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# Chapter 5

## 3000 to 1500 B.C.

### 5.1 3000 to 1500 B.C.<sup>1</sup>

#### 5.1.1 CHAPTER 4 THIRD & FIRST HALF SECOND MILLENNIUM B.C.

Backward to 5000 to 3000 B.C. (Section 4.1)

##### 5.1.1.1 3,000 TO 1,500 B.C.

At 3,000 B.C. the sea level was perhaps 10' below the present level and after 7,000 years of farming there were perhaps 100,000,000 people in the world. In this period we shall see the development of many new civilizations and the general migration of societies throughout the world. Written records are available from many places and there are the beginnings of science and improvements in metallurgy. Bronze was used in the Orient as early as 4,000 B.C. and continued to dominate until 1,800 B.C. when the Iron Age began there. In Europe the Bronze Age dated roughly from 2,000 to 1,000 B.C. About 2,700 B.C. the circle of copper working included all of the Balkans and Greece, Asia Minor, the Caucasus, Mesopotamia, Iranian Plateau and all of the Arabian Peninsula, along with Egypt. The limit of Neolithic technique went from Jaxartes, west of the Aral Sea, across southern Russia to the Baltic and across the southern half of Scandinavia. Some 500 years later the line of copper working extended from Iran up into the steppes north of the Jaxartes River and across southern Europe through all the Danubian III cultural area down the Adriatic and across to Africa, including part of the Cushite area on the horn. By 1,800 B.C. copper was used in all of the British Isles and all Europe south of mid-Scandinavia and well north in Russia. All of the above area was then what might be called Chalcolithic, while in Arabia, Egypt, some of Asia Minor, Thrace and Greece the New Bronze Age was appearing. By 1,600 B.C., this Bronze working had spread all over Europe except the northern half of Britain, Scandinavia, western Iberia and North Africa. In so far as what might be called "true civilization", however, the map on the next page gives the classical concept of the time-frames involved (Ref. 211 ([284]), 224 ([299]), 136 ([187]), 222 ([296])).

Forward to 1500 to 1000 B.C. (Section 6.1)

#### Choose Different Region

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m17705/1.3/>>.

## 8. Pacific (Section 5.8)

**5.2 Africa: 3000 to 1500 B.C.<sup>2</sup>****5.2.1 NORTHEAST AFRICA**

Back to Africa: 5000 to 3000 B.C. (Section 4.2)

Out on the horn of Africa, men in Somalia were producing frank incense and myrrh for sale to Egypt as early as 3,000 B.C. The Cushitic-speaking people continued expansion south of Egypt and into Nubia. Due to the change in the Sahara climate, more Negro and Sudanic people settled just west of the Cushites (also Kushites), increasing the population there (Ref. 8 ([14])) Additional Notes (p. 74)

A map of Egypt of this period may be found in the early pages of the next chapter. The exact dating of the various dynasties and eras of ancient Egypt continue to be debated.

NOTE: Insert Map taken from Reference 97 (page 61)

The dates used in this manuscript are those given by Professor Easton in *The Heritage of the Past* (Ref. 57 ([82])) and these are fairly well coordinated with those used in *The Columbia History of the World* (Ref. 68 ([106])) and other recent publications. The first stone constructed sepulchre of pyramidal design was built at Saqqara, near Memphis, during the reign of Zoser (also Djoser), an early king of the 3rd dynasty, between 2,700 and 2,630 B.C. This was called the "Step Pyramid" and was actually the creation of Imhotep, chief minister of the king, a man who was later deified. Recent desert studies would suggest that this step pyramid and the larger ones to follow were actually shaped after nature's own desert, wind-swept dunes of the western desert. Sand-stone and solid rock mountains and dunes all seem to have naturally assumed a conical shape, as the winds spiral about them to exhaust their energy at the pointed top. It is very possible that the man-made structures were modeled after these natural ones, and it is said that a rocky knoll of unknown size underlies the Great Pyramid and that there is a natural stone out-cropping at the tomb of Queen Khent-Kawes. It is thus suggested that the ancients not only simply enlarged and refined already existing natural conical structures, but that the very nature of these shapes have allowed them to withstand the winds and sand storms of all the ages since they were built<sup>3</sup>. Still more intriguing is the finding in the desert of forms very much like the sphinx, indicating that where constantly directed winds hit certain geological formations an unusual shape somewhat like that of a reclining dog with raised head, is formed.

Can the sphinx simply be a dressed-up natural formation of this type? Similar shapes have been found in the desert as far back as 1909 (Ref. 59 ([87]), 243 ([88])) and there are suggestions of the same phenomenon in parts of Utah today. Copper mines were developed in the Sinai by Pharaoh Seneferu, a successor of Zoser. He also used large ships to increase sea trade (Ref. 222 ([296])).

Bronze was in use in Egypt by 3,000 B.C. and the great pyramids were started about 2,600 B.C. in the time of Cheops of the 4th dynasty<sup>4</sup>. Because of the fertility of the Nile flood basins in this 3rd millennium, the average peasant produced three times as much food as his family needed and thus he was capable of feeding the flood control workers and the builders of public buildings and Pharaoh's tombs. The first wooden boats were made in exact imitation of the old reed boats. An entire such vessel of Cheops', dating to 2,700 B.C., has recently been excavated from his pyramid. It has a length of 143 feet and appears more graceful than a later Viking ship, but could only have been used for ceremonies on the smooth Nile, as it had no internal ribs and could not have survived ocean sailing. Only the papyrus ships from which it was copied could withstand the ocean waves.

<sup>2</sup>This content is available online at <<http://cnx.org/content/m17742/1.2/>>.

<sup>3</sup>The conical shapes of primitive shelters from the American Indian tepees to African and Arabian Desert tents and Mongolian and Kazak yurts in central Asia may all resist the winds in the same way (Ref. 59 ([87]))

<sup>4</sup>Thomas (Ref. 213 ([288])), page 32) dates the Great Pyramid at 2,900 B.C. and comments on its exactly squared base, the 50 degree slope of all surfaces and the fact that the stones are so well fitted together that a blade cannot be inserted between them

All subsequent rulers of the Old Kingdom built great pyramids such as that of Cheops and these edifices had great religious significance. There is no doubt that great numbers of slaves were used in their construction, and they were obtained chiefly from Nubia and some of these were even exported on to Iraq. Toynbee (Ref. 220 ([294])) feels that the 4th dynasty (2,600 to 2,500 B.C.) represents the height of Egyptian Society culture and growth. The population at that time was probably about three million, or more (Ref. 83). Disintegration of the society or "time of troubles", according to Toynbee, began in the 6th dynasty (2,300 to 2,200 B.C.) and for four centuries there was no central control but only small feudal states ruled by provincial governors, the "nomarcha", who levied taxes and kept small armies. Kings did exist, but in name only. About 2,000 B.C. Amenemhet I, a Theban nomarch, marched down the Nile and established the 12th dynasty as a central ruling government, beginning the "Middle Kingdom" of Egyptian history. Toynbee considers this the "Universal State" of the degenerating Egyptian Society, in which the sins of the pyramid builders were visited on their successors, but Professor Cheilik (Ref. 28 ([48])) describes this as a period of increasing trade and contacts with other countries, in spite of some political deterioration. When a mummy of Wah, an official of this Thebes Dynasty, was unwrapped at the Metropolitan Museum of Art in New York they estimated that about 365 square meters of linen had been used. This craft of mummification had been developed over a long period and all the technique is still not known. Certainly the first step was removal of the internal organs of the deceased, sometimes by an abdominal incision, sometimes by a corrosive agent introduced in an enema. The second step was dessication with the use of natron, either dry or in solution. Finally the body was anointed with balms and ointments and the extensive bandaging began. All of this was simply to preserve the body as an eternal repository for the soul. (Ref. 246 ([23]))

The port of Byblos on the Phoenician coast was a large emporium for Egyptian products and Egyptian wares were wanted in Crete and Mesopotamia. With the conquest of Nubia a large supply of gold was obtained and a high point of prosperity was reached under Senusret (also Sesostris) III (1,878-1,840 B.C.). Egypt had a population at that time of seven to eight million (Ref. 176 ([242]), 95 ([140]), 57 ([82]), 68 ([106]), 8 ([14]), 220 ([294]), 28 ([48]), 213 ([288])).

The Middle Kingdom ended with about two hundred years of turmoil and disputes for the throne, until 1,680 B.C. when the nomad Semitics called "Hyksos" (probably Canaanites) invaded from the Arabian area. These invaders brought the domesticated horse with chariot warfare and men using composite bows and were thus invincible at that time. They made their capital in the Nile delta at Avaris and their overlords called themselves "pharaohs". Previous to the advent of the Hyksos' horses the Egyptians had used only the donkey as a beast of burden but the invaders did not penetrate the country far from the Nile delta, and the Egyptians considered themselves a distinct and separate people and did not easily accept strangers or new ideas so they refused to adopt either the horse-drawn chariot or the composite bow. The population as a whole was thus not greatly influenced (Ref. 246 ([23]))

About 1,567 B.C. another Theban king, Kamose, started a war of liberation from upper Egypt and recovered most of the territory from the invader Semites. The job was completed by his brother, Amosis I, a few years later. The Hyksos movement probably presented the final upheaval in the Amorite series of expansions that will be discussed under the section on the NEAR EAST, below. It was probably at the time of this Semitic domination that the Biblical Joseph moved into Egypt (Ref. 231 ([308]), 122 ([170]), 8 ([14]), 136 ([187]))

The bow-drill was used in Egypt from 2,500 B.C. on and rules of measurement, the plumb-line, construction of a right angle and the shaping of stones with a mason's square were all features of this society. Ahmes calculated the area of a circle about 1,600 B.C. and Ptah-Hotep was a great philosopher of the 3rd millennium B.C. The Middle Kingdom was also a period of fine craftsmanship. A beer called *haq* was commonly drunk and was made from red barley of the Nile valley. Bread was supposedly also first made here in the dynastic period because of the development of a new kind of wheat which could be threshed without the application of heat. The ass, of African origin, was first used for regular trade between Egypt and Iraq sometime after 2,000 B.C.

Our knowledge of Egyptian medicine (except for commentaries from Greek and Roman writers) comes from seven medical papyruses discovered in the last century. The oldest of these, the fragmentary Kahun Papyrus, deals with veterinary medicine and women's diseases. The next, dating to about the 17th century B.C., is concerned with surgical matters beginning at the top of the head and working down to the mid-chest. The longest of the papers, the George Ebers Papyrus, dates to about the 16th century B.C. and is an extensive therapeutic text written a millennium before

Hippocrates and containing prescriptions dating back to 3,700 B.C. It was probably a copy of older documents. This papyrus, twelve inches wide, unwinds to a length of sixty-six feet. Egyptians rather routinely removed all internal organs after death, saving them in special containers as the body proper was mummified, but they knew very little about the functions of these organs. Although they paid much attention to cleanliness, having almost a national fetish of keeping the gastro-intestinal tract clean with multiple purges, emetics and enemas of every conceivable kind, disease was still rampant. Mummies show evidence of tuberculosis of the spine with accompanying spinal deformities and cold abscesses, club foot, polio and measles, not to mention the undoubted parasitic infestations they must have obtained, and still do, from the Nile. Eye diseases, particularly trachoma, leading to blindness, were and are still common in Egypt. It responds some to copper preparations and it is interesting that Egyptian women wore green eye make-up, probably made from copper salts. In general, treatment was a mixture of religio-magical gestures and the use of an extensive pharmacopoeia and some limited surgical procedures such as cauterization, circumcision and occasional trepanning of the skull, if indeed, this was actually a medical procedure. Dentistry was advanced with prosthesis construction as early as 2,600 B.C. Egyptian physicians had good reputations throughout the ancient world and at home. There was apparently a definite medical hierarchy, beginning at the top with the Pharaoh's physician. Special training schools for physicians were attached to temples (Ref. 211 ([284]), 125 ([173]), 15 ([26]), 213 ([288])). Additional Notes (p. 74)

## 5.2.2 NORTH CENTRAL AND NORTHWEST AFRICA

The Hamitic Berbers had a well established Neolithic Culture in a large area along the coast of North Africa, but they had no copper. They were probably descendants of the ancient Mediterranean peoples and related to the Iberians and Basques. There were two major subgroups:

- The nomadic **Tauregs** of the desert who maintained strict hereditary classes, with an ancient alphabet and using artistic trappings on their camels and jewelry on themselves, and
- The **Kabyles**, particularly of Algeria, living as a settled tribe, long famous for pottery made without the use of the wheel. (Ref. 46 ([76]), 19 ([32]))

Dessication of the Sahara set in about 3,000 to 2,500 B.C., causing some pastoralists to move into the jungles of the Nile Valley and others to move south with the rains. This shift to arid conditions in the Sahara may have stimulated the emergence of civilization in Egypt. By 2,000 B.C., as reflected in the Sahara rock drawings, rhinoceroses, hippopotamuses and giraffes had already vanished from this area. Southward expansion of cereal-growing occurred during the 2nd millennium B.C. as millet and sorghum were domesticated as tropical crops (Ref. 215 ([290]), 176 ([242]), 8 ([14]))

## 5.2.3 SUBSAHARAN AFRICA

The southern shift of the cereal-growing belt, due to the change in the Sahara climate, resulted in an increase of the Negro populations. (Ref. 8 ([14]))

NOTE: Kerma, 1,500 kilometers north of modern Khartoum, was the capital of Kush. Egypt of the Middle Kingdom had to deal with these Nubians and did so with forts at Senna, some 270 kilometers north of Kerma. The city itself was an extensive urban development, particularly after 2000 B.C. The large tombs of "royalty" contained animal sacrifices and some of them even had up to 400 human sacrificed retainers. The Nubian culture spread over central and northern Sudan. This particular culture of Kerma almost completely disappeared after colonization of the area by the pharaohs of the XVIII Dynasty of Egypt. (Ref. 303 ([25])) After 1,520 the New Kingdom of Egypt used Nubian gold to hire charioteers as a professional force. (Ref. 279 ([191]))

Forward to Africa: 1500 to 1000 B.C. (Section 6.2)

## 5.3 The Near East: 3000 to 1500 B.C.<sup>5</sup>

### 5.3.1 THE NEAR EAST

Back to The Near East: 5000 to 3000 B.C. (Section 4.3)

In addition to some new civilizations appearing in this region there were great changes in the old one. We must realize that in this single chapter we are reviewing events spanning 1,500 years or a period equal to that from the time of Christ to the Reformation in Europe. In a few limited ways, there was actual regression in the Near East at this time as the local tin deposits became exhausted and the area slipped back out of the Bronze Age.

#### 5.3.1.1 THE ARABIAN PENINSULA

Nomadic Semitic tribes continued domination of the central areas of the peninsula, while other Semitic empires controlled the fertile northwestern region of Arabia and present day Jordan. About 2,250 B.C. the Akkadians were extending their influence down into this area and some 400 years later an Arabian tribe of Amorites began their first expansion and began to overflow this entire area of the Fertile Crescent, rolling over into Mesopotamia and beyond.

#### 5.3.1.2 MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

The ancient basic population of this area were Canaanites, originally Semitic nomads who had early migrated north from Arabia, but in the period under review, two other peoples appeared—the Jews and the Phoenicians. (Ref. 175 ([241])) Additional Notes (p. 79)

##### 5.3.1.2.1 ISRAEL

Semitic speaking people lived a Bronze Age urban life in Palestine from 3,000 to 2,200 B.C. but then for two or three hundred years the city life appears to have been destroyed by an invading nomadic people, probably the Amorites from deep in the Arabian peninsula. After 1,900 B.C. population returned to the urban areas and that period may then be described as the true Canaanite era. The African camel was used in Palestine for caravan trade by 1,600 B.C. The exact time of the arrival of the Jews is debated. Their own tradition says that they came from Ur in about 2,200 B.C., but they probably came up out of the Arabian Peninsula somewhat later. They too, of course, were a Semitic group who rarely intermarried with other stocks, yet some feel that they received their characteristic nose from the non-Semitic Hittites. (Ref. 229 ([307])) During these early centuries the Jews remained as twelve more or less independent tribes, with a state of civilization developing about 1,800 B.C. Most of them then entered Egypt between 1,800 and 1,650 B.C. perhaps with their "cousins", the Hyksos. It is said that Judaism was founded by Abraham, a prince of Ur, living in Canaan in 1,700 B.C., as he replaced human sacrifice with sacrifice of rams. (Ref. 18 ([31]), 213 ([288]), 222 ([296]))

##### 5.3.1.2.2 LEBANON (PHOENICIA)

The origin of the Phoenicians who founded the city of Tyre and settled along a strip of coast one hundred miles long and ten miles wide, about 2,800 B.C. is not definitely known, but they may have been simply another Semitic tribe from the region of the Persian Gulf. From 2,600 B.C. on, they were the busiest merchants of the ancient world, manufacturing forms of glass, working metal and producing a famous purple dye from Mediterranean mollusca. The forest of Lebanon supplied the entire middle east with timber and the incredibly durable Lebanon cedar allowed the early Phoenicians, as well as the Hittites, to abandon the earlier papyrus reeds for boats of wood. These people were shrewd traders, stealing from the weak, cheating the stupid and dealing honestly with the rest of mankind. They sailed the seas in seventy feet long, narrow galleys with oars and one large rectangular sail, developing the art of navigation as they sailed from their home cities of Tyre, Byblos and Sidon to develop a great colonial empire. They were known in the Bible as Sidonians. Ugarit was a Canaanite and Phoenician city which has been dubbed the "Shanghai of the mid-2nd millennium B.C.", because it seemed a cross-road of world trade. Texts in Sumerian-Akkadian, Hurrian, Egyptian

<sup>5</sup>This content is available online at <<http://cnx.org/content/m17978/1.2/>>.

and Hittite have been found there. The oldest known alphabet was apparently native Canaanite, later improved by the Phoenicians. Some texts show close association of Hebrews to Canaanites before the time of Moses, and much of the moral teaching and ideals of justice of later Hebrew prophets were foreshadowed here and there are parallels to the later Biblical psalms, etc. (Ref. 95 ([140]), 87 ([132]))

The timber resources of Lebanon were already considerably depleted by 2,000 B.C. but they have continued to be exploited right down to the present time. Olive oil, grain, grapes, sheep and cattle were products in antiquity. Slaves had always been used some, but after 2,000 B.C. large numbers were imported from Egypt, so that it was soon not uncommon for households to have three. (Ref. 88 ([131]), 213 ([288]))

### 5.3.1.3 IRAQ AND SYRIA

#### 5.3.1.3.1 1. MESOPOTAMIA, PROPER

The term "Sumerian" has been coined by scholars from the place name of "Sumer" which by the third millennium was used to mean southern Mesopotamia as apposed to Akkad, the northern part. Sumeria was a city civilization and the important cities of Ur, Uruk, Larsa, Eridu and Kish had populations ranging from 15,000 to 250,000. One or more temple communities constituted a city, with priest administration and work-gangs to operate the irrigation system. The land of the city was divided into several categories, with some fields owned by the gods and worked on their behalf, some fields rented out annually to individuals and others awarded to individuals, rent-free.

The first dynasty of Ur has been dated archaeologically and historically from the King- lists (royal genealogical tablets found on the site) to about 2,700 B.C., but there was a high civilization at Ur before this, perhaps with the city functioning under the suzerainty of the Erech Dynasty. At least what appears to have been a royal cemetery has been excavated, dated prior to the first dynasty of Ur, in which the ritual of burial included human sacrifice, varying from six to seventy or eighty people, sometimes including asses and carts with grooms and various women's bodies. There was no evidence of violence; the men and women sacrificial attendants probably simply drank a drug and went quietly to sleep. Nothing like human sacrifice was ever mentioned from the later Sumeria. At any rate, the actual, historical first dynasty of Ur was that of Mes-an-ni-pad-da of about 2,700 B.C. and it lasted supposedly for 177 years. During the later part of this time, at about 2,600 B.C. it had succeeded in conquering various surrounding areas, under King Urukagina. This was followed by the usurpation of neighboring Umma by King Lugalzagesi. Situated on the flat lands of the lower Euphrates, Sumer had no natural defenses and the cities became tempting objects of plunder to the barbarous people around. About 2,300 B.C. Sumeria was conquered by the neighboring Akkadians under their great leader, Sargon I. The Sumerian culture seemed to continue in the new, combined empire, however, and a "Golden Age of Ur" resulted. Sargon wrote of ships laden with goods in harbor at his capital and there were caravans of 200 donkeys traveling 12 to 15 hours a day plying between Armenia and Iraq. From 2,112 to 2,015 B.C. Ur remained the capital of this great empire, ruled by the five kings of the third dynasty. Iraq had a population of between four and five million at that time.

One of the characteristic features of each great Sumerian city was the ziggurat and that of Ur has been the best preserved. It has been suggested that if the Sumerians came originally from the Caucasus, one might assume that they felt that their gods had to have a mountain to stand or live on, and so they built the ziggurats, as substitutes. Ur was destroyed sometime after 2,000 B.C. and then for awhile it was under Isin lordship, then under the city of Larsa and finally under the Elamites who came from south Persia. The Elamite prince, Warad-Sin, who became king of Ur, rebuilt and enlarged the temples of the ancient city and his successor, Rim-sin served as king of Larsa also, and during his reign the population of the "old town" of Ur, that is, within the original walls, included an estimated 4,250 houses, probably with 34,000 people. The whole city, then, must have exceeded 250,000 and may have been twice that large. It was a manufacturing center with raw materials imported, sometimes from overseas via the Persian Gulf. Gold, copper ore, hard woods, ivory, pearls and precious stones were all brought by ship and recorded in bills of lading. (Ref. 238 ([318]), 28 ([48]), 213 ([288]))

But Ur was not to last much longer. Although there is still some disagreement about dating, we shall assume that Hammurabi started his rule in Babylon in 1,783 B.C. and then in the 12th year of the reign of his son, Samsi-iluna, the

Babylonians destroyed the walls of Ur with a terrible thoroughness and laid waste to the city. Up until that time, all the tablets and texts of Ur (and there were thousands of them) were written in the Sumerian language (Caucasian?), but after that destruction the tablets were in the Babylonian language. The invaders took over the cuneiform writing, but the Sumerian language itself became a dead literary and religious tongue. This fall of Sumeria may have been prepared in part by internal disintegration and class wars within the city-state (Ref. 238 ([318]), 28 ([48]))

The conquering Babylonians were actually Amorites and the new combination of Amorite-Akkadian-and non-Semitic Sumerian civilization became known as the Babylonian<sup>6</sup>, with the Semitic strain the dominant one. Hammurabi had forged out this empire and put his capital at Babylon. (Please note the map below).

NOTE: Insert Map taken from Reference 97.

Agriculture thrived as great new irrigation canals were developed. The Babylonians, of the same basic stock as Abraham and the later Hebrews, or Jews, had the beginnings of astronomy and the ability to predict eclipses. They had a calendar and could handle cubic equations with two unknowns. The Babylonian society demonstrated the development of an imperial political theory, an improved administrative technique, especially through the use of written communication, the development of a bureaucracy and professional army, and finally better methods of inter-city and inter-regional trade, along with the promotion of an independent merchant class. A code of laws, based on Sumerian prototypes, has become famous as the Code of Hammurabi, put into effect about 1,750 B.C. This code covered most ordinary life activities, even condemning ale houses for under-strength, over-priced beer. Forty percent of the grain in some cities went to the manufacture of beer. The code also regulated many medical fees for such things as treating severe wounds, tumors, and broken bones. The fees were high - for example, that for successfully treating a freeman's broken bone was five shekels of silver, a value equal to the yearly rent for a middle-class dwelling. But the punishments for poor medical treatment were equally elevated. (Ref. 68 ([106]), 220 ([294]), 211 ([284]), 125 ([173]))

Sometime about 1,600 B.C. or perhaps slightly earlier, Babylonia was conquered by a combined force of Aryan (McEvedy, [Ref. 136 ([187])], says Caucasian) Kassites from the east and Hittites from near Asia Minor. The Hittites quickly withdrew, taking the Sumerian script with them, leaving the Kassites to rule Babylonia for about six centuries. Some believe that they brought the horse with them from the Samartian flatlands. On the other hand, Lewinsohn (Ref. 122 ([170])) says that riding horses were first mentioned in historical records at the time of Hammurabi, about 2,000 B.C., although chariots had been used earlier by Sumerian kings. As mentioned earlier, Mesopotamia was the home of the spectacular, brick-built temple monuments called "ziggurats", many having been built between 3,000 and 500 B.C. Among the first of these was one called the "White Temple", probably dedicated to Amu, god of the sky, at ancient Uruk (Erech of the Bible), capital of several Sumerian dynasties. It was built about 3,000 B.C. on a platform forty feet high. Even the Kassites built ziggurats - the remains of a spectacular one still some two hundred feet high, remains at Aquarquf, the Kassite capital just west of Baghdad. (Ref. 136 ([187]), 122 ([170]), 176 ([242]))

Additional Notes (p. 79)

### 5.3.1.3.2. SYRIA AND ADJACENT AREAS

Recent excavations in northwestern Syria between what was subsequently Ugarit and Carchemish, indicate that a great empire with a capital city of Ebla existed prior to and after the 23rd century B.C. Fifteen thousand cuneiform tablets with commercial records, treaties and chronicles have been found, written in a previously unknown Semitic language. This is four times the number of all previously found texts of this period. It is evident that metallurgy, textiles, ceramics and woodworking were well developed. Thirty thousand people in the City were surrounded by about 250 million in the immediate area.

More than five thousand geographic names appear, indicating far greater settlement of the Near East at that ancient time than previously believed. Beirut and Byblos, Damascus and Gaza, as well as Sodom and Gomorrah are all mentioned.

<sup>6</sup>As with the Hurrians and Mitannians to be discussed later, it is probable that the Caucasian Kassites were led by an Aryan (Indo-European aristocracy. (Ref. 45 ([66]))

Some people named may be the Abraham, Esau and Saul, of the Bible. The language and culture of Ebla may have survived in such later Canaanite centers as Ugarit and even Palestine. Thriving by 2,400 B.C. (or even 2,500), Ebla's kings apparently contended with Sargon of Akkad for domination of the Euphrates area. Sargon's grandson, Naram-Sin, conquered Ebla, but it rose again, only to fall once more about 2,000 B.C., perhaps wiped out by the Amorites. Their language has been identified as a forerunner of all the Canaanite dialects, which include Ugaritic, Phoenician and Hebrew. Translation became possible because of the finding of some dual language dictionaries, containing both Sumerian and Eblaite. (Ref. 117 ([164]))

At times war and at times periods of cooperation occurred with another powerful city, Mari, about half-way down the Euphrates from Ebla to Babylon. The French excavations at Mari show a royal palace of three hundred rooms and courts and evidence of Egyptian trade. At one time Mari was ruled by Shura-Damu, son of Ebrium who had been probably Ebla's greatest king. These kings were elected and Ebrium had served four terms of seven years each. (Ref. 117 ([164]))

To the northwest were the Assyrians who began to rise as a militant power by 1,700 B.C. and to the southwest, between the Assyrians and the Egyptians, was another Semitic tribe which was originally a Bedouin group appearing from the Syrian desert and whose descendants are today's true Syrians. They may have been pushed north and east as the Hyksos were expelled from Egypt. They made Damascus their chief city. Of greatest importance, however, was the migration of the Amorites who came out of the desert about 2,100 B.C. to take over most of the entire area, including the city of Babylon and then the entire Euphrates Valley. (Please see paragraphs above on Mesopotamia, proper (p. 76).)

Finally, coming out of their original homeland east and north of Lake Van (Armenia) as early as the late 3rd millennium B.C. were an Asianic-speaking people called Hurrians, who settled in large numbers in northern Syria and Mesopotamia. Although the Hurrians, themselves, may well have been of the old, original Caucasian race, they apparently had an aristocracy of Indo-European origin called "Mitanni". By 1,600 B.C. they had a series of kingdoms. Some authorities believe that they introduced the horse and chariot to the Near East as war vehicles. What is often called the Mitanni Kingdom was actually a federation of Hurrian states under the kings of Wahukanni. At one period, King Tushratta captured and held the stone capital of Assyria, Nineveh. (Ref. 136 ([187]), 45 ([66]))

### 5.3.1.4 IRAN (PERSIA)

The Bronze Age on the plateau of central Iran began about 3,000 B.C. A basic agricultural economy was soon augmented by export of lapis lazuli from the northeast and steatite (soapstone) from the southeast. The metal industry followed that of Elam and Babylonia. The Elamite civilization with its capital at Susa continued to flourish in a limited geographical area and their antagonisms and military vigor were manifested in their raids of Sumer. The Mitanni and the Hurrians lived in parts of northern Iran before their migrations into northern Syria. Writings appeared early in Persia, notably in the region of Elam, where the cultural relations were closer to Mesopotamia than to the remainder of Persia. Elamites also had indirect trade with Egypt. (Ref. 18 ([31]), 45 ([66]))

The linguist, Pei (Ref. 168 ([229])), believes that the Indo-European peoples and their basic language originated by about 2,500 B.C. either on the Iranian plateau or about the Baltic Sea, while Wells (Ref. 229 ([307])) would put the date several thousand years earlier (See also Eastern Europe (p. 84)). McEvedy (Ref. 136 ([187])) indicates a southern Russia and lower central Asian origin around the Aral Sea, with these early Indo-Europeans, which he labels "Iranians", as beginning migrations from central Asia down into Iran by 2,250 B.C. and even pushing into Syria by 1,600 B.C. Their gray Gurgan pottery is found at the excavation site of Tepe Hissar just south and east of the Caspian Sea. These same Iranians spread across central Asia, becoming the base population of the steppe, while another segment moved south, eventually invading India. As the Iranians stormed into the Middle East at the end of the time period under review, they were accompanied by clans of the Caucasian Kassites and Hurrians, with war chariots. (Please also see Europe: 5000 to 3000 B.C. (Section 4.4)). (Ref. 168 ([229]), 229 ([307]), 136 ([187]), 88 ([131]))

### 5.3.1.5 ASIA MINOR (ANCIENT ANATOLIA)

Prehistoric copper cultures have been validated by excavations of Troy (3,000-2,400) and Alishar Huyuk (3,000-2,800). As these great copper supplies were developed, the axis of history began to shift to this Mediterranean region and away from Mesopotamia. About 3,000 B.C. there were a series of local early Bronze Age cultures, including the Yortan Culture of northwest Anatolia, which had close relationships to the Cycladic Culture of the Aegean, and the first Troy (Kisarlik). The Trojan artisans learned to toughen copper by alloying it with small amounts of tin by about 3,000 but the source of this tin is un-known. Regional divisions in the peninsula became quite marked with each controlled by a native dynasty and metropolitan centers soon became quite wealthy. (Ref. 88 ([131])) By 2,000 B.C. the Assyrians had trading posts in the area, such as at Kanesh (modern Kultepe) where the form of certain names in tablets indicates the arrival of an Indo-European speaking people, the Hittites. By 1,750 B.C. the latter had become a dominant military caste, controlling important cities. They may actually have appeared first some five hundred years earlier, settling in the bend of the Halys River, but their origin is much disputed.

Traditionally they have been described as coming down from the region of the Caspian Sea, but more recent studies would suggest that they had origin from the Aegean Sea peoples and came at this period from the shores of Greece and the Aegean Islands, along with their kinsmen, the Luvians (also Luwians). The Hittite migration was only the central component in a trio of displacements. From north of the Black Sea the Usatove were moving into the Balkan area and at the base of the Anatolian peninsula the Caucasian Khirbet Kerak were moving down into Syria and even into Palestine. These people have also been called Hattites and represent the original population of Anatolia.

The Hittite language had declensional and conjugational forms similar to both Latin and Greek and some of their simple words were visibly akin to modern English, such as:

- *Vadar* - water, and
- *Essa* - eat.

The Hittites had sharp, aquiline noses and Wells (Ref. 229 ([307])) felt that they had fused sufficiently with the early Hebrews to give the latter this nose as a trademark. The basic population of Turkey, today, also has this physical feature. The Hittites had iron and used it.

Their society was probably related in some way to the Sumerian and many of their customs were similar. Politically they had a warrior aristocracy, but they also had art, religion and writing, all exhibiting close affinities with Mesopotamian models. The first known rulers of the old Hittite Kingdom were Labarnas and his son Hattusilis II. In 1,595 B.C., under Muresilis I, they conquered Babylon. The Luvians, related to the Hittites, had penetrated Asia Minor during the latter part of the 3rd millennium B.C. and were soon active in the west with a principal city of Beycesultan on the River Meander. That city was destroyed in 1,750 B.C., perhaps by the Hittite King Labarnas I.

East of the Hittites was the area of ancient Armenia, known in that time as "Urartu" and in some places in the Bible as "Ararat". The people we call "Armenians" today, however, probably did not arrive until at least the 8th century B.C. Even in the early time of the third millennium the overland trade routes of traders to the steppes of Asia crisscrossed this land, and the indigenous population was skilled in the secrets of ancient metallurgy. In at least the later part of the period under survey, the basic population of Urartu was comprised of the non-Semitic, probably Caucasian, Hurrian and Vannic peoples. (Ref. 136 ([187]), 45 ([66]), 88 ([131]))

NOTE: Jemmeh, mentioned previously in a note on page 1183, was reoccupied with a Midole Bronze settlement about 1,800 B.C. (Ref. 295 ([300]))

NOTE: It should be noted that Sargon I and his 54,000 men plundered all of Mesopotamia around Kish, devastating the countryside to the east, thereby preventing another army from going through until the population and crops had been restored. (Ref. 279 ([191])) It was in the Mesopotamia area that the two-wheeled chariot was invented about 1,800 B.C. as a result of the development of spoked wheels with a friction-reducing hub and axle design. The compound bow was also developed so that mobility and fire power in war were greatly

increased. The steppe people were best able to take advantage of this and between 1800 and 1500 B.C. waves of barbarian charioteers overran the Middle East. At the same time rich merchants were using donkey caravans to move tin eastward and textiles westward, from the Persian Gulf to Anatolia, with profits up to 100% in a year. (Ref. 279 ([191]))

Forward to The Near East: 1500 to 1000 B.C. (Section 6.3)

### Choose Different Region

1. Intro to Era (Section 5.1)
2. Africa (Section 5.2)
3. America (Section 5.9)
4. Central and Northern Asia (Section 5.5)
5. Europe (Section 5.4)
6. The Far East (Section 5.7)
7. The Indian Subcontinent (Section 5.6)
8. Pacific (Section 5.8)

## 5.4 Europe: 3000 to 1500 B.C.<sup>7</sup>

### 5.4.1 SOUTHERN EUROPE

Back to Europe: 5000 to 3000 B.C. (Section 4.4)

#### 5.4.1.1 EASTERN MEDITERRANEAN ISLANDS

The British Museum has displays indicating the original civilization in the Aegean and eastern Mediterranean should be called the "Cycladic", existing from 3,000 to 2,000 B.C. and to be considered separate from the Cretan or Minoan Civilization which followed<sup>8</sup>. Although, as noted in the last chapter, people with an advanced Neolithic Culture lived on Crete from 6,000 B.C. onward, the Bronze Age started only about 2,600 B.C.

There are some who believe that the Egyptian and Anatolian influences stimulated the development, but most now feel that this was a purely local progress over a thousand year period. For the first 600 years or so of this Bronze Age, civilization was rather low key, and it appears that there may have been folks of several different origins on the island. Homer was probably truthful when he described three peoples - the Eteocretans, the Kydonians and the Pelasgians. The first of these may be considered the initial truly Cretan people, perhaps of Luvian origin and speaking the as yet undeciphered Linear A language. The Bulgarian linguist, Vladimer Georgiev, claiming decipherment of the Phaestos Disc found on Crete in 1910, believes that that represented a Luvian language which was dominant on the island around 1,700 B.C. and that the Eteocretans and Pelasgians had similar languages. The Kydonians lived in western Crete, language unknown, but they were definitely not Greek in origin. The Pelasgians were an Aegean people who originally may have inhabited all of the Aegean, Thrace and the Greek mainland. Their language was mid-way between Thracian and Hittite-Luvian. Obviously Minoa was a multi-lingual civilization.

The first palaces and cities of Crete appeared about 2,000 B.C., including Knossus, Phaistos, Mallia and Zakros. The first had about 80,000 people<sup>9</sup> and the vast palace for the king called "Minos", which was located there, was the largest and most elaborate of all. It had exquisite potteries and tiles, bath rooms with running water, toilets with drainage systems and evidences of rich appointments and jewelery. The construction of such palaces and its accouterments required any number of specialized craftsmen - architects, stone masons, carpenters, plasterers, painters, potters, sculptors, gem-cutters, glass makers, faience makers, smiths, weavers and probably others.

<sup>7</sup>This content is available online at <<http://cnx.org/content/m17858/1.2/>>.

<sup>8</sup>Dr. Frank Stubbings (Ref. 215 ([290]), page 114) believes that the Cycladic and Minoan originated at about the same time (2,800 B.C.) and existed side by side, along with the Mycenaean on the Greek mainland

<sup>9</sup>Cotterell (Ref. 41 ([62])) says no less than 20,000 between the years 2,000 to 1,700 B.C.

The five hundred years following 2,000 B.C. saw the ships of the Minoans roaming unchallenged on the Aegean Sea. The Cretan navy apparently cleared the seas of pirates and protected the homeland from invasion so that there was no necessity for any kind of fortification on the island. The commercial fleet was involved in extensive commerce with surrounding islands, the Near East and Egypt. The latter supplied scarab seals, carved ivories, copper and tin<sup>10</sup> and Egyptian linen, while receiving olive oil, painted pottery, timber and woolen cloth. The Cretans are said to have had 100,000 sheep. An alabaster jar bearing the name of the Hyksos King Khyan has been found and confirms probable delegations and trade with Egypt. Perhaps from over-population, the Minoans sent colonists to various other islands and the mainland of Greece. The island Thera was an important Minoan satellite and a colony on the island of Kythera, between the western end of Crete and the Peloponnese, was started before 2,000 B.C. and was still occupied at 1,450 B.C. Cretan fashions spread throughout the islands and even to Greece and Asia Minor.

Recent excavations near Arkhanes, south of Knossos, have revealed a temple for the dead, dating to 1,800 B.C. with a noble woman burial which included such things as a gold signet ring with a cult scene confirming that Minoans, like other peoples of that time, had the ancient belief in the dying and resurrected god. There is evidence of animal sacrifice and apparently in times of great stress, as in the earthquake period about to be described, they even used human sacrifices. (Ref. 18 ([31]), 136 ([187]), 129 ([179]), 215 ([290]), 109 ([155]), 186 ([254]), 211 ([284]), 213 ([288]), 188 ([257]))

About 1,700 B.C. violent earthquakes demolished the old palaces, but they were all rebuilt, for the most part on entirely new plans. During this rebuilding, Minoan civilization acquired its definitive character and the buildings developed their unique charm, elegance and grace. In the period of the new palaces, the population of Crete has been estimated at 256,000 with 50,000 under the direct rule of Knossos. The palaces had great store rooms and work shops and the earliest writing had to do with accounting for wheat, oil, barley, olives, figs, livestock, wine and honey. Horses are not documented on the island before the 15th century B.C. when the technique of using heat to bend wood for spoked wheels became available. The overall society was a stratified theocracy with the priest-king at Knossos supreme and lesser priest-kings in the other palaces. The latter, in turn, were surrounded by their nobles and their women and beneath them was the peasantry, still living essentially in a Stone Age economy. In contrast to most other ancient civilizations there were no slaves. Among the upper classes both sexes wore jewelry and participated in art, dancing, music and when young and supple, in the famous bull acrobatics. The meaning of the latter is still not clear.

A little north of Crete in the Aegean Sea is the peculiarly shaped island variously known as Thera or Sartorini. This is the remnant of a great volcano which had its first traceable eruption about 1,500 B.C. burying the island in ash and pumice. In 1967 Professor Marinatos discovered the tephra-preserved (covered with volcanic dust) town of Akrotiri on that island. In effect this Cretan extension was a Bronze Age "Pompeii" complete with terra cotta plumbing and town-house architecture. For fifty years or so after that first eruption Thera remained quiet, but we shall hear more of it in the next chapter. (Ref. 109 ([155])) Additional Notes (p. 85)

#### 5.4.1.2 GREECE

If one accepts the theory that the Kurgans of south Russia migrated to Greece to become the Mycenaeans, the date of 2,300 B.C. is probably appropriate. Some believe there were two waves of these Kurgans, with the second wave coming just before 1,600 B.C. These were a hard-riding warrior class who dominated their earlier brothers to become a small, powerful, rich, ruling class. The original inhabitants of both mainland Greece and the adjacent Aegean islands were perhaps related to the Cretans in speech and race, but the development of civilization on the mainland had been arrested by massive invasions at the end of the 3rd millennium by barbarous peoples from Anatolia, and a century or so later by invaders from the north. The latter may have been the Kurgans, the first "Greeks", although some authorities believe that the Greek-speakers arrived much later. Like the Minoans, the Bronze Age Greeks<sup>11</sup> had passed through centuries of humble living in small villages, obviously poor and with limited trade, chiefly with Crete. Of the various tribes, the men of Mycenae soon dominated by virtue of chariot warfare and by 1,600 B.C. there was an advanced style of life, centered in that community, but with influences extending to Crete and influenced by Crete, with ships

<sup>10</sup>Cotterell (*Ibid*) reports that there was adequate copper available locally and that tin was imported from Bulgaria and Romania

<sup>11</sup>The terms "Mycenaeans" and "Achaeans" both simply mean "Bronze Age Greeks"

of both vying for control of the Mediterranean. Pei (Ref. 168 ([229])) says that the classical Greek language was well differentiated by that time. The sail had been used after about 2,000 and this had allowed for better fishing and increased maritime trade. With domestication of the grape and olive, new industries appeared and thrived. Magnificent tombs, with masses of gold art objects are dated to the 16th century B.C. (Ref. 215 ([290]), 8 ([14]), 168 ([229]), 41 ([62]))

#### 5.4.1.3 UPPER BALKANS

Excavations at Maliq, Albania, have proved that people lived there in 2,800 B.C., perhaps before the arrival of the Indo-Europeans, and they may have maintained some relations with Mycenae. In the third millennium B.C. and for awhile after 2,000 B.C. most of the Balkans was occupied by the Tumulus, Battle Axe and Corded Ware peoples (Please see B. CENTRAL EUROPE, this chapter) who may have descended from the copper and goldsmiths described in the previous chapter. In the early second millennium, however, the area was crisscrossed with migrating tribes, particularly the Greek peoples, described immediately above. The Illyrians, settling in Yugoslavia, were an Indo-European group related to the pre-Celts who were located just to the northwest in the present areas of Hungary and Austria. With the development of agriculture in the sandy, glacial soil of northern Europe at the end of this time-frame, the Balkans became something of a backwater. (Ref. 8 ([14]), 178 ([245]))

#### 5.4.1.4 ITALY

The basic people of ancient Italy were the Western Iberians of the original Mediterranean race, and they were essentially the sole inhabitants of all Italy, Sicily, Sardinia and Corsica except for some coastal settlements by the eastern Mediterranean people, until about 2,000 B.C. when invaders descended from the north. The latter were the Italics, part of the western branch of early Indo-European speakers, related to the "Ligurian Celts". They built homes on foundations of piles (Terramara) and their descendants became the basic stock of present day Italy. By 1,850 B.C. these people had occupied all of Italy except the northwestern one-quarter which was occupied by Etruscans, who McEvedy (Ref. 136 ([187])) insists, were remnants of the Western Iberians. Ancient peoples also remained on Sicily and the western islands, although by 1,600 B.C. so-called "Celto Ligurians" from southern France had occupied Corsica and Sardinia. (Ref. 136 ([187]))

#### 5.4.2 CENTRAL EUROPE

By 3,000 B.C. all Europe but northern Scandinavia had farming communities. Indo-European speaking groups lived throughout central Europe from the beginning of this period's various modifications of the basic language. Professor Jan Filip (Ref. 194 ([266])), patriarch of Celtic history of Charles University, Prague, described a "Corded Ware" or "Battle Axe" people representing the first Indo-European speakers of this area, living there about 2,300 B.C. as the precursors of the Celts, and dominating the earlier Neolithic Cultures of northern central and western Europe. The Austrian Salzkammergut was settled about 2,500 B.C. with the inhabitants getting salt from salt wells. (Ref. 91 ([135])) As a general westward migration occurred the area became dominated about 1,850 B.C. by the Bell-beaker Culture, named from the bell shaped cups found in their graves. The origin of this pottery society has been much disputed, some claiming it started in Spain and spread east to Germany, and some the reverse, but if it was, indeed, a culture endemic with the early Indo-Europeans, then the expansion must have been westward from the original Indo-European zone. The Aunjetitz Culture, a variation of the Bell-beaker, flowered in southwestern Germany and Austria from the 18th to the 16th centuries B.C. Excavations in the latter country have revealed bronze needles, arm spirals, daggers and ceramics with intricate detail. As agriculture spread, sometimes as seeds were moved to new climes they would scarcely grow and weeds would take over the fields. On some of these occasions, however, it was discovered that the weeds themselves could be used and cultivated instead. In this manner rye and oats developed in northern Europe. (Ref. 45 ([66]), 136 ([187]), 194 ([266]), 211 ([284]), 91 ([135]))

### 5.4.3 WESTERN EUROPE

There was a late Copper Age in Spain with techniques coming across southern Europe from the Caucasus, after 3,000 B.C. A source of tin was found in northwest Spain so that the area could readily participate in the bronze industries between 2,500 and 1,500 B.C. Some of the metal-using communities, such as those in southern Spain and Portugal about 2,500 had to be fortified and some had two high walls with outlying fortresses to give warning of attack. Defenders fought with bow and arrows. (Ref. 175 ([241]))

In the last chapter we discussed the 4th millennium inhabitants of England, the Windmill Hill people. It was probably these who, at the beginning of the 3rd millennium, started to build a series of remarkable stone monuments in southern England. The best known and most thoroughly investigated, written about, photographed, painted and romanticized of these, is Stonehenge. The original structure, Stonehenge 1, dates to not later than 2,900 when there were already some 180 separate habitation centers in Wessex. At Stonehenge, first of all there was dug a circular ditch some 1,050 feet in circumference, 4 1/2 to 6 feet deep and 12 feet wide. The purpose of this was to supply the chalk soil for a bank which was thus built up along the inner side of the ditch. It has been estimated that this alone required about 28,000 man-hours of work, using red-deer antlers for picks and whatever for shovels. The bank measures 320 feet in diameter and was at least 6 feet high, although some say 20 feet, with a causeway entrance on the northeast. Only a few stones were used in Stage I, a couple at the causeway entrance and perhaps the four Station Stones, but a mysterious feature was a group of 53 post holes also in the causeway entrance.

Most modern scholars are convinced that these were used for precise and constant observation of the extreme northerly risings of the moon for a hundred years or more. It requires nineteen years for the moon to exactly repeat its course in relation to the earth and sun, so that predictions of moon positions, possible eclipses, etc. require long periods of observation. The average diameter of the post holes is 3 feet 6 inches, with a depth of 2 1/2 feet.

There is no evidence that they ever held stones or wooden posts. Some have yielded cremation remains, flakes of flint, cups, etc. all adding to the mystery. Professor Fred Hoyle (Ref. 99 ([144])) believes that this was not built by local people, but by some who came especially to place the circle at the exact spot needed for some astronomical reasons.

After Phase I of Stonehenge was completed (but before Phase II) another enormous, strange construction appeared about one-half mile north of Stonehenge. This is a narrow horse-shoe shaped earthworks with each leg running for one and three-quarters miles, and which is called the "Cursus", because some have felt it represents a Neolithic race-track. There is some evidence that the bluestones which we shall see were used in Stonehenge II had earlier either been used for some purpose or stock-piled at the western end of this Cursus. There are about twenty similar constructions in Britain and this one is the second longest and it may even pre-date Stonehenge I. The longest Cursus is at Dorset and measures 6.2 miles in length. (Ref. 7 ([12])) There are none of these constructions outside Britain.

Before the next phase of Stonehenge was constructed, the Bell-beaker people arrived from the continent (2,500-2,300 B.C.) with their copper working skills and their arrow-heads and daggers. Tin was discovered in Cornwall and a bronze industry could soon develop. It was these same Beaker folks who subsequently bridged the transition in Ireland from the Neolithic period to the Bronze Age between 2,000 and 600 B.C., introducing copper and gold ornamentation. These people also migrated into Scotland to fuse with the earlier flint users who had come from Ireland and Norway at about 3,000 B.C. McEvedy (Ref. 136 ([187])) calls the Bell-beaker people of the continent "Celto-Ligurians" and although we dislike getting involved in semantics, we feel that they were definitely not Ligurians and probably not rightly called Celts, as the latter were not yet definitely separated from the general mass of Indo-European speaking peoples of central Europe.

But to return to Stonehenge, Phase II dates to about 2,100 B.C., with the placement of a double Bluestone Circle, with stones six feet apart in the center of the original construction. Part of this, however, was never completed. The amazing thing is that 82 of these ophitic dolorite stones were somehow brought from their only source, the Prescelly Mountains of Dyfed, Wales, - some 135 miles "as the crow flies" or 240 miles by sea and land, each weighing several tons, to Stonehenge. Professor Gerald Hawkins<sup>12</sup> has calculated that 209,280 man-days were required to move these

<sup>12</sup>As noted in Balfour (Ref. 7 ([12])), page 90

stones. In addition to the Blue Stone Circles an "Altar Stone" was added, the entrance was widened and a new axis alignment made or astronomical sightings. This Phase II may have been influenced by the Beaker people.

The most spectacular part of the Stonehenge display, however, is Phase III, which consists of the Sarsen Circle of thirty uprights and lintels, some weighing up to 45 tons. These massive stones came from near Avebury and almost of necessity had to be moved on ice about the year 2,000 B.C. when England was much colder than before or since.

Professor Alexander Thom, astronomer and mathematician, although differing from Hoyle as to many details, is equally sure that these ancient stone builders were able to predict eclipses, and after many years of study believes that all the menhirs (long stones) and cromlechs (curved stones) of Britain and Brittany as well, are similar in purpose. There are of course other stone circles, some 900 all together, to be found throughout the British Isles. One, known as Durrington Walls, is two miles north of Amesbury and was built by skilled carpenters of about 2,500 B.C. probably with a sloping, cone-shaped roof and a central courtyard open to the sky. It is 1,720 feet in diameter. Areton(?) warriors undoubtedly inhabited these regions after about 1,900 B.C. forming a ruling power aristocracy which lasted some 600 years. The mysterious stone ring of Brogar on one of the Orkney Islands as well as the great tomb at Maeshowe date to 2,300 B.C., the same time as the construction of the Egyptian pyramids. Later, at about 1,600 B.C., there was a time of high sea levels, and the coastal forests of Britain were inundated by the sea. (Ref. 176 ([242]), 178 ([245]), 224 ([299]), 7 ([12]))

The largest man-made mound of antiquity, rising to a height of 130 feet and spreading at its base well over 5 1/2 acres, representing an amazing surveying and engineering feat of Stone Age man, has recently been excavated at Silbury Hall, not far from Avebury, in Wiltshire, England. Multiple tunnels into this giant mound have failed to reveal any skeletons and its purpose remains unknown.

Recent figures show 4,350 dolmens (usually tombs), 2,070 menhirs, 30 cromlechs and 110 alignments in France. The most impressive of all may be the 3,000 units made up of 10 to 30 columns of menhirs stretched over two miles of countryside at Carnac, France. There may have been a select class of priests trained in studying the heavens, and these may have originated in England, with a later passing on of the secrets to the priests of the Celts, the Druids. Caesar wrote that the priestly discipline of the Celts was developed in Britain and was carried from there to Gaul, and by oral, not written, tradition. Professor Thom's studies indicate that all these stone monuments were built on multiples of a standard unit of measurement called the megalithic yard and which is the equivalent of 2.72 feet. Although men had worked on these monuments for 2,000 years, after about 1,500 B.C. no more were built. Professor Hoyle believes that later generations of astronomer-priests lost the ability to keep the astronomical systems up to date, began to make errors and then lost their followings. (Ref. 99 ([144]), 215 ([290]), 176 ([242]), 7 ([12]))

#### 5.4.4 SCANDINAVIA

About 3,000 B.C. a few immigrants to Denmark brought agriculture and big, polished flint-stone axes to use as tools to clear the forest. These axes have been found by the tens of thousands. Dolmens of stone, such as we mentioned under WESTERN EUROPE, have been found in the range of three to four thousand and are more numerous in Denmark than anyplace in the world. Megalithic tombs were constructed and many dead were laid to rest in each, some of the dead wearing hundreds of amber beads.

Beginning about 2,500 B.C. there were people of at least four different cultures living side by side in south Scandinavia. They were:

1. The declining remains of the megalithic civilization.
2. The Single-grave Culture of Jutland, which was related to the next.
3. Boat-axe Culture of south Sweden.
4. Pitted Ware or Pit-comb Ware Culture, to be discussed below.

After 2,000 B.C. these various populations fused together in a Neolithic Culture which made beautiful daggers and other instruments of flint. By 1,500 metal work had appeared in a unique Northern Bronze Age.

After about 2,000 B.C. the amber beads no longer appeared in tombs, as the amber had begun to be traded to the Mediterranean civilizations. Stone cutting and flint quarries were early Danish industries. The Battle-axe people, later to be called "Teutons", appeared about 2,000 B.C., but they used no bronze for another thousand years. Farming communities were present all through southern Scandinavia throughout the third millennium B.C. and it was these Stone Age men who left the huge grave chambers. Finland and the far north were sparsely populated with the Pit-comb Ware Culture, characterized by ferocious looking, rod-like arrowheads. (Ref. 215 ([290]), 117 ([164]), 88 ([131]))

#### 5.4.5 EASTERN EUROPE

The Baltic area and western Russia were colonized chiefly by Indo-Europeans after 3,000 B.C. An exception was the nomadic ancestors of the Estonians who reached the Baltic from the valleys of the upper Volga. They were related to Finns and Hungarians, with a language which was not Indo-European. In the third millennium the Pit Grave Culture of the Ukrainian steppes showed wheeled carts and domesticated horses. This may represent the site of the proto-Indo-Europeans, although as mentioned above, the argument goes on. Soviet and German philologists believe that the origin of these people and their language had to be near the mouth of the Volga at the north end of the Caspian Sea, with spread from there both westward into Europe proper and southward and easterly into Iran and then India. They refer to the people as "Ur-people" and the language as "Ur language". This concept has been seconded by the United States archeologist of Balt descent, Marija Gimbutas, after her study of the kurgans (burial mounds) of southern Russia. The Kurgan people seem to have left their homes between 2,400 and 2,300 B.C. to first invade the north shore of the Black Sea and then the territory of the Trans-Caucasus. The mountain people of the latter area had already had much contact with the Mesopotamian civilizations and had a civilizing influence on the barbarian Kurgans. The Hittites may have moved out from this culture in about 2,000 B.C. (Ref. 91 ([135])) Old river names suggest that by 1,500 B.C. the entire region between the Baltic and the Alps, the British Isles and Hungary, was occupied by people speaking a single Indo-European idiom called "Old European Language" by the Indo-Europeanist, Hans Krahe<sup>13</sup>. A special section at the end of this chapter will give a more or less complete break down of the various Indo-European languages. In the meantime let us return to our narrative about eastern Europe in this particular time-frame.

The Ukraine and some areas farther east were soon colonized by pastoral groups, some of which were the ancestors of later-day Scythians. North of the steppe and desert belt in Russia, around fifty-five degrees north, there was a thin belt of deciduous forest with some farmers, and still north of that were scattered hunters of the reindeer. Copper working extended almost to the Arctic by 1,850 B.C. Peasant farmers from central Europe continued to push eastward along the forest belt of central Russia, growing the hardy cereals as crops and reaching Moscow and the southern Urals by 2,000 B.C. (Ref. 8 ([14]), 225 ([301]), 45 ([66]), 88 ([131]))

The Baltic linguistic group of northeastern Indo-Europeans came to the eastern Baltic and western Russia area before and about 2,000 B.C. as agriculturalists and cattle raisers. They originally reached northward to Finland and eastward to the upper Volga<sup>14</sup>, but only the southeastern Baltic groups survived through the Bronze Age, the Iron Age and down to about A.D. 500, living between the Oder and Dvina rivers. There are hundreds of Baltic loan words in the Finno-Ugrian languages. The Galindians (Golyad of Russian chronicles) were the easternmost Balts, extending up to the Moscow area and existing up until the 12th century of the Christian Era. Some islands of these people still existed around Smolensk, Vitebsk and Minsk, almost up until the present time. The only true survivors today, however, are some families in Latvia and Lithuania, probably mixed with invading Germans, Poles and Russians through the centuries. They at least still have Baltic languages. (Ref. 8 ([14]), 61 ([90]))

Even after 2,000 B.C. the Fatyanovo Culture existed in central Russia. By 1,800 three rather distinct peoples occupied their own zones in eastern Europe. In addition to the Balts, which we have described as occupying the Baltic area, to the south was a band of Slavs extending from far in Russia west to the Vistula, and finally the entire southern area west and just north of the Black Sea was occupied by the Thraco-Cimmerians. At 1,600 B.C. the Balts and Slavs were still

<sup>13</sup>"Volga" is a Baltic word meaning "long"

<sup>14</sup>As noted by Herm (Ref. 91 ([135])), page 71

without the use of bronze, although it was in common use to the west with the proto-Celts and to the south among the Thraco-Cimmerians. (Ref. 136 ([187]))

Forward to Europe 1500 to 1000 B.C. (Section 6.4)

NOTE: As the Bronze Age set in about 2300 B.C. Cyprus came into its own because of its geologic gift of copper. The Troodos Mountains of this island were once oceanic crust, thrust up some 70 million years ago by the advancing African and Arabian tectonic plates and they are loaded with copper and other metals. At first the ancients could simply pick copper nuggets off the ground. (Ref. 281 ([113]))

## 5.5 Central and Northern Asia: 3000 to 1500 B.C.<sup>15</sup>

### 5.5.1 CENTRAL AND NORTHERN ASIA

Back to Central and Northern Asia: 5000 to 3000 B.C. (Section 4.5)

Throughout the fifteen hundred years covered in this chapter, the Iranian (Indo-European) tribes slowly expanded in all directions, including various salients across southern Asia both east and north. By 2,500 B.C. the hunting economies had begun to give way to herding and agriculture in Kazakhstan and central Siberia. Horse drawn carts were in use in Turkistan by the same date. The pottery of all these people showed affinities to the Middle East. It was the domestication of the horse which allowed them to spread and penetrate in all directions.

In the far northeast of Asia, the Mongol peoples continued their own development, probably more closely related to the Chinese culture than to the Indo-European development. In the area which now comprises the western Chinese provinces of Kansu and Sinkiang, but which geographically are more a part of central Asia, the Pan-Chan phase of the Yang-shao Culture appeared about 2,500 B.C. with large urns painted in spirals with purple, brown, red and black. By 1,500 B.C. this gave way to the Hsien-tien Culture which included farming and the use of hand-made pottery and copper tools. Farther northwest, in the Yenisei Valley, the Afanasieve Culture with stock breeders and hunters, stamped pottery, and copper ornaments have been dated to this 3rd millennium. By 1,500 B.C. the Androvonovo Culture existed between the Don and the Yenisei rivers, with small settlements of up to ten semi-subterranean houses. These individuals, who were the ancestors of the later nomads of the central Asiatic steppes, grew wheat and millet and bred live-stock at that time. (Ref. 136 ([187]), 8 ([14]), 45 ([66]), 213 ([288]))

Forward to Central and Northern Asia: 1500 to 1000 B.C. (Section 6.5)

## 5.6 The Indian Subcontinent: 3000 to 1500 B.C.<sup>16</sup>

### 5.6.1 THE INDIAN SUBCONTINENT

Back to The Indian Subcontinent: 5000 to 3000 B.C. (Section 4.6)

In addition to the Brachycephals discussed in the last chapter, other ethnic groups were well established by the 3rd millennium B.C. Negritos, Proto-Australoids and a Mediterranean people now mainly associated with the Dravidian Culture and finally the Mongoloids of the northeast and northern fringes, were all present. The latter were serpent worshiping Nagas, while the Dravidians were adventurous sailing merchants with cities of refinement and luxuries. Today the Deccan, in southern India, is essentially Dravidian in stock, customs and language.

The Brachycephal<sup>17</sup> development came to flower in the Indus Valley cities of Harappa and Mohenjo-daro (now all in Pakistan) with a civilization which survived for almost a thousand years (2,550 to 1,550 B.C.) with excellent

<sup>15</sup>This content is available online at <<http://cnx.org/content/m17808/1.2/>>.

<sup>16</sup>This content is available online at <<http://cnx.org/content/m17940/1.2/>>.

<sup>17</sup>There is some evidence to suggest that the Brachycephals were themselves Dravidians. (Ref. 175 ([241]))

houses, elaborate drainage systems, bathrooms, etc. - all equal to Sumerian accomplishments and probably superior to Babylonian and Egyptian cultures. At its height this society extended far beyond the Indus Valley, itself, (see map on next page) and covered an area far greater than the contemporary states of Mesopotamia or the Kingdom of Egypt. Of this, only high citadels, solid buildings, uniform grids of streets and the elaborate drainage system remain. It was a society of priests, merchants and peasant farmers with extensive sea trade with Sumer and Babylonia. There was local script writing by 2,400 B.C. but unfortunately it has not yet been convincingly deciphered. No one knows even the language family to which it belongs, although there are thousands of short examples on stone seals, metal objects and pottery. This civilized area not only extended all along the Indus and its tributaries but ran for five hundred miles along the coast of the Arabian Sea, and French archeologists have also discovered remains of a mature Harappan settlement up in northeastern Afghanistan close to the Russian border, a thousand miles northeast of the Indus mouth. The Harappans domesticated the Indian jungle fowl, later to become the world's "chicken". The women apparently all wore at least loin cloths, but the men are often shown naked, in the discovered figurines. (Ref. 8 ([14]), 176 ([242]), 215 ([290]), 44 ([65]), 211 ([284]))

The disappearance of this as a living civilization has been traditionally blamed on the destruction wrought by the Aryan invaders from Bactria and northern Iran who descended into this area between 1,600 and 1,500 B.C.. Although they came primarily as immigrants to find pasture land for their cattle, they were also strong fighters when combat was necessary, and gradually all Hindustan (the land north of the Narbada River) was under control of these people, now called "Vedics". They prohibited intermarriage with native groups and thus initiated the Caste System in India. Their Aryan tongue was ancestral to Sanskrit and Sanskrit was a well differentiated language by 2,000 B.C.. They had a sophisticated theology and well organized priesthood, both indicating influences of Sumerian and Babylonian religious ideas. Some authorities put the collapse of the Harappan civilization somewhat earlier, between 1,800 and 1,700 B.C. and mention that the streets of Mohenjo-daro when first excavated were lined with corpses. If the invading Aryans were not responsible, other possibilities included a change in the course of the Indus, or a terrible drought. It is of interest that many Indus settlements were in areas where today there is nothing but dry sand and agriculture would be impossible. Apparently in those ancient days rainfall and river water had been more plentiful and this has been confirmed by archeological pollen counts, These pollens, which were in great numbers in the lowermost layers later dropped in the upper layers of excavation and were then chiefly of desert plants, indicating an obvious drought. One theory of the cause of this has been put forward by Reid Bryson of the University of Wisconsin, who feels that with increasing population of the Indus civilization the forests were destroyed for fuel and timbers, and the resulting deforestation accelerated the run-off of rain, decreasing soil moisture and lowering the fertility from erosion and top-soil loss. Then with overgrazing, a man-made desert appeared, with rising dust which, in turn, clouded and cooled the upper atmosphere, with the resulting heavier, cool air sinking downward and preventing rain. Thus it is possible that the Indus people, pushing their environment to the limit, caused their own downfall and near extinction. In any event, life did continue in the valley but without the highly organized culture previously known. (Ref. 46 ([76]), 68 ([106]), 176 ([242]), 45 ([66]), 215 ([290]))

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## Image not finished

**Figure 5.1:** Indus Civilization

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By 2,000 B.C. Pan chewing was a well established practice in India. Pan is the Betel nut, and like cocaine it is part narcotic and part stimulant. We have mentioned that the Aryans brought live stock with them, particularly cattle. They ate beef, mutton, milk, and curds and used the cooking medium "ghi", a clarified butter, which can be kept for months. They introduced this heavy dependence on dairy products, reinforced by precepts from the Vedas, which led slowly to a belief in the sacredness of the cow, a precept still existing today. (Ref. 211 ([284]))

Very recent excavations at Balakot on the Arabian Sea coast of southern Pakistan indicate the possibility of a civilization even earlier than the Harappan, with well developed ceramics and the use of copper. In the far south in Sri Lanka, the first inhabitants were the Veddas, who emerged there about 3,000 B.C. Only a few of the descendants of these aborigines still live in the mountainous area. (Ref. 44 ([65]), 38 ([59]))

Forward to The Indian Subcontinent: 1500 to 1000 B.C. (Section 6.6)

### Choose Different Region

1. Intro to Era (Section 5.1)
2. Africa (Section 5.2)
3. America (Section 5.9)
4. Central and Northern Asia (Section 5.5)
5. Europe (Section 5.4)
6. The Far East (Section 5.7)
7. The Near East (Section 5.3)
8. Pacific (Section 5.8)

## 5.7 The Far East: 3000 to 1500 B.C.<sup>18</sup>

### 5.7.1 CHINA AND MANCHURIA

Back to The Far East: 5000 to 3000 B.C. (Section 4.7)

Chinese legends are bountiful with alleged records at least back to 3,000 B.C., all of which are not easy to substantiate. Excavations in Chekany province in central southern China have revealed a Neolithic Culture, the Yang-Shao, which we have mentioned previously, with painted pottery, dating to about 3,000 BC. The more wide-spread Lung- Shan, black pottery culture peaked at about 2,000 B.C. The legends describe a number of great emperors who taught the people marriage, music, writing, painting, fishing with nets, domestication of animals and the feeding of silk worms. Tradition has it that Empress Si-Ling, wife of the great Huang-Ti, discovered silk about 2,640 B.C. Brick structures may have been erected about 2,600 B.C. along with observations for the study of stars and the construction of a correct calendar. Chinese medicine allegedly began with the legendary Fu Hsi in 2,953 B.C. followed by Shen Nung, the Red Emperor (Hung-Ti), who compiled the first medical herbal material, the Pen-Tsao, about 2,800 B.C. He supposedly personally tested 365 drugs and drew up the first acupuncture charts. More famous is the great medical compendium, the Nei Ching (Canon on Medicine) allegedly developed by Yu Hsiung, the Yellow Emperor (Huang Ti), about 2,600 B.C.. This was transmitted orally until probably the 3rd century B.C. and was still later revised in the 8th century of the Christian Era. The Nei Ching deals with all phases of health and illness, prevention as well as treatment, including acupuncture. Tea, which grows wild in Manchuria<sup>19</sup>, was cultivated there about 2,000 B.C. At first the Chinese merely chewed the leaf. (Ref. 38 ([59]), 125 ([173]), 46 ([76]), 45 ([66]), 122 ([170]), 213 ([288]))

From the middle of the third millennium B.C. the heart of the Yellow River valley was densely populated. It took a large and disciplined force to drain and flood control this flood plain. A small type of pig was found in every hut and the ox-cart was known by 2,000 B.C. The horse and chariot came a little later with the horses similar to the wild Mongolian ponies with heavy heads and short legs. Foxtail millet and a small amount of wheat (spread from the west) were grown. Rice was cultivated much later, beginning south of the Yangzte<sup>20</sup>, a foreign land, wooded, marshy and peopled with nomads of a different race. The first truly urban, known civilization in China was the Shang Bronze Age Culture of 1,700 to 1,600 B.C.. Hucker (Ref. 101 ([146])) says the Shang monarchy emerged from the Honan branch of the Lung-Shan, black pottery culture and perhaps began as early as 1,176 B.C. Recent excavations

<sup>18</sup>This content is available online at <<http://cnx.org/content/m17906/1.2/>>.

<sup>19</sup>This tells something about the climate of Manchuria, in that tea cannot tolerate frost or drought

<sup>20</sup>Trager (Ref. 222 ([296])) says the rice was brought from the Mohenjo-daro civilization about 2,300 B.C., but the source of this information is not given

at Loyang and Chengchow demonstrate progressive development from Lung-Shan into the ever more mature Shang. There urban development was about 1,000 years later than that in Mesopotamia and about 500 years after that in the Indus valley, so some elements from the west undoubtedly diffused to China. The last twelve of the Shang kings lived 273 years (beginning about 1,395 B.C.) in the An-Yang area at Yin-hsu (the ruins of Yin). The entire dynasty is sometimes called "Yin" after this capital. The Shang cities were large and had a high order of bronze technology and horse-drawn chariots as well as a fully developed Chinese writing system and a culture dedicated to war against the outlying "barbarians". Their bows had a 160 pound pull and could kill at 200 yards, a weapon later used by the steppe nomads and known to the westerners as the Turkish compound bow. Although traditionally the Shang was described as controlling most of northern China, actually it was probably a loose confederation of clans. The Huang-Ho society, on the Yellow River, had an ideographic script about 1,500 B.C. Wherever it appeared, writing in China is generally admitted to be the result of diffusion from the west. (Ref. 211 ([284]), 101 ([146]), 8 ([14]), 215 ([290]), 213 ([288])) Additional Notes (p. 89)

## 5.7.2 JAPAN

Peopled with Neolithic societies.

## 5.7.3 KOREA

There is archeological evidence of people on this peninsula in a Neolithic society by 3,000 B.C. (Ref. 113 ([161]))

## 5.7.4 SOUTHEAST ASIA

Most of this area had peasant farmers and hunting groups and we know that bronze was used very early in Thailand. Iron objects seem to have been made there about 1,600 B.C. or even earlier. This was "wrought" iron, made by heating ore only to about 1,083 degrees Centigrade and then hammering away the slag from the iron globules. (Ref. 8 ([14]), 215 ([290]))

Waves of Stone Age people colonized the Indonesian islands from the mainland. An Austronesian people using Lapita pottery appeared in the Moluccas area of Indonesia sometime in this period, and they began to migrate slowly eastward. From about 3,000 B.C. on, the Malays in the Philippines were joined by a more advanced race from Indonesia. These two peoples merged, building up a tribal system known as the barangay. (Ref. 8 ([14]), 175 ([241]))

Forward to The Far East: 1500 to 1000 B.C. (Section 6.7)

### Choose Different Region

1. Intro to Era (Section 5.1)
2. Africa (Section 5.2)
3. America (Section 5.9)
4. Central and Northern Asia (Section 5.5)
5. Europe (Section 5.4)
6. The Indian Subcontinent (Section 5.6)
7. The Near East (Section 5.3)
8. Pacific (Section 5.8)

NOTE: Recent excavations around Shanghai show evidence of an early Neolithic Society at Hemudu, where the people cultivated rice and had domesticated dogs, pigs and water buffalo and lived in wood-frame houses with plank floors. They made silk and created baskets. This was before the Shang period. (Ref. 314 ([255]))

## 5.8 The Pacific: 3000 to 1500 B.C.<sup>21</sup>

### 5.8.1 THE PACIFIC

Back to The Pacific: 5000 to 3000 B.C. (Section 4.8)

Aboriginal development in religion, political and economic life continued in Australia. Immigrants from Indonesia brought Lapita pottery into the Melanesian islands by 2,000 B.C. and perhaps to Micronesia, just north of the equator, by about 1,500 B.C. (Ref. 8 ([14]), 134 ([184]))

Forward to The Pacific: 1500 to 1000 B.C. (Section 6.8)

#### Choose Different Region

1. Intro to Era (Section 5.1)
2. Africa (Section 5.2)
3. America (Section 5.9)
4. Central and Northern Asia (Section 5.5)
5. Europe (Section 5.4)
6. The Far East (Section 5.7)
7. The Indian Subcontinent (Section 5.6)
8. The Near East (Section 5.3)

## 5.9 America: 3000 to 1500 B.C.<sup>22</sup>

### 5.9.1 FAR NORTH AND CANADA

Back to America: 5000 to 3000 B.C. (Section 4.9)

There were always more people on the Aleutian Islands than on the mainland, because of a milder climate. Nevertheless, from 4,000 to 1,000 B.C. an Arctic Small Tool tradition existed in Alaska, spreading across the arctic part of Canada to Greenland, given its name from the miniature blades lashed to handles of bone or walrus ivory used for cutting and scraping skins. The blades were chipped from a core of chert, a rock of micro-crystalline quartz. These Asiatic people even migrated to Ellesmere Island in northeastern Canada, less than 800 miles from the North Pole, about 2,300 B.C., crossing over the mountains in a great notch, today known as Sverdrup Pass, to the upper end of Baffin Bay, which usually has open water at least in the summer. Canadian archeologists have excavated some of these pre-historic sites, where the earliest are now thirty to thirty-five meters above the present sea level, although they were originally on the beach. As in other northern areas of the globe, the earth's crust has risen slowly over the centuries after the lifting of the great weight of the glacial ice. From Ellesmere Island progress into northern Greenland over winter ice was no problem. By about 1,500 B.C. in British Columbia (and Washington state) people were settled in villages and fished for salmon, although they did not practice cultivation. (Ref. 209 ([282]), 45 ([66]), 189 ([259]))

This is the era of the so-called Red Paint Culture, with native Amerindian Stone Age traditions derived from old northeastern Asia. The Red Paint or Moorehead Culture originally described from prehistoric graveyards in Maine - the graves containing red ochre has now been identified as part of a larger maritime Archaic tradition extending from northern Labrador at the 60th parallel to southern Maine between about 2,000 and 1,500 B.C. This area was deglaciated about 7,000 B.C. with tundra then present until about 3,000 when spruce forests finally appeared. The settlement pattern and life styles of these Red Paint people seems to have been different from both the Eskimos and the Montagnais-Naskopi Indians of inland Labrador and Quebec. Hunting, fishing, trading tools and raw materials and burying their dead were definable activities. The roots of this culture may have extended back several thousand years to the Paleo-Indian hunters of the now submerged continental shelf. (Ref. 69 ([107]))

<sup>21</sup>This content is available online at <<http://cnx.org/content/m18010/1.2/>>.

<sup>22</sup>This content is available online at <<http://cnx.org/content/m17781/1.2/>>.

## 5.9.2 THE UNITED STATES

The reader is advised to review the preceding two paragraphs concerning Maine and Washington State. In the east the eastern Archaic Culture was changing about 2,000 B.C. in that there was the manufacture of some crude pottery and there was an increased attention to burial observances. Some call this the beginning of the Woodland Culture and others call it simply the Late Period of the Archaic of the Eastern Woodland. At the same time, in the southwestern states, specialized desert cultures continued to develop from the Archaic. As recorded in the last chapter, the Cochise began cultivating corn sometime from 3,000 to 2,000 B.C., providing them extra nourishment for their uncertain diet. Squash now was also brought up from Mexico and tiny gardens of both have been found all over the Cochise wandering area. Santa Catalina Island, twenty miles off the California coast, as previously noted, was inhabited and some forty Indian town sites have been identified. It is obvious that coastal Indians had facilities for ocean travel. (Ref. 45 ([66]), 64 ([94]), 210 ([283]), 187 ([256]))

## 5.9.3 MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

The "Pre-Classic Age" of Middle America traditionally began about 2,000 B.C. with Mayan ancestors being simple village farmers, although the earliest Maya carbon dating on the Caribbean side of Yucatan goes back to between 2,750 and 2,450 B.C. It is entirely possible the Maya beginnings may go back to Ecuador at 3,000 B.C. while the Olmec civilization began separately on the Gulf coast much later. In 1977 Norman Hammond (Ref. 85 ([126])) published results of archeological excavations in Belize (formerly British Honduras) which seem to confirm the origins of the Maya back at about 2,600-2,500 B.C. He describes a lowland pottery called "Swash", found in burial sites with human skeletons. The adults among the latter showed advanced tooth wear, suggesting abrasives in their diet. The Maya steeped corn in slaked lime before boiling, to soften it (and incidentally it released certain amino-acids not otherwise absorbable) and this lime, along with grit derived in the grinding process probably accounted for the tooth wear. These individuals also constructed raised earth platforms in swamps by digging out drainage channels and throwing the mud up to make platforms on which various crops were grown. The presence of jade, not naturally present within 350 kilometers, indicates a trade network. Their Swasey ceramics - colorful, decorative and mature - are different from that of Mexico and the southern United States of 2,500 B.C., but are similar to Ecuadorian pottery of this period. Throughout Central America maize-farming had become the basis of life by 1,500 B.C. and the farmers lived in permanent villages. By the same date in the Tehuacan Valley of Mexico, there was complex village life, pottery, elaborated religious rituals and intricate social organization. Corn and pottery have been dated to 2,000 B.C. in Panama. (Ref. 45 ([66]), 95 ([140]), 85 ([126]), 64 ([94]), 62 ([91]))

## 5.9.4 SOUTH AMERICA

Valdiva, as a coastal society in Ecuador, like Panama, had corn and pottery by about 2,000 B.C.<sup>23</sup>. Evans and Meggers, of the Smithsonian Museum, are impressed with the similarities between Valdivian pottery and the Jomon pottery of Japan, believing Ecuador may have been the landing place of a Japanese immigration, thus bringing one more possibility of Asian diffusion to the Americas. We shall examine other ideas in other chapters. Potatoes were cultivated in the Andes by 3,000 B.C., manioc was grown on the tropical lowlands and there were domesticated animals in South America shortly after 2,000 B.C. Ceremonial centers found along the desert coast of Peru date to about the same time as did evidence of metal working. The Ancon Yacht site on the coast of Peru, dated 2,500 to 2,000 B.C. showed chipped leaf points, string, turned cloth and baskets, wooden tools, shell fishhooks and cultivated plants which included gourds, cotton and chili peppers.

The Peruvians used the potato by 3,000 and soon domesticated the guinea pig for food. Coastal Peruvians gathered protein-rich shell fish off the beaches by 2,800 and by 2,500 B.C., when the villages were large, far out ocean fishing for larger fish was common. (Ref. 62 ([91]), 45 ([66]), 209 ([282]), 211 ([284]), 222 ([296]))

Early farmers were probably well established on the Ecuadorian sea coast and river plains by 3,000 B.C. Contact with Mesoamerica was certainly possible by water, but otherwise there was a 2,000 mile jungle stretch between them. What

<sup>23</sup>Thomas (Ref. 213 ([288])) says the Ecuadorians had pottery even earlier, at 3,200 B.C.

Engel (Ref. 62 ([91])) calls the "bean planters society" came into being in the lower central Andes, along with cotton clothes and underwear at about 2,000 B.C. The bones of sea-lions are mixed with those of these early agriculturalists. Excavations in Venezuela, like adjacent areas, show evidence of manioc and sweet potato cultivation from between 3,000 and 2,700 B.C. Both of these are root crops, but manioc required special preparation to be made palatable. (Ref. 95 ([140]), 62 ([91]), 209 ([282]))

Forward to America: 1500 to 1000 B.C. (Section 6.9)