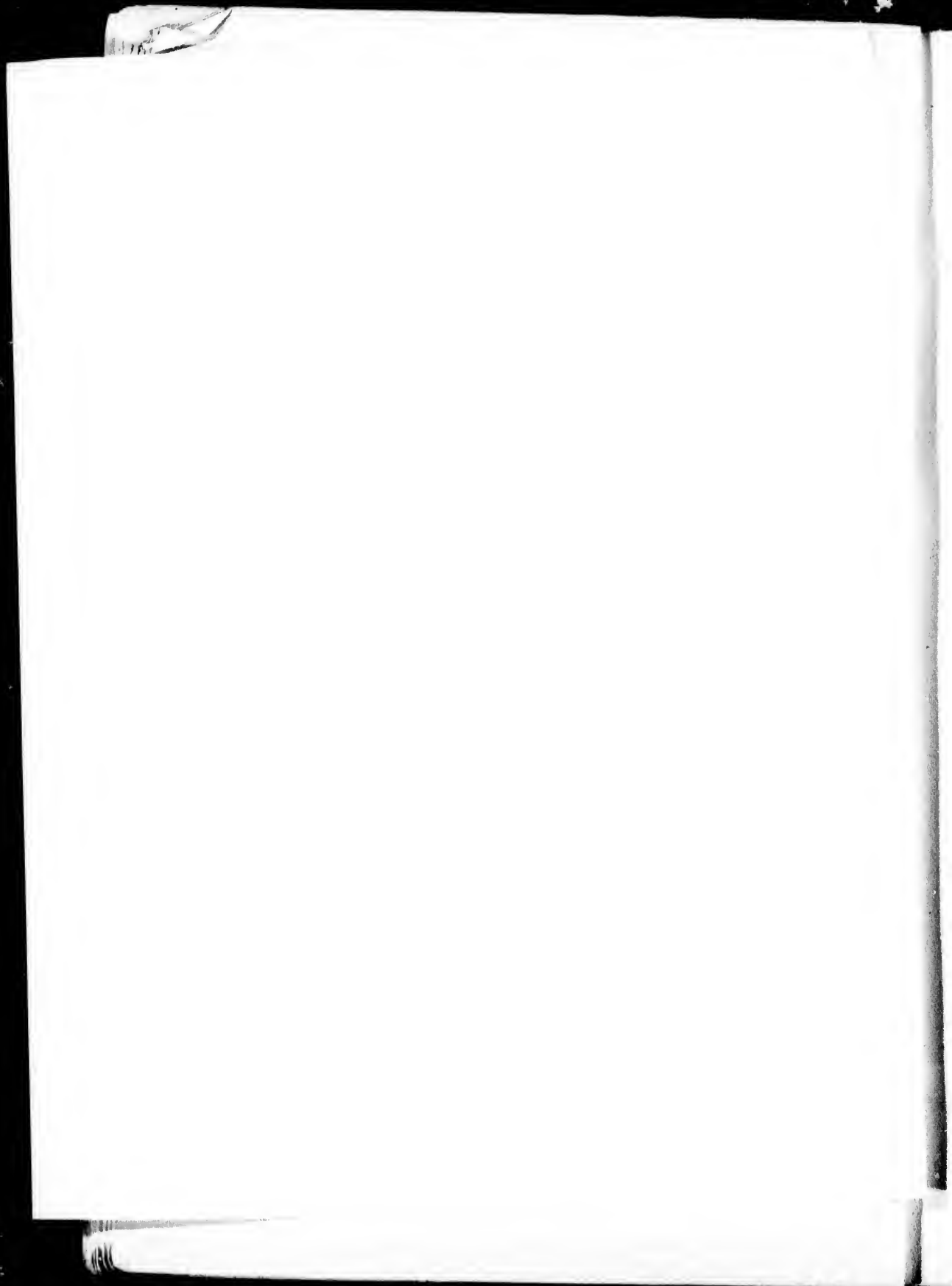
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WAS MIDDLE AMERICA PEOPLED FROM ASIA?

By Prof. EDWARD S. MORSE.

THE controversies over the question of the origin of Central American culture are to be again awakened by the exploration organized under the direction of the American Museum of Natural History through the liberality of its president, Morris K. Jesup, Esq. The plans embrace an ethnographic survey of the races between the Columbia and Amoor Rivers. Many similarities in customs, folklore, etc., will doubtless be found among these northern races. How far traces of an ancient avenue will be established through which came the unique cult of middle America, and for which in a way the surveys have been instituted, remains to be seen. The question is one of perennial interest, and all honor to the scientific spirit of Mr. Jesup, whose munificence has provided the means for this work.

It may be of interest to remind those who have only a vague idea of the contention that there are many earnest scholars who insist that the wonderful architectural remains in Mexico, Yucatan, and other regions of the west coast are due to Asiatic contact in the past. As proofs of this contact are cited similarities as seen in the monuments, the facial characteristics of certain tribes, ancient customs, astronomical ideas, serpent worship, certain games, etc. Particularly is it believed by the scholars that the "land of Fusang" mentioned in early Chinese historical records is no other than Mexico or some contiguous country.

Space will not permit even the briefest mention of the evidences which have led to these conclusions, and the reader is referred to a remarkably condensed history of the whole question embodied in a

volume by Mr. Edward P. Vining entitled *An Inglorious Columbus*. Under this unfortunate title one may find the most painstaking collocation of the many memoirs written upon this subject, with the Chinese account of the land of Fusang in Chinese characters, and appended thereto the various translations of the document by De Guines, Williams, Julien, and other eminent sinologists.

To the French Orientalist, M. de Guines, we are indebted for our first knowledge of certain ancient records of the Chinese, which briefly record the visit of Chinese Buddhist monks to the land of Fusang in the year 458 of our era, and the return of a single Buddhist monk from this land in 499. De Guines's memoir appeared in 1761, and for forty years but little attention was drawn to it. Humboldt says that, according to the learned researches of Father Gaubil, it appears doubtful whether the Chinese ever visited the western coast of America at the time stated by De Guines. In 1831, Klaprot<sup>t</sup>, the eminent German Orientalist, combated the idea that Fusang was Mexico, and insisted that it was Japan. In 1844 the Chevalier de Paravey argued that Fusang should be looked for in America. Prof. Karl Friedrich Neumann also defended this idea. In magazine articles in 1850-1862, and finally in book form in 1875, Mr. C. G. Leland supported with great ingenuity the idea of Chinese contact based on the Fusang account. In 1862 M. José Perez also defended the idea. In 1865 M. Gustave d'Eichthal published his memoir on the Buddhistic origin of American civilization, and in the same year M. Vivien de Saint-Martin combated the theory, and since that time many others have written upon the subject in favor or in opposition to the idea of Asiatic contact.

These hasty citations are only a few of the many that I have drawn from Mr. Vining's encyclopedic compilation.

It is extraordinary what a keen fascination the obscure paths of regions beyond history and usually beyond verification have to many minds, and the fascination is as justifiable as the desire to explore unknown regions of the earth. In the one case, however, we have a tangled mass of legendary tales coming down from a time when dragons were supposed to exist, when trees were miles in height, when people lived to a thousand years, when every unit of measurement was distorted and every physical truth, as we know it to-day, had no recognition, while in the other case we have at least a continuity of the same land and sea extending to the unexplored beyond. This impulse of the human mind finds an attractive problem in the question as to the origin of the American races. Dr. Brinton has insisted on the unreasonable nature of the inquiry by asking an analogous one: "Whence came the African negroes? All will reply, 'From Africa, of course.' 'Originally?' 'Yes, originally; they

constitute the African or negro subspecies of man.'” By bringing together isolated features which have resemblances in common, the American Indian has been traced to nearly every known stock. Mr. Henry W. Henshaw, in an admirable address entitled *Who are the American Indians?* says: “If you have special bias or predilection you have only to choose for yourself. If there be any among you who decline to find the ancestors of our Indians among the Jews, Phœnicians, Scandinavians, Irish, Welsh, Egyptians, or Tartars, then you still have a choice among the Hindu, Malay, Polynesian, Chinese, or Japanese, or indeed among almost any other of the children of men.” Had this address been written a few years later he might have added Hittite!

There are two propositions involved in the controversy as to the Asiatic origin of the American race: the one is that America was peopled from Asia by invasions or migrations in pre-savage or pre-glacial times; the other is that the peculiar civilization of Central America was induced by Buddhist monks, who traveled from Asia to Mexico and Central America in the fifth century of our era. Those who sustain the first thesis are without exception men trained in the science of anthropology; those who sustain the second thesis are with a few conspicuous exceptions travelers, geographers, sinologists, missionaries, and the like.

If Asia should ever prove to be the cradle of the human race, or of any portion of it which had advanced well beyond the creature known as *Pithecanthropus erectus*, then unquestionably an Asian people may be accounted the progenitors of the American Indians. Any effort, however, to establish an identity at this stage would probably take us far beyond the origin of speech or the ability to fabricate an implement.

The controversy has not raged on this ground, however; the numerous volumes and memoirs on the subject have dealt almost exclusively with culture contacts or direct invasions from Asia in our era, and more particularly with the supposed visits of Chinese Buddhist monks to Mexico and Central America already alluded to. Believing in the unity of the human race, the dispersion of the species seems more naturally to have occurred along the northern borders of the great continents rather than across the wide ocean. From the naturalist's standpoint the avenues have been quite as open for the circumpolar distribution of man as they have been for the circumpolar distribution of other animals and plants down to the minutest land snail and low fungus. The ethnic resemblances supposed to exist between the peoples of the two sides of the Pacific may be the result of an ancient distribution around the northern regions of the globe. Even to-day social relations are said to exist



between the peoples of the Mackenzie and the Lena delta, and it is not improbable that the carrying band of the Ainu in Yeso and a similar device depicted on ancient codices and stone monuments in Mexico may have had a common origin. Advancing to a time when man acquired the art of recording his thoughts, the question of any contact between the peoples of the eastern and western shores of the Pacific, south of latitude  $40^{\circ}$ , compels us to examine the avenues which have been so potent in the distribution of life in the past—namely, the oceanic currents. We are at once led to the great Japan current, the Kuro Shiwo, which sweeps up by the coast of Japan and spends its force on the northwest coast of America. Records show a number of instances of Japanese junks cast ashore on the Oregon coast and shores to the north.\*

It must be evidences of Japanese and not Chinese contact that we are to look for—tangible evidences, for example, in the form of relics, methods of burial, etc. That the Japanese bear resemblances to certain northern people there can be no doubt. Dr. Torell brought before the Swedish Anthropological Society, some years ago, the results of a comparative study of Eskimo and Japanese. The anatomical and ethnographical resemblances appeared so striking to him as to give additional strength to the theory of the settlement of America from Asia by way of Bering Strait. That there are certain resemblances among individuals of different races we have abundant evidences. At a reception in Philadelphia I introduced a Japanese commissioner (who had been a Cambridge wrangler) to a full-blooded Omaha Indian dressed in our costume, and the commissioner began a conversation with him in Japanese; nor could he believe me when I assured him that it was an Indian that he was addressing, and not one of his own countrymen. I was told by an *attaché* of the Japanese legation at Washington that after carefully scrutinizing the features of a gentleman with whom he was traveling he ventured to introduce himself as a fellow-countryman, and found to his astonishment that the man was a native of the Malay Peninsula. That the Malays bear a strong resemblance to the Chinese is quite true. Dr. Baelz, of the Medical College of Japan, can find no differences between the crania and pelvises of the Chinese and Malays. Wallace assures us that even the Malay of Java, when

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\* Mr. Charles Walcott Brooks presented to the California Academy of Sciences a report of Japanese vessels wrecked on the North Pacific Ocean in which many instances are given. He says: "Every junk found stranded on the coast of North America or on the Hawaiian or adjacent islands has, on examination, proved to be Japanese, and no single instance of a Chinese vessel has ever been reported, nor is any believed to have existed. . . . There also exists an ocean stream of cold water emerging from the Arctic Ocean which sets close in along the eastern coast of Asia. This fully accounts for the absence of Chinese junks on the Pacific, as vessels disabled off their coast would naturally drift southward."

dressed as a Chinese, is not to be distinguished from them, and Peschel classifies the Malays with the Mongoloid people. In these approximate regions one might expect close internixtures. If resemblances are established between the Japanese and the Eskimo, they would probably have arisen from a circumpolar race which has left its traces on northern peoples the world around. We turn naturally to Japan as the region from which a migration might reasonably have been supposed to take place. Its position on the Asiatic coast with a series of larger and smaller stepping-stones—the Kuriles—to Kamchatka, and thence across the strait to America and seaward, the broad and powerful Japanese current sweeping by its coast and across the Pacific, arrested only by the northwestern coast of America. With these various avenues of approach one might certainly expect evidences of contact in past times. A somewhat extended study in Japan of its prehistoric and early historic remains in the way of shell-heap pottery from the north to the south, much of it of an exceedingly curious character; the later stone implements, many of them of the most extraordinary types; the bronze mirrors, swords, spear points, and the so-called bronze bells; the wide distribution of a curious comma-shaped ornament of stone known as the *magatama*, with a number of varieties, and many other kinds of objects, leads me to say that no counterpart or even remote parallelism has been found in the western hemisphere. Certain rude forms of decoration of the northern shell-heap pottery of Japan, such as the cord-mark and crenulated fillet, are world-wide in their distribution, and a similar wide dispersal is seen of the rude stone implements and notched and barbed bone and horn. Here, however, the similarity ends. The lathe-turned unglazed mortuary vessels so common in ancient graves in Japan and Korea have equally no counterpart on our western coast. If now we examine the early records of Japan in her two famous works—the *Kojiki* and *Nihonji*, which contain rituals, ceremonies, and historical data going back with considerable accuracy to the third and fourth centuries of our era—we shall find many curious details of customs and arts and references to objects which have since been exhumed from burial mounds, yet we look in vain for a similar cult in Mexico or Central America. Turning aside from Japan as an impossible ground in which to trace resemblances, we glance at the unique character of the ancient pottery of Central America, with its representations of natural forms, such as fishes, turtles, frogs, shells, etc., its peculiar motives of decoration in color, and find no counterpart in Asia. The pyramidal rock structure and rounded burial mounds are supposed to have their counterparts in the East, but the pyramidal form is common in various parts of the world, simply because it is the most economical

and most enduring type of architecture, and facilitates by its form the erection of the highest stone structures. The rounding dome of an earth mound and the angular side of a rock pyramid are the result of material only.

If we now turn to China as a possible region from which migrations may have come in the past, we have only to study the historical records of that ancient people to realize how hopeless it is to establish any relationship. Let one study the Ceremonial Usages of the Chinese (1121 B. C.—translated by Gingell), and he will then appreciate the wonderful advancement of the Chinese at that early date—the organized government, the arts, customs, manufactures, and the minute observances and regulations concerning every detail of life. With these records before him he may search in vain for the direct introduction of any art or device described in this old Chinese work. A few similarities are certainly found between the East and the West, but these arise from the identity in man's mental and physical structure. With two legs only, for example, it is found difficult to sit on a seat comfortably in more than a few ways. One may sit with both legs down, with one leg under, with legs crossed *à la Turk*, or the unconventional way throughout the world with one leg over the other at various angles. It would seem with this limited number of adjustments that any similarities in the attitude of certain stone statues in America and Asia could have but little weight. Prof. F. W. Putnam believes that he has established an Asiatic origin of certain jade ornaments found in Central America. If this conclusion could be sustained, we should then have evidences of contact with an Asiatic people in the stone age, which in itself was one of great antiquity for the Chinese, and one long antedating the origin of Buddhism. In the Chinese work above alluded to the whetstone is mentioned for sharpening swords, and the craft employed in polishing the musical stone. Confucius also refers to the musical stone in his Analects. This is as near as we get to the use of stone eleven hundred years before Christ. It is to the merit of Putnam to have first called attention to the fact that many of the jade ornaments, amulets, etc., of Central America had originally been portions of jade celts. The discovery is one of importance, whatever explanation may be reached as to the origin of the stone. In Costa Rica these celt-derived ornaments have been cut from celts composed of the native rock, and it would seem that these old implements handed down in the family led to their being preserved in the form of beads, amulets, etc., much in the same spirit that animates us to-day in making paper-cutters, penholders, and the like from wood of the Charter Oak, frigate Constitution, and other venerated relics. Among other evidences of contact the existence of the Chinese calen-

dar in Mexico is cited. Dr. Brinton shows, however, that the Mexican calendar is an indigenous production, and has no relation to the calendar of the Chinese. In a similar way the Mexican game of *patolli* is correlated with the East Indian game of *parchesi* by Dr. E. B. Tylor. Dr. Stewart Culin, who has made a profound study of the games of the world, and Mr. Frank Hamilton Cushing, the distinguished student of the ethnology of southern North America, are both convinced that this game had an independent origin in various parts of the world. Mexican divisions of time marked by five colors are recognized as being allied to a similar device in China. The application of colors to the meaning of certain ideographs is common in other parts of the world as well. It is important to remark that the colors named include nearly the whole category as selected by barbarous people, and in the use of colors in this way it would be difficult to avoid similarities.

The evidences of contact in early times must be settled by the comparison of early relics of the two shores of the Pacific. Resemblances there are, and none will dispute them, but that they are fortuitous and have no value in the discussion is unquestionable. As illustrations of these fortuitous resemblances may be cited a tazza from the United States of Colombia having a high support with triangular perforations identical in form with that of a similar object found among the mortuary vessels of Korea, and Greece as well. A curious, three-lobed knob of a pot rim, so common in the shell mounds of Omori, Japan, has its exact counterpart in the shell mounds of the upper Amazon. In the Omori pottery a peculiar curtain-shaped decoration on a special form of jar has its exact parallel in the ancient pottery of Porto Rico. These instances might be multiplied, but such coincidences as are often seen in the identity of certain words are familiar to all students. The account of the land of Fusang appears in the records of the Liang dynasty contained in the *Nanshi*, or *History of the South*, written by Li Yen-Shau, who lived in the beginning of the seventh century. It purports to have been told by a monk who returned from the land of Fusang in 499 of our era. This hypothetical region has been believed to be Japan, Saghalin, and Mexico. The record is filled with fabulous statements of impossible animals, trees of impossible dimensions, and is so utterly beyond credence in many ways that it should have no weight as evidence. If it had any foundation in fact, then one might infer that some traveler had entered Saghalin from the north, had crossed to Yeso and Japan, and found his way back to China. His own recollections, supplemented by stories told him by others, would form the substance of his account. The record is brief, but any one familiar with Japan as Klaproth was is persuaded with him that the

account refers to Japan and adjacent regions. The twenty thousand *li* the monk is said to have traveled may parallel his mulberry trees several thousand feet high and his silkworms seven feet long. In a more remote Chinese record, as mentioned by Dr. Gustave Schlegel, the statement is made that the inhabitants had to dig down ten thousand feet to obtain blue tenacious clay for roofing tiles! A number of ardent writers convinced that signs of Chinese contact are seen in the relics of middle America have seized upon this account of Fusang in support of this belief. These convictions have arisen by finding it difficult to believe that the ancient civilizations of Mexico and Peru could have been indigenous. In seeking for an exterior origin in the Fusang account overweight has been credited to every possible resemblance, and all discrepancies have been ignored.

The fabulous account of the land of Fusang evidently supplied documentary evidence, and Mexico was conceived to be the mythical Fusang. Mr. Vining goes so far as to declare that "some time in the past the nations of Mexico, Yucatan, and Central America were powerfully affected by the introduction of Asiatic arts, customs, and religious belief." To establish the details in the Chinese account the entire western hemisphere is laid under contribution: now it is the buffalo of North America, then the llama of Peru, the reindeer of the arctic, or some native word. These writers do not hesitate to bring to life animals that became extinct in the upper Tertiaries, and to account for the absence of others by supposing them to have become extinct. Literal statements of horses dragging wheeled vehicles are interpreted as an allusion in Buddhist cult which refers by metaphor to attributes and not to actual objects. As an illustration of the wild way in which some of these resemblances are established, Mr. Vining quotes the account of M. José Perez (*Revue Orientale et Américaine*, vol. viii). Perez reminds us that the inhabitants of the New World gave Old World names to places in the new continent, citing New York, New Orleans, and New Brunswick as examples, and then says that at some remote epoch the Asiatics had given to the cities of the New World the same names as the cities of their mother country; so the name of the famous Japanese city Ohosaka (Osaka), to the west of the Pacific, became Oaxaca in Mexico on the eastern side. Now it is well known that the ancient name of Osaka was Namihawa; this became corrupted into Naniwa, and not till 1492 does the name Osaka appear. Rev. J. Summers gives a full account of these successive names with their meanings (*Transactions of the Asiatic Society of Japan*, vol. vii, part iv). The real question to be answered is not what might have been accomplished by ancient explorers from Asia, but what was accomplished. It is shown that Chinese Buddhist priests went to India in the years

388, 399, 629, and so on, and the question is asked, Why may they not have reached Mexico on the east? Migration on parallels of latitude with no intervening ocean is one matter; to go from latitude 30° on one side of the Pacific almost to the Arctic Ocean, and down on the other side nearly to the equator, is quite another exploit. It is assumed that five priests had gone to Mexico in 468 A. D., and there ingrafted Buddhistic cult on the races with whom they came in contact. It is simply beyond reason to believe that the introduction of Buddhism into Mexico antedated by half a century its introduction into Japan. Communication between Korea and Japan has been from the earliest times one without effort or peril: in the one case a trip of a day or more, in the other case a journey of unnumbered thousands of miles through perilous seas, across stormy fiords and raging waters, including arctic and tropical climates and contact with multitudinous savage hordes. Those who hold that Mexico and Central America were powerfully affected by Asiatic contact must be called upon to explain the absence of certain Asiatic arts and customs which would have been introduced by any contact of sufficient magnitude to leave its impress so strongly in other directions. A savage people takes but little from a civilized people save its diseases, gunpowder, and rum. The contact of barbarous with civilized people results in an interchange of many useful objects and ideas, but these introductions must be through repeated invasions and by considerable numbers. Peschel, while believing in the Asiatic origin of the American race, would place the time far back in the savage state. He repudiates the Fusang idea, and expresses his belief that "a high state of civilization can not be transmitted by a few individuals, and that the progress in culture takes place in dense populations and by means of a division of labor which fits each individual into a highly complex but most effective organization," and then insists that "the phenomena of American civilization originated independently and spontaneously"; and Keane shows how interesting the social, religious, and political institutions of America become when "once severed from the fictitious Asiatic connection and influences." That the savage derives little or derives slowly from contact with a superior race is seen in the fact that he still remains savage. Thus the Ainu, a low, savage people, though they have been in contact with the Japanese for nearly two thousand years, have never acquired the more powerful Mongolian arrow release, while the Persians, though Aryan, yet early acquired this release from their Mongolian neighbors. The Scandinavians, who in prehistoric times practiced the primary release, yet later acquired the more efficient Mediterranean method. Let us for a moment consider what would have occurred as a result of an Asiatic contact with

a people advanced enough to have been powerfully affected in their "arts, customs, and religious belief." It seems reasonable to believe that traces of a Mongolian release would be found in Central America, the more so as a warlike people would eagerly seize upon a more powerful method of pulling the bow, yet no trace of a stone or metal thumb ring has ever been found in the western hemisphere. Ancient Mexican codices, while depicting the archer, reveal no trace of the Mongolian method. In the Old World this release crept westward as a result of the migration of, or contact with, Asiatic tribes, and metal thumb rings are dug up on the Mediterranean littoral. While the arrow release of China might not have effected a lodgment in America, the terra-cotta roofing tile certainly would. This important device, according to Schlegel, was probably known in China 2200 B. C., in Korea 500 B. C., and in Japan in the early years of our era. In the ancient records of Japan reference is made to "breaking a hole in the roof tiles of the hall," etc., and green-glazed tiles are dug up on the sites of ancient temples in Japan. The fragments are not only unmistakable but indestructible. I have shown elsewhere\* that the primitive roofing tile crept into Europe from the East, distributing itself along both shores of the Mediterranean, and extending north to latitude 44°. Graeber finds its earliest use in the temple of Hira in Olympia, 1000 B. C. The ancient Greeks had no knowledge of the roofing tile. Among the thousands of fragments and multitudinous articles of pottery found by Schliemann in the ruins of Ilios, not a trace of the roofing tile was discovered. One is forced to believe that so useful an object, and one so easily made, would have been immediately adopted by a people so skillful in the making of pottery as the ancient Mexicans. Certainly these people and those of contiguous countries were equal to the ancient Greeks in the variety of their fictile products. Huge jars, whistles, masks, men in armor, curious pots of an infinite variety attest to their skill as potters, yet the western hemisphere has not revealed a single fragment of a pre-Columbian roofing tile. Vining, in his work, cites an observation of the Rev. W. Lobscheid, the author of a Chinese grammar. In crossing the Isthmus of Panama this writer was much struck with the similarities to China; "the principal edifices on elevated ground and the roofing tiles identical to those of China." The roofing tile is indeed identical with that of China. It is the form that I have elsewhere defined as the normal or Asiatic tile, but it reached America for the first time by way of the Mediterranean and Spain, and thence with the Spaniards across the Atlantic, where it immediately gained a footing, and

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\* On the Older Forms of Terra-Cotta Roofing Tiles. Essex Institute Bulletin, 1882.



rapidly spread through South America and along the west coast north, as may be seen in the old mission buildings in California.

In China, Korea, and Japan the sandal has a bifurcated toe cord, the base of which, springing from the front of the sandal, passes between the first and second toes. It belongs to the Old World through its entire extent. It is the only form represented in ancient Egyptian, Assyrian, and Greek sculpture. One would have expected that with any close contact with Asian people this method of holding the sandal to the foot would have been established in Central America, yet one may seek in vain for the evidences of even a sporadic introduction of this method. Where representations are given in the sculptured stone pottery, or codex, the sandal is represented with two cords, one passing between the first and second and the other between the third and fourth toes. Dr. Otis T. Mason, who has given us an exhaustive monograph of the foot gear of the world, says that every authority on Mexico and Central America pictures the sandal with two cords, and he further says, in a general article on the same subject, "An examination of any collection of pottery of middle America reveals the fact at once, if the human foot is portrayed, that the single toe string was not anciently known."

The Thibetans, Chinese, Koreans, and Japanese have used the serviceable carrying stick from time immemorial. The nearest approach to this method in this country is seen in Guadalajara, where a shoulder piece is used to carry jars. The representation of this method shows that the pole rests across the back in such a manner that the load is steadied by both the right and left hand simultaneously—identical, in fact, with methods in vogue to-day through western Europe. We find, however, the northern races, as the Ainu and Kamchadels, use the head band in carrying loads, and this method has been depicted in ancient American sculpture. The carrying stick, so peculiarly Asiatic, according to Dr. Mason, is not met with on this continent.

With the evidences of Asiatic contact supposed to be so strong in Central America, one might have imagined that so useful a device as the simple chopsticks would have secured a footing. These two sticks, held in one hand and known in China as "hasteners or nimble lads," are certainly the most useful, the most economical, and the most efficient device for their purposes ever invented by man. Throughout that vast Asian region, embracing a population of five hundred million, the chopstick is used as a substitute for fork, tongs, and certain forms of tweezers. Even fish, omelet, and cake are separated with the chopsticks, and the cook, the street scavenger, and the watch repairer use this device in the form of iron, long bamboo, and delicate ivory. The bamboo chopstick was known in China 1000



B. C., and shortly after this date the ivory form was devised. Their use is one of great antiquity in Japan, as attested by references to it in the ancient records of that country. One may search in vain for the trace of any object in the nature of a chopstick in Central or South America. Knitting needles of wood are found in the work baskets associated with ancient Peruvian mummies, but the chopstick has not been found. Curious pottery rests for the chopsticks are exhumed in Japan, but even this enduring testimony of its early use is yet to be revealed in this country.

The plow in all its varieties has existed in China for countless centuries. Its ideograph is written in a score of ways. It was early introduced into Korea and Japan, and spread westward through the Old World to Scandinavia. There it has been found in the peat bogs. It is figured on ancient Egyptian monuments, yet it made its appearance in the New World only with the advent of the Spaniards. This indispensable implement of agriculture when once introduced was instantly adopted by the races who came in contact with the Spaniards. Even in Peru, with its wonderful agricultural development and irrigating canals, no trace of this device is anciently known, and to-day the tribes of Central and South America still follow the rude and primitive model first introduced by their conquerors.

If we study the musical instruments of the New World races we find various forms of whistles, flutes, rattles, split bells, and drums, but seek in vain for a stringed instrument of any kind. This is all the more surprising when we find evidences of the ancient use of the bow. If Dr. Tylor is right, we may well imagine that the lute of ancient Egypt was evolved from the musical bow with its gourd resonator (so common in various parts of Africa), and this in turn an outgrowth of the archer's bow, or, what at the moment seems quite as probable, the musical bow might have been the primitive form from which was evolved the archer's bow on the one hand and the lute on the other. Dr. Mason, in a brief study of the musical bow, finds it in various forms in Africa and sporadic cases of it in this country, and expresses the conviction that stringed musical instruments were not known to any of the aborigines of the western hemisphere before Columbus. Dr. Brinton is inclined to dispute this conclusion, though I am led to believe that Dr. Mason is right; for had this simple musical device been known anciently in this country, it would have spread so widely that its pre-Columbian use would have been beyond any contention. In Japan evidences of a stringed instrument run back to the third or fourth century of our era, and in China the *kin* (five strings) and *seih* (thirteen strings) were known a thousand years before Christ. These were played in temples of worship, at religious rites, times of offering, etc. It seems

incredible that any contact sufficient to affect the religious customs of Mexico or Central America could have occurred without the introduction of a stringed instrument of some kind.\*

In the Ceremonial Usages of the Chinese (1100 B. C.), a work already referred to, one may find allusions to a number of forms of wheeled carriages, with directions for their construction. Minute details even are given as to material and dimensions, such as measuring the spoke holes in the rim with millet seed (reminding one of the modern method of ascertaining the cubic contents of crania), all indicating the advanced development of wheeled vehicles. If from this early date in China up to the fifth century A. D., any people had found their way from China to middle America, one wonders why the wheel was not introduced. Its absence must be accounted for. It was certainly not for lack of good roads or constructive skill. Its appearance in this hemisphere was synchronous with the Spanish invasion, and when once introduced spread rapidly north and south. Like the plow, it still remains to-day the clumsy and primitive model of its Spanish prototype.

The potter's wheel is known to have existed in Asia from the earliest times; the evidence is not only historical, but is attested by the occurrence of lathe-turned pottery in ancient graves. We look in vain for a trace of a potter's wheel in America previous to the sixteenth century. Mr. Henry C. Mercer regards a potter's device used in Yucatan as a potter's wheel, and believes it to have been pre-Columbian. This device, known as the *kabal*, consists of a thick disk of wood which rests on a slippery board, the potter turning the disk with his feet. The primitive workman uses his feet to turn, hold, and move objects in many operations. The primitive potter has always turned his jar in manipulation rather than move himself about it. Resting the vessel on a block and revolving it with his feet is certainly the initial step toward the potter's wheel, but so simple an expedient must not be regarded as having any relation to the true potter's wheel, which originated in regions where other kinds of wheels revolving on pivots were known.

It seems reasonable to believe that had the Chinese, Japanese, or Koreans visited the Mexican coast in such numbers as is believed they did, we ought certainly to find some influence, some faint strain, at least, of the Chinese method of writing in the hitherto unfathomable inscriptions of Maya and Aztec. Until recently it was not known whether they were phonetic or ideographic; indeed, Dr. Brin-

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\* Since the above was written Dr. Brinton and Mr. Saville have called my attention to such evidences as would warrant the belief in the existence of a pre-Columbian stringed musical instrument. The devices are, however, of such a nature as to indicate their independent origin.

ton has devised a new word to express their character, which he calls *ikonomatic*. This distinguished philologist of the American languages confesses that not even the threshold of investigation in the solution of these enigmatical puzzles has been passed. Had the Chinese introduced or modified or even influenced in any way the method of writing as seen on the rock inscriptions of Central America, one familiar with Chinese might have found some clew, as was the case in deciphering the ancient writings of Assyria and Egypt. Grotefend's work on cuneiform inscriptions and Champollion's interpretation of Egyptian came about by the assumption of certain inclosures representing historic characters, which were revealed in one case by an inference and in another by an accompanying Greek inscription. If we examine the early Chinese characters as shown on ancient coins of the Hea dynasty (1756 to 2142 B. C.), or the characters on ancient bronze vases of the Shang dynasty 1113 to 1755 B. C.), we find most of them readily deciphered by sinologists, and coming down a few centuries later the characters are quite like those as written to-day. On some of the many inscribed stone monuments of Central America one might expect to find some traces of Chinese characters if any intercourse had taken place, whereas the Maya glypts are remotely unlike either Chinese or Egyptian writing. Some acute students of this subject are inclined to believe that these undecipherable characters have been evolved from pictographs which were primarily derived from the simple picture writing so common among the races of the New World.

It seems clearly impossible that any intercourse could have taken place between Asia and America without an interchange of certain social commodities. The "divine weed," tobacco, has been the comfort of the races of the western hemisphere north and south for unnumbered centuries: stone tobacco pipes are exhumed in various parts of the continent; cigarettes made of corn husks are found in ancient graves and caves; the metatarsals of a deer, doubly perforated, through which to inhale tobacco or its smoke in some form, are dug up on the shores of Lake Titicaca.

The question naturally arises why tobacco was not carried back to Asia by some of the returning emigrants, or why tea was not introduced into this country by those early invaders. A Buddhist priest without tea or tobacco would be an anomaly. There are many other herbs, food plants, etc., that should not have waited for the Spanish invasion on the one hand, or the Dutch and Portuguese navigator along the Chinese coast on the other.

Finally, if evidences of Asiatic contact exist, they should certainly be found in those matters most closely connected with man, such as his weapons, clothing, sandals, methods of conveyance, pot-

tery making and devices thereon, musical instruments, and above all house structure and modes of burial. More remote perhaps would be survivals of language, and if the invaders had a written one, the characters, whether phonetic or ideographic, would have been left in the enduring rock inscriptions. If now a study of the aborigines of the western hemisphere from Hudson Bay to Tierra del Fuego fails to reveal even a remote suggestion of resemblance to any of these various matters above enumerated, their absence must in some way be accounted for by Asiaticists.



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