

Department of Distance and Continuing Education University of Delhi



B.A.(Programme)

Semester-I

Course Credit - 4

Discipline A-1/B-1

ANCIENT SOCIETIES

As per the UGCF - 2022 and National Education Policy 2020



————— *Editorial Board* —————

*Dr. Rajni Nanda Mathew, Dr. Srimanjari,
Dr. Shobhika Mukul, Sh. Prabhat Kumar*

————— *Content Writers* —————

Dr. Shobhika Mukul, Dr. Aradhana Singh

© Department of Distance and Continuing Education

1st edition: 2022

E-mail: ddceprinting@col.du.ac.in
history@col.du.ac.in

Published by:

Department of Distance and Continuing Education under
the aegis of Campus of Open Learning, University of Delhi

Printed by:

School of Open Learning, University of Delhi



TABLE OF CONTENTS

- UNIT I** : Defining Civilization, Sources and Historiography, Urban Revolution and Bronze Age, De-bating Metal Technology Dr. Aradhna Singh
- UNIT II** : Bronze Age Civilizations- India / China (Shang Dynasty) Dr. Aradhna Singh
- UNIT III** : Bronze Age Civilizations- Mesopotamia (Sumerian and Akkadian Period)/Egypt (Old Kingdom) Ecological Context, Kingship and State, Social Pattern and Economy. Art, Religion and Culture Dr. Shobhika Mukul
- UNIT IV** : Bronze Age Civilizations- Minoan/ Mycenaean, Ecological Context, Kingship and State, Social Pattern and Economy Art, Religion and Culture Dr. Shobhika Mukul



LESSON 1

**DEFINING CIVILIZATIONS, HISTORIOGRAPHY, URBAN REVOLUTION
AND BRONZE AGE, DEBATING METAL TECHNOLOGY**

STRUCTURE

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Civilization
 - 1.2.1 Civilization and Culture
 - 1.2.2 Emergence of Civilization
 - 1.2.3 Conclusion
- 1.3 Urban Revolution
 - 1.3.1 Introduction
 - 1.3.2 Neolithic Revolution
 - 1.3.3 Ten Characteristics of a City
 - 1.3.4 The response to Gordon Childe's Model
 - 1.3.5 Conclusion
- 1.4 Let us Sum up
- 1.5 Answers to In-Text Questions
- 1.6 References and Suggested Readings

1.0 OBJECTIVES

After reading this unit you should be able to:

- Define Civilization
- Trace the development in the understanding of civilization by scholars



- Understand the concept of Urban Revolution
- Identify the characteristics of an urban society

1.1 INTRODUCTION

The question of civilization has been a subject of intense debate and discussion among scholars for a very long period of time. Here we intend to go into the depths of their reasoning and arrive at a consensus on the question of civilization and its definition. Since city life time and again appears as an important indicator of a civilized society, we also go on to identify and account for the characteristics of a city.

1.2 CIVILIZATION

There are no two similar opinions among scholars on the question of what constitutes a civilization and what are its main characteristics? A vast scholarly literature surrounds this complex subject. According to the *Oxford English Dictionary*, “to civilize” is “to bring out of a state of barbarism, to instruct in the arts of life; to enlighten and refine”. The root of the English word can be traced to the 16th century French term ‘civilisé’, meaning “civilized”. While the Latin *civilis*, *civis*, and *civitas* convey the meaning of “living in a city”. Civilizations are therefore strongly connected with the characteristics of city life, which will be discussed in detail below. The complexity associated with a civilized society is generally defined or portrayed in opposition to a simple, primitive one. First used in the Romance languages during the Renaissance period, the term imparted meanings like improvement, refined manners and urbanization, all seen as diametrically opposite to savagery. In this regard, anthropologist Lewis Henry Morgan (1878) was one of the first to classify modern non-Western cultures into savagery, barbarism and civilization, based upon the increasing levels of social complexity. The same logic was applied by the early evolutionists to ancient societies. A particular society is categorised as ‘complex’ when it accommodates individuals living in groups of settled communities, in a city and engaging in specialized activities. A complex society is further believed to deeply imbibe the following elements within its structure, a surplus production of food to sustain the increasing population; advanced technological improvements to increase production and communication between different groups; some form of legal and moral authority; a governing body to protect individual rights and render justice; and cultural developments.

The term civilization was in vogue during the French Revolution, where it was used in the singular and referred to the progress of humanity. In his 1923 book, *The Philosophy of Civilization*, Albert Schweitzer defines civilization as “the sum total of all progress made by man in every sphere of action and from every point of view in so far as the progress helps towards the spiritual perfecting of individuals as the progress of all progress.” Lamenting



upon the idea of humanity losing the ethical aspirations of civilization, he combines the material and ethical in this definition of the term. In the traditional sense, civilization is a set of beliefs, way of thinking or a way of life altogether. It is seen as a new stage in human development, closely connected with the emergence of cities and urban life ways.

Moreover, it was around 1819 that ‘civilizations’ in the plural came to be used, which marked a major semantic shift. Civilizations in the plural refers to the specific way of life of a nation at a particular point in time, and it is in this sense that scholars like Fernand Braudel, Oswald Spengler, Samuel Huntington, Arnold Toynbee and others developed theories on it and used the term to refer to some of the major civilizations of the world like the Mesopotamian, Chinese, Indian and Egyptian.

Nineteenth-century anthropologists and archaeologists were heavily influenced by Charles Darwin’s theory of biological and social evolution. Social Scientist Herbert Spencer applied Darwin’s theory to human societies and presented this as proof that in an evolutionary sense civilizations were superior than the less-complex societies that they were displacing. In his *Ancient Society* (1877), Lewis Henry Morgan put forward a theory of seven distinct periods of human development, from savagery to a state of civilization. The Marxists equate the development of urban civilization with the emergence of a class structure. Marx conceptualized the development of prehistoric society in three stages, nomadic hunter-gatherers, permanent farming settlements which were economically self-sufficient and the primary State with growing class differentiation. In the 1930s and 1940s, V. Gordon Childe further refined this approach by equating savagery with hunter-gatherer societies of the Paleolithic and Mesolithic periods, barbarism with the Neolithic farmers and Copper Age and finally, civilization with the Bronze Age communities. But these terms are no longer used in modern archaeological thinking. As civilization is now used to refer to urbanized, state-level societies.

But for the prehistorian it is very difficult to recognize the socio-economic institutions signifying the presence of a civilized society from the archaeological record. Therefore, a number of definitions have been proposed which are applicable to the archaeological data. Claude Kluckhohn has argued that a civilized society must possess two of the following three criterias, towns of more than 5,000 people, monumental ceremonial centres and a written language. It must be stressed here though that the choice of these particular features by Kluckhohn is purely based on their accessibility to the archaeologist, rather than on their importance within the civilized set-up.

1.2.1 Civilization and Culture

The term civilization and its attributes also share a unique relationship with the word ‘culture’, with the two displaying characteristics of distinction as well as overlap. Several interweaving cultures which are in constant interaction with one another and with the outside world form the major constituents of a civilization. It is these very elements which bring large



groups of people together in a civilization as they identify through a common, shared set of values and institutions. But ethnographers and anthropologists prefer to maintain a distinction between the two. This trend began with the publication of anthropologist Edward Burnett Tylor's *Primitive Cultures* in 1874 where he defined civilization not in terms of a progressive development from simple beginnings to more complex forms of development. According to Tylor, civilization implies a developed stage of human society, and therefore he and his colleagues in the field prefer to use the term 'culture' instead when they study and discuss primitive societies. It would be more appropriate to look at culture as one of the important attributes of a civilization or a civilization as the sum total of cultures that it contains. Fernand Braudel calls culture a 'semi-civilization' as it is a stage in the overall development of mankind, and therefore something which stands on a lower pedestal than civilization. This conceptual hierarchy is further elaborated upon by Christopher Dawson, a British sociologist, who takes civilization to be the largest socio-historical phenomenon, a lofty status to which culture can lay no claim. On the other hand, Immanuel Wallerstein refutes the conceptual hierarchy approach, giving examples from non-English, specifically German usages where civilization refers to common everyday affairs, whereas culture indicates much refined things.

American anthropologist Philip Bagby adopts an etymological approach and argues that civilization is the kind of culture found in cities, specifically. This definition has been very useful in civilizational studies, but it proposes its own unique challenges, defining a city being the foremost among them. Bagby on his part considers the division of labour and craft specialization to be the primary elements in a city. Fernand Braudel echoes Bagby's approach by arguing that unlike culture, towns and cities don't just exist but they would prosper in a civilization. Therefore, a civilization is now most commonly understood as a complex state with some degree of social stratification, specialization of labour and centralized power.

1.2.2 Emergence of Civilization

V. Gordon Childe was one of the earliest theorists who saw the emergence of civilization as a result of two successive revolutions, namely the Neolithic Revolution and the Urban Revolution. Being a social evolutionist, Childe argued that agriculture and surplus production were the basis of civilizations which developed on the pedestal created by the Neolithic revolution. For him, these revolutions were marked by agrarian surplus, which led to the development of technological forces and the accumulation of wealth in the hands of a few, resulting in turn in rising class stratification.

The first and earliest civilizations are believed to have developed with the invention of farming. It is seen as the basis of the emergence of early civilizations in Mesopotamia and then in Egypt, and some time later in India and China. With irrigation being an important basis of farming in general, it is interesting to note that all these civilizations developed alongside river valleys, i.e., areas rich in irrigated land to sustain farming. These major rivers also enabled long distance transportation of goods, promoting trade with far off regions,



which further resulted in connecting different civilizations. The early settlers practicing farming in these regions also felt a need to invent wooden, metal or stone tools required specifically for cultivation purposes. This gave a boost to metal technology and production, and the need for a specialized group of people involved in artisanship.

Secondly, farming was essential for people to settle down or establish permanent settlements, for population growth and the development of cities and villages. These changes created a scenario where an increasing need was felt for the establishment of such social, political and economic systems which can provide a solution to the grievances of people living as part of large communities. Thirdly, stability in the agricultural sphere led to the rise of specialized, non-agricultural activities like craft specialization, artisans, merchants, priests, administrators, etc. This craft specialization is still considered to be one of the most important features of civilization. Fourthly, as discussed above, the term civilization conveys the meaning of “living in the city”. The foundational civilizations are therefore believed to have begun in cities, which are large, and more densely populated, in comparison to the villages. Fifthly, the invention of writing ensured record keeping, and transmission of culture from one generation or time period to the next. Writing also improved communication between different people and helped in administrative tasks.

Sixthly, civilization encompasses a multicultural society, where people belonging to different cultures and classes live together with a mutual understanding. Seventhly, the introduction of a religious system which reinforces social solidarity by bringing people together. Eighthly, it resulted in the development of economic and political institutions which played a crucial role in the progress and development of civilization. Here the political institutions created and enforced rules and regulations, the economic ones institutions focussed on the production and distribution of material goods and services. Finally, all these elements culminated in the formation of a ‘state’, based on centralization of political power and authority. The development of this kind of a centralised set-up further necessitated the construction of cities to function as administrative centres of the ruling authority. However, it is now increasingly argued that agricultural intensification cannot by itself explain the rise and development of the foundational civilizations as agriculture had witnessed progress for thousands of years before this phenomenon first appeared.

1.2.3 Conclusion

Thus, scholars have provided multiple explanations as to what constitutes a civilization. The emergence of a complex, civilized society is also attributed to several factors. These factors had far reaching implications on the social, political and economic settings in different parts of the world.



IN-TEXT QUESTIONS-1

A. State True or False:

1. The Latin words *civilis*, *civis* and *civitas* convey the meaning of “living in a city”.
2. Lewis Henry Morgan applied Darwin’s theory of biological and social evolution to human societies.
3. Ethnographers and anthropologists maintain a distinction between civilization and culture.
4. Christopher Dawson argues that civilization is the kind of culture found in cities.
5. V. Gordon Childe has argued that agriculture and surplus production was the basis of civilizations.

B. Short question:

Discuss the conceptual hierarchy approach with respect to the relationship between civilization and culture.

C. Long question:

What are the factors responsible for the emergence of civilization?

1.3 URBAN REVOLUTION

1.3.1 Introduction

A social evolutionist and archaeologist, V. Gordon Childe is one of the pioneers and most influential theorists on the major transformations in the development of human society. One of his significant contribution is the introduction of the concepts of the Neolithic Revolution and the Urban Revolution to understand and conceptualize urbanism. He first introduced his path breaking ideas to the larger academic community with the publication of the paper titled, ‘The Urban Revolution’, in the *Town Planning Review* in 1950. The choice of the word ‘revolution’ was a deliberate one as he wanted to see these major social transformations of prehistory in comparison with the Industrial Revolution. Since these changes affected all aspects of human life, they needed to be understood and received that way.



1.3.2 Neolithic Revolution

Childe's concept of the Neolithic Revolution denotes the transition from hunting and gathering for subsistence to farming. This phenomenon can be seen as developing together in some parts of the world, but all independently of each other. This shift from the accumulation of wild resources to the production and consumption of domesticated foods resulted in a number of significant changes and developments. A combination of technological breakthroughs and social transformations can be witnessed here as has already been discussed earlier. The Urban Revolution, on the other hand, completely transformed social institutions and practices. The first cities came into being during this phase, alongside an expansion in economic activities, growing social stratification and coming up of new institutions of governance and rule. For Childe, cities were not the only component due to which these complex societies came into existence. However, they were definitely the most important one. The earliest cities and states arose in the regions of Mesopotamia, Egypt, China, India, Mesoamerica and the Andes. Interestingly, they evolved out of much simpler societies, with little or no external influence.

For his writing on the Urban Revolution, Childe employed the data found during the excavations at Ur in the 1920s, which gave evidence of the earliest urban society in Mesopotamia. His theorization therefore heavily relied on evidence and facts, something that was missing in the works of his predecessors. Childe believed that the Urban Revolution witnessed the development of metallurgy and the emergence of a new social class of artisans and specialists who lived in cities. In fact, his article in *Town Planning Review* introduces a wider audience to the intricacies of archaeological fieldwork and the evidence collected therein. Although he had incorporated his insights on Urban Revolutions in his previous works, in this article Childe presented the model in a more synthesised and organized manner by neatly placing the developments in the form of ten characteristics.

1.3.3 Ten Characteristics of a City

Our use of the term 'city' signifies a social organization such as a unit of settlement which is large in size and complex in organization. City and civilization share the same Latin root and cities are generally believed to have achieved the degree of organization equated with civilization. In his much acclaimed article in the *Town Planning Review*, the very first question Childe tackles is the notion of 'city', which he himself acknowledges as something extremely hard to define. He presents the city historically as the symbol and outcome of a revolution with which began a new economic stage altogether. The "ten rather abstract criteria" propounded by Childe are as follows:

1. In terms of size, the first cities must have been more extensive and densely populated than the previous settlements.



2. The urban population differed from any village or town in composition and function, as here we find full-time specialist craftsmen, merchants, officials, traders and priests.
3. Every producer, even the most primary ones, had to pay tax on the small surplus that was obtained with limited technical equipment. This tax was paid to a divine king or an imaginary deity who collected all the surplus.
4. Monumental architecture distinguishes cities from villages and also fulfills the symbolic role of the concentration of social surplus.
5. A major share of the concentrated surplus was retained by a few who formed the “ruling class”. This group included priests, administrative officials and civil and military leaders.
6. The invention and use of writing for administrative and communication purposes.
7. The elaboration of sciences like geometry, arithmetic and astronomy.
8. Production of sophisticated styles of art.
9. Foreign trade over long distances.
10. And finally, a state organization which was now based on residence and not kinship.

These ten characteristics clearly indicate that Childe’s model was based on a series of interrelated social, political, cultural and economic changes that resulted in the formation of the earliest cities and states.

The very first point in Childe’s model, where he argues that early states were urban in nature, and they comprised large, densely populated settlements or cities, has been a constant theme of research into early complex societies. And so has been craft specialization. In 1954, Sir Leonard Woolley uncovered considerable evidence of craft specialists living in residential neighbourhoods at Ur. Division of labour and the production of social surplus by primary producers to pay their taxes are considered to be the most significant political and economic transformations. The question of monumental public architecture is a tricky one as nearly all ancient complex societies developed some form of it, but we also come across evidence for the same in much earlier Neolithic groups, like the megalithic communities. But, having said that, Childe was still correct in pointing out that these buildings served as symbols of wealth and power accumulated in the hands of early rulers. The origins of inequality and social stratification can no doubt be attributed to the Urban Revolution, as evidence from a lot of archaeological sites depicts. The invention of writing is generally dismissed as a universal criteria to label complex societies, as the Inca and Andean states of South America are characterized by an absence of writing. The next and obvious stage of writing, i.e., record-keeping was definitely a universal characteristic of early states. Major advances in the field of practical sciences and mathematics also coincided with the development of early states.



On the question of conceptualised and sophisticated art styles, while there is no doubt that all early states had distinctive art styles, it will be incorrect to say that these were more sophisticated than the art of the preceding Neolithic groups. The employment of art for ideological purposes by the most ancient rulers was however a major transformation witnessed in this stage. Although the beginnings of trade can be traced back to the Paleolithic societies, it expanded a great deal with the first states. And lastly, on the question of the State, power became more centralized in the hands of the ruler and other governing institutions rather than being distributed among people and families, as was the case earlier.

1.3.4 The response to Childe's Model

The model has been extensively discussed by archaeologists and other scholars engaged in evolutionary studies. The most prominent criticism of Childe's theory is that he did little to relate the several processes and institutions with one another. This point was first raised by Robert McC. Adams, followed by Paul Wheatley and James F. Osborne. Colin Renfrew, on the other hand, defends Childe on the point of functional relationship between the different characteristics, which according to him are implicit in his model. Moreover, we need to keep in mind that not all cities attest to Childe's ten point characteristics as they display a rich diversity in socio-cultural and geographic contexts. R. McC. Adams argues that there is no evidence of vast surpluses in the early cities. While Jane Jacobs points out that farming is not alone crucial to the growth of cities as there has to be a large-scale demand first for there to be a surplus. Levant and Anatolia give evidence of cities originating due to long-distance trade, rather than farming. All these arguments offer a different understanding of the nature of urbanization.

But not all of his arguments were refuted by a lot of scholars, including McC. Adams, who actively engaged with Childe's model and further incorporated it in mainstream anthropological archaeology and cultural evolution. In his book, *The Evolution of Urban Society*, Adams begins his discussion with the ten-point characteristics, and then goes on to extend and modify it to lay great emphasis on social practices and institutions. Another proponent of the archaeological survey method, Pedro Armillas played a key role in spreading Childe's ideas in the Americas. William Sanders' model of cultural evolution derived upon Childe's analysis, and all these scholars played their parts in further extending Childe's model and introducing it to new parts of the world.

Even today, Urban Revolution remains a major topic in research and publications undertaken by archaeologists. Having said that, there have also been some significant methodological innovations since Childe's time in the studies of early states and cities. Among which, the expansion of the archaeological survey method is commendable. These methods helped archaeologists in reconstructing changes in settlement patterns and agricultural practices through time. Survey methods have proved to be of tremendous consequence in investigating the patterns of political and economic dynamics on a regional level and have been further refined these days with the use of satellite imagery and advances in geomorphology. Childe's



traits and materialist perspective retain significance in the conceptual and functionalist approaches employed by archaeologists to explain Urban Revolution.

Although not primarily about cities, Childe's concept of Urban Revolution did focus on city planning and is in tune with present understandings of planning in ancient cities. Moreover, his observation that 'no specific elements of town planning can be proved characteristic of all cities' is significant because it brings out the specific elements in urban planning which were unique in each case. Contemporary approaches further highlight this uniqueness by embracing the concept of variation in form, both within and between cultural traditions.

1.3.5 Conclusion

Thus, Childe's model of Urban Revolution was the first substantial synthesis of archaeological evidence on the early states and cities and made a significant advance in evolutionary scholarship of the twentieth century. It also forms the basis of subsequent studies and theorization on the theme. Studies on ancient complex societies are still dominated by the themes of agricultural expansion, surplus production, urbanism, craft specialization, social inequality and the emergence of state.

IN-TEXT QUESTIONS-2

A. Fill in the blanks

1. Neolithic Revolution denotes the transition from hunting and gathering for subsistence to
2. The evidence of the earliest urban society comes from Ur in
3. Every producer had to pay over the small surplus obtained with limited technical equipment.
4. fulfills the symbolic role of the concentration of social surplus.
5. is the author of the book *The Evolution of Urban Society*.

B. Short Notes:

- (i) Define Urban Revolution.
- (ii) Discuss the significance of Childe's model of Urban Revolution.

C. Long Question:

What are the ten characteristics of a city?



1.4 LET US SUM UP

- In the traditional sense, civilization is a set of beliefs, way of thinking or a way of life altogether. It is seen as a new stage in human development, closely connected with the emergence of cities and urban life ways.
- The term civilization and its attributes also share a unique relationship with the word 'culture', with the two displaying characteristics of distinction as well as overlap.
- The first and earliest civilizations are believed to have developed with the invention of farming. It is seen as the basis of the emergence of early civilizations in Mesopotamia and then in Egypt, and some time later in India and China.
- Childe's ten characteristics of a city were based on a series of interrelated social, political, cultural and economic changes that resulted in the formation of the earliest cities and states.
- Childe's model of Urban Revolution was the first substantial synthesis of archaeological evidence on the early states and cities and made a significant advance in evolutionary scholarship of the twentieth century. It also forms the basis of subsequent studies and theorization on the theme.

1.5 ANSWERS TO IN-TEXT QUESTIONS

Answers to In-Text Questions-1

- A. 1. True 2. False 3. True 4. False 5. True
- B. See section 1.2.1
- C. See section 1.2.2

Answers to In-Text Questions-2

- A. 1. Farming 2. Mesopotamia 3. Tax 4. Monumental architecture
5. Robert McC. Adams
- B. (i) See section 1.3.2
(ii) See section 1.3.4
- C. **Long Question:**
See section 1.3.3



1.6 REFERENCES AND SUGGESTED READINGS

- Childe, G. (1950). *The Urban Revolution*, *The Town Planning Review*, Vol. 21, No. 1, April 1950, pp. 3-17.
- Redman, C.L. (1978). *The Rise of Civilizations: From Early Farmers to Urban Society in the Ancient Near East*. San Francisco: W.H. Freeman.
- Scarre, Christopher and Brian M. Fagan. (2008). *Ancient Civilizations* (3rd edn.), New Jersey: Pearson/Prentice Hall.
- Whitehouse, R. (1977). *The First Cities*. Oxford: Phaidon.



LESSON 2

BRONZE AGE AND DEBATING METAL TECHNOLOGY

STRUCTURE

- 2.0 Objectives
- 2.1 Introduction
- 2.2 The Bronze Age
 - 2.2.1 Background and Meaning
 - 2.2.2 Sources
 - 2.2.3 Significance of the Bronze Age
 - 2.2.4 Variety of Bronze tools, weapons and ornaments
 - 2.2.5 Conclusion
- 2.3 Debating Metal Technology
 - 2.3.1 Introduction
 - 2.3.2 What do we understand by technological change?
 - 2.3.3 Bronze Metallurgy
 - 2.3.4 Impact of Bronze Metallurgy
 - 2.3.5 Conclusion
- 2.4 Let us Sum up
- 2.5 Answers to In-Text Questions
- 2.6 References and Suggested Readings

2.0 OBJECTIVES

After reading this unit you should be able to:

- define the Bronze Age
- understand the significance of the development and use of metal



- understand the debate around metal technology

2.1 INTRODUCTION

The Bronze Age was the period characterized by the predominant use of bronze metal for the making of tools and implements. This was a significant improvement over the preceding Stone Age, as metal tools turned out to be more durable and effective. Moreover, the impact of this discovery was not just restricted to the technological sphere, but instead percolated into the social, political, economic and cultural sphere as well.

2.2 THE BRONZE AGE

The history of human societies is traditionally divided into three periods, based on the material used for making tools and implements. The three periods have been generally referred to as the Stone Age, the Bronze Age and the Iron Age. As the name clearly suggests, the first period was marked by the use of knives and axes made by grinding or chipping stone, bone or ivory, with stone being used as the predominant material. The second period begins when humans gained the knowledge that certain kinds of stone under suitable conditions can yield a substance which can be shaped as per requirement when hot, and on cooling retains the very shape, resulting in a much harder and durable tool or implement. This stage is known as the Bronze Age, for copper, the first metal to have been used industrially, was found mixed with tin in the majority of the early metal tools, as they came to be known as bronze tools. The third stage in this progressive use of technology starts with the replacement of bronze on a large scale with a much commonly occurring metal, known as iron. Our focus here lies upon the middle epoch in this series, which occupied a disproportionately short, but significant phase in the development of human culture.

2.2.1 Background and Meaning

Although copper was known in some regions as early as 6500 BCE, bronze (an alloy of copper and tin) came into use around the second millennium BCE. Interestingly, the bronze age coincided with all factors associated with civilizations, i.e., the foundation of first cities, the invention of writing, the beginnings and development of science, the establishment of organized political authority, and the beginning of long distance trade and resultant cultural exchange, discussed in detail in the previous lesson. Alongside being a stage of social development, the Bronze Age is also a period when civilization flourished simultaneously in Mesopotamia, South Asia, Egypt and Central Asia (you will read about these civilizations in more detail in the coming units). Peter Northover (1988) argues that, “Bronze Age is a loaded terminology with a conventional meaning that varies from region to region. Here it defines that period when copper and copper alloys were predominant for all metal products save



those of precious metals.” This is too broad a definition, as in archaeological usage the term bronze age is mostly reserved for intentional alloy of copper with tin. Thus, the bronze age can simply be defined as the period characterized by the predominant use of bronze in the production of functional parts of major categories of cutting and piercing implements which turned out to be fundamental for the development of early technology.

But, unlike the transition to iron-based technology, which was sudden or abrupt, the adoption of bronze was both abrupt and gradual, depending on the region we are looking at. This difference in the very use of these technologies can be partly explained by the availability of the metals used to produce iron or bronze implements. In most parts of the ancient world, bronze is not found naturally. Tin deposits are quite rare, and although copper is available in many parts, the ores are unevenly distributed and varied. While, on the other hand, iron is much easily found and possesses technological qualities distinct from bronze. Nevertheless, these adverse factors could not stop the adoption of bronze as a dominant metal for the making of weapons, tools, vessels and ornaments.

The conventional meaning associated with the Bronze Age is therefore employed for chronological or classificatory purposes, but there are other more interesting uses of the term, especially as a stage in technological evolution. However, archaeologists are doing away with the evolutionary schemes and adopting what is referred to as the ‘Bronze Age Hypothesis’, which is characterized by the following features:

- The fundamental use of bronze in both social reproduction and economic production.
- This rendered it crucial for these societies to obtain copper and tin.
- Since a vast majority of them did not have local supplies of copper and tin, they had to participate in exchange networks, which brought them in close contact with distant sources of these metals.
- As a consequence to this, the Bronze Age witnessed a significant increase in exchange between different cultures.
- The exchange system was controlled by the emerging elites, who were becoming more prominent as compared to the previous age.

Thus, the bronze age was marked by significant differences from anything which came before or after. Shereen Ratnagar terms the Bronze Age as unique for the earliest river valley civilizations that relied on metal for production and the metal in this case, whether copper, tin, lead, was scarce and had to be brought in from far and less developed regions. These societies which were surviving on contrasting levels of technology interacted to carry out trade, not just in luxury items but even for basic requirements.



2.2.2 Sources for the Bronze Age

The Bronze Age civilizations around the world offer both written records and the material remains of those societies. Writing, during this time, was used for a number of purposes, from the Mesopotamian cuneiform to the Egyptian hieroglyphs. Other forms of archaeological evidence consists of a range of everyday objects like tools, weapons, pottery and ornaments; monumental architecture and art forms. All this evidence is available at our disposal, while many organic materials were also produced and used by these people which have not survived the ravages of time, like cloth, wood, reeds, etc. A lot of information about the earliest civilizations like Mesopotamia and Egypt has also been derived from the texts produced during this time, as unlike the Harappan civilization, scholars have been able to decipher their writings. The burial styles and patterns also reveal a lot about the life-ways of the people, especially the elite section of society.

2.2.3 Significance of the Bronze Age

We come across the major Bronze Age civilizations in the river valleys, like Mesopotamia in the Tigris-Euphrates region, Egyptian in the Nile, Harappan in the Indus river valley and Shang in the Yellow river. Most of the important elements of modern material culture are traced back to the Bronze Age. This is more so because it was the first time when early humans attempted the transformation of the physical properties of a substance (metals, in this case) by heating it. This was a radical breakthrough as copper was superior over stone or bone, on account of being malleable and fusible. It can also be cast into different shapes and forms with absolutely no limit to the size of the object that is being created. The most commonly used technique was metal casting, wherein the material was heated and liquefied, it was then poured in a cast shaped as per the requirement. On cooling, the liquid metal took the shape of the receptacle, which was then broken and removed, giving in hand the desired tool or weapon. Thus, the first smiths were involved in further developing a highly complicated technique by the effective utilization of the discoveries of the time. To fruitfully focus on their work they had to spend long hours practicing and producing the required goods and therefore those engaged in the production of food as their primary activity needed to provide for the metalsmiths as well.

Since both copper and tin were not so easily available in many parts of the world, the Bronze Age communities had to undertake both internal and external trade. According to Childe, this is also one of the prominent differences between the Neolithic and Bronze Ages, as the former was relatively self-sufficient. To carry out short and long distance trade successfully, as the Bronze Age communities did, a significant degree of political stability is one of the necessary preconditions.

Early studies of the use of bronze were dominated by the diffusionist approach, which took into consideration the agency of ‘prospectors’ travelling from the Near East in search of tin and copper. Gordon Childe too supported the diffusionist assumption based on the uniformity



witnessed throughout Europe and the Ancient East. He prefers to call it “the diffusion of metallurgical knowledge”, which played a crucial role in the advent of the Bronze Age.

2.2.4 Variety of Bronze tools, weapons and ornaments

The Bronze Age people had an immense variety of tools, weapons, vessels and ornaments at their disposal. As a metal, bronze was tough and malleable and therefore provided strong tools with a range of tool types and sharp cutting edges. This enormous wealth of objects makes it possible to recreate a picture of that period in history. It must be kept in mind however, that the very materials used for the production of these tools and weapons, like copper and its alloys, were scarce everywhere, especially in regions where Bronze Age first emerged. One of the most common and important family of tools is referred to as ‘celt’, which includes axe-heads, adzes and chisels. The celt was a composite tool, as it was mounted on a wooden staff or shaft before use, and could be made into a variety of tools. Daggers and swords mostly served as knives during this time. Since metal was scarce and not available locally, an attempt was made to use it judiciously by tipping the missile weapons with bone, flint or horn points. Alongside these tools and weapons, people during the Bronze Age also wore ornaments made of metal, like pins, finger-rings, pendants and necklaces, etc. Metal was also used to manufacture dishes, cups and cauldrons.

Bronze provided significant advantages over previously used materials for tool-making, like stone, bone or wood, and it made possible to make composite instruments like ploughs as well as sailing boats with wooden planks. But the scarcity of copper and tin meant that only the elites could organize long-distance transactions of bronze. With organization, they naturally controlled the production processes as well, especially those craft activities which depended on metal tools. The focussed zones where the Bronze Age cultures developed were therefore the areas of the great river valleys, which supported abundant agricultural produce.

It was no coincidence for the cities to develop as centres of the development and production of technical skills. Cities were the locus of the most elaborate architecture and rituals, including the king’s palace and the temple of gods. According to experts, the king’s palace was the seat of various trades and crafts and therefore the most skilled craftsmen were attached to these elite establishments. The major consumer group of the Bronze Age also consisted of these elites. This further meant that the producers had very limited outlets available at their disposal, with internal economic expansion not being possible. That’s exactly the reason as to why Bronze Age economies are defined as ‘outward-looking’ and ‘elite-centred’. An item linked directly to royalty imbibed a symbolic value and special social status, in turn establishing political affiliation of that person to the king.

The state also ensured that the long-distance exchanges happened smoothly. The use of standardized weights and measures in these civilizations is an important indicator of this. Unlike a set of repeated and continuous actions performed by a dedicated mercantile community, trade during the bronze age was characterized by individual expeditions carried



out by officials (messengers in most cases) to procure some specific commodity. A system of tribute payment also existed, and most of the times these tributes were given as gifts. The tributes were a combination of things special or particular to a region. The Mesopotamian civilization also gives epigraphic evidence of war booty. Although bronze tools and weapons display a great degree of similarity, we come across a wide range of differences in the pottery, burial rites and other characteristic features, which will be discussed in greater detail in the coming units.

2.2.5 Conclusion

The Bronze Age signifies the beginning of the time period when people started using metal (in this case copper and its alloys) for making tools and weapons. A major advantage of using bronze over stone was the ability to fashion more complex shapes and sizes from the material, using the technique called casting. The very process of alloying or mixing two or more metals was a breakthrough, as it indicates that the metallurgical skills had advanced to an extent when two metals could be combined to produce a new one. This required a deep knowledge of the transformation of physical properties of a material upon heating and cooling. Further, the dependence on copper and tin as raw materials enabled long-distance exchanges between communities, leading to other socio-economic and political transformations.

IN-TEXT QUESTIONS-1

A. State True or False:

1. The history of human societies is divided into Stone Age, Iron Age and Bronze Age, respectively.
2. Bronze came to be used around the second millennium BCE.
3. The Bronze Age civilizations around the world offer no written records.
4. Celt is one of the most common stone tool.
5. The method of casting was employed to produce bronze tools and weapons.

B. Short question:

Define the Bronze Age Civilization.

C. Long question:

Discuss in detail the significance of the discovery and use of bronze for tool making.



2.3 DEBATING METAL TECHNOLOGY

2.3.1 Introduction

The invention and development witnessed in the metallurgical sphere during the Bronze Age had far-reaching consequences for contemporary societies. Technically, a new set of skills became necessary and the knowledge of these skills was passed on from one region to the other.

2.3.2 What do we understand by technological change?

Shereen Ratnagar defines technology as a cultural constituent which brings about the interaction between a group and the surrounding environment through the requirement for shelter, clothing and food, transportation of people and goods, recording of information, ornamental and aesthetic needs, etc. As per Marx's "ideas of progress" hypothesis, later-developing forms of technology are as a rule superior to the previous ones and the replacement of old objects with new ones is the result of a linear process. This deterministic understanding of technological change and its impact has faced criticism over the period of time, with the effectiveness of technological alternatives usually being propounded as the main criteria for technological change. But, having said that, we do have some instances when sequences of technological changes are not so obvious. Nevertheless, the topic that concerns us here is the usefulness of the production and use of metal objects during the Bronze Age. These metal objects definitely turned out to be superior and more effective than the preceding stone objects. Technology acted as a catalyst in this case, but the contemporary social and historical contingencies also played a major role in the retention of these objects. Therefore, here we will focus on two important aspects, firstly, the developmental focus on the technology itself, and secondly, the conditions favourable to the discovery, spread, and continuation of bronze.

2.3.3 Bronze Metallurgy

As is evident from the use of bronze for making tools, weapons and ornaments, discovery of metal technology did play a crucial role in leading to long-term social and economic changes witnessed by early civilizations. Metallurgy denotes a series of complex operations, from finding and extracting the metal ore to smelting and processing it with the help of heat and specialized tools. The invention of metal technology considerably impacted the time required for producing tools and weapons and rendered it possible to mass produce similar artifacts. But this is not such a simple process. It requires mastering several physical and chemical processes and reactions, as well as to follow a sequence of operations, keeping a track of the time duration.

The evidence in support of the Bronze Age indicates that people possessing a knowledge of working with this metal had moved around, transferring the knowledge and expertise to other



parts of the world. There are also instances of copper and bronze metallurgy being invented independently in some parts like the Near East and the Mediterranean region. Metallurgy also signifies a long process of learning and specialization. Therefore, the people involved in the task need to dedicate a lot of time and effort to gain expertise and then pass it on to another person. Thus, the entire process impacted social organization by creating a new class of specialists dedicated to the task.

Copper artifacts were in use as early as the 7th millennium BCE as evidence from the site of Çatalhöyük in Turkey suggests. This was extracted from copper ore using the extraction process called smelting. These earliest metal artefacts did not always have an economic role, as they were sometimes used as dress accessories or ritual objects. Alloying of copper or the introduction of impurities in the copper increases its strength and hardness. Bronze is formed by this very process of alloying copper, on introducing tin, arsenic or lead to the metal.

To extract copper the process of smelting was used. Smelting means to bring the ore to a sufficiently high temperature for it to melt. The ore gets decomposed in the process (charcoal is used as the most common reducing agent in case of copper ore), resulting in the separation of gases or other elements leaving the base metal behind. It is believed that the technique of smelting was a chance discovery during pottery firing sessions as copper smelting too requires high temperatures and a reducing environment, two preconditions of pottery kilns.

Although the Neolithic Age also witnessed a long-distance exchange of goods, the intensity of commercial exchanges considerably increased during the Bronze Age. An increase in trade led to the establishment of “fixed routes”. Like in other phases of history, the exchange of goods in the Bronze Age also led to an exchange of ideas, ornamental patterns and technologies. Copper and tin were exchanged for other goods like pendants, beads, etc. The exchange of metals along these long-distance trade routes resulted in the emergence of metallurgical centres in regions earlier devoid of local resources.

2.3.4 Impact of Bronze Metallurgy

The invention and development witnessed in the metallurgical sphere during the Bronze Age had far-reaching consequences for contemporary societies. Technically, a new set of skills became necessary and the knowledge of these skills was passed on from one region to the other. Since these skills required long-term learning it resulted in the creation of a new social category, consisting of people who specialized in it. Economically, the raw materials used to make bronze and the tools and weapons produced therein became more abundant. The rise of metallurgical activities also led to the rise and development of trade routes. From the social point of view, apart from creating a class of specialists, the new artefacts also introduced new scales of value and unique ways to demonstrate divisions within the society. The socially distinct and economically privileged category of elites accumulated artefacts made of bronze, and other metals like gold and silver. Thus, these were used as symbols of social status and power and disparity.



A reading of the Bronze Age also brings forth the question as to whether development in metallurgy was one of the causes for the establishment of states and cities? Since copper could be given shape when in liquid form, this technological innovation rendered it possible to mass produce tools and weapons using identical clay moulds. The long-distance trade required for the procurement of copper and its alloys, as the metal was not available locally, would have needed a sophisticated level of political and elite organization. A cluster of craft workshops also came to be established in cities and nearby towns. Thus, a connection between the development of metal technology, long-distance exchange of goods and the coming up of state hierarchies responsible for production and transportation can definitely be established. Naturally, with the collapse of the state structures, the technological advancements achieved during the bronze age declined as well.

2.3.5 Conclusion

Thus, the transition from stone to metal objects is one of the major technological changes in the history of humankind. Although a lot of major studies focus on the new materials and technologies, what more needs to be done is to study the late lithic industries in order to make sense and understand the significance of the shift from stone to metal.

IN-TEXT QUESTIONS-2

A. Fill in the blanks

1. According to Marx's "ideas of progress" hypothesis, later-developing forms of technology are as a rule to the previous ones.
2. denotes a series of complex operations, from finding and extracting the metal ore to smelting and processing it with the help of heat and specialized tools.
3. Copper artifacts were in use as early as the 7th millennium BCE at the site of in Turkey.
4. process was used for copper extraction.
5. The intensity of commercial exchanges considerably during the Bronze Age.

B. Short Notes :

- (i) Define Technology.
- (ii) Discuss the smelting process.

C. Long Questions :

What impact did metal technology have on contemporary societies?



2.4 LET US SUM UP

- The bronze age was a period characterized by the predominant use of bronze in the production of functional parts of major categories of cutting and piercing implements which turned out to be fundamental for the development of early technology.
- Interestingly, the bronze age coincided with all factors associated with civilizations, i.e., the foundation of first cities, the invention of writing, the beginnings and development of science, the establishment of organized political authority, and the beginning of long-distance trade and resultant cultural exchange, discussed in detail in the previous lesson.
- The Bronze Age civilizations around the world offer both written records and the material remains of those societies.
- As a metal, bronze was tough and malleable and therefore provided strong tools with a range of tool types and sharp cutting edges.
- For the invention and development of metal technology a new set of skills became necessary and the knowledge of these skills was passed on from one region to the other by specialists.
- The rise of metallurgical activities also led to the rise and development of trade routes.
- Alongside a class of specialists, the new artefacts also introduced new scales of value and unique ways to demonstrate divisions within the society.

2.5 ANSWERS TO IN-TEXT QUESTIONS

Answers to In-Text Questions-1

- A. 1. False 2. True 3. False 4. False 5. True
- B. See section 1.2.1
- C. See section 1.2.3

Answers to In-Text Questions-2

- A. 1. Superior
2. Metallurgy
3. Çatalhöyük



4. Smelting
 5. Increased
- B.** (i) See section 1.3.2
(ii) See section 1.3.3
- C.** See section 1.3.4

2.6 REFERENCES AND SUGGESTED READINGS

- Childe, G. (1930). *The Bronze Age*. Cambridge: University Press.
- Ratnagar, S. (2011). Approaches to the Study of Ancient Technology. *Essays in Indian Historiography*, ed. by S Bhattacharya. Delhi: ICHR and Primus Books.
- Manclossi, F, Rosen, S and Boeda, E. (2019). From Stone to Metal: the Dynamics of Technological Change in the Decline of Chipped Stone Tool Production. A Case Study from the Southern Levant (5th– 1st Millennia BCE), *Journal of Archaeological Method and Theory*, December 2019, DOI: 10.1007/s10816-019-09412-2.
- Pare, C. F. E. (2000). *Metals Make the World Go Round: The Supply and Circulation of Metals in Bronze Age Europe*. Oxford: Oxford Books.
- Ratnagar, S. (2001). The Bronze Age: Unique Instance of a Pre-Industrial World System?, *Current Anthropology*, Vol. 42, No. 3, pp. 351-379 <http://www.jstor.org/stable/10.1086/320473PaPre>, .



BRONZE AGE CIVILIZATIONS: INDIA AND CHINA

STRUCTURE

- 2.0 Objectives
- 2.1 Introduction
- 2.2 The Indus Valley Civilization
 - 2.2.1 Harappan Cities
 - 2.2.2 Harappan Artefacts
 - 2.2.3 Trade and Exchange
 - 2.2.4 Religion
- 2.3 The Chinese Civilization
 - 2.3.1 City Planning
 - 2.3.2 The Erlitou Economy
 - 2.3.3 Bronze Production
- 2.4 Let us Sum up
- 2.5 Answer To In-Text Questions
- 2.6 References and Suggested Readings

2.0 OBJECTIVES

After reading this unit you should be able to:

- understand the idea of civilization
- understand the evolution of complex societies associated with the Bronze Age Civilizations in India and China
- delve into factors leading to the use of metallurgy



2.1 INTRODUCTION

The Bronze Age began almost simultaneously across the three continents of Asia, Africa and Europe around 3300 BCE, when different cultures learned that mixing copper with tin led to much better tensile strength as compared to their use in isolation. While iron is generally abundant, its smelting was not possible until much later. The Bronze Age preceded the Iron Age simply because the smelting of tin and copper was relatively easier than that of iron: tin melts at 232°C, copper at 1085°C, while iron requires a high temperature of 1250°C. Western Asia and Near East are commonly held to have entered the Bronze Age first. Different cultures either learned it at around the same time or the knowledge spread from one region to another.

In India and China, the Bronze Age began at nearly the same time. While in China the early Bronze Age is synonymous with Shang Dynasty, in India the Bronze Age is almost coterminous with the Indus Valley civilization, though not confined to it. Long-distance travel became imperative to obtain raw material and it was even encouraged to some degree because of the high stakes attached with the production of metal tools and implements. This resulted in the widening of trade and exchange networks among the Chalcolithic or the Copper Age cultures. Moreover, the knowledge of metal technology did not lead to the total abandonment of stone tools and weapons, as parallel-sided blades, or other microlithic tools continued to be employed as essential items of use. The major benefit of using copper and bronze was that improved technology and skills gave a further boost to craft specialization, particularly in areas replete with raw materials and a group of people ready to learn and improve upon the metal technology. The production and use of metals also introduced socio-economic complexities into contemporary structure as the ones producing artefacts were different from those in authority.

The distinction between culture and civilization has already been discussed in the previous unit. In archaeological parlance, culture signifies the life-pattern of a particular society, and so there can be multiple cultures existing simultaneously. Life-pattern here is inclusive of the social relations, language, habitual environment and rituals performed by a society. Cultures were generally named after the tool types used by the human groups. Since the earliest tools were made using stone as the chief material, different cultures were characterized by differences in the size of the tools, i.e., from the larger and older tools of the palaeolithic cultures, to the smaller ones produced during the Mesolithic, and ultimately, the sharpened and polished stone tools of the Neolithic cultures. In addition to the tool typology, cultures were also labelled based on the types of pottery or characteristic settlements. Pottery-types generally help in identifying the people who produced these wares. We also describe cultures using labels like hunter-gatherers, cattle keepers and farming communities. These labels are more descriptive than the previous ones, and give us a glimpse of the socio-economic organisation of the times. Furthermore, cultural similarities do not always indicate evolution



from the same group. Artefacts and lifestyles can sometimes take similar forms, even when the ones producing them belong to different cultural groups. And in case of evidence favouring connections, a demarcation needs to be maintained between similarities and imitations.

On the other hand, Civilization refers to a more complex and sophisticated pattern of life, characterized by urban living, the development of writing, aesthetic advancements and religious beliefs and practices. These urban societies display signs of deeper stratifications and unequal distribution of resources, with a lot of authority accumulated in the institution of the State. A civilization usually covers a wide geographical region, displaying a similarity of artefacts as a result of interdependence of people affected by it in various ways.

The key feature that is almost synonymous with the Chalcolithic is the emergence of the city. Urbanization refers to the new complexity in social life which arose with the growth of agriculture. Irfan Habib identifies two critical inventions pertaining to this: (1) additions to the inventory of crops cultivated, making it possible to obtain both food and 'industrial' crops; and (2) the use of castration (the first step in bio-engineering), which enabled oxen to be yoked to the plough and to the cart, thereby helping to till a much larger area with the same amount of manual labour and to transport by cart the surplus grain to the towns. With these developments and the discovery of Bronze, it became possible for cities to emerge under the supervision of a state. Hence, this period is also referred to as the first urbanization in India.

2.2 THE INDUS VALLEY CIVILIZATION

The earliest excavations related to the Indus Valley Civilization were conducted at Harappa (Punjab) and Mohenjodaro (Sind). These excavations have yielded evidence of the most extensive and important urban complexes found anywhere in the Indian subcontinent. It was the most widespread ancient river valley civilization, extending from Shortughai (northern Afghanistan) in the north to Oman in the Arabian peninsula, and incorporating the north-western mountains to as far east as the Upper Doab region. Some other large and small sites have been excavated later, like Kalibangan in Rajasthan, Banawali, Rakhigarhi and Mitathal in Haryana, KotDiji in Sind, and the port cities of Dholavira, Lothal and Surkotada in Gujarat. While a few others like Ganweriwala (southern Punjab, Pakistan) still await excavation. Most of the Harappan cities are large in size, approximating a hundred hectares, with the smaller towns close to fifty hectares. The largest among them is Mohenjodaro, with a total area of two hundred hectares.

The Harappan civilization is generally divided into three phases: the pre-Harappan phase (from the late fourth millennium BCE to 2600 BCE); the Mature Harappan phase (from c. 2600-1900 BCE) and the Late Harappan phase (extending upto 1750 BCE). The pre-Harappan phase is often referred to as the Early Harappan, to suggest a continuity of sorts into the Mature phase. A cluster of sites in the Bolan region, including Mehrgarh, Nowshehra



and Pirak, depict cultural continuity from the early to the mature phase, also furnishing evidence on the decline of the civilization.

2.2.1 Harappan Cities

The large Harappan cities were sustained from the surplus produced in the countryside, alongside other resources collected from neighbouring regions. This became possible in the first place because of interaction between these cultures in obtaining raw materials, making artefacts out of them and then trading them off in an organized manner. Harappan cities functioned as centres for specialized craft production, which were then traded both within and outside the civilization. This required considerable skill and organization of dedicated craftsmen.

The Harappan cities also display a sophisticated level of town planning and civic organization. The city was generally divided into a smaller citadel area, situated in the west, where institutions of power and civic life were located, alongwith places used for rituals, public gatherings; and a larger residential area to the east, which contained houses, streets, etc. This division or arrangement is unique to the Harappan set-up, and was discontinued in the later historical periods. The one thing which remained common between the Harappan urbanization and later ones was the tendency to concentrate professional groups in particular locations. Thus, the Harappan cities appear to maintain an organized urban order, to effectively enhance the economy managing land, water and labour.

For the structures of the citadel, large man-made brick platforms were used to prepare the foundation, in order to protect them from floods and other damages as mostly the cities were located on the river banks. The Harappan cities followed a grid-pattern, with roads oriented to the cardinal directions, and cutting each other at right angles. This well planned layout assisted civic facilities like the drainage system, with house drains linked to the main one on the street. Houses generally had a courtyard, with rooms opening on to it. Individual wells, bathing spaces and drains have been found in most Harappan houses. Drains were constructed using kiln-fired brick, while the houses were made of mud-bricks. In some regions like Dholavira, stone was used more extensively for making these structures. As compared to the bricks, the quarrying, dressing and transportation of stone was much more labour-intensive and would therefore have required a lot of planning and management. This renders the city-plan of Dholavira unique. Here, much elaborate arrangements could be seen for the storage of water, rather than food. And these large water reservoirs were located within the fortification walls of the city. Thus, the construction of Harappan cities included knowledge of geometry and survey.

2.2.2 Harappan Artefacts

Harappan style goods and artefacts have been discovered over an extensive area. But this does not necessarily imply cultural uniformity over the entire region. A lot of variations have



been discovered indicating that local cultures functioned underlining the Harappan system. This interaction between a well-established civilization and local cultures is one of the unique aspects of the subcontinent.

To achieve a certain degree of craft specialization, the Harappans collected raw and processed materials from a number of nearby sites and locations. So, while copper was mined in Baluchistan and Rajasthan; semi-precious stones were collected from western India; lapis lazuli from the Pamirs or the Chagai Hills (Baluchistan) was made into beads, with some even traded as raw material in exchange for something else. The region of Gujarat mainly fulfilled the requirement of timber, such as teak; while shell, used to make ornaments, came from the coast. Bead-making was an extensive and thriving industry during the Harappan times, with a range of items like, gold, shell, steatite, copper and semi-precious stones, ivory and faience used to make beads. The workshops for bead-making and other craft activities were located in the cities and the etched carnelian bead is one of the characteristic features of Harappan civilization. The discovery of large quantities of unfinished items from a particular location acts as the identifying factor for these workshops.

The Harappans produced and used a distinctive ware, with designs of birds, plants and abstract geometric forms, painted in black colour on a red surface. Special care was taken to produce graded weights with chert being used as the chief material, as well as measuring rods. The presence of these again establishes evidence of Harappan links of exchange with distant lands. A dockyard has been found in the port city of Lothal in Gujarat. There is also what has been identified as a warehouse in the vicinity, which has been described by scholars as a hub of exchange and the zone where products from the several craft workshops were collected, stored and then transported further. The profits coming in from such thriving exchange must have played a huge part in keeping the cities economically viable.

Seals are one of the most puzzling remains of the Harappan culture. These are generally small and flat, square shaped or rectangular, made of steatite, and contain a pictorial motif depicting humans or animals or a combination of the two. The seals sometimes bear inscriptions too, but these remain undeciphered till date. The Harappan script is generally described as pictographic or logographic, which could point towards the use of more than one languages. The possible list of languages include Indo-Sumerian, Proto-Dravidian, Indo-Aryan and Austro-Asiatic. However, it has not been possible to establish links with any one of them yet. Nonetheless, the fact that Harappan signs developed indigenously and are a lineal ancestor to subsequent cultures remains undisputed.

2.2.3 Trade and Exchange

As entrepreneurs in trade, the Harappans were in constant search of valuable raw materials. This resulted in intense activity in present-day Gujarat and northern Maharashtra. Lapis lazuli from Pamirs and Chagai Hills of Baluchistan in Pakistan was in demand in Mesopotamia. The Harappans were also attracted towards the copper deposits in Oman in Arabia, as copper was in demand further west. We do find ample evidence on Harappan trade with



Mesopotamia in the form of Harappan beads, weights and seals at Mesopotamian sites, and also Harappan objects as far as sites in the Persian Gulf. The Mesopotamian texts also contain references to the land of Meluhha (which is identified as the Indus valley) and its people, alongside a list of exchange items like carnelian, lapis lazuli, ivory, wood and gold, all things familiar to this region.

India has also been involved in exchange with the Persian Gulf by means of coastal shipping from western India to the Tigris-Euphrates delta. Passes in the north-west mountains, particularly the Bolan valley, enabled the Harappans to maintain trading links with Iran and Afghanistan. The Harappan cities were situated close to the availability of resources and means of transportation by river or sea. Within India, the Sothi-Siswal cultures in Rajasthan and Haryana flourished simultaneously with the Harappan civilization.

2.2.4 Religion

One major difference between the Harappan and other ancient river valley civilizations was the absence of any religious buildings and evidence of elaborate burials. We do not come across any magnificent icons or elaborately adorned structures. Therefore, there were no temples to play the usual role of social bonding amongst the population. People did not practice the tradition of ancestral rituals as well, for they tended to migrate away from the cities as decline set in. The female figurines found at Harappan sites are connected to the prevalence of goddess worship. This conclusion is reached based on the continuity witnessed in the worship of various goddesses throughout Indian history. The Harappans also laid some emphasis on fertility rituals, but how elaborate these ceremonies tended to be remains uncertain till date. Fertility rituals were also visible in contemporary Chalcolithic cultures within the Indian subcontinent, and therefore the probability of the Harappans practicing the same increases manifold.

The evidence of small, oval-shaped structures containing traces of ash and burnt grains has been identified as fire altars by scholars. However, they could be hearths as well. Some even suggest the presence of shamanistic religion, but this does not fit in well with the urban character of the Harappan civilization.

Another major difference is the simplicity of the burials excavated in Harappan cities as compared to the much elaborate tombs of rulers further west. In case of the former, grave goods generally consist of pottery of daily use, with a few other small items. Clearly, unlike their contemporaries, the Harappans did not consider burials as occasions to demonstrate status. Some post-Harappan burials belonging to the late second millennium BC have also been found in Harappa and the Punjab plains. Labelled as Cemetery H culture, these burials were accompanied by pottery which was different from the Harappan wares. Thus, the burial ritual displays a continuity, even with the emergence of new traits in the culture of the region.



IN-TEXT QUESTIONS-1

A. State True or False:

1. In India, the Bronze Age is identified with the Indus Valley Civilization.
2. The Indus Valley Civilization has yielded evidence of a rural society.
3. The largest excavated site is Mohenjodaro, with a total area approximating 200 hectares.
4. A dockyard had been excavated in the Harappan city of Kalibangan in Rajasthan.
5. Mesopotamian texts refer to the Indus Valley and its people as the land of Meluhha.

B. Short question:

Prepare a list of the Harappan goods and artefacts.

C. Long question:

Discuss the distinctive features of the Indus Valley Civilization, with a special focus on town planning.

2.3 BRONZE AGE CHINA

The Bronze Age in China began at Erlitou in the central valley of the Yellow River, to the southeast of modern Luoyang City in Henan Province, near where the Luo River meets the Yellow River. This is downstream from the “Three Gates Gorges,” where the Yellow River makes a dramatic bend from a north–south orientation to run west–east. From there, the river and all the people traveling along or near it have easy access to the vast Central Plains (Zhongyuan), the heartland of Chinese civilization. The Erlitou Culture inherited, extended, and built upon the cultures of the late Longshan era, such as Taosi and Dawenkou. It seems to have evolved most directly from the Taosi Culture, and the people who elevated Erlitou from a town to a metropolis likely migrated to the area from the north. The city at Erlitou represented the center of a cultural base that influenced a broad area of the middle Yellow River Valley, with links to more distant areas.

Beginning with the Chinese peoples’ earliest attempts in the mid- to late first millennium BCE to record their own history, and continuing throughout the imperial period, the Bronze Age was known as the era of “The Three Dynasties” (sandai), a term derived from tales of



mythic dynastic founders with sage-like and even magical powers. These Three Dynasties are individually known by the names Xia, Shang, and Zhou. Previous to the twentieth century CE, the only dynasty with known archaeological evidence was the Zhou. But after the discovery of inscribed oracle bones and a massive urban and mortuary site, known as “the Ruins of Yin” (Yinxu), near present-day Anyang, the Shang is now fully attested as a historical reality. Both the Shang and Zhou have traceable patriarchal royal lineages and hence qualify, albeit roughly, as “dynasties,”—although many questions remain, such as about the exact genealogy of the early Shang kings and how long the reigns of each of them might have been.

2.3.1 City Planning

Archaeologists divide the Erlitou era into four phases. At the end of the third millennium BCE Erlitou was a town nestled into the valley of the Yi River, a tributary of the Luo River. The town evidently was located so as to take advantage of the easily defended terrain of a fertile valley. In the second and third Erlitou phases the town grew into a city that, at its height, around 1800 BCE, measured approximately 1.3×1.5 miles (1.9×2.4 kilometers) in area and supported a population of up to 30,000 residents. The city contained a number of large buildings built on pounded-earth platforms; some of these buildings were palaces inhabited by the city’s rulers, while others may have been used for the performance of rituals. The city was surrounded by a defensive wall, two meters thick, which is rather small compared with the massive defenses of cities of the late Longshan era. The reason for that remains unclear. It may be that the city’s rulers felt secure within the natural defenses provided by the city’s location. Possibly the city commanded such a large hinterland that its rulers felt no threat from neighbouring people.

Unlike earlier cities, Erlitou was laid out as a square, with important streets intersecting at right angles, a pattern seen in the design of later capital cities throughout Chinese history. Within the city walls were a number of neighbourhoods devoted to the production of artisanal goods, including jade, ceramics, and bronze; these workshops apparently operated under the sponsorship and control of the city’s rulers. The strong evidence of deliberate urban planning, with the prominent presence of platforms for palaces and ritual structures, represents a clear shift from the less regularized layout of pre-Bronze Age cities and seems to mark Erlitou as the capital of a substantial state.

2.3.2 The Erlitou Economy

The basis of Erlitou’s economy was agriculture. Farmers in the extensive hinterland of the city of Erlitou grew staple grains such as wheat, various types of millet, and rice (in southerly areas), as well as vegetable crops, and raised domestic animals such as chickens, pigs, and silkworms. Their farming methods were inherited from the mixed cultures of their Neolithic ancestors, but perhaps with greater reliance on irrigation and flood control works, as erosion and silting would have posed constant problems for these early farmers. A fairly extensive



and well-organized bureaucratic apparatus must have existed to force these farmers to turn over a portion of their crops to support the administrative, military, ritual, artisanal, and other functions of the urban political center. We can safely infer that the urban elites, comprising one or more ruling lineages, exerted control over wealth production and craft specialization, just as such control was a key to the political and economic success of the later Shang and Zhou societies.

Trade clearly made an important contribution to the wealth of Erlitou Culture. Salt, copper, jade, cowries, turquoise, kaolin clay, precious stones, timber, animals, foods, and fine crafted goods were imported into Erlitou both from nearby towns, which may have been directly or indirectly under the control of Erlitou itself, and over long distances, from the old Taosi economic zone in the north, to the Middle Yangzi River Valley in the south. Near Erlitou, the mountains provided metal, salt, and game, as well as agricultural products. The river valleys provided easy communication channels with more distant towns and their hinterlands, leading to the development of stable long-distance networks of trade. The infrastructure required to mine, transport, and process metals and other precious minerals from far distances for the bronze, jade, and other craft industries required secure relations with sources in the north and south. Imports to Erlitou would have included both raw materials and finished products; exports would have featured high-quality processed goods, especially bronzes. The discovery by archaeologists of Erlitou-style bronzes in the Wei River Valley, the Yangzi River Valley, and elsewhere in the Heartland Region suggests both long-distance trade and some measure of dominance over the natural resources essential to the Erlitou way of life and large-scale bronze production.

2.3.3 Bronze Production

The primary trait that separates the Xia culture from its Longshan Period Taosi cultural base is the development of a system to produce cast bronze vessels and other bronze products. The large-scale production of bronze goods was fostered and supervised by an administrative structure that could control resources, transportation, working populations, and a staff of craftsmen.

In contrast to the opportunistic working of native metallic copper, bronze production requires significant technical expertise in several areas. First is mining, including the identification of ores of copper, tin, and lead and the harvesting of those ores from the earth. Pyrotechnical expertise was needed to achieve sufficiently high temperatures, probably using charcoal rather than wood, for smelting the ores to extract their metal content. Alloying the metals in different proportions (spearheads and ritual vessels had different requirements of hardness and malleability, calling for different alloy recipes) also required control of high-temperature procedures. Additional expertise was required to make ceramic moulds, pour the molten bronze into the moulds, and provide the finishing touches to the castings. Administrative skill was needed to train, feed, and house these workers, and to supervise their work. In order to maintain a high level of production, it would be necessary to secure steady supplies of ores or



refined metals, whether by territorial control or trade, and that, too, drew on the administrative and financial skills of government personnel.

Once these technical details had been worked out, the craftsmen of Erlitou were able to produce larger and more ornate bronze vessels, as well as bronze weapons, more quickly and in greater quantity than ever before. Large-scale bronze production also assumed a large elite market for these ritual objects, both in this world and in the hereafter; indeed, the majority of known Erlitou-era bronzes have been found buried in tombs over a large and varied region in the middle Yellow River Valley.

IN-TEXT QUESTIONS-2

A. Fill in the blanks:

1. The Bronze Age in China began at in central valley of the Yellow River.
2. The was known as the era of “The Three Dynasties”.
3. Erlitou was laid out as a square, with important streets intersecting at angles.
4. The basis of Erlitou’s economy was
5. was needed to achieve sufficiently high temperatures for smelting the ores to extract their metal content.

B. Short Notes:

- (i) The region where Bronze Age Chinese Civilization emerged.
- (ii) City planning in Bronze Age China.

C. Long Question:

Describe in detail the basis of the Erlitou Economy.

2.4 LET US SUM UP

- The Bronze Age began almost simultaneously across the three continents of Asia, Africa and Europe around 3300 BCE, when different cultures learned that mixing copper with tin led to much better tensile strength as compared to their use in isolation.
- While in China the early Bronze Age is synonymous with Shang Dynasty, in India the Bronze Age is almost coterminous with the Indus Valley civilization.



- The earliest excavations related to the Indus Valley Civilization were conducted at Harappa (Punjab) and Mohenjodaro (Sind). These excavations have yielded evidence of the most extensive and important urban complexes found anywhere in the Indian subcontinent.
- The Harappan cities also display a sophisticated level of town planning and civic organization.
- The Bronze Age in China began at Erlitou in the central valley of the Yellow River, to the southeast of modern Luoyang City in Henan Province, near where the Luo River meets the Yellow River.
- Erlitou was laid out as a square, with important streets intersecting at right angles, a pattern seen in the design of later capital cities throughout Chinese history.
- The basis of Erlitou's economy was agriculture. Farmers in the extensive hinterland of the city of Erlitou grew staple grains such as wheat, various types of millet, and rice (in southerly areas), as well as vegetable crops, and raised domestic animals such as chickens, pigs, and silkworms.

2.5 ANSWER TO IN-TEXT QUESTIONS

Answers to In-Text Questions-1

- A. 1. True 2. False 3. True 4. False 5. True
- B. See section 1.2.2
- C. See section 1.2.1

Answers to In-Text Questions-2

- A. 1. Erlitou
2. Bronze Age
3. Right
4. Agriculture
5. Pyrotechnical Expertise
- B. (i) See section 1.3
(ii) See section 1.3.1
- C. See section 1.3.2



2.6 REFERENCES AND SUGGESTED READINGS

- Allchin, B., and R. Allchin. (1997). *Origins of a Civilization: The Prehistory and Early Archaeology of South Asia*. New Delhi: Viking, pp. 113-222.
- Chakrabarti, D.K. (1999). *India: An Archaeological History*. Delhi: Oxford University Press, pp. 151-261.
- Ratnagar, Shereen. (2001). *Understanding Harappa: Civilization in the Greater Indus Valley*. Delhi: Tulika.
- Ratnagar, Shereen. *Approaches to the Study of Ancient Technology*.
- Ratnagar, Shereen. (2007). *Makers and Shapers: Early Indian Technology in the Homes, Village and Urban Workshop*. Delhi.
- Singh, Upinder. (2008). *A History of Ancient and Early Medieval India: From the Stone Age to the 12th Century*. Delhi: Pearson Longman.
- Chang, K. C. (1987). *Shang Civilization*. New Haven, Conn: Yale University Press.
- Feng, Li. (2013). *Early China*, Cambridge: Cambridge University Press.
- Keightly, D. N. (1999). "The Shang China's First Historical Dynasty" in Michael Loewe and Edward L. Shaughnessey (ed.). *The Cambridge History of Ancient China. From the origins of Civilization to 221 BC*.
- Thorp, R. L. (2006). *China in the Early Bronze Age: Shang Civilization*. Pennsylvania: University of Pennsylvania Press.



UNIT III

BRONZE AGE CIVILIZATIONS-MESOPOTAMIA (SUMERIAN AND AKKADIAN PERIOD) / EGYPT (OLD KINGDOM) ECOLOGICAL CONTEXT, KINGSHIP AND STATE, SOCIAL PATTERN AND ECONOMY. ART, RELIGION AND CULTURE

STRUCTURE

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Civilization and Urbanization
- 3.3 Mesopotamia (Sumerian and Akkadian period):
 - 3.3.1 Geography
 - 3.3.2 North and South Mesopotamia
 - 3.3.3 Al-Ubaid Culture
 - 3.3.4 Uruk Culture
 - 3.3.5 Jamdat Nasr Culture
- 3.4 Civilization in Mesopotamia
 - 3.4.1 Urbanization
 - 3.4.2 Metallurgy
 - 3.4.3 State organization
 - 3.4.4 Writing
 - 3.4.5 Social Stratification
 - 3.4.6 Temple and Religion
 - 3.4.7 Monumental Public Work
 - 3.4.8 Trade



- 3.5 Civilization in Egypt
 - 3.5.1 Geography
 - 3.5.2 Transitional Phase
 - 3.5.3 Civilization
 - 3.5.4 Urbanization
 - 3.5.5 Writing
 - 3.5.6 The State
 - 3.5.7 Monumental public works
 - 3.5.8 Religion and Society
- 3.6 Let us Sum Up
- 3.7 Answers to In-Text Questions
- 3.8 References and Suggested Readings

3.0 OBJECTIVES

After reading this unit, you will be able to:

- Describe ecological and other reasons for the emergence of Mesopotamian and Egyptian civilizations
- Understand the social complexities of these civilizations
- Gain an understanding of the distinct civilizational trait markers of both the civilizations

3.1 INTRODUCTION

In this unit we will understand what a civilization is and alongside trace the evolution of complex societies, especially in relation to civilizational trait markers such as religion, urbanization, social stratification ranging from early farming in Zagros to mature urbanization in southern Mesopotamia since Mesopotamia is considered to be the cradle of civilizations.

3.2 CIVILIZATION AND URBANIZATION

The post-neolithic times are marked by the emergence of civilizations as an ongoing process in the human adaptation. The word 'Civilization' has been derived from the Latin word *civilis*



meaning civil. Later, French term *civilize* meaning civilized was used in the context of civilization.

Recently, Archaeologists tend to relate civilization with attributes such as urbanization and state formation. Since archaeological research into early civilizations has been centered on excavation of cities, it becomes imperative to explain the origin of civilization within the context of cities and state organized societies. Such city-based civilizations have been marked to have some common characteristics such as, these societies are largely egalitarian, they are usually spread over a large territory like Mesopotamia and Egypt, the societies practice both agricultural and non-agricultural activities for sustenance followed by accumulation of capital in the form of taxation by the state, these societies also practice long-distance and internal trade, often there is a written script available, existence of monumental public works and buildings and lastly, some form of state controlled uniform religion.

V. Gordon Childe was the first archaeologist and historian to provide a comprehensive theory related to the beginning of civilization. Gordon Childe relates characteristics of Civilization with Urbanization. He suggests that there was an Urban Revolution that followed the Neolithic Revolution. According to the theory proposed by Childe, the post-neolithic period saw the growth of cities that were more extensive and densely populated than the previous settlements. The ten traits of civilization, as given by V Gordon Childe include: a) densely populated cities, b) existence of a specialist class, c) food surplus, d) centralized authority, e) accumulation of capital, f) class-stratified society, g) development of writing, science, and mathematics, h) long distance trade, i) unified religion, j) and monumental architecture. These character traits have been used by archaeologists as a check list for their study of early states. Although, V Gordon Childe's hypothesis has been criticized but it continues to be used as the basic reference point for the study of early civilizations. The urban revolutions of Egypt, Mesopotamia and India were based on the discoveries in metallurgy, transportation etc.

3.3 MESOPOTAMIA (SUMERIAN AND AKKADIAN PERIOD)

The word Mesopotamia has been derived from a combination of Greek words *Mesos*, meaning middle, and *potamos*, meaning rivers. Thus, meaning land between two rivers i.e. Euphrates and Tigris, roughly covering modern day Iraq and parts of Syria. Thus, Mesopotamia is considered as the gift of these two rivers. According to the archaeological findings, the transition from Neolithic to the Bronze age first took place in the region of Mesopotamia, which also produced the earliest civilization, the Sumerian Civilization.

3.3.1 Geography

The region comprised of numerous city-states often contesting for power. Rather than high population concentration, this region saw an exceptional degree of nucleation of population in large urban centres. Also characteristic of Mesopotamia is the wealth of its cuneiform literature on clay tablets, and the propensity of the state system to keep written records of all



public transactions. Exquisitely carved cylinder seals that were rolled on clay tablets after they were written but still wet, or on the clay sealings of jars or packages, represent an extension of literacy. Mesopotamia was also open to the world from a very early date.

The geography of the region played an important role along with some other factors for the growth of Mesopotamia as the world's earliest known civilization. Due to different ecological conditions, Mesopotamia has been divided into two distinct geographical regions—north and south. The north part of Mesopotamia consists of the areas between Zagros mountains and middle Tigris, known as Assyria. While the southern part consists of two regions—Akkad and Sumeria, that is the southern most part of Mesopotamia. These two regions are characterized by different environmental conditions. In the beginning of second millennium BCE, the regions of Sumeria and Akkad were together known as Babylonia, since Babylon became the political centre of a major empire in southern Mesopotamia.

Northern Mesopotamia had plenty of rainfall which could support cultivation in both summer and winter. Southern Mesopotamia, comparatively was an arid zone with less rainfall but constituted the alluvial flood plains of the two rivers (Tigris and Euphrates) and was therefore highly fertile. But despite being an arid land of less rainfall, this region was the cradle to world's earliest civilization. Both the rivers also provided excellent communication for the people of the region. Apart from transportation, the rivers also provided important items for food consumption like fishes and water birds. Pastoralism was complementary to agriculture, and often members of the same community could either be pastoralists or cultivators. As some families of Mesopotamia specialized in pastoralism, the animal resources of the region were quite in abundance. Wool was one of the chief items of export. Pastoral produce like milk and milk products, along with river fish, provided a reliable food reserve in case of crop failures.

Geography did play an important role in the growth of Mesopotamian civilization and it helped to sustain a large population, but the civilizational features that developed in the region, such as, growth of specialized crafts, rise of a complex political system with state formation, emergence of class divisions, organization of trade, invention of writing and monumental public buildings, all of this required active human intervention.

3.3.2 North and South Mesopotamia

The growth of civilization in Mesopotamia was a gradual process which witnessed a process of transition from northern to southern part. Around 6000 BCE, food production had fully developed in northern Mesopotamia, which led to the growth and spread of three successive late Neolithic cultures in the region—Hassuna (6000-5500 BCE), Samarra (5500-5000 BCE) and Halaf (5500-4500 BCE).

Hassuna Culture—the site is located in modern day Nineveh province in Iraq and was situated on the west bank of Tigris valley. Here many houses have been discovered which



consists of various rooms. Also related to Hassuna Culture is the pottery which is hand-made and painted and decorated with geometrical patterns. Since this pottery has been discovered in wider area north of Mesopotamia, points towards trade links.

Samarra Culture—was situated in the middle Tigris region. This was the time when people had also started settling on the borders of southern Mesopotamia. Although, this region had scanty rainfall, farmers relied on artificial source of irrigation, as is evident from the existence of rudimentary canals. The village was protected by a ditch. It is therefore suggested that there was a beginning of some form of complex social organization in the region.

Halafian Culture—represents the most advanced stage in the development of the neolithic in the northern Mesopotamia. This culture was first identified at the site of Tell Halaf around 5500-4500 BCE. At the sites, beads of copper made from copper available on the surface have been found. Apart from this, various types of stone tools have been found. The people of the region produced pottery of high standards. The pottery was hand-made, painted and glazed.

The process of settlement in southern Mesopotamia began around 5000 BCE. This region was too swampy despite lack of rainfall for settlement prior to this time. It is believed that farmers belonging to Samarran Culture made some efforts to exploit the harsh environment of southern Mesopotamia. Settlement in the southern Mesopotamia could only have been possible by developing artificial means of irrigation, as, although, rainfall is scanty, but the soil is extremely fertile. This objective was achieved by digging series of canals, which allowed the full potential of the region to be realized, and thus, making it the centre of the earliest bronze age civilization.

With the settlement of southern Mesopotamia, three successive Bronze Age cultures developed in the region. The earliest was the Al-Ubaid Culture (5000-4000 BCE), the Uruk Culture (4000-3200 BCE), and finally the Jamdat Nasr Culture (3200-3000 BCE) which culminated in the emergence of Sumerian Civilization.

3.3.3 Al-Ubaid Culture

This culture represents the first attempt by the people of the region to exploit the resources of the region and adapt to the harsh environment. There were small fishing settlements in the beginning, but soon after this agricultural life began. Wheat and barley were grown, goat and sheep were reared, fish was procured from the Euphrates and Tigris and was an important source of food. There is evidence of the use of copper metal due to availability of copper tools. It is understood that working with metals requires certain specialized skills and experience of metallurgy. Production of metal objects involves a much more complex process than making stone tools or pottery. Apparently, the art was first mastered by potters with their skill in using ovens. From casting copper, next step was to produce bronze. Since copper is a soft metal and cannot be used to make efficient tools and weapons, it was mixed with tin to



obtain bronze. Bronze came into existence only towards the end of neolithic period. As stated above, this art required engagement of a specialized community, who could not obviously produce food. Therefore, the community had to produce enough food, in the form of surplus, in order to feed the non-producing class. V. Gordon Childe calls these specialists as 'roving specialists' as they would move from one place to another to make their services available.

Archaeological evidences suggest that people of this culture lived in rectangular houses which had many rooms. There was, however, a variation in the sizes of the houses and the material used for construction. Some artefacts made of exotic raw materials along with unique burials have been found, which are indicative of social stratification. People used bricks in the construction of houses and these bricks were sun-dried and not baked. The pottery was hand-made and made of ceramic. This pottery is known to have spread in wider areas, which indicate exchange relations.

Irrigation in southern Mesopotamia was dependent on the development of artificial irrigation. Irrigation is a collective activity and requires planning and coordination amongst the people. This points towards a higher form of social organization. The sites belonging to Al-Ubaid culture also provide evidence related to ceremonial centres. It has been recognized that temples played a key role in the formative phase of Sumerian civilization. They were central to the development of political institutions and also organized economic activities. Their major function was to organize labour for irrigating facilities and also for draining of excess water during floods. The role of temples got further elaborated with the growth of Sumerian Civilization, when temples were transformed into political centres. The social, religious, cultural, economic and political life of the settlements in southern Mesopotamia revolved around the temples. Excavations conducted at the site of Eridu, near Al-Ubaid, have brought to light a huge temple built with mud-bricks.

3.3.4 Uruk Culture

The population increased and many more villages came up during the Uruk Culture. Uruk was the name given to a large Sumerian Settlement situated near Euphrates. This culture yielded the earliest evidence we have of the use of the wheel, plough and writing. With the Uruk Culture we move from prehistory to protohistory. Uruk culture represents the final stage of advancement towards Sumerian Civilization, as some important characteristics of civilization (as given by V. Gordon Childe) such as cities, social hierarchy, writing, craft specialization, monumental public work, trade etc, have been evident from the findings.

Uruk culture gives us evidences of the first wheel-turned pottery. From the slow turning wheel, a fast potter's wheel was developed to produce potteries which were more useful. These were meant for a larger population. Wheels could be made efficiently only with the help of metal tools, like metal axes and saws, which made it easier to cut wood into round shape. The wheels were gradually adopted for use in transportation. They were fitted in the



carts as images of carts are depicted on some of the Uruk objects. Pottery making and metallurgy had become specialized and this led to further technological development.

In agriculture, plough was the revolutionary tool which made cultivation easier. Ploughs required much less labour than the conventional digging sticks. But since the ploughs were not readily available, they had to await further development in metallurgy to come into popular usage.

Another major development in the regions belonging to the Uruk Culture was beginning of writing. It has been suggested that since the economic advancement was taking place, it had necessitated some form of recording, where exchange was concerned. It is believed that initiative was taken by the temples, as they had by now been at the centre of all economic activities. Excavations have revealed a large number of seals, which most probably served the purpose of ownership of goods. Stamp seals depicted animals or plants followed by cylinder seals made of ordinary or semi-precious stone. These would be rolled on clay as a mark of identification. The small cylinder seals of the Uruk Culture are artistically of a very high standard. many of them depict mythological figures or scenes from everyday life. Clay tablets were used for the purpose of writing. Impressions were made on these tablets with a hard stylus kind of pointed object. These tablets were perhaps dried in the sun or baked in the oven. This was done to give permanent shape to the document. The tablets contained pictures of objects such as fish, barley, sheep, goat, etc. these were used to depict units of measurement, the product measured, names of temple officials and other relevant information which was economic in nature. The writing was mainly related to temple accounts and ration lists. This kind of representation of objects in the form of pictures is called pictographic writing and the symbols are known as pictograms. The script evolved by the Sumerians is known as the Cuneiform script, which grew out of the short-hand pictures. With time, these pictograms became simpler and uniform.

Towards the end of the Uruk period several settlements in Sumeria had grown into cities. The process of transition continued into the Jamdat Nasr period. A number of urban centres had come up in the southern Mesopotamia by 3200-3000 BCE which Gordon Childe said were representative of “the Urban Revolution”.

3.3.5 Jamdat Nasr Culture

Jamdat Nasr means ‘a small mound of Nasr’. It was situated in Akkad in Southern Mesopotamia. The time duration of this culture (3200 – 3000 BCE) was small yet very significant for development in the field of technology, writing and Urban Growth, which has led scholars to consider this phase as a transition period to Sumerian Civilization. The Jamdat Nasr Culture is known for its painted pottery displaying geometric patterns along with some animal figures. The pottery came to consist of large jars, bowls and cups. Besides this, copper objects have also been discovered at the sites. A large number of seals, both cylindrical and stamp seals have been found. Most of these seals depict humans and animals. This culture is evident of improved irrigation facilities, increasing trade, more craft specialization. Most



importantly, this period saw transition of most of the villages to urban centres and gradually transforming into big cities.

3.4 CIVILIZATION IN MESOPOTAMIA

From the above discussion, it can be concluded that, although northern Mesopotamia had all the basic conditions for development of a civilization, it was in south Mesopotamia that an advanced civilization developed. The civilization in Sumeria was an outcome of human progress in various fields of technology, society and economy. It has been observed that various features of a civilization, as stated by V. Gordon Childe, namely trade, metallurgy, surplus production, stratified society, basic state formation, organized religion etc. were all experienced as the civilization advanced in southern Mesopotamia.

3.4.1 Urbanization

Urbanization is marked by growth and concentration of population in a settlement. This population is engaged in diverse economic activities, thereby creating conditions of interdependence. One of the most prominent features of urbanization is skill specialization and division of labour on one hand and absence of self sufficiency on the other. The cities are characterized by highly complex economic and social organization. Along with this there is a basic political organization in order to regulate the early settlements and along side maintain law and order. Around 3000 BCE, some of the settlements in the region of Sumeria had assumed the size of large cities, like cities of Lagash, Ur, Uruk etc. the rapid growth in the size of these cities has also been attributed to migrations along with the growth in population. City served as market centres and thereby acted as motivating force for immigrations. These cities were also centres of production and redistribution.

3.4.2 Metallurgy

As the population expanded, it necessitated availability of adequate resources and enough surplus. Procurement of surplus from the fertile fields of Mesopotamia has been attested from the evidence of use of metal plough, oxen etc. V. Gordon Childe, laid emphasis on the progress of metallurgy. He identifies a link between urbanization, metallurgy and the rise of bronze age civilization. Subsequently, the production and use of metal clearly indicates the presence of the class of specialists. As the use of metal advanced, this group of specialists, withdrew themselves permanently from agricultural production so that they would exclusively engage in the production of metals. This class of specialists were dependent on the agriculturalists to produce surplus in order to cater to their food requirement. This surplus was also required for exchange to acquire copper and tin by the means of trade over long distance. Metallurgy led to craft specialization and this, according to V. Gordon Childe, led to social complexity. Subsequently, the growth of metallurgy and existence of class of specialists necessitated state organization in Mesopotamia.



3.4.3 State organization

The political and economic and social conditions in the region led to state formation in Mesopotamia. As stated earlier, temples were the nucleus of political activity since the late neolithic period. The temples played an important role in organizing and promoting agriculture in Mesopotamia by managing the irrigation system. Southern Mesopotamia was the region of low rainfall, therefore, in order to accrue maximum benefit from the fertile of the region, it was important to organize irrigational facilities. Thus, temples assumed the role of such an authority being at the centre of the society. Temples also took up the responsibility of appropriating and redistributing the surplus. It is for this reason, the state in Mesopotamia has been addressed as 'Temple-State'. Since temples have been increasingly participating in management of resources, irrigation and distribution of surplus, the role of temple functionaries like the priests, had been enhancing. With the control over surplus, the Sumerian priests further consolidated their positions. A part of this surplus was expended on warriors to defend the territories and also engage in raids in the neighbouring territories. This also provided the priests with armed support to force the peasants and artisans. The temple at Eridu grew up into a large structure in the Al-Ubaid period. It stands on a high platform and is the most prominent building of the settlement. the temple at Uruk was a huge structure and it was rebuilt at the same place several times. These massive temples were generally built in the shape of step pyramids with long flight of steps leading to the top, are referred to as Ziggurats, meaning high buildings.

Based on archaeological documentation and Sumerian written texts, the political history of Mesopotamia has been divided into Early Dynastic period (3000-2350 BCE), Akkadian Dynasty (2350-2150 BCE), and the Third Dynasty of Ur (2150-2000 BCE). Evidences suggest the Sumerian states were ruled by chiefs and kings, who also performed the role of priests. Titles such as En (spouse of the city-goddess), Sangu (temple administrator) and Ishakku (tenant farmer of the diety) were some of the titles used for early kings of Mesopotamia. From the early dynastic period, it appears that there was a massive competition amongst the city-states of Mesopotamia over the control of landed resources. The major city-states of Sumeria like Ur, Uruk, Kish and Lagash, competed with each other to gain supremacy over the fertile region. The competition to control the natural resources of the region often resulted in incessant warfare amongst various states.

Role of kings was important in these wars, as winning the wars enhanced their prestige and thereby, brought more concentration of power in their hands. Gradually, this brought significant changes in the institution of Kingship. Priests were now replaced by selected or nominated Kings who had their own army and governed with their well-defined laws. By the time of Akkadian Dynasty, the temples were replaced by palaces as the centre of political authority. After 2600 BCE, the city-state of Ur became the paramount power for some time. Consequently, other states also joined in this this tussle for power and supremacy. However, this state of affairs continued till 2350 BCE, when a king from the region of Akkad, named Sargon, brought almost whole of southern Mesopotamia under his rule. Sargons's vigorous



military system made him an effective leader. It was under Sargon's military leadership that Southern Mesopotamia could be unified for the first time. This process also initiated and strengthened monarchical traditions in the region. The dynasty founded by Sargon ruled for nearly two centuries. But Sargon's successors were too weak to hold on to the territories conquered by him. Around 2150 BCE, the city of Ur once again rose to prominence, under the Third Dynasty. This has been marked as the golden period for Ur. This has been attested from the archaeological findings whereby the royal graves yielded a vast collection of magnificent objects made of gold, silver and bronze.

3.4.4 Writing

Mesopotamia was the earliest civilization in the world to develop writing. Writing had originated in the Uruk culture in the form of pictographic script. We have pointed out earlier that the initiative to develop writing came from the temples that organized the economic activities, as it was not possible to memorize large transactions. It is interesting to note that, at this stage of development, archaeological evidence can be supplemented with literary sources. Written texts in the cuneiform script are available for this period. The cuneiform script was more systematic by now as symbols were also being used for speech sounds along with the objects. In Jamdat Nasr culture, the script progressed from pictograms to being partly phonetic. With the available written records, a detailed 'List of Kings' could be obtained. These lists are useful in working out the chronology of political events. Growth of writing also led to the emergence of a new specialist class of scribes.

3.4.5 Social Stratification

In Mesopotamia, with the transition to bronze age from the post neolithic times, one witnesses craft specialization. This along with the growth of a centralized authority, led to social stratification in the region, with power being concentrated in the hands of a few. Whoever had the control over production and redistribution, would hold the power. Thus, the wealth generated in the hands of the elite, along with religious and secular authority, created conditions for the growth of social differentiation. There was inequitable distribution of resources, with larger share reserved for the King, priests, and warriors. It is because of this reason that some scholars have pointed towards class differentiation in the bronze age society of Mesopotamia.

3.4.6 Temple and Religion

Information about Mesopotamian religion is obtained from clay tablets in cuneiform script along with artefacts recovered from archaeological findings. On the basis of available literary and archaeological sources, scholars have claimed that Mesopotamian religion was the world's oldest religion. However, evidence suggests that the religion was not unified in Mesopotamia. There was a clear distinction between religion at state level and at popular level. The Sumerian cities had their own respective Gods and Goddesses. Since the temples



were considered as homes of these deities, a number of temple staff were appointed to look after the organization of the temple. The main deity of the city had a big temple (ziggurat) dedicated to it. For example, a big temple was dedicated to god Anu at Uruk. Official ceremonies were organized in such big temples. Simultaneously there were smaller shrines also. The deities at these shrines were worshipped by particular groups. The priests of Sumeria systematized rituals, myths and religious ideas to create a pantheon in which several cults were accommodated. The city of Nippur became the religious centre of unified Sumeria. The three most important Sumerian gods were An (sovereign god), Enlil (controller of the universe), and Enki (lord of the earth). Some female goddess cult was also present in the region. The most popular female goddess was Inanna (goddess of fertility). As the society became stratified, Gods were also ranked in an order. The political developments such as war between the city-states was also reflected in the way gods were perceived and worshipped. Sumerian religion was closely connected with political, social and economic changes in Mesopotamia.

3.4.7 Monumental Public Work

Architecture or the monumental public works is another important feature of the ancient civilizations as suggested by V. Gordon Childe. Public buildings like temples, palaces, and other big and small buildings played a significant role in the Sumerian civilization. Archaeological excavations have revealed presence of significant buildings. It has been argued that these buildings were perhaps meeting places and centres of administration. Apart from this, some buildings have been identified as shrines, since such shrines had been an integral part of the Sumerian community. Before the Early Dynastic period, temples were a hub of all political, cultural and economic activities and, as stated earlier, were built on a high platform. Some of the big temples (ziggurat) also contained warehouses, granaries, workshops and living quarters for the artisans. The warehouses and granaries were meant to store grains to be distributed amongst the non-producing class of metallurgists, potters, and textile workers. Gradually the centre of political activities switched to the palaces, with the position of King becoming more dominant. As a result, temple construction lacked the standardized building plan, as earlier, thus reflecting the decline in the autonomy of the temples during the Early Dynasty. Many architectural features of the Uruk period, particularly the symmetrical plan, still showed continuity. These included single room shrines. A new type of temple plan was introduced in the Early Dynastic period, known as, 'house-plan temple', which consisted of a courtyard surrounded with several rooms on each side, became very popular during the Akkadian Dynasty. With this, temple emerged as a residence of the god to whom it has been dedicated. Apart from the temples, construction of palaces has also been a significant part of the architecture. Palace as a distinct urban monumental architecture emerged from the beginning of the third millennium BCE. Some scholars have found close links between the rise in the power of the kings and palace construction. Construction of palace gives validation to the fact that kingship was growing to dominance, as a powerful institution, separate from the temples. One of the most significant examples of palace construction was the palace at Kish, which consisted of two large



buildings separated by a narrow alley. Each building had its own exterior wall and both were surrounded by an outer wall, gateway and tower. By the second millennium BCE, construction of palaces became more pronounced with several hundred rooms, halls, courtyards etc.

3.4.8 Trade

As stated earlier, the proximity to Euphrates and Tigris had promoted intra-regional trade in Mesopotamia. The literary sources inform that centralized agencies organized the exchange of grain, fishes, and animals. Besides this, there were separate administrative officers appointed to look after the canals for transportation of goods. Evidences suggest existence of long-distance trade as well, which was organized by the temples and later palaces. Sumer lacked certain raw materials such as copper, precious stones, building material, which were essential for the sumerians to engage in craft specialization. Procurement of such raw material was considered easy through exchange than warfare. Sumerians traded with far off regions such as Iran, Syria, Anatolia, and India. Initially this role of organizing trade was played by the temples, but later taken over by the state.

IN-TEXT QUESTIONS-1

A. State whether True or False:

1. Uruk culture gives us evidence of the first wheel-turned pottery.
2. V. Gordon Childe identifies a link between urbanization, metallurgy and the rise of bronze age civilization.
3. In Mesopotamia, palaces were the nucleus of political activity from the beginning since the late neolithic period.
4. The Uruk culture represents the most advanced stage in the development of the neolithic in the northern Mesopotamia.
5. The northern Mesopotamia had all the basic conditions for development of a civilization, but it was in south Mesopotamia that an advanced civilization developed.



B. Multiple Choice Questions:

1. Which two rivers have been associated with the Mesopotamian Civilization
 - a. Nile and Euphrates
 - b. Tigris and Euphrates
 - c. Tigris and Nile
 - d. Tigris and Diyala
2. Which civilization is referred to as world's first Civilization?
 - a. Harappan
 - b. Sumerian
 - c. Egyptian
 - d. Babylonian
3. The _____ is a big temple structure?
 - a. Ziglyat
 - b. Zigger
 - c. Ziggurat
 - d. Ziggomamian
4. In the present day, the region of Mesopotamia is?
 - a. Egypt
 - b. Iran
 - c. Iraq
 - d. China
5. Mesopotamians used _____ for writing?
 - a. Cloth
 - b. Paper
 - c. Papyrus
 - d. Clay Tablet



6. The wedge-shaped script of Mesopotamians was known as _____ ?
 - a. Calligraphy
 - b. Pictographs
 - c. Seals
 - d. Cuneiform
7. Mesopotamians built _____ to irrigate their fields?
 - a. Arches
 - b. Dams
 - c. Canals
 - d. Embankments
8. Mesopotamians were the first ones to cultivate _____ ?
 - a. Wheat
 - b. Rice
 - c. Pulses
 - d. Corn
9. What is an Ur?
 - a. Name of a Sumerian City
 - b. A temple
 - c. An Ancient God
 - d. Form of writing
10. Which of the following animals were domesticated by the Mesopotamians?
 - a. Donkey
 - b. Sheep
 - c. Cows and goats
 - d. All of the above



11. The civilization flourished in _____ Mesopotamia, despite lack of rainfall.

- a. Northern
- b. Southern
- c. Eastern
- d. Western

12. Mesopotamian seals were _____ in shape

- a. Square
- b. Spherical
- c. Conical
- d. Cylindrical

C. Write short notes on the following:

- 1. The Uruk culture
- 2. Sumerian Religion.

D. Long answer questions:

- 1. Describe various stages in the progress towards civilization in Mesopotamia?
- 2. Describe the main features of society, economy and religion in Mesopotamia?
- 3. Explain origin and growth of state in Mesopotamia?

3.5 CIVILIZATION IN EGYPT

3.5.1 Geography

The civilization in Egypt developed alongside that of Mesopotamia with almost similar civilizational features but entirely different ecological settings. The civilization of Egypt flourished around the valley of river Nile. According to the Greek geographer Hecataeus of Miletus, “Egypt is the gift of the river,”. When he visited Egypt around 500 BCE, he realized that the Egypt was heavily depended on Nile’s annual floods. Unlike Mesopotamia, the geographical conditions in the region of Egypt were far more inhospitable. A very significant part of Egypt is a dry and arid region with very little rainfall. Egypt was also surrounded



Arabian Desert in the east and the Libyan desert that merged with the Sahara Desert in the west. However, the region had rich deposits of metals (like gold and copper), precious stones (turquoise, cornelian and jasper) and minerals. Apart from this these deserts provided natural protection to the region and also enabled a trading passage for the people of Egypt to regions in the east and west.

For the Egyptian civilization, river Nile was the basic life-line. It originated from region near east of Africa, flows through a valley from north to south and drains out in the Mediterranean sea. For the last 1,127 kilometres (700 miles), the Nile cuts deep ravines through some of the driest terrain on the planet, filling it layer by layer with thin annual sediments and creating deeply fertile land. The floodplains thus created are rich in nutrients. The rich layer of silt and clay left by the river in the valley was termed as Kemet (black fertile soil) by the Egyptians, to distinguish it from Deshret (desert). Nile divides the region of Egypt into two parts—the upper Egypt (modern day Wadi Halfa to Cairo) and Lower Egypt, from where the Nile breaks into branches before joining the Mediterranean. Although the Egyptian civilization developed in Upper Egypt, in the later history of Egypt, the delta region of the lower Egypt was identified as the centre of agriculture. As in the case with Mesopotamia, Nile too provided a smooth navigational passage for the movement of goods. Compared to the Tigris and Indus rivers, the Nile was relatively peaceful.

3.5.2 Transitional Phase

The features of civilization and urban revolution began to appear in Egypt later than in Mesopotamia. But still, the transition from the neolithic age to bronze age civilization occurred fairly faster in Egypt and by around 5000 years ago the entire region had been unified politically. However, due to scarcity of archaeological records for this period as compared to that of Mesopotamia, several aspects of the period of transition remain obscure in Egypt, the neolithic cultures were first seen in the western desert. This was perhaps due to the environmental changes in the region. Fekri A. Hasan has pointed out that during the early Holocene period, the western desert was not as dry and Nile experienced frequent flooding. Therefore, there were migrations from the valley region towards the western desert, where these people could practice food gathering and hunting. It was later that the western desert became more arid, and people started to move towards the Nile valley, relying on domestication of plants and animals. The earliest excavated neolithic cultures were Fayum and Merimde in the region known as Lower Egypt dated 6000-4000 BCE. At Fayum, which was located near an Oasis. People practiced cultivation of wheat and barley in addition to fishing and hunting animals. They domesticated sheep, goat and pigs. On the other hand, people in Merimde, were a part of fully developed neolithic village and lived in proper houses, cultivated cereals and domesticated animals in addition to hunting, gathering, and fishing. Following the early neolithic settlements at Fayum and Merimde, there were three successive neolithic cultures in the Nile Valley. Gradually, people became increasingly adept at utilizing the flood plains of Nile for practicing agriculture. Two transitional cultures



identified by the archaeologists in the pre-dynastic Egypt were—Maadi in Lower Egypt and Naqada in Upper Egypt represented by four successive phases, that is, Badarian (4100-3600 BCE), Amratian or Naqada I (3800-3500 BCE), Gerzean or Naqada II (3600-3200 BCE), and Naqada III (3200-3000 BCE).

Maadi (Lower Egypt)—The culture that advanced in the Lower Egypt (3900-3500 BCE), was located in the south of Cairo and spread over the northern Nile delta region. The settlement covered an area of approximately 1.3 km and comprised of several small towns and villages. The people of the region subsisted on cultivation of cereals and domesticated animals like sheep, goat, cattle and pig. People lived in oval and circular houses and archaeological evidences suggest existence of hearths, grain, jars, stone vases, beads etc. Evidences suggest important trade linkages between Maadi and Eastern Mediterranean and Mesopotamia.

Naqada (Upper Egypt)—was the most important pre-dynastic culture in the region of Upper Egypt. This culture covered various phases starting from Badarian, Amratian (Naqada I), and Gerzean (Naqada II). The Badarian culture, named after the site of Badari, saw the emergence of several neolithic villages along the river Nile. It has been assumed that this region was inhabited by the people migrating from the western desert. After they settled here, they started cultivating wheat and barley. They domesticated sheep and goat. They also made pottery and continued to rely on food gathering and hunting, as basis economic activities, although agriculture, based on natural irrigation by Nile floods, played a vital role in the economy.

The Amratian culture was named after the site El-Amrah, in Upper Egypt, around which the culture developed. The people of the settlement had mastered the art of utilizing the flood waters of Nile as they were stationed close to the western bank of the river. The people excelled the skill of making elegant Basalt potteries, that were traded throughout the Nile valley. This indicates skilled workmanship. Evidence suggests the use of copper on the site in the form of axes and daggers made of copper. Copper was perhaps imported from Nubia, which was in the south of Egypt.

The Gerzean culture has been named after the site El-Gerzean. This culture is considered as a continuation of Amratian Culture with some significant developments. Archaeological evidence suggests that the people started using artificial means of irrigation, as several canals, used to supply water from the river have been found. People practiced farming and hunting for subsistence. The region was quite fertile and therefore led to surplus production to feed the increasing needs of the growing population. By the end of the Gerzean period, there had been a marked increase in the population. Karl Butzer has estimated that between 4000 and 3000 BCE, the population went up from 350,000 to 870,000. The people made copper objects by working in the kilns. It was in this period that the foundations of early Egyptian Civilization were laid.

Naqada III—was the last phase of the Naqada culture of the region of Upper Egypt. It was around this time that the culture had spread to the northern delta, as supported from the



evidence of the pottery. This period witnessed state formation, urbanization and social differentiation and hence, this time period has been called as proto-dynastic, which heralded the Egyptian Civilization. Naqada III sites have provided names of earliest kings of Egypt painted on the pottery. This has also understood as the period when initial process of political unification began with the existence of three dominant city-states—Thinnis, Nekhen, and Naqada. Naqada III also provides the earliest evidence of writing in Egypt. This period is also evident of social hierarchy, as reflected from the burials.

3.5.3 Civilization

The Naqada III culture is reflective of the growth of a state with a powerful monarchy assisted by a bureaucracy, warriors and priests. There was an attempt towards political unification of southern Egypt, writing was invented and social differentiation existed. All these features formed the basis for the growth of the civilization. By 3100 BCE, Egypt was a politically unified state, prominent urban centres had come up, a script was used for writing, the society was class based and Egypt had acquired, what V Gordon Childe suggested, features of a civilization. This transition towards a civilization was gradual.

3.5.4 Urbanization

Naqada III or the pre-dynastic phase of Egypt saw the growth of substantial urban centres like Nekhen, Abdu, Naqada etc. Amongst these the most prominent was Nekhen, also known as city of Falcon. This city-state started from a small village and became one of the largest urban settlements by 3100 BCE. Being one of the earliest and most important archaeological sites in Egypt, has yielded information on the foundation of Egyptian Civilization. People lived in houses made of mud brick and plaster. Since these houses were of different sizes, social differentiation is marked. Perhaps traders and artisans were the most important class as they lived in bigger houses. This is also indicative of flourishing trade. The graves also suggest social differentiation as items such as ceramic pottery, stone tools and personal ornaments have been discovered. People domesticated sheep and goat. Nekhen also provides evidence of earliest temple in Egypt. Evidence of canals is suggestive of irrigation facilities so that a larger population can be sustained.

3.5.5 Writing

Several aspects of Egyptian civilization, particularly the administrative system, features of state formation, Egyptian rulers, Egyptian religion, have been known to us from the written sources. The earliest system of writing has been termed as 'Hieroglyphs' or 'Sacred Carving' by the Greeks who ruled over Egypt in 332 BCE. Hieroglyphs were a combination of pictographs and phonetic signs. These have been found engraved on stone, carved on temple walls and tombs. It is believed that this form of writing was inspired by the pictographic writing of Mesopotamia. Egyptian Hieroglyphs appears in the form of writings on Papyrus (something like paper made out of papyrus plant). These were generally written by



bureaucrats for administrative purposes and at times on tombs, temple walls and thus reflected religious ideologies. One of the earliest examples of Hieroglyph script is the Narmer Palette, a stone slab carved on both sides with scenes commemorating king Narmer of Nekhen, who ruled before the beginning of the first dynasty.

3.5.6 The State

The political history of this period has been gathered from a historical account written by Manetho. He was a priest who lived during the Greek rule over Egypt. It seems, that he had access to a number of ancient works which formed the basis of his narrative. This work has been very useful to carve out the history of ancient Egypt. Manetho has listed thirty-one dynasties which ruled over Egypt from its unification to Alexander's conquest. Manetho has classified these dynasties into several transitional periods such as Archaic Period or the Early Dynastic period (3100-2700 BCE), covering the time period of the first two dynasties; Old Kingdom (2700-2180 BCE), covering the third to the sixth dynasty; Middle Kingdom (2133-1786 BCE), covering the eleventh and twelfth dynasties; and New Kingdom (1567-1080 BCE), covering the eighteenth to the twentieth dynasty. In between these were the First and Second intermediate periods, which were referred to as periods of political change. Modern historians continue to use Manetho's periodization.

Archaic Period—was significant as it is marked by the unification of Upper and Lower Egypt, by a ruler named Narmer (Menes) by subjugating the powerful local chiefs. As stated earlier, the Narmer Palette provides visual evidence of the political developments and the nature of Kingship in this period. Narmer supposedly had exercised power over twenty-two administrative units or Nomes of Upper Egypt and twenty Nomes of Lower Egypt. These Nomes were state like structures of pre-dynastic times, and were ruled by small chiefs or kings before King Narmer (Menes) politically unified the Upper and the Lower Egypt. It has been suggested that political unification of Egypt was a gradual process and resulted from common needs and economic advantage. The unification involved use of military force to bring rulers of large political units under control. As a symbol of unification and also to control the recently integrated regions, the ruler of first dynasty chose Memphis as their capital which was located at the border of Upper and Lower Egypt. Unfortunately, we have no records of the First Dynasty. What we know about the first two dynasties, came from the town of Thinis in Upper Egypt. Hence, they are also called Thinite Dynasties. To symbolize this unification the kings wore a double crown, the white crown representing the Upper Egypt and the red crown representing Lower Egypt. The king was the all-powerful monarch known as the Pharaoh (The Great House).

State formation had already begun in the predynastic period. A number of small states had emerged in the Nile Valley which were ruled by small chiefs. Through the process subjugation and coalition larger territorial units were created leading to political unification. Many smaller states of the pre-dynastic times continue to survive even after unification in the form of provincial administrative units. These administrative units were called Nomes by the



Greeks. At the time of unification there were forty-two Nomes. By the beginning of Archaic period, the authority of the King or Pharaoh was fully recognised. The state in Egypt revolved around the powerful territorial king, Pharaoh, who symbolised the victory over universal chaos. Pharaoh also came to possess divine power, and his position was unchallenged. The prime responsibility of the Pharaoh was to insure irrigation facilities. He was assisted by a centralised bureaucracy. Royal councillors and members of Royal Chancelleries of Upper and Lower Egypt were delegated powers by Pharaoh, such as irrigation, tax collection and redistribution of the surplus. Since irrigation was very important, special officials called 'Adjmer', were appointed. Tax officials ensured that maximum surplus went to the King. Writing was the most important accomplishment of this period.

Old Kingdom—was the mature phase of Egyptian civilization. During this period many big Pyramids and Palaces were build, art and crafts developed. The rulers of Old Kingdom ruled Egypt from their capital at Memphis (Near Cairo). Memphis represented the governance of the Pharaoh over a unified territory by a divine ruler. The evidence belonging to this period, especially the Pyramid texts provide us a clear picture of the current state. According to the sources, during this period the authority of the Pharaoh was firmly established as equal to God. Cult of Pharaoh was popularised and he got a permanent position in the Egyptian religious pantheon. By the beginning of Fifth Dynasty the Pharaoh was considered as the perfect God. He came to be associated with the Sun god, 'Re' and was declared as the 'Son of Re'. Subsequently the Sun God was made the heavenly monarch with Pharaoh as his representative on Earth. Pharaoh was immortalised by propagating the idea that he never dies and after death he becomes Osiris (god of the dead). The burial places of the Egyptian rulers were the great Pyramids, thus suggesting that the Pharaoh has reached the heaven by following the path of sun rays falling on the Pyramid.

3.5.7 Monumental Public Works

The building activity began under the rulers of the archaic period mostly in the form of royal tombs. Archaeologists have found several tombs bearing the names of the rulers of the first dynasty. One of the important tombs was that at Saqqara. During the third dynasty royal tombs in the form of pyramids came into existence. Djoser was the first ruler who constructed the earliest pyramid at Saqqara. This pyramid was built in the form of step pyramid for his own burial. The tomb was surrounded by a thick wall of stone forming a huge courtyard. This was the first royal tomb build from limestone rubble. The construction of buildings reached their hallmark under the rulers of old dynasty. Step pyramids were transformed into true pyramids like those at Giza. The highest one was built by Cheops. From the interiors the design of pyramid was simple, with a corridor leading to the funeral chamber where the mummified body of the Pharaoh was placed. Once the funeral ceremonies were completed big stones of granite were placed in order to prevent entry to the tomb. After the fourth dynasty there was remarkable decline in pyramid construction which suggests the economic



crisis faced by the state. Besides the pyramids, there were cemeteries of high-level officials of the state situated around the Pharaoh, suggesting the absolute control of the king even after death.

3.5.8 Religion and Society

Just as in the case of Mesopotamia, religion in Egypt also revolved around the forces of nature. Plants, animals, sun, sky, water were personified as divinities. Thus, worship of natural forces and ancestor worship characterised religion in Egypt. Religion was institutionalised and controlled by the state. Religion was used by the kings to divert all powers into himself. This promoted authoritarian character of kingship as the king was simultaneously identified with the supreme god. This belief was validated by the priestly class. The belief in life after death had become popular therefore elaborate funereally rituals were performed in order to preserve the mortal remains of the dead. Several cult worships were practised in different nomes even after unification of Egypt. At popular level several primitive beliefs persisted. In the dynastic period there was a decline in the importance of female deities and mother goddess worship. Female deities either disappeared or were subordinated to the male gods. This is reflective of patriarchal society in Egypt. Therefore Sekhmat (Lion headed goddess) was worshiped as the spouse of Ptah (The chief male deity of Memphis) and Isis (Goddess of Love and wisdom) was made a consort of Osiris (God of the dead). Later these gods were worshiped as a part of a single family. In spite of several deities at popular level, the centre of all religious cults was the king. King played the central role in the religious activities whereby the state promoted worship of sun god 'Re'.

IN-TEXT QUESTIONS-2

A. Multiple Choice Questions

1. The Egyptian king was known as _____.
 - a. Rajan
 - b. Samrat
 - c. Pharaoh
 - d. Maharaja
2. The Egyptian Sun God was called _____.
 - a. Re
 - b. Ma
 - c. Sa
 - d. Ra



3. The preserved dead bodies were called_____.
 - a. Mummies
 - b. Ancestors
 - c. God
 - d. None of the above
4. The pyramids were used to preserve _____.
 - a. Grains
 - b. Documents
 - c. Dead remains
 - d. Goods
5. Egyptian Civilization flourished in the river valley of _____.
 - a. Euphrates
 - b. Tigris
 - c. Nile
 - d. Amazon
6. Name the world's earliest form of paper that was invented by the Egyptians
 - a. Papyrus
 - b. Cuneiform
 - c. Cloth script
 - d. Bark
7. Which of the following religious beliefs was central to Egyptian Religion?
 - a. Afterlife
 - b. Pyramids
 - c. Pharaohs
 - d. Heavens



8. Which king unified the Upper and Lower Egypt?

- a. Tutankhamen
- b. Menes
- c. Amenhotep
- d. Nefertiti

B. Write short notes on:

- 1. Pharaoh
- 2. Pyramids
- 3. Writing
- 4. Unification of Egypt

C. Long answer questions:

- 1. Was religion closely connected with the state in Egypt? Comment.
- 2. Describe the role of Pharaoh in the Egyptian Polity and economy?
- 3. Discuss the growth of civilization in Egypt?
- 4. What the main features of architecture in the civilization of Egypt?

3.6 ANSWERS TO IN-TEXT QUESTIONS

Answers to In-Text Questions -1

- A. 1. True 2. True 3. False 4. False
5. True
- B. 1. b 2. b 3. c 4. c 5. d. 6. d. 7.c 8. a 9. a
10. d 11. b 12. d
- C. 1. See Section 3.3.4
2. See Section 3.4.6
- D. 1. See Section 3.4
2. See Section 3.4
3. See Section 3.4.3



Answers to In-Text Questions -2

- A. 1. c 2. d 3. a 4. c 5. c 6. a 7. a 8. b
- B. 1. See Section 3.5.6
2. See Section 3.5.7
3. See Section 3.5.5
4. See Section 3.5.6
- C. 1. See Section 3.5.8
2. See Section 3.5.6
3. See Section 3.5.3
4. See Section 3.5.7

3.7 LET US SUM UP

1. The post-neolithic times are marked by the emergence of civilizations as an ongoing process in the human adaptation. Archaeologists tend to relate civilization with attributes such as urbanization and state formation. V. Gordon Childe was the first archaeologist and historian to provide a comprehensive theory related to the beginning of civilization.
2. The first transition from Neolithic to Bronze age took place in Mesopotamia, the land between the two rivers—Euphrates and Tigris. These two rivers played the most important role in the growth of the Sumerian Civilization, by providing fertility to the soil and facilitating intra-regional and long-distance trade.
3. Growth of civilization was a gradual process that can be seen in the transitional phases of cultural development in North Mesopotamia—Hassuna, Samarra and Halaf, to southern Mesopotamia—Al-Ubaid, Uruk and Jandat Nasr. The civilization first developed in Southern Mesopotamia due to fertile soil.
4. The growth of Civilization in southern Mesopotamia saw the development of various features of a civilization as suggested by V. Gordon Childe. Amongst the prominent ones are—growth of cities marked by urbanization, metallurgy, state organization, art of writing developed making the written script available, temple and religion, monumental public works and growth of trade.



5. The civilization in Egypt grew in harsh geographical conditions. It was around the river Nile that the civilization developed, in the otherwise arid region with low rainfall, since Egypt was surrounded by deserts on both sides (east and west).
6. The features of civilization and urban revolution began to appear in Egypt later than in Mesopotamia. But still, the transition from the neolithic age to bronze age civilization occurred fairly faster in Egypt and by around 5000 years ago the entire region had been unified politically.
7. Two transitional cultures identified by the archaeologists in the pre-dynastic Egypt were—Maadi in Lower Egypt and Naqada in Upper Egypt represented by four successive phases, that is, Badarian (4100-3600 BCE), Amratian or Naqada I (3800-3500 BCE), Gerzean or Naqada II (3600-3200 BCE), and Naqada III (3200-3000 BCE).
8. The Naqada III culture is reflective of the growth of a state with a powerful monarchy assisted by a bureaucracy, warriors and priests. There was an attempt towards political unification of southern Egypt, writing was invented and social differentiation existed. All these features formed the basis for the growth of the civilization. The political history of this period has been gathered from a historical account written by Manetho. He was a priest who lived during the Greek rule over Egypt. Manetho has listed thirty-one dynasties which ruled over Egypt from its unification to Alexander's conquest. Manetho has classified these dynasties into several transitional periods such as Archaic Period or the Early Dynastic period (3100-2700 BCE), covering the time period of the first two dynasties; Old Kingdom (2700-2180 BCE), covering the third to the sixth dynasty; Middle Kingdom (2133-1786 BCE), covering the eleventh and twelfth dynasties; and New Kingdom (1567-1080 BCE), covering the eighteenth to the twentieth dynasty. In between these were the First and Second Intermediate periods, which were referred to as periods of political change. Modern historians continue to use Manetho's periodization.
9. State formation had already begun in the predynastic period. A number of small states had emerged in the Nile Valley which were ruled by small chiefs. Through the process of subjugation and coalition, larger territorial units were created, leading to political unification. Many smaller states of the pre-dynastic times continue to survive even after unification in the form of provincial administrative units.

3.8 REFERENCES AND SUGGESTED READINGS

- Bard, Kathryn A. 2000. 'The Emergence of the Egyptian State c.3200-2686'. In *The Oxford History of Ancient Egypt*, edited by Ian Shaw, 61-88. Oxford University Press.
- Childe, V Gordon. 1930. *The Bronze Age*. Cambridge: University Press.



- Childe, V Gordon. 1950. 'Urban Revolution'. *The Town Planning Review* 21 (1): 3-17.
- Crawford, Harriet, 2004, *Sumer and the Sumerians*, Cambridge University Press.
- Fagan, Brian M, 2010, *People of the Earth: An Introduction to world Prehistory*, New Jersey, Pearson Education.
- Fekri, Hassan, 1999, 'Nagada (Naqada)'. In *Encyclopaedia of the Archaeology of Ancient Egypt*, edited by K. Bard, 555-57. London, Routledge.
- Grahame, Clark. 1997. *World Prehistory: In the New Perspective*, Cambridge, Cambridge University Press.
- Ratnagar, S. 2011. Approaches to the Study of Ancient Technology. *Essays in Indian Historiography*, ed. by S Bhattacharya. Delhi: ICHR and Primus Books.



UNIT IV

ANCIENT GREECE: MINOAN AND MYCENAEAN

STRUCTURE

- 4.0 Objectives
- 4.1 Introduction
- 4.2 The Palace Society of the Minoans
 - 4.2.1 Nature of the Palace-centred Redistributive Economy
 - 4.2.2 Aspects of Social Complexity and Minoan Religion:
 - 4.2.3 Phases of Minoan Civilisation
- 4.3 Minoan Interaction with Mycenaean Greece
 - 4.3.1 Phases of Mycenaeans
- 4.4 Answer to In-Text Questions
- 4.5 Let us sum up
- 4.6 References and Suggested Readings

4.0 OBJECTIVES

After reading this unit, the students will be able to:

- Understand the model of Bronze age Civilizations in the Greek Archipelago
- Explain the trends in the Polity, economy and society there
- Understand the basis of the Greek Mythology

4.1 INTRODUCTION

This unit deals with the growth of Bronze Age Civilizations. By the end of this unit, the students will have an understanding about the model of Bronze age Civilizations in the Greek Archipelago that were termed as the Minoan and the Mycenaean. There will be a discussion on the palace-based polity here. This Unit is also concerned with how Kingship was intertwined with the evolution of State, hierarchization of society and with the shaping up of a



redistributive Economy. A brief discussion of the Art, Religion, and culture in Crete and Mycenae during the Bronze Age will help us understand the basis of Greek Mythology and religion in the later period.

Bronze Age Greece arrived rather late on the historical scene. Unlike the riverine civilizations that we have explored till now, the **Minoan** Civilization, which represents the initial phase of the Bronze Age in Greece, took roots in the island settlement of Crete. The location of Crete in the Eastern Mediterranean Sea played a significant role in the shaping of a complex society here. The ecology of the island had a deep and lasting impact on the concerns and world-view of the inhabitants. What eventually came to be known as Greece prospered because of the abundance of marble (used in building palaces) and networks of islands (mandating them to learn seafaring), which brought together technologies and materials from various sources. As an island situated right between north Africa and the European mainland that there was little for other civilisations to look for in conquering the ancient Greeks, while the latter had strong motives to be constantly on the move and be enterprising. Due to their scattered nature, the Ancient Greeks differed from each other in geography, customs, architecture, pottery and writing systems.

In this chapter our only focus is the western Aegean islands, and not the other regions conquered by the Greeks in later ages – because this is the area where the Cycladics (the inhabitants of the island of Cyclades), the Minoans and the Helladic (Mycenaeans) flourished. The most developed phases of Minoan and Helladic culture are found in the Middle Minoan and Late Helladic periods. The reasons for the acceleration are the same as in other cultures preceding the Greek – the metallurgical fusion of copper and tin to produce bronze, which brought many qualitative changes (c. 2400–2300 BCE) in construction, farming, such as olive cultivation, and shipbuilding. Learning from the Egyptians and Near Easterners, the Greeks developed more lethal weapons like metal daggers, swords and dagger heads. Some of the earliest have been found at third-millennium BCE site of Troy in western Anatolia. The smiths also added expensive decorations on the weapons which helps to distinguish hunters from warriors. The preference by the elites for luxury and expensive items like ivory demanded influx of itinerant Near Easterners who travelled west looking for new markets for their skills. This helped spread not only material advances but also religious outlooks. Apart from helping warfare, the sharper and better metal tools brought changes in agriculture. Newer plants began to be grown and olives, grapes and grains became staples. This gave a push to population, though the settlements were still very small compared to modern standards. The linguistic sources for this phase are derived from two writing scripts – called Linear A (associated with the Minoans) and Linear B (associated with the Mycenaeans)– discovered by Michael Ventris along with John Chadwick in 1952. Linear B is considered to be the earliest form of Greek, in contrast with the still undeciphered Linear A.

Nineteenth century scholars downplayed or outrightly denied the connection of the Bronze Age Greeks with their predecessors. However, ancient Greeks themselves conceded that they



had much to learn from Egypt and Near East. Herodotus writes that the priests in Egypt told him that apart from being the first people to create altars, festivals, statues, and temples of the gods, the Egyptians had initiated the tradition of bestowing titles upon divinities, and that the Greeks had adopted this tradition from Egypt. Herodotus adds that the evidence the priests provided him proved that “these claims were valid” (*The Histories* 2.4.2). Modern historians agree with Herodotus and other Greek writers. A large part of the Greek mythology and rituals were adopted from the Egyptians. Apart from religion, the debt of the Egyptians was also reflected in the statues carved out by Greek sculptors, which are shaped as per to a set of proportions established by Egyptian artists. The Greeks also had trade links with Near East, as revealed by archaeology.

Thus, it may be argued that the Aegean Civilizations, including the Minoan Civilization of Crete grew because of its interaction with the economic structures of the Levant behind which stood the much larger urban economies of Mesopotamia and Egypt. This argument represents an antidote to Eurocentric generalization that Greece and Rome had experienced ascendance independently without much interaction with or emulation of the ‘Orient’.

Time	Events
c. 4500–2000 BCE	Movement of Indo-European people into Europe (probable)
c. 3000–2500 BCE	Bronze metallurgy under way in the Balkans and on the island of Crete.
c. 3000–2000 BCE	Development of Mediterranean polyculture.
c. 2200 BCE	Earliest Cretan palaces of Minoan civilization.
c. 2000 BCE	Violent destruction of many European sites.
c. 1700 BCE	Earthquakes destroy early Cretan palaces.
c. 1600–1500 BCE	Shaft graves at Mycenae on Greek mainland.
c. 1500–1450 BCE	Earliest Mycenaean tholos tombs.
c. 1400 BCE	Earliest Mycenaean palaces.
c. 1370 BCE	Palace of Knossos on Crete destroyed.
c. 1300–1200 BCE	Highpoint of Mycenaean palace culture.
c. 1200–1000 BCE	Violent disturbances across the Aegean region in the era of the Sea Peoples.
c. 1000 BCE	Mycenaean palace society no longer functioning.

Table 1: Timeline of Ancient Greece



4.2 THE PALACE SOCIETY OF THE MINOANS

The Cyclades were the first to settle out of the Greek mainland into the Aegean and the set of islands known as the Cyclades. Cycladic islands have an abundance of marble. The location of these islands meant that they were stopping points for many traders. This meant that the Cyclades were one of the earliest people to erect large-scale stone sculptures. In the Bronze Age the Cyclades also created villages, cemeteries, fortifications, and pottery. What later were known as Minoans coexisted with them (centred on Crete) and learned from them.

The origins of the Minoans are unknown. Around 2200 BCE, large-size, multi-chambered buildings, which may be called palaces, begin to surface on Crete, usually near the coast. The palaces had many stories, were decorated with paintings of ships, sea animals like dolphins and women. There were usually no fortifications around these buildings. Historians called this society as Minoan, so named after the King Minos, the mythical king who is said to have ruled from Knossos, the capital city of the Minoans as mentioned in the writings of later Greeks, who also mentioned the Minotaur and the labyrinth. Later the Minotaur became associated with Theseus.

Around 1700 BCE, earthquakes destroyed most of these buildings but the Minoans resurrected many more after this destruction. Tablets preserved from these large structures show that the economy was organized as networks of exchange and in a top-down manner. The Minoans borrowed from the Egyptians their pictographic script and transformed it as representing syllables, named as Linear A. Historical linguists have not been able to decipher this script and it cannot be said for sure whether this represented some Indo-European language. However, we know for sure that the script was used to keep records of trade, goods, livestock and land ownership. Accounts were maintained in the form of these tablets. They record the offerings made to gods, payments made to personnel, and raw materials required for different enterprises like cloth-making.

4.2.1 Nature of the Palace-centred Redistributive Economy

From the tablets recovered we know that the Minoan society did not keep accounts regarding exchange: how much grain could be had in exchange for a sheep or how much money would be required to buy something. Hence, it can be deduced that the authority directed people regarding how much to produce and how much would be credited to them in return. In other words, the market system had not yet emerged. Sustaining this system required tremendous accounting and a complicated administration. The palaces would have had to store primary products like olive oil or grapes, in giant storerooms. Scribes must have kept an account of all this material. Officials would have had to collect set amounts of materials like food and textile from different areas. Most people were given their job responsibilities in this centralized way. Thus, exchange was minimal. People farther from the core areas must have



engaged in exchange, but the total volume of their trade must have been minimal in comparison to the centrally determined production of goods.



Figure 1: Knossos

In the same manner, overseas trade also happened under the aegis of the palace authority. Cyprus could have supplied copper, but tin must have been obtainable from far-flung places. Therefore, without trade, which connected them to places like Britain and Afghanistan, the Minoan economy would not have been successful. Egypt was one of their preferred destinations, where they are depicted in the tomb reliefs as bearers of gifts and tributes for the Egyptian rulers. A few Minoans stayed in Egypt as mercenaries or artists, as Minoan frescoes (wall paintings made on plaster) have been found in Egypt. However, it was the Near Eastern merchants and craftsmen who travelled to Minoan Crete.

The co-related activity of exchange underwent a few significant shifts throughout the Bronze Age. The export of Cretan vessels continued uninterruptedly from late Neolithic onwards. There was a shift in relations of exchange with Cyclades. It exported obsidian and copper to Crete, but the volume of trade declined as the Bronze Age progressed. Between 2650 – 2100 BC there was an increase in the import of precious goods and newer technology from Egypt and Syria. Interestingly, this coincides with the appearance of ships with masted sails, the kind that were in use in the eastern Mediterranean region. The image of these ships appears on the Minoan seals from around 2200 BC. There appears to be a move away from the Aegean to the eastern Mediterranean in terms of the direction of import of goods demanded by the elite in Crete.



The fact of regular and well-organised exchange gets corroborated with the presence of stone seals and sealings found in the recovered items of Cretan origin. These seals date back to the mid and late third millennium BC. when there was sufficient growth in bureaucratic administration and changes in ownership patterns.

The household was the main unit of production from the Neolithic period. Thus, the specialization and competition were at the level of the household and regulated by the local needs and demands of the community. There was a kind of stability in this communally regulated production. With urbanization and increase in the demand for crafts, workshops would have been established outside the household. There was a shift, for instance, in ceramic production from the early Bronze Age here. Ceramic production was now characterised by a new kind of painted ware. It was marked by regional expression. There was now a more intricate chain of operation that bound the craftsmen or the producers, the merchants and consumers. There was also an increase in output. This is exemplified in the introduction of the wheel-turned Kamares pottery, so-named because the evidence for it was first found in the cave site of Kamares in Crete.

The traditional palace-model of state formation holds that the palace played a crucial role not only in the redistribution but also the production of new crafts including the Kamares pottery. New evidence shows that the patronage, production and use of this pottery was not restricted to the palace-elite but also got extended to other powerful sections of society. Thus, the production and consumption of some of these ceramics produced by artisans in distant parts of Crete highlights the increase in social differences in the Minoan society.

4.2.2 Aspects of Social Complexity and Minoan Religion:

Early Minoan was marked by a weak hierarchy and multiple groups contending for power. This stood in sharp contrast to the kind of steep hierarchy and single elite authority that we perceive in Bronze Age Mesopotamia, Egypt and China. However, with intensification of production and greater specialization of crafts, demographic increase and need for redistribution of resources, there was certainly a move towards social ranking and differentiation in Bronze Age Crete.

The monotheistic aspect of Minoan religion has been revisited in recent times. Textual evidence, mainly a close examination of the Linear B documents of the Late Bronze Age found at Knossos has established that the Minoan religion was polytheistic with various local gods included in rituals and ceremonies conducted by the palaces. The Minoan religion is now viewed as a collection of cults and practices that were community based and regional in nature although there was a common pattern that existed throughout the island settlement. The main religious symbols continued to be the horns of consecration, the double axe, bull, birds and snakes and other amphibian creatures. For both Minoans and Mycenaeans divine power was manifested not so much in human or anthropomorphic forms, but rather in zoomorphic (representing animal forms) and aniconic (without idols or images) forms. These



symbols represented the male and female divinity with life-giving powers. The fluidity in Minoan religion is reflected in fresco paintings on the walls of the palaces and the designs on pottery.

The Minoan sanctuaries where worship and ritual ceremonies were organised were located on hills, mountain tops, caves and in labyrinths. Caves had always been used both for habitation and burials since Neolithic times on Crete. The practice of conducting rituals here and on mountain peaks continued even after the beginning of the palace period after 2000 BC. However, after the construction of palaces in the the main form of community worship seemed to have shifted to the palaces.

4.2.3 Phases of Minoan Civilisation

The Minoan civilisation can be divided into following phases:

- **Pre-Palatial period (2600-1900 BCE):** Development of agriculture and trade with Egypt and Near East. Growth of population and rise in prosperity. Emergence of social stratification.
- **Old Palatial period (1900-1700 BCE):** Emergence of regional palaces like Knossos, Phaistos, and Zakros as economic, political and social centres. Smaller versions scattered all across Crete. This happened due to the control of land and boosting up of trade with rest of Mediterranean. We do not know if Knossos was a capital or just another palace. Linear A developed during this time
- **New Palatial period (c. 1700-1450 BCE):** Earthquakes devastated several parts of Crete and Aegean, but an even more vibrant culture emerged after this destruction. Trade developed globally between Egypt, Asia, Near East and Africa, in what historians call as “first international age”. Around 1630 BCE, a volcano at the island of Thera blew up and contributed to the decline of Minoans.
- **Post-Palatial period (1450-1100 BCE):** The Mycenaeans, from mainland Greece, got possession of Crete. The Mycenaeans appropriated and developed the palace culture, and the Knossos even flourished briefly. The Mycenaeans borrowed not only the Minoan social organization, art and culture but also their script – Linear A – and turned it into their Linear B.

Archaeology reveals that the Minoans built almost no fortifications around the palaces that they built, which suggest that they were rather peaceful in nature. Thucydides writes that the King Minos was the first one to have a navy and subjugate the Cyclades, but only with the intention of checking piracy in the Aegean Sea. By contrast, their Mediterranean neighbours did have defensive arrangements. At Knossos, we only find many hundred rooms, storage jars worth 240,000 gallons, plumbing and paintings. The preponderance of women in palace frescoes and figurines suggest that the Minoans were women-dominated society. However,



weaponry from graves suggests that warfare and other activities must have bestowed special status upon certain men too. Overall, the society seems to be enthusiastically religious.

IN-TEXT QUESTIONS-1

A. Multiple Choice Questions

1. Greece prospered because of abundance of
 - A. Iron
 - B. Marble
 - C. Gold
 - D. Silver
2. Crete is an island located between North Africa and
 - A. England
 - B. Russia
 - C. France
 - D. European Mainland
3. The most developed phases of Minoan and Helladic culture are found in the
 - A. Middle Minoan
 - B. Late Helladic periods
 - C. Both A and B
 - D. None of the above
4. The book written by Herodotus is called
 - A. The Histories
 - B. The Greeks
 - C. The Roman Empire
 - D. The Mycenaean Civilisation



5. Minoans were named so after
 - A. King Menander
 - B. King Minos
 - C. King Alexander
 - D. King Darius
6. Minotaur became associated with
 - A. Perseus
 - B. Theseus
 - C. Julius
 - D. Augustus
7. Minoan economy was arranged in a
 - A. Top-down manner
 - B. Bottom-up manner
 - C. Both of these
 - D. None of these
8. Pictographic scripts of ----- were borrowed by the Minoans.
 - A. Indians
 - B. Chinese
 - C. Egyptians
 - D. Mesopotamians
9. Pictographic script borrowed by Minoans was transformed into which language
 - A. Linear A
 - B. Linear B
 - C. Linear C
 - D. Linear D
10. Most people were given their job responsibilities
 - A. By a decentralized way
 - B. By organizing war games
 - C. By organizing hunting expeditions
 - D. By a centralized way.



11. The overseas trade of Minoans was controlled by
 - A. Traders
 - B. Trading organizations
 - C. Palace Authority
 - D. Guilds
12. Pre-Palatial period of Minoan Civilization corresponds to
 - A. 1900 – 1000 BCE
 - B. 2600 – 1900 BCE
 - C. 3300 – 2600 BCE
 - D. 2600 – 2200 BCE
13. Post-Palatial period of Minoan Civilization corresponds to
 - A. 1450-1100 BCE
 - B. 1100-900 BCE
 - C. 1300-700 BCE
 - D. 1700-600 BCE
14. King Minos subjugated the Cyclades with the intention to
 - A. Conquer the region
 - B. Plunder the region
 - C. Checking piracy in the Aegean Sea
 - D. None of these

4.3 MINOAN INTERACTION WITH MYCENAEAN GREECE

As the Minoans developed larger ships to carry goods, trade with neighbouring and faraway places increased, they encountered an Aegean people at the Greek mainland called the



Mycenaeans, whose primary activity was to engage in raiding. Whereas the Minoans built palaces, the Mycenaeans built *megarons* (or great rooms or King's halls). Taking clues from Homer's epics, archaeologists have discovered the site of Mycenae in the Peloponnese (southern Greece peninsula), where they found a citadel with multiple terraces and numerous fortification walls. It is after the name of the site that the whole civilization in the second millennium BCE is named as Mycenaean. It was spread across Greece in the form of a unified state. Archaeologists also found treasure filled graves, which led to a massive interest in the ancient Greek world in the nineteenth century. The first explorer, businessman-turned-archaeologist Heinrich Schliemann thought that he had discovered the grave of the Homeric king Agamemnon. However, the site actually belonged to at least a millennium before the Trojan war. The *Iliad* written by Homer must then refer to a period in which the Mycenaean myths and vision settled down, as their warriors conquered lands near and far.

The next important archaeological remains of the Mycenaeans are *tholos* or massive tombs. They are underground domed chambers in beehive shapes with stones around them. They mark the next step in Mycenaean culture, beginning from the fifteenth century BCE. They remind us of the structures built by the Egyptians and Near Easterners. However, the Minoans inspired the Mycenaeans more than anyone else. Mainland artifacts and architectural remains are hugely inspired by the Minoans. It is a point of debate among historians whether the Mycenaeans owed the origin of their civilization to the colonisation efforts of the Minoans. There were evident differences in their cultural practices. The Mycenaeans offered burnt items to their gods, the Minoans did not. The Minoans built a large number of shrines away from their palaces, the Mycenaeans did not. The megarons built by the Mycenaeans seem unique to them, with some even being two stories high. The language spoken by the Mycenaeans has been established to have been Indo-European, as established by Ventris, and written in Linear B. Before the final destruction of Knossos, the tablets found have suggested that they were written in Linear B, indicating that perhaps the Mycenaeans had dominated the Minoans and records were being kept in the language of the new rulers. However, it is not certain whether this domination was peaceful.

4.3.1 Phases of Mycenaeans

- **Early (2000-1600 BCE):** Greek mainland people migrated and in Mycenae. Agriculture became predominant and population increased. Trade developed with other civilizations. A more hierarchical social system developed. The Minoans and Mycenaeans came in contact.
- **Middle (1600-1400 BCE):** After the eruption of Thera, Mycenaean power increased. Burial sites reveal that Mycenaean leaders got hold of the region, enlarged their trade and status relative to other people. Chariots began to be seen around 1600 BCE. A century later the great tholos tombs are visible and by 1450 BCE the Mycenaeans are in control of Knossos. Miletos and Rhodes are powerful establishments by this time.



- **Late (1400-1200 BCE):** The Minoan influence is so big that scholars initially thought that they were conquered by the Minoans. The Hittites of Anatolia (modern-day Turkey), who are in conflict with the Mycenaeans, refer to the latter as *Ahhiyawa* which probably became the root of the Greek word *Achaen* (Homer's generic word for "Greek"), and *Milawanda* (Mycenaeans of Miletos). There was direct contact with Egypt.

At its height, the Mycenaean palace system was a complex social, military and economic institution that generated and maintained immense power and wealth. Linear B texts, especially those discovered at Knossos and Pylos, give us a good idea of how it worked. At the top was *wanax*, or "lord". Under him were high-ranking officials such as lawyers (possibly "commander" or "designated heir"), *telestai* (possibly "priest" or "baron owner") and *korete* (possibly "regional manager") who oversaw the collection, production, and protection of the palace resources. These officials received their land from the *wanax* and in return they gave it their services and part of their resources. Military enforcement and kingdom raiding seems to be the work of a "military class", the *hequetai*. The villages were under the supervision of the "local magistrate", or *pasireu*.

The palace was a complex of operations and accounting. Masons, potters, carpenters, gunsmiths, goldsmiths, specialists of all kinds, worked under the supervision of the elite and the watchful eyes of scribes, who took notes and controlled them. Listed everything from the dented tripod to the finished carriage. Textile production, from carding of wool to embroidery of fine woven fabrics, was an important part of the palace economy, and where women were predominantly employed. Metallic, simple and aromatic ceramics, and textiles seem to have been the main trades of the Mycenaeans (although these were the easiest to maintain over time), they traded to obtain luxury and exotic goods, spices, copper and tin, and other desired items.

Then, shortly after 1200 BCE, probably within the span of two generations, the powerful Mycenaean world came to a sudden and fiery end. The palaces of central and southern Greece, from Thessaly to the tip of southern Greece, were destroyed and never rebuilt. Some centres, such as Mycenae and Tiryns, attempted a recovery, but were destroyed again shortly thereafter. Knossos, too, fell. Beyond the Mycenaeans, the Hittite empire also fell, and just as mysteriously. Cities in Anatolia and Syria were destroyed and burned, including Troy.

Anyway, in 1100 BC. The Mycenaeans abandoned some of their most fertile territory in Greece and fled east and west. They left behind ruined palaces, ruined lands, and a mysterious void in Greek history that has never been filled or explained.



IN-TEXT QUESTIONS-2

A. Multiple Choice Questions

1. Megarons were
 - A. Temples
 - B. Tombs
 - C. Ritual Sanctums
 - D. Great rooms
2. Tholos are
 - A. Temples
 - B. Tombs
 - C. Ritual Sanctums
 - D. Great rooms
3. The language of Mycenaeans was written in
 - A. Linear B
 - B. Linear A
 - C. Linear C
 - D. Linear D
4. Middle Mycenaean phase corresponds to
 - A. 1200-1100 BCE
 - B. 900- 600 BCE
 - C. 1600-1400 BCE
 - D. 1400-700 BCE
5. Late Mycenaean phase corresponds to
 - A. 1200-1100 BCE
 - B. 1400- 1200 BCE
 - C. 1600-1400 BCE
 - D. 1400-700 BCE



6. Wanax were

- A. Priests
- B. Military Commanders
- C. Peasants
- D. Lords

B. Short Answer Questions:

1. Elucidate on the economic life of Minoan Civilization.
2. Discuss the various phases of Minoan Civilization.
3. Discuss the various phases of Mycenaean Civilisation.
4. Describe the administrative apparatus of the Mycenaean Civilization.

C. Long Answer Questions:

1. Describe the role of palace authority as also the nature of society and economy during the Bronze Age in Greece.
2. The Mycenaeans emerged out of the colonization process by the Minoans. Critically analyze.
3. Compare the life worlds of Minoans and Mycenaeans.

4.4 ANSWERS TO IN-TEXT QUESTIONS

Answers to In-Text Questions-1

- A. 1. b 2. d 3. c 4. a 5. b 6. b 7. a 8. c 9. a
10. a 11. c 12. b 13. a 14. c

Answers to In-Text Questions-2

- A. 1. d 2. b 3. a 4. c 5. b 6. d

B. 1. See Section 4.2.1

2. See Section 4.2.3

3. See Section 4.3.1



4. See Section 4.3.1
- C.
 1. See Section 4.2 & 4.3
 2. See Section 4.3
 3. See Section 4.2 & 4.3

4.5 LET US SUM UP

- The Bronze Age Civilization in Ancient Greece is represented by the Minoan and the Mycenaean civilizations.
- The Minoan Civilization was in the island settlement of Crete.
- The Mycenaean Civilization that developed later than the Minoan was centred on mainland Mycenae.
- Central to the Minoan Civilization was a palace based centralised political structure that controlled the production and distribution of goods and an extensive seaborne trade network.
- The Minoan and the Mycenaean civilizations are associated with the Linear A and Linear B scripts respectively.
- The Minoan- Mycenaean religion was a mixture of cults and practices and community worship and ritual ceremonies that continued into the later periods.
- The Mycenaeans had a complex hierarchical political system which collapsed around 1100 BCE.

4.6 REFERENCES AND SUGGESTED READINGS

- M. I. Finley, *The Ancient Greeks*, 1963.
- M. I. Finley, *Early Greece: The Bronze and Archaic Ages*, 1970.
- Sarah Pomeroy, *Goddesses, whores, wives and Slaves*, 1995 reprint, pp.16-31
- Bridenthall and Koonz (Ed). *Becoming Visible: Women in European History*, 1977, pp.36-59.
- Renfrew, Colin. (1999). *The Emergence of Civilisation. The Cyclades and the Aegean in the Third Millennium B.C.* London: Methuen, 1972.



- Bintliff, John L. "Settlement and Territory." In *Companion Encyclopaedia of Archaeology*. Edited by Graeme Barker, Vol. 1. London: Routledge, 1999, pp. 505–545.
- Burns, Edward McNall, and Philip Lee Ralph. (1982). *World Civilizations: Their History and Their Culture*. Norton, New York.
- Fagan, Brian M. *People of the Earth*. (1977). Little, Brown.
- Farooqui, Amar. (2001). *Early Social Formation*, New Delhi.
- UNESCO Series: History of Mankind, Vols. I – III / or New ed. History of Humanity.
- Cambridge History of Africa, Vol I. CUP, Cambridge, 1975.
- Childe, Vere Gordon. (1946). *What happened in history*. Baltimore, MD.
- Roux, Georges. (1992). *Ancient Iraq*. Penguin.
- Childe, Vere Gordon. (1951). *Social Evolution*. London: Watts.
- Curtin, P.D. 1984. *Cross-Cultural Trade in World History*. Melbourne: Cambridge University Press.
- Frankfort, Henri. 1978. *Kingship and God: A Study of Ancient Near Eastern Religion as the integration of Society and Nature*. Chicago: Chicago University Press.
- Bogucki, P. & Pam J. Crabtree, (2004). *Ancient Europe (8000 B.C -A.D. 1000)*. *An Encyclopaedia of the Barbarian World*, Charles Scribner's Sons, New York.