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Indira Gandhi National Open University
School of Social Sciences

BANC-131

**ANTHROPOLOGY AND
RESEARCH METHODS**



ANTHROPOLOGY AND RESEARCH METHODS

**School of Social Sciences
Indira Gandhi National Open University**

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COURSE INTRODUCTION

Anthropology is a holistic science as it deals with all aspects of biological and cultural diversity of humankind. The discipline of anthropology is usually divided into four subfields: physical/biological anthropology, social/cultural anthropology, linguistic anthropology and archaeology anthropology.

Physical/biological anthropology aims to understand the biological origins, evolutionary changes, and the genetic diversity of the human species. Social/cultural anthropologists aims to understand the human social and cultural diversity across the globe, including variation and change. Archaeology deals with the study of past human cultures through their material remains. Linguistic anthropology deals with the study of human language and communication, including its origins, history, and contemporary variation and change.

The holistic approach of the discipline intersects natural science, social science, and humanistic perspective on the human condition. Anthropologists examine all the aspects of humankind from both scientific and humanistic perspectives. The main focus of anthropological research is a deep and rich understanding of who we are as human, how we changed and why we are as we are. Anthropologists engage in field-based research as well as laboratory analyses and archival investigations with established theories, methods and analytical techniques. Each branch of anthropology focuses on a different set of research interests and generally uses different research techniques.

This is a six-credit course. This course will provide an introduction to the subject, origin and development of the discipline, development of anthropology in India and research methods of the discipline. This course is designed for learners who may go on to conduct fieldwork in anthropology or other related fields. In this course you will learn what anthropology is, its major branches, concepts and development of the discipline. You also learn about research methods, tools and techniques that anthropologists employ to study human beings to solve global issues in contemporary changing world.

BLOCK INTRODUCTION

Of all the disciplines that examine aspects of human existence and accomplishments, only anthropology explores the biological and cultural aspects of human beings. Though anthropology is comparatively a young discipline, it occupies an important position in the academics. Even though anthropology took lot of time to develop as an independent discipline of teaching and research, it is taught in almost all universities in India and across the globe. Anthropology is a holistic science. In order to understand its holistic nature, it is important to know the various branches of anthropology. The course is divided into four blocks.

BLOCK 1: The first block is ‘Understanding Anthropology’. It provides the learners with the basic understanding of the subject matter and highlights the importance of anthropology. This block consists of three units: **Unit 1** deals with meaning of anthropology, various definitions, scope and significance of anthropology. **Unit 2** deals with the various branches of anthropology. **Unit 3** deals with relationship of anthropology with other disciplines.

BLOCK 2: The second block is ‘Origin and Development of Anthropology’. This block consists of three units: **Unit 4**, History and Development of Anthropology, deals with the growth of anthropology in the world. **Unit 5**, Anthropology in India, deals with the growth and development of anthropology in India. **Unit 6**, Fieldwork Tradition in Anthropology, describes the beginning and growth of fieldwork tradition in anthropology.

BLOCK 3: The third block is ‘Major Fields of Anthropology’. This block deals with growth and development of major branches of the discipline. This block consists of three units: **Unit 7** describes the concepts and developments in biological anthropology. **Unit 8** describes the concepts and developments in social anthropology. **Unit 9**, Concepts and Development in Archaeological Anthropology, describes the concepts and developments in prehistory and archaeological anthropology.

BLOCK 4: The fourth block is ‘Research Methods and Techniques’. This block provides a basic toolkit for field research methods in anthropology. It provides a foundation for the learners to plan and execute their own research project. The fourth block is ‘Research Methods and Techniques’. It describes the main components of research methods in anthropology. This block consists of three units: **Unit 10**, Approaches of Anthropological Research, deals with basic issues and approaches of anthropology. **Unit 11**, Methods, Tools, and Techniques, outlines the various methods of data collection from fieldwork, in which the researchers live among the societies studied and observe their ways of life closely. **Unit 12**, Research Design, delineates the research processes and the ways and manners of conducting the study.

BLOCK 1 : Understanding Anthropology

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Unit 2	: Branches of anthropology	22-40
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UNIT 1 DEFINITION, SCOPE AND SIGNIFICANCE OF ANTHROPOLOGY*

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- 1.0 Introduction
- 1.1 Defining Anthropology
 - 1.1.1 Holistic/Integrated Discipline
 - 1.1.2 Comparative Science
 - 1.1.3 Fieldwork Method
- 1.2 Objectives of Anthropology
 - 1.2.1 Cultural Relativism
 - 1.2.2 Nature-Nurture Debate
 - 1.2.3 Applying Anthropology to Solve Life Problems
 - 1.2.4 Universal vs. Specific Knowledge
- 1.3 Scope of Anthropology
 - 1.3.1 Urban Anthropology
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 - 1.3.5 Biological/Physical Anthropology
 - 1.3.6 Archaeological Anthropology
- 1.4 Significance
- 1.5 Summary
- 1.6 References
- 1.7 Answer to Check Your Progress

Learning Objectives

After having read this unit, you should be able to:

- define anthropology;
- list various defining characters of the discipline;
- underline its objectives; and
- describe its scope and significance.

1.0 INTRODUCTION

We, humans, have our own made world. Apart from our physical presence, there is also our social, cultural and practical world. We need anthropology when we have to know and understand things related to disciplining ourselves as a subject. It would be very interesting to understand human beings as a subject in human form. Humans want to understand themselves in all their forms.

* Contributed by Dr. Prashant Khattri, Assistant Professor, Department of Anthropology, University of Allahabad, Allahabad

1.1 DEFINING ANTHROPOLOGY

Giving a single comprehensive definition of anthropology is difficult as the subject is divided into four sub-branches that deal with different aspects of human existence. To be called an anthropologist a person needs to have studied all the four branches:

- social-cultural anthropology
- biological anthropology
- archaeology
- linguistic anthropology.

However, generally in India and elsewhere students tend to specialize in one of these branches for obtaining master's degrees and doing research. Anthropology is a holistic discipline as it tries to understand human existence from different angles of culture, biology, history, and environment. Eric Wolf (1964) states "*anthropology is less a subject matter than a bond between subject matters. It is in part history, part literature; in part natural science, part social science; it strives to study men both from within and without; it represents both a manner of looking at man and a vision of man-the most scientific of the humanities, the most humanist of sciences.*"

Anthropologists are interested in understanding the origin and development of human species. They are also interested in knowing how environment affects culture and how culture has an impact over the growth and development of human personality. They inquire about the existence of human variation and try to find reasons behind such variations. They are equally interested in the reconstruction of human past and its culture. Besides having such diverse interests, anthropologists also have a diverse and unique tool kit in the form of research methods that help in answering such questions. Anthropologists also apply their knowledge and methods of research in solving practical problems and thus giving rise to a new field in anthropology called applied anthropology.

The word anthropology literally means science of human as *anthropos* means human and *logos* means science. However, this definition gives a very broad and vague idea about the subject matter of anthropology as other disciplines such as psychology, history and sociology can also be considered as studying human beings.

The American Anthropological Association defines anthropology as "*the study of humans, past and present. To understand the full sweep and complexity of cultures across all of human history, anthropology draws and builds upon knowledge from the social and biological sciences as well as the humanities and physical sciences. A central concern of anthropologists is the application of knowledge to the solution of human problems*" The basic idea in this definition is that anthropology is an integrative science that tries to understand human in its totality. It studies cultural and biological diversities for a better understanding of human existence. Anthropology appreciates and celebrates diversity.

1.1.1 Holistic/Integrated Discipline

Integrating biological, archaeological and cultural dimensions to understand human past and present can generate interesting results. An example can illustrate this point more clearly. We all have studied about the Indus Valley Civilization and know something about the fascinating culture and society during that period. Its past had been reconstructed on the basis of archaeological findings in the form of artifacts, seals, statues, objects of daily use, objects of luxury etc. as its script has not been deciphered. The past is reconstructed based entirely upon contextual findings and scientific analysis.

Some male and female skeletal remains have been found from Harappa. On genetic analysis of these remains found that most of the male skeletal remains were genetically not related. On the other hand, most of the females were genetically related to each other. Since most of the females were related genetically, therefore, the residence pattern after marriage could be '*matrilocal*' in nature. This suggests that after marriage a male might have go to his wife's house to reside, which is opposite of what we observe generally in India. This may also have important bearing in the context of position of women in the society. It has been observed that in matrilocal societies, position of women is better than their patrilocal counterparts. Anthropology therefore takes a holistic view of human existence. It starts from placing the Homosapiens in the evolutionary scheme to analyzing the variations within the human species. It then tries to understand the emergence and diversification of culture and emergence of civilization (McIntosh, 2008).

1.1.2 Comparative Science

Besides being holistic there are other defining characteristics of the subject. Anthropology since its inception had been a comparative science. It is through the method of comparison that an anthropologist reaches to some kind of generalizations. Different cultures and human populations are compared in order to understand similarities and differences between them. During the emergence of the subject, comparison was used as a method to illustrate and categorize different cultural groups into an evolutionary sequence. However, over a period of time (from the beginning of twentieth century) due to the emergence of new ideologies in the subject, comparison was made in order to reach certain generalizations about the structure of the society and laws governing the society.

The comparative method also generated an important debate between ethnocentrism and cultural relativism. In the beginning, comparison between 'simple' and 'complex' societies led to a belief that some societies are superior to the others and the western societies are at the epitome of cultural evolution. This gave rise to an ethno-centric bias. However, over a period of time it was realized that every culture should be understood in its own specific context and there is nothing like the concept of superior or inferior culture, this came to be known as the idea of cultural relativism (Harris, 1968/2001). It is this idea which adds value to the subject and makes us more tolerant towards other cultures and populations. Such kind of a debate and synthesis of idea was possible only in a subject like anthropology which is concerned with human and cultural variations.

1.1.3 Fieldwork Method

The hallmark of anthropology is its fieldwork method. B. Malinowski popularized intensive fieldwork method. An anthropologist is expected to spend a considerable amount of time in the field (around one year). Traditionally a field is defined as a place inhabited by a cultural group. Mostly anthropologists choose their field among the tribal communities that inhabit certain far-flung hilly, forest or coastal areas. Most of the earlier stalwarts in the subject chose their field among such communities. For example,

- Malinowski worked among the Trobriand Islanders inhabiting Papua New Guinea,
- Evans Pritchard worked among the Nuer community of Anglo-Egyptian Sudan,
- Radcliffe Brown worked among the Andaman Islanders,
- Margaret Mead worked among the Samoans.

It is also expected from a fieldworker that she will not only stay with the people that she intend to study but also learn their language and ways of life. She is expected to participate in the daily activities of the people and at the same time observe how people and their various institutions function. This method is known as ‘Participant Observation’. Employing this method, a fieldworker participates in the social life of the community she is studying and observes how people negotiate their cultural and social lives.

This method was popularized by Malinowski as he was of the opinion that an anthropologist should not rely on what people say that they do but rather an anthropologist should observe for herself what people actually do because sometimes people won’t tell you what they exactly do or how they carry out their social and cultural activities as they might indulge in politics of representation where they might project the ‘ideal’ and conceal the ‘actual’. Therefore in order to understand the ‘actual’, observation is needed. The idea of participant observation will get a researcher closer to the way people think and carry out their activities. This is the way of understanding the people’s point of view or people’s perspectives (Robben and Sluka, 2007).

Activity 1.1.3

Watch a BBC Four Documentary on Malinowski “Tales From the Jungles: Malinowski” for getting a closer look into anthropological fieldwork.

Check Your Progress 1

- 1) Anthropology has how many sub-branches?

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2) Who popularized intensive fieldwork method?

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3) What is ‘Participant Observation’?

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1.2 OBJECTIVES OF ANTHROPOLOGY

Objectives of a discipline can be defined at two levels:

- a) at the level of the students of the discipline which includes the objective of studying the discipline.
- b) at the level of different stakeholders, that is to say, that how the knowledge created by research in a particular discipline is being negotiated by people at large or what purpose does it serve for different people such as administrators, thinkers, and researchers.

At the first level, the objective of anthropology is to make students aware of and appreciate human and cultural variations. This, in turn, leads to a much nuanced approach to various life situations. It is the only discipline that takes into account the bio-social existence of the human population. Most of the path-breaking researches in anthropology have been conducted among the tribal and peasant groups and therefore it brings a largely marginalized section of human population into dominant public and intellectual discourse through knowledge sharing and dissemination.

1.2.1 Cultural Relativism

At the second level, of different stakeholders, one would find that, anthropology as a discipline started with the objective of studying human and cultural evolution. Cultural evolution like human evolution was thought to have occurred in a stage-by-stage manner from simple to complex cultural and societal traits. This led to the belief that most of the tribal societies around the world represent an earlier stage of cultural evolution and will ultimately be evolved to the level of western cultures and civilization. This led to a kind of ethnocentric bias. This bias tilting towards the superiority of the white western ‘race’ gave impetus to the idea of colonialism as it was considered the duty of the ‘white men’ to civilize the ‘primitive’ societies. This earlier idea was used to consolidate western colonialism in Africa and Asia.

In the Indian context most of the early anthropologists were British and their main aim was to study different population in the sub-continent in order to improve the administrative mechanism. However, not every anthropologist and scholar of human culture was convinced of the line of thought of the

evolutionists. This led to a change in the objective of the subject towards a more synchronic view or in other words the objective changed from anthropology as a study of history to a discipline that became more concerned in studying societies at the present state or as here and now. This objective was most visible in the works of Malinowski who rejected the idea that simple social institutions were inferiority to complex one. He was of strong view of that the idea of basic needs that are common to all human beings and because of which different social institutions are formed (Harris, 1968/2001).

1.2.2 Nature-Nurture Debate

Pioneers in the subject have used the anthropological methodology to fulfill the objective of challenging certain stereotypes and assumptions. It is through this objective that anthropologists have contributed positively towards some basic debates in both natural and social sciences. One such debate centers around the nature-nurture controversy. It is still being debated that which among the two is more important. Is it nature or biology that determines human capabilities and personalities or is it the nurture or culture that contributes towards this end? Leaning heavily towards any one of them can lead to dangerous conclusions.

The case in point here is the notion of 'race'. Although race is a social construct, people tend to believe that certain physical characteristics go with certain behavioral patterns. In other words, human behavior is considered to be naturally determined. This led to the formation of certain stereotypes related to race. For instance, this led to a belief that certain races are superior to others. However, this line of thinking was not acceptable to some anthropologists and pioneer among them was Franz Boas.

Boas was of the opinion that human behavior is culturally determined and to fulfill this objective and to establish this line of thinking he prepared one of his students Margaret Mead to study the adolescent behavior among the Samoans. It was widely held before this study that adolescent was an age of trauma and disturbances and adolescent boys and girls tend to engage in a rebellious behavior. Such kind of behavior was thought to be rooted in their genes and thus was thought to be universal. Boas contended that if he can find even one example where adolescent was not a period of trauma and disturbances then the biological basis of such an assumption could be challenged and its cultural basis could be established. With this objective in mind, Margaret Mead studied the adolescent behavior among the Samoans and found that their adolescent was unlike that of Americans. Samoan adolescents seemed to be well adjusted with no associated trauma or disturbances. With such a finding the importance of nurture became established (Harris, 1968/2001).

1.2.3 Applying Anthropology to Solve Life Problems

Anthropology is studied and practiced to bring about positive change in the lives of the people. This is the applied aspect of anthropology where anthropological knowledge is used to help people lead better lives. Development seems to be the buzz word in the present global context. It requires utilization and consumption of natural resources in the form of forest produces, minerals, coal, etc. that in turn may require felling of trees

for wood and mining to extract minerals. Such activities lead to large-scale displacement of people mostly tribes who inhabit such areas for centuries. It is in this context that the anthropological knowledge and insight comes in handy. Anthropologists are people who can take stand for such a marginalized section of the population. Knowledge about tribal needs and wants can help in protecting their rights. In this context anthropology relates to the issue of advocacy of civil rights (Olivier de Sardan, 2005).

The applied dimension of anthropology was also largely influenced by the World War II (Eames and Goode, 1977). During the Second World War, it was realized that anthropological knowledge and methods can be used to understand the enemy culture in order to hasten victory of the allied forces. One such study was conducted by Ruth Benedict on Japanese prisoners in America in order to understand the Japanese culture. Such studies came to be known as studying ‘culture at a distance’ because in such a study the anthropologist is not going among the natives in their land but trying to study their culture through some cultural representatives, like in this case, war prisoners. Based on her study, Benedict wrote *Chrysanthemum and the Sword*. Studies with similar objectives were conducted by other anthropologists during the Second World War in America that focused on the issue of dietary patterns of the people. It was believed that if the dietary pattern can be studied and changed in accordance with food items that were in greater supply during the war then the food crisis may be resolved (Eames and Goode, 1977).

1.2.4 Universal vs. Specific Knowledge

The basic underlying objective of the subject has been to juxtapose the local with the global. In other words, the anthropological knowledge has grown from understanding the particular in the context of the universal. This is to say that even when an anthropologist looks on the particular, her aim remains universal. This is evident from the above examples where an anthropologist chose a very specific community for her study and based on such a study aimed at answering certain basic questions which are more fundamental in nature.

Acquiring particular knowledge also fulfills the objective of comparing it with the known. For example, if the objective of an anthropologist is to understand the position of women in the society then she will start with asking the question what is the position of women across different societies? After having obtained answers from different societies, she will compare them in order to reach some kind of conclusions. This kind of particular knowledge also has some advantage in the form of suggesting alternative strategies and structural formulations that may lead to solving present problems. For example, while studying gender equality, if alternative models of equal status of men and women in the society are available then they can be emulated on a larger scale (Beard-Moose, 2010).

Similarly, understanding religion and its function in the contemporary society will begin from similar questions of the function and status of religion in other societies. This specific/particular knowledge about a single society helps in re-orienting and reframing fundamental questions and concepts. For example, Kathleen Gough studied the marriage and family patterns among the Nayars of Kerala which led to the reformulation of the definition of

marriage which was till then defined as a union of male and female with common residence for attaining certain social goals.

Another important dimension of the particular knowledge is the study of the indigenous knowledge system of tribal groups. Such indigenous knowledge is the product of specific socio-economic and ecological situations that over a period of time become important strategic tools for survival. Recently this indigenous knowledge system has been given prime importance even by the Government of India as it has proved to be of great help in managing extreme life conditions during natural disasters.

Some communities have lived with disasters such as floods and droughts for decades and therefore have developed specific knowledge related to its management and resilience. This knowledge is integrated with the larger disaster management plans (National Policy on Disaster Management, 2009). Similarly indigenous knowledge related to medicinal plants and their use is of great importance for treating certain diseases.

Check Your Progress 2

4) What is the main objective of anthropology?

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5) What is culture relativism?

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6) Who studied the adolescent behaviour among the Samoans in the 1920s?

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1.3 SCOPE OF ANTHROPOLOGY

1.3.1 Urban Anthropology

Most of the anthropological studies in the past were conducted upon isolated social groups that can be called ‘tribes’. Even today, anthropologists have not completely abandoned their bailiwick for studying such groups as most of the anthropological fieldworks planned by independent researchers and groups are conducted among these tribal groups. However, besides carrying out the ethnographic descriptive account of these groups, anthropologists are also interested to understand various cultural and social changes that are taking place among such communities.

The scope of the subject has also widened especially after the 1960s when a new sub-branch of anthropology emerged known as urban anthropology (Eames and Goode, 1977). As the process of urbanization picked-up pace, urban centers attracted the population of the rural areas searching for better livelihood opportunities. Also, with the process of development gaining importance, a lot of forests and agricultural lands that belonged to the tribes and peasant communities was taken for building dams, mines, etc. which led to a large-scale migrations and displacement of these communities. With such communities migrating to urban areas, anthropologists also shifted their attention to these areas and hence emerged studies that focused on 'peasant in cities' (Eames and Goode, 1977). Such studies mainly focused on the adaptability of the migrant community to new places and ensuing social and cultural changes that accompanied such migrations.

The discipline of archaeology also contributed to urban anthropology. Archaeologists are more concerned with the study of the emergence of urban centers and the factors that led to their emergence. Such studies become important in the backdrop of understanding the processes that led to urban civilizations (Eames and Goode, 1977).

1.3.2 Anthropological Methods

The applied dimension of anthropology has broadened its scope by applying the methods of anthropology to solve the problems of communities. Applied anthropology uses tools like Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA) for addressing particular problems and then suggesting solutions. Under the RRA a quick appraisal of the problems of a rural community is made in order to bring about time-bound changes in their conditions. With the use of PRA, the anthropological notion of insider's perspective comes to life (Bernard, 2006). Under the PRA techniques, people participate in negotiating the meaning and extent of their problems and suggest solutions.

For example, people affected by floods might sit together and prepare vulnerability maps that may mark those areas in their vicinity that are more prone to floods. Similarly, they may prepare safe route maps that can provide alternative routes in case of an emergency situation (Khattari, 2012). PRA is based upon the notion that 'people know the best'. A lot of tribal communities in the central Indian belt have been displaced from their lands on the pretext of developmental activities in the form of building dams, mining, acquiring forest produce especially wood, etc. as these areas are rich in mineral and forest resources. Anthropologists have been studying such processes and have advocated for the rights of such tribes.

1.3.3 Business Management

Anthropologists have ventured into new and challenging areas of business management and disaster management. The twin concepts of society and culture are the hallmark of anthropological studies. Anthropologists are considered to be specialists in understanding culture, society and various changes that occur in these systems. The field of management anthropology makes use of this specialty of an anthropologist in understanding cross-cultural trade and business practices. Business is not only limited to economic

transactions rather it envisages a more dynamic behavioural aspect. People meet and interact with each other and crack deals worth billions of dollars. These behavioural aspects are best understood by anthropologists. The anthropological method of ethnography and in-depth study at a micro-level come in handy while studying management-related issues. The entire range of anthropological tools can be applied basically at three levels:

- 1) at the level of understanding the organizational structure and culture of a multi-national corporate business house.
- 2) at the level of understanding the behavior of consumers and customers for enhancing product design for attaining more profit.
- 3) at the level of understanding the impact of market culture on the lifestyle and social institutions like family, marriage patterns etc. in the society.

The anthropological tool of the comparative method provides an opportunity for cross-cultural comparisons and reach to a generalization of best practices in relation with marketing and organizational set-up of an organization (Khattri, 2012).

1.3.4 Disaster Management

Anthropologists have a lot to contribute towards disaster management. Disasters are increasing globally which is resulting in large-scale damage to property and life. This has led to a realization that disaster management has to be a continuous process rather than limited to a post-disaster relief event. Now the efforts are made towards reducing risk and vulnerabilities of various social groups. Some people are more vulnerable than others on the basis of poverty, gender, age, social capital, and the physical space that they occupy. A disaster, rather than being a physical or natural event, is a product of hazards and socio-spatial vulnerabilities. Anthropologists have contributed towards disaster management by studying and suggesting methods of vulnerability reduction (Khattri, 2012).

1.3.5 Biological/Physical Anthropology

As anthropology is a holistic discipline, the study of human beings as biological entities also fall under the scope of the subject. Here anthropologists are largely concerned with human paleontology and human genetics. In human paleontology, studies are conducted on human fossils and an attempt is being made to unravel the evolutionary history of humans (Ember et al., 2002).

The field of primatology is also related to human beings as it tries to trace the roots and points of departures that led to the evolution of Homo sapiens (Ember et al., 2002). The field of human genetics tries to understand human variations, disease distribution across regions and human adaptations on a genetic level. There are areas like human growth and nutrition where both physical/biological and socio-economic dimensions become integrated. Growth and nutrition are affected by socio-economic factors such as income, group status and social capital (Ember et al., 2002).

1.3.6 Archaeological Anthropology

Studying societies and cultures of the remote past also fall under anthropology. This branch is called archaeological anthropology. Here the main emphasis

is on reconstructing the past societies on the basis of evidences that may appear in the form of artifacts, cave paintings, etc. Anthropologists try to reconstruct the lifestyle of the people who either left no written records or those who left certain written material but which could not be deciphered as yet (Ember et al., 2002).

Check Your Progress 3

7) What is applied dimension of anthropology?

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8) What is PRA method?

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1.4 SIGNIFICANCE

Anthropology acquaints us with human, cultural and biological variations. This realization makes us more sensitive to the aspirations of different groups in the society. Anthropological methods of in-depth fieldwork and participant observations bring out significant results in the form of giving voice to people’s experiences. Such methods are also adopted by other disciplines like history. Oral histories of different oppressed communities are generated using these methods. This becomes important in the backdrop of the emergence of ‘political public’.

An anthropological concern with the tribal societies helps in understanding them better and in turn lead to better policy formulations for their development. The British to a great extent were able to rule Indians because of their training and knowledge in anthropology. The subject is also significant because it advocates a holistic understanding of humans as opposed to partial and more specialized understanding. This furnishes a complete picture of any event or phenomenon. For example, if a new drug or a treatment regimen for a disease needs to be introduced in a tribal area it is bound to meet with resistance as the two world views- modern medicine and traditional health care- are not compatible to each other. The anthropological solution would be against the forceful introduction and it would comply with a more nuanced approach of making people realize the importance of such regimen through their cultural metaphors.

Anthropology tries to capture the uniqueness of human existence. It studies different cultures and societies. In the present globalized context, such studies become important as people are interacting with different cultures more frequently. Anthropology makes us more conversant with different cultures and enables us to appreciate diversities.

The kind of knowledge that an anthropologist seeks is less in supply because anthropology emerged quite late on the academic scene. It emerged as an

academic discipline only in the 19th century. Disciplines like physics, chemistry and mathematics predate it as human beings started studying themselves and their own behavior quite late. This calls for further research on various dimensions in which an anthropologist is interested and thus acquires significance as a separate discipline (Ember et al., 2002).

1.5 SUMMARY

Anthropology is a subject that studies human beings in time and space. It is a holistic discipline based on the notion of cross-cultural comparisons. Anthropology since its inception had been a comparative science. It is through the method of comparison that an anthropologist reaches to some kind of generalizations. Different cultures and human populations are compared in order to understand the similarities and differences between them. Anthropology is not a single discipline but an amalgam of different branches, namely physical, social and archaeology, linguistics. These three branches taken together help in giving a total picture of the human existence.

Anthropologists are interested in understanding the origin and development of human species. They are also interested in knowing how the environment affects culture and how culture has an impact on the growth and development of human personality. They inquire about the existence of human variation and try to find reasons behind such variations. They are equally interested in the reconstruction of the human past and its culture.

Anthropologists also have a diverse and unique toolkit in the form of research methods that help in answering questions and queries relating to the origin and development of man. In the new field of applied anthropology, anthropologists apply their knowledge and methods of research in solving practical problems.

The objective of the subject has been to juxtapose the local with the global. In other words, the anthropological knowledge has grown from understanding the particular in the context of the universal. This is to say that even when an anthropologist looks on the particular, her aim remains universal.

The hallmark of anthropological enquiry has been its fieldwork method. It is with this method that anthropologists are able to understand the 'other culture' or different culture including their own in a better way. As anthropology is a new academic discipline, it needs a lot of research to enrich its knowledge base that it may meet the present global challenges.

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1.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Anthropology is divided into four sub-branches: social-cultural anthropology, biological anthropology, archaeology and linguistic anthropology.
- 2) B. Malinowski popularized intensive fieldwork method.
- 3) Participant Observation is the method in which the researcher participates in the daily activities of the people and at the same time observe how people and their various institutions function.

Check Your Progress 2

- 4) The objective of anthropology is to make students aware and appreciate human and cultural variations.
- 5) Every culture should be understood in its own specific context and there is nothing like the concept of superior or inferior culture. This came to be known as the idea of cultural relativism.
- 6) Margaret Mead.

Check Your Progress 3

- 7) The applied dimension of anthropology has broadened its scope by applying the methods of anthropology to solve the problems of the communities.
- 8) Participatory Rural Appraisal (PRA) is a method that aims to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programmes for them.

UNIT 2 BRANCHES OF ANTHROPOLOGY*

Contents

- 2.0 Introduction
- 2.1 Physical/Biological Anthropology
 - 2.1.1 History and Development
 - 2.1.2 Current Fields of Study
- 2.2 Socio-cultural Anthropology
 - 2.2.1 History and Development
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- 2.3 Archaeological Anthropology
 - 2.3.1 History and Development
 - 2.3.2 Current Fields of Study
- 2.4 Linguistic Anthropology
 - 2.4.1 History and Development
 - 2.4.2 Current Fields of Study
- 2.5 Summary
- 2.6 References
- 2.7 Answers to Check Your Progress

Learning Objectives

After going through this unit, you will be able to:

- understand the different branches of anthropology;
- critically evaluate the interrelationship among the different branches of anthropology; and
- understand the current fields of study within the subject.

2.0 INTRODUCTION

Anthropology is a holistic and multi-faceted discipline dealing with the study of man in totality. It studies man not only as a part of nature but also as a dynamic creature in terms of biological and social features. Anthropology is holistic because all aspects of culture and society, for example, religion, social life, politics, health, and technology, are studied in an integrated and comprehensive manner.

Anthropology is also referred to as a comparative study of man because it takes into consideration the similarities and differences in human body, behaviour and values of all human groups. The wide scope and vastness of anthropology necessitates its division into four branches. The four branches of anthropology are:

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- biological/physical anthropology
- socio-cultural anthropology
- archaeological anthropology
- linguistic anthropology.

Anthropology retains its holistic orientation by ensuring the interconnectedness and interrelationship among its four branches as well as with humanities, social sciences, biological sciences and physical sciences.

2.1 PHYSICAL/BIOLOGICAL ANTHROPOLOGY

Physical anthropology, now popularly known as biological anthropology, is the oldest branch of anthropology. Physical anthropology studies the human body, genetics and the status of man among living beings. As the name indicates, it studies the physical characteristics of man. It uses the general principles of biology and utilizes the findings of anatomy, physiology, embryology, zoology, paleontology and so on. Paul Broca (1871), the famous biologist, defined physical anthropology as the “science whose objective is the study of humanity considered as a whole, in its parts and in relationship to the rest of nature” (cited in Basu Roy: 2012: 5). According to Herskovits “Physical anthropology is, in essence, human biology.” Piddington says “the chief subject matter of the study of Physical Anthropology is the classification and characteristics of human races.” Another important field of study in physical anthropology is the process of human evolution which shows how human body has evolved through different stages (cited in Das: 1996:3).

Physical anthropology was initially devoted to the study of measurements and observations on the human body and human skeleton. Today physical or biological anthropology encompasses the following:

- the study of evolutionary biology and human genetics
- hominid evolution to understand the origin of modern humans
- biological differences in human populations
- a bio-cultural overview on human growth and development.

2.1.1 History and Development

Although physical aspects of man have been studied since the time of Herodotus, “the Father of History,” it was only during the latter half of the 19th century that physical anthropology developed as a systematic science.

Herodotus (c.484 B.C – c.425 B.C) in his writings mentions the differences in human skulls of Egyptians and Persians and attributes them to environment. Hippocrates (c.460B.C – c.377 B.C), “the Father of Physic”, is the pioneer in the field of physical anthropology. He made several contributions, two of which, *De naturahominis* and *De aeraacquisite loci*, are of special interest to anthropologists.

Aristotle (c.384 B.C – c.322 B.C) viewed man as a social animal and his study was based on biology. His work on the physical and mental set-up of man was unaffected by the dogmas of religion and philosophy. Although he

placed man among animals, he also noted their distinguishing features such as the relative size of the brain, the biped gait and the mental characters. Galen (131–200 A.D) in Rome brought out a series of monographs on muscles, nerves, foetus formation and so on. Andreas Vesalius (1514 – 1564) studied the different anatomical features of man and apes which created a revolution in the anatomical studies of those days. His study on human anatomy was based on direct observation and he was able to bring many new thoughts and ideas. He laid the foundation of modern anatomy.

Towards the close of the 17th century more studies were done from which Johann Sperling's *Physical Anthropologia* (1668) and Samuel Haworth's *Anthropologia or Philosophical Discourse Concerning Man* (1680) are worth mentioning. Around the same time Edward Tyson (1650 –1708), a fellow of the Royal Society whose main interest was on comparative morphology, conducted the first systematic research on anatomy. His work *Orang-Outang, sive Homo Sylvestris: or, the Anatomy of a Pigmie Compared with that of a Monkey, an Ape and a Man* (1699) is regarded as the first attempt in the analytical study on the anatomy of anthropoid ape.

The 18th century is marked by outstanding contributions made by Linnaeus, Buffon and Blumenbach. Swedish Carl Linnaeus (1707–1778) in his immortal work *Sytema Nature* designated each living organism by two Latin names (binary nomenclature), one for genus and the other for species. From the days of Linnaeus man has been scientifically known as *Homo sapiens*. Buffon (1707–1780), the French contemporary of Linnaeus, discussed the changes in the organic world in his voluminous work *Historic Naturelle*.

But it was the French Lamarck (1744 – 1829) who came forward boldly with observations on the descent of man from the anthropoid apes. Lamarck gave considerable importance to the erect posture of man, occasionally assumed by the apes, for human evolution. Lamarck is remembered for his doctrine that the characteristics developed during the lifetime of an individual are transmitted to the succeeding generation. J.F. Blumenbach (1752–1840) known as the 'father of physical anthropology' was the real founder of craniology. He won recognition as a craniologist through his publication *Decades Craniorum*.

During the later part of the 19th century, anthropologists like Broca, Fowler and Turner followed the path of Blumenbach in the craniological studies. J.C Pritchard (1786 – 1848), in his *Researches into the Physical History of Man* (1848), contributed some classified and systematized facts on the races of mankind. Samuel George Morton (1786 – 1848) used anthropometric measurements to study human physical variation. The year 1859 is highly remarkable in the history of anthropology. With the publication of Charles Darwin's book *Origin of Species* a revolution started in the line of thinking.

The *Societie de Anthropologie de Paris* was established on 19 May 1859 and Paul Broca (1824 – 1880), the French anthropologist and physician, was appointed its secretary. He threw new light on the different lines of the study of cranial anthropometry. From 1880 onwards Joseph Deniker, a friend and associate of Broca, recognised 29 racial elements from his study on racial features in the world population. In Germany Virchow (1821–1902) contributed to the field of physical anthropology through his works on skull pathology. Landsteiner's study of the blood groups of man opened a new

vista in the analysis of anthropological data. Ales Hrdlicka's (1860–1943) contribution towards the development of physical anthropology at the Smithsonian Institute in America can never be underestimated. It was solely due to his efforts that the *American Journal of Physical Anthropology* was established in 1918. He also encouraged the creation of the American Association of Physical Anthropologists in 1930.

In course of time the study of physical anthropology became more specialized and scholars like Weiner, Ashley Montagu, Hooton, Barnett, and Zuckerman contributed towards the study and development of the varied sub-fields of physical anthropological studies. The modern trend in physical anthropology started from the beginning of the 19th century. Franz Boas (1858–1942) laid emphasis on the study of human races in terms of culture. The problem of race has been treated from the different angles by anthropologists like Huxley and Haddon (*We Europeans*, 1935), Dahlberg (*Race, Reason and Rubbish*, 1942), Ashley- Montagu (*Man's Most Dangerous Myth*, 1945), Washburn (*The Races of Europe*, 1945), Boyd (*Genetics and the Races of Man*, 1950). The UNESCO statement on the nature of Race and Race differences (1952) has presented an integrated view of a number of physical anthropologists and geneticists, which has resulted in a publication like *The Race Question in Modern Science*, in the year 1956, in the study and analysis of Race. (Sarkar: 1997)

In 1939, forensic anthropology developed as a specific branch of physical anthropology due to the pioneering contribution made by W.M. Krogman. In 1965, Kerley published a work on the estimation of age at death in skeleton. This method was then revised and improved by Atilqvist and Damstern (1975), and Thompson (1979). In 1978, American Board of Forensic Anthropology was established. The efforts of Sherwood Washburn towards the reintroduction of field work tradition during the 1950s and 1960s paved the way for the development of contemporary anthropology.

2.1.2 Current Fields of Study

The study of physical or biological anthropology has achieved new heights as much emphasis has been laid on the systematic orientation of various approaches for its development.

Palaeo-anthropology

Palaeo-anthropology, or human evolutionary studies, focus in documenting the biological history of mankind. The human evolutionary history of man is reconstructed by a paleo-anthropologist on the basis of his study of fossilised skeletal remains collected from different layers of the earth. Paleo-anthropologists are thus specialists in comparative anatomy of man and apes and they evaluate the fossil remains found from different sites and establish their status and evolutionary significance.

Palaeo-primatology

Palaeo-primatology deals with the study of living and fossil primates. Primates are the most diversified of all animals and these include man– the focus of anthropological study. Hence an integrated study of the primates helps in understanding the position of man. Through such studies attempts are made for preserving the habitats of our closest living primates.

Osteology

Osteology refers to the study of bones. An osteologist studies the bone structure, skeletal features and morphology and ascertains the age, sex, growth, development and death of the human remnants.

Human Genetics

According to E.C. Colin, “genetics is that branch of biology which deals with laws of principles of heredity and variations as observed in plants, in animals and in man. Human genetics, the study of human heredity, understand the human physical characteristics transmitted through the process of heredity from one generation to another generation.” (Das, 1996: 3-4). Human genetics provides a theoretical framework for understanding the biology of the human species. The introduction of the study of human genetics resulted in designating physical anthropology as biological anthropology.

Population Genetics

A population in a genetical perspective is defined as “a reproductive community of sexual cross fertilizing individuals which share in a common gene pool.” (Cited in Sarkar: 1997: 53). Population studies provides an understanding of the processes of evolution i.e., natural selection, genetic drift, gene flow and mutation. The process of development of new species and their adaptation through the study of the frequency, distribution and change in allele in populations are also taken into consideration in such studies.

Molecular Anthropology

Molecular anthropology is concerned with the comparative study of all existing populations. Through the use of molecular analysis and DNA sequence, attempts are made to understand the interrelationship between earlier and contemporary humans.

Human Variation

Human biology essentially means the study of human variation. Variation is produced by the inheritance of particular characteristics from ancestors and by the action of environment. Thus the effects of genes and environment are taken into account in the study of human variation.

Human Growth and Development

This field enables an understanding of the different perspectives of human growth and development. Growth and development are dependent on varied factors like heredity, nutrition, and environment. All these factors are taken into consideration in the study of human growth and development.

Human Ecology

Human ecology refers to the study of the relationship patterns between populations and their environment, and energy exchanges with other living organisms. The pattern of human adaptation and adjustment to the natural environment is an important aspect in the study of human ecology and therefore its study is of prime importance for a physical anthropologist.

Forensic Anthropology

Forensic anthropology deals with the identification of human skeletal remains for legal purposes. Forensic anthropologists are able to identify murder victims, missing persons or people who have died in accidents and disasters through a detailed study and analysis of the human remnants. In many instances forensic anthropologists have identified victims who died as a result of human abuses in different parts of the world.

Demography

The study of demography is directly related to fertility and mortality and these two factors are specifically influenced by heredity and environment. Demographic study involves the use of various statistical data and their subsequent analysis. Demographic study is centred round the nature, growth, age-sex structure, spatial distribution, migration in addition to fertility and mortality of populations.

Check Your Progress 1

- 1) What is physical anthropology?

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- 2) Which book of Charles Darwin started a revolution in the nineteenth century thought?

.....

- 3) What are the current fields of study in physical anthropology?

.....

2.2 SOCIO-CULTURAL ANTHROPOLOGY

Socio-cultural anthropology, the second major branch of anthropology, focuses on the comparative study of human culture and society. The intensive study of social behaviour, customary patterns in human behaviour, thought and feelings and organisation of social groups are all included in the purview of socio-cultural anthropology. Socio-cultural anthropology is referred to as social anthropology in Great Britain and cultural anthropology in America. In the nineteenth century the term ethnology was in use for similar studies.

2.2.1 History and Development

Ever since man emerged on earth, there have been growing interests to know about themselves and the ways of other people across the globe. Social facts

and themes were discussed with methodical rationality by the Greek social thinkers and philosophers of the fifth century B.C. The contributions of Greek scholars such as Herodotus, Democritus (c.460 B.C – c. 370 B.C), Protagoras (c. 480 – c. 410 B.C), Socrates (c. 470 - c. 399 B.C) and Aristotle during the early stages of socio-cultural anthropology is worth mentioning.

Herodotus considered his Greek culture to be superior to the prevailing primitive culture. Nevertheless he advocated the importance of studying all human habits and customs – a central theme in anthropological studies today. He provides a detailed account of ancient conventions, practices, natural habitats, political scenario etc. of various cultures and their conflicts in his book, *The Histories*. Due to his significant contributions in the study of socio-cultural anthropology, he is recognized as the “father of anthropology” by many.

Democritus, who came after Herodotus, wrote on nature. He spent much of his life experimenting with and examining plants and minerals.

The philosopher Protagoras is famous for his phrase: Man is the measure of all things. He explained how different social traits evolved. He suggested that early society was homogeneous, unified and undifferentiated, and some fundamental inventions such as language, family, justice, morality etc. were made in very early stages of human evolution.

Socrates, another well-known Greek scholar, contributed towards the anthropological thinking on social facts. He opined that society is guided by certain universal values which transcend various social customs.

Among all Greek philosophers, Aristotle was the first to use the term ‘anthropologist’...- who talks about himself. According to Aristotle, man (anthrdpos) is by its nature a sociopolitical (politikon) animal (zhdion). As mentioned earlier he was first scholar to advocate that ‘man is by nature a social being’. His study on culture and society and his anthropological insight that culture is acquired by learning are similar to the present day study of socio-cultural anthropology.

But proper systematic study of the subject began when the Europeans formed colonies and inducted their cultures. A good deal of information about people and their culture was derived from missionaries, travellers and diplomats. David Hume and Immanuel Kant revealed that the studies presented by travellers were highly imperialistic and racist in perception. The simple way of living of the primitives in the colonies under study prompted these traveller to claim racial superiority over them.

The beginning of the seventeenth century presented a more developed theoretical framework as evidenced from the writings of philosophers, social thinkers and academicians. Thomas Hobbes (1588–1679) studied society in *Leviathan* (1651) and Herbert Cherberry (1583–1648) wrote an history of religion, which was an early work on comparative religion.

The study of socio-cultural anthropology gained new heights in the second half of the nineteenth century as the evolutionary theory (inspired by Charles Darwin’s book *Origin of Species*) developed simultaneously in Britain, America and Germany. Sir Edward B. Tylor (1832–1917), one of the pioneers of the classical evolutionary school of thought, advocated the unilinear

sequence of cultural evolution or unilinear cultural evolution (see **Box 1**). He also emphasised that similarities in cultures around the world, without known historical connections, were due to mental unity or psychic unity of mankind (see **Box 2**).

Box 1: Unilinear Cultural Evolution:

Postulated that culture or cultures of the world pass through different successive stages in continuity. As a result of which simple forms change into complex ones, homogeneity moves to heterogeneity and the state of uncertainty goes towards certainty.

Tylor propounded his scheme in which religion evolved in the following stages:

- 1) animism (worship of spirits, connected with simple societies)
- 2) polytheism (worship of many divinities).
- 3) monotheism (worship of one divinity, connected to advanced societies).

Thinkers such as Henry Maine, James Frazer, L.H. Morgan, Bachofen, W.H.R. Rivers, Carlos Seligman, and A.C. Haddon supported the use of evolutionary scheme as a methodology to reconstruct the cultural history of mankind. They were also convinced that culture had undergone progressive and development-oriented changes but always in a sequence. They explained similarities in culture in terms of psychic unity of man. Based on this school of thought Morgan presented the evolutionary model of humans going through the stages of savagery, barbarism and civilization.

Box 2

Psychic unity of mankind: Refers to similar mentality of human beings to react and think similarly with like environmental situation at a particular period of time.

The evolutionary school of thought faced severe criticisms from contemporary scholars who claimed to be anti-evolutionists or diffusionists. They advocated that culture not only developed but also degenerated through cultural diffusion. They were convinced that man was basically uninventive, and important inventions were made at a particular place from where it was diffused, migrated, borrowed to other parts of the world. Thus, cultural diffusion is the process by which culture traits, discovered or invented at one place or society, is spread directly or indirectly to other societies. The School of Diffusion has been divided into British, German and American based on the geographical and national identity of the supporters. Main propounders of this school are Schmidt, W.J. Perry, Robert Lowie, Franz Boas, Clark Wissler, and A.L. Kroeber.

Franz Boas was one of the most influential figures in the history of socio-cultural anthropology. As a critic of the evolutionary school of thought he completely rejected the unilinear evolutionary theory and stressed upon the necessity of conducting extensive field work. He conducted extensive field studies to free anthropology from its amateurs and armchair specialists. He also opined that all cultures were distinctly different and therefore they must be studied on the basis of their worth and not in comparison to other cultures. This concept came to be known as historical particularism.

2.2.2 Current Fields of Study

The tradition of fieldwork in anthropology came into existence towards the beginning of the twentieth century. The early twentieth century scholars also denounced the unilinear evolutionary theory. Bronislaw Malinowski was the main advocate of this. He was the first anthropologist to conduct study in native language. He insisted that a researcher should collect data through the medium of native language and undertake intensive fieldwork. He also developed a methodology for the scientific analysis of culture by which existing cultures could be compared, analysed and interpreted. This methodology of Malinowski was known as functionalism. Malinowski believed that every aspect of culture has a function and they are interdependent and interrelated. According to his theory of functionalism, institutions of a culture operate to satisfy the needs of the individual and the society as a whole.

A. R. Radcliffe-Brown, another British anthropologist and contemporary of Malinowski, developed the concept of social structure. According to Radcliffe-Brown, social structure deals with the network of social relations within an institutional framework. For Radcliffe-Brown, social structure is an 'empirical' entity, constituting the subject matter of socio-cultural anthropology. He stressed on the idea that social organizations are made of parts and each part functions in a way to form a complete whole. This model of Radcliffe-Brown is known as structural functionalism.

The anthropological fieldwork conducted by Boas in the Baffin Islands, Malinowski in Trobriand Islands and Radcliffe-Brown in the Andaman's inspired many scholars and intellectuals. Boas also encouraged his students to build up on a theory in the study of socio-cultural anthropology in the early twentieth century (1930s).

Around this time Ruth Benedict, Margaret Mead, Linton, Cora-Du-Bois, A. Kardiner and others criticised the theories of evolution and diffusion. They felt the necessity of studying interaction between culture and personality or vice versa on the basis of psychoanalysis. This school of thought was known as Culture and Personality School. This school is also known as School of Psychological Anthropology. The pioneers of Psychological School were inspired by Gestalt psychology which deals with the total perception of behavioural pattern of human beings. Psychological anthropology as a sub-part of social anthropology is today a highly recognized field of study.

Another school of thought emerged in the late 30s of the twentieth century when V. Gordon Childe, Leslie White and Julian Steward advocated the revival of evolutionary approach. The trio came to be known as neo-evolutionists. Julian H. Steward (1902-1972) in his *Theory of Culture Change* (1955) discussed about the powerful effect of ecology on culture. Leslie A. White (1900-1975) and archaeologist V. Gordon Childe (1892-1957) discussed about the influence of means of production on society's behaviour.

The introduction of linguistic, symbolic and cognitive anthropology in the 1950s widened the horizons of the study of socio-cultural anthropology. Eminent French anthropologist Claude Lévi-Strauss is closely connected to his method of structuralism for undertaking the study of social behaviour (relations and experiences). Thus Levi-Strauss's structuralism has become

concerned with understanding cultural and social patterns in terms of the universal mental processes that are rooted in the biochemistry of the human brain. In America, Emile Durkheim, Victor W. Turner, Mary Douglas and Clifford Geertz works on symbolic anthropology based on magico-religious concerns of society became more popular than structuralism.

From the beginning of the study of socio-cultural anthropology till date many theories were formulated in the study of human society and culture. The middle of the twentieth century witnessed newer perspectives and dimensions related to studies on women, class and power structure, caste, employment, migration, urbanization, etc. The works of social scientists like Jacques Derrida (1930–2004), Michel Foucault (1926–1984), Jacques Lacan (1901–1981), Simone de Beauvoir (1908–1986), Jean-Paul Sartre (1905–1980) were influenced by theories like marxism, feminism, post-modernism, post-colonialism, post-structuralism.

Contemporary socio-cultural anthropology encompasses research-oriented studies in all parts of the world. Socio-cultural anthropology ensures the study of cultural traits and social activities of humans round the globe by using the anthropological field methods and comparative analysis. But such studies are conducted while maintaining the holistic orientation of the discipline. Globalization, transnationalism, multiculturalism, and diaspora studies are becoming a major trend in the study of socio-cultural anthropology. Nowadays, socio-cultural anthropology also includes the following studies:

- gender and other sub-areas like sexuality involving lesbian, gay and transgender,
- human rights,
- corporate and public sector,
- health sector.

Hence the study of socio-cultural anthropology will help us to understand human society and culture.

Check Your Progress 2

4) Define social-cultural anthropology.

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5) What is psychic unity of mankind?

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6) What is role of unilinear cultural evolution in anthropology?

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2.3 ARCHAEOLOGICAL ANTHROPOLOGY

Archaeology studies human cultures through the recovery and analysis of material remains and environmental data. Material products scrutinised by archaeologists include tools, pottery, hearths, and enclosures that remain as traces of cultural practices in the past, as well as human, plant and animal remains, some of which date back 2.5 million years. (Havilland et al 2008: 26) Archaeology is best regarded as the science which concerns itself with the recovering and studying the relics of Man's past; it has its own techniques, of which excavation is only one, though a highly specialised and important one. (Roe: 1971: 21). Nelson defines archaeology as "the science devoted to the study of the entire body of tangible relics pertaining to the origin, antiquity, and development of man and his culture." (Das: 1996: 35). Although archaeology exists as a separate discipline, in its study of humans it gets connected to anthropology and thus making it a humanistic science. In archaeology the time period covered are prehistoric, proto-historic and also later periods like civilization.

In recent times studies like new-archaeology, processual archaeology and post-processual archaeology have helped the researcher to understand the history of cultures and its processes. The study of palaeo-anthropology, ethno-archaeology and settlement archaeology is all included within the framework of the archaeological study. Initially the study of archaeological anthropology involved the application of absolute and relative dating methods to ascertain the physical and material cultures. With the passage of time demographic conditions and environmental order, subsistence patterns, economy etc. were all included in archaeological study.

2.3.1 History and Development

Prehistory is the immensely long period of Man's existence before written records, and in the absence of writing, there are various special kinds of evidence, with which the prehistorian, the student of prehistory, has to concern himself (Roe:1971: 21) Paul Torunal (1833) used the term "pre-historique" after findings were made in the caves of Southern France. However, the exact term "prehistoric" was used by Daniel Wilson in 1851. Prehistoric stages are studied by archaeologists with the help of substances like stone, wood, bone, metals, earthenware, tools, ornaments and outfits.

The Prehistoric Period is too vast and varied to be studied without divisions. The original and classic division was eminently simple. It divided prehistory into three parts, successive technological stages, which are not by any means of equal length, thus:

- The Stone Age
- The Bronze Age
- The Iron Age.

Later on Bronze Age also included copper in it, thus calling it the Copper/Bronze age. However, the Stone Age being so vast was further sub-divided into lower palaeolithic, middle palaeolithic and upper palaeolithic. The other stages after the three palaeolithic stages are called mesolithic and neolithic stages or cultures.

Some pre-historians not satisfied with classifications based on the use of technology classified the prehistoric era on the basis of subsistence economy. They used the following stages:

- barbarian or food gathering stage,
- food producing stage
- urbanization stage.

After prehistory comes the stage of protohistory, which is the period between prehistory and history. This period is marked by the presence of some form of writings. In India the pre-Harappa days to the time of Maurya rule, can be said to fall under proto-historic category, i.e. from 3500 to 300 B.C.

Civilization is marked by the presence of large complex societies, settled existences, domestication of animals, plants, specialist occupations, division of labour and trade. In India, the Indus valley civilization (2500 B.C.), with its two cities Mohenjodaro and Harappa, is considered to be one of the oldest civilizations of the world. Other important civilizations known at that time are Egypt, China and Mesopotamia. The fact that Indus Valley civilization disappeared from history while the others continued is one of the major concerns for an archaeologist.

Archaeological anthropology tries to find and explain the origin, growth and development of cultures in the past. Though the main method employed by the archaeologist is excavation, surveyance and data analysis also form important methods. The main aims of archaeology are to recover, record, analyse and classify material collected.

2.3.2 Current Fields of Study

Archaeology exists as a humanistic discipline as well as a science. As a humanistic discipline, it tries to understand things like evolution of culture, people, ideology, power and anything and everything that has effected in the changes that societies go through. As a science it tries to reconstruct events on the basis of whatever evidence is available with them. It uses scientific methods like relative and absolute dating for reconstructing man's past.

Archaeological anthropology has the following different areas:

- Palaeo-anthropology
- Environmental archaeology
- Ethno-archaeology
- New archaeology or processual archaeology
- Settlement archaeology
- Post-processual archaeology

Palaeo-anthropology is the study of people of palaeolithic times. In this study, human lineages and evolution is reconstructed on the basis of the study of fossils and skeletal remnants excavated from burial grounds etc. Comparative studies are undertaken through the study of primatology. Ethnographic details are also used to draw definite conclusions. Hence, the

methods used for reconstruction can be termed as historical, comparative and survivals.

Environmental archaeology is the study of environmental evidences in an attempt to understand the impacts of environment on culture and vice versa. It uses geological and biological methods to study the fossilised remains of plants, animals, and pollen cores etc. In order to study the environments of the past human societies.

Ethno-archaeology is the use of ethnography in the study of archaeology. This study helps in deciphering the life ways, religious beliefs and social structure of the past. It is a recent form of study.

New archaeology or processual archaeology involves studying the processes by which humans lived, i.e. how humans in the past did things like create artifacts and how they finally got decayed. The archaeologist studies how artefacts are created and what natural or cultural reasons made the archaeological site look like the way it does during time of study. This is termed as a site formation process. Processual archaeologists made use of the cultural historical method in the study of past human societies. This trend set in from the 1960s in the U.S. especially after Sally R. Binford's and Lewis Binford's book on *New Perspectives in Archaeology* (1968) came out, where they suggested the use of computer technology for the analysis of information gathered.

Settlement archaeology deals with the study of settlements in landscape and the impact of environment on the work done by humans, how they build themselves according to some principles. It also concerns itself with relationships shared between urban and rural spaces. All these concerns are studied but situated in past circumstances. The traditional issues related to cultural anthropology were given prime importance as a result of the use of archaeological and ethnological expertise in studying social occurrences. Settlement archaeology, hence, is one of the core areas of archaeology and it is sometimes also called non-site archaeology as it also investigates bigger areas instead of just focusing on a single site. This form of archaeological study was first carried out extensively by Gordon R. Wiley in the Vriu Valley of Peru.

Post-processual archaeology, also known as interpretative archaeology, is a controversial process. It is often referred to as a movement which started in archaeological theory. The theory of post-processual archaeology came into existence as a reaction and critique of processual archaeology. Post-processual thinkers are influenced by theories of society, more specifically by neo-marxism, post-modernism, feminist archaeology, critical theory, structuralism, etc. Around the late 1970s and early 1980s post-processual archaeology made its appearance in the United Kingdom followed by United States. The main propounders of post-processual archaeology in the United Kingdom are Ian Hodder, who also coined the term, Christopher Tilley, Daniel Miller, and Peter Ucko. Post-processual archaeology displays any archaeological knowledge as open to interpretations which emphasizes on reflexivity (being aware of one's own position relative to the material) and multivocality (accepting multiple interpretations and approaches as being complementary in understanding archaeological material).

Thus the study of archaeological anthropology is conducted through reconstruction of history with the help of material remains along with skeletal remains, pollen, etc. The different areas of archaeological anthropology like new-archaeology or processual archaeology, settlement archaeology, ethno-archaeology, paleo-anthropology, environmental archaeology, and post-processual archaeology came into existence as a result of using varied methods of reconstruction.

Check Your Progress 3

7) What is the concept of civilisation?

.....

8) What are the main aims of archaeology anthropology?

.....

9) What is use of ethnography in the study of archaeology?

.....

2.4 LINGUISTIC ANTHROPOLOGY

Linguistic anthropology deals with the study of human languages. A linguist anthropologist is concerned with the relationship between language and culture behaviour. Language is an important aspect of human behaviour and the transmission of culture has been possible only through language. Due to this fact language is often referred to as the vehicle of culture. Language enables man to preserve the traditions of the past and to make provisions of future. Linguistic anthropology studies the emergence and divergence of languages over time. Initially this branch was concerned with the study of origin, evolution and development and salvaging of languages which were on the verge of disappearing. With time the various facets of language and its effect on social life were also taken into consideration. Today linguistic anthropology as an interdisciplinary science works in collaboration with anthropological linguistics, ethno-linguistics and socio-linguistics.

2.4.1 History and Development

During the later part of the nineteenth century and early decades of the twentieth century Franz Boas (1858–1942) made anthropology field-based and stressed upon the need of studying the linguistic aspects in anthropological study of culture. He was particularly interested in the study of Native American Indian languages and encouraged his students to analyse the emergence and divergence of language over time. Eventually linguistic anthropology came

to be recognised as an integral part of anthropological study. Boas started documenting the language of almost extinct tribes in an attempt to preserve and retain it for further research. This model of Boas was then called 'salvaging anthropology' and now more commonly known as 'anthropological linguistics'.

The term 'anthropological linguistics' can be traced back to Edward Sapir (1884–1939), a student of Franz Boas. He defined language as a purely human and non-instinctive way of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols. Inspired by Sapir his students devoted themselves solely to the study of anthropology and language and referred to themselves as anthropological linguists. Around this time Leslie A. White in his book *The Science of Culture* (1949) mentioned that all behaviours originated and was based on man's capacity to use symbols. In fact use of symbols paved the way for communicable speech. Nineteenth century linguists were engaged in describing the languages and classifying them into families and sub-families on the basis of their similarities and dissimilarities.

Sapir was interested on comparative studies of cultures on the basis of language. Sapir and his student Benjamin Lee Whorf (1897–1941) further advanced a hypothesis on linguistic relativity which is popularly known as *Sapir-Whorf hypothesis*. It suggests that language influences thought which in turn affects cultural behaviour. This hypothesis is an extension of Boas' concept of cultural relativism. In simple words they believed that human behaviour will vary among groups speaking different languages. Therefore a single language can never form the basis for understanding the effect and influence of different languages on society. In the 1950s Whorf developed his own methodological and conceptual framework (termed as metapragmatics) based on the use of grammar for understanding the speaker's sensitivity. In spite of severe criticisms in the 1960s and 70s, their role in the study of linguistic anthropology cannot be denied. Sapir and Whorf's concepts were utilized by scholars in the 1980s especially in the contemporary study of language ideology.

Sapir and Whorf's concept of literary relativity and Sapir-Whorf hypothesis were put forward after being inspired by the works of German scholars, Johann Gottfried von Herder (1744–1803) and Wilhelm von Humboldt (1767–1835). In the United Kingdom anthropologists stressed on the use of native language during fieldwork, with Bronislaw Malinowski (1884–1942) setting a benchmark by providing the theoretical and methodological framework for it. He was the first anthropologist to conduct study in native language. During the course of his field work among the Trobriand Islanders of Melanesia he was able to converse in the native's language. Malinowski emphasised the necessity of learning the language of the people under study in order to interpret their way of life in totality. Malinowski insisted on documenting the native mentality through the native language.

In the 1950s, the study of ethno-linguistics gained ground where linguistics was studied in relation to anthropological issues. In the United States, linguistic anthropology was developing at a rapid pace. Whorf's studies paved the way for theoretical understanding in the use of language and by 1960s the study of languages came to be known as linguistic anthropology.

At this stage more emphasis was laid on the aesthetics of language and its effect on culture.

Dell Hymes (1927–2009), a sociolinguist and anthropologist, may be regarded as the person who introduced this name. He along with linguist John Gumperz (1922-born) postulated that language can be considered as a cultural activity and can be investigated only through ethnographic methods. Though the earlier model of anthropological linguistics delved on issues like ‘cultural organisation of speaking’ it ignored the concept of language evolution. In the late 1980s the students of Hymes and Gumperz conducted studies on social life of speech, language diversity, and use of language in social interaction.

At present anthropologists and linguists differ in their theme though both of them study languages. Linguistic anthropology which is concerned with the relationship between language and cultural behaviour can be divided two parts.

- Historical linguistics deals with the emergence and divergence of languages.
- Structural linguistics or socio-linguistics deals with the role of language in the context of social behaviour. Structural linguistics also discovers the rules that reveal how sounds and words are incorporated in actual speech.

The pattern of speech varies from society to society on the basis of action, behaviour and communication. Cognitive anthropology is the outcome of linguistic anthropology, which employs the principles on which speakers of a particular language classify and conceptualize the phenomena. Anthropology in one way has learnt from the linguistics: on the other way has contributed to it.

2.4.2 Current Fields of Study

Fieldwork still remains an integral aspect in the study of language. The use of anthropological methods and techniques in linguistic enquiry enables a researcher to comprehend the relationship between language and cultural behaviour. Since the 1980s language socialisation has become an important aspect in the study of linguistic anthropology. It has been adapted from the term socialisation which in anthropology refers to the process of rearing and teaching an individual the basics of social life and its various aspects. Elinor Ochs and Bambi Schieffelin, who are both linguistic anthropologists, are the pioneers of this concept. They defined language socialisation as the process of getting socialised through and to language.

In the 1980s again, the concept of language ideologies gained ground with earlier works of scholars like Valentin Voloshinov (1895–1936), Mikhail Bakhtin (1895–1975) and Roman Jakobson (1896–1982) being discussed with newer ideas by many linguist intellectuals. Among them, Michael Silverstein (1945-born), a student of Roman Jakobson’s tried to elaborate on language ideology, which is now considered to be a significant field in linguistic anthropology.

Language ideology implies ideas that are related to language and its connection with social, economic and political ethics of society. This occurs because

language as a sign system allows its use to convert itself into a social reality. Throughout the years, linguistic anthropologists have also been concentrating on studying languages as a system of power play i.e. how language can be used to control actions and behaviour. In theory of politeness formulated in 1978, Penelope Brown (1944-born) and Stephen Levinson (1952–born), both socio-linguists, stressed that polite speech can be used to ease ‘face threatening acts’. This theory has been further analysed by many scholars. Maurice Bloch’s (1939–born) work exhibits how a speaker in power is able to maintain authority and leadership through sheer use of words.

Linguistic anthropology has come a long way since the days of its inception. We have come to realize the importance of the study of linguistic anthropology in understanding the principles on the basis of which speakers of a particular language will behave in human societies and the emergence and divergence of languages.

2.5 SUMMARY

The interrelationship and interconnectedness between the four branches of anthropology ensures the holistic orientation of the discipline of anthropology. The subject matter of the study of the four branches of anthropology reveals the multidimensional aspects of the study of man in totality. All the following four branches deal with human biology, culture and language:

- physical or biological anthropology,
- socio-cultural anthropology,
- archaeological anthropology and
- linguistic anthropology.

Physical or biological anthropology studies human body, genetics and the status of man among living beings. It studies the physical characteristics of man. It uses the general principles of biology and utilizes the findings of anatomy, physiology, embryology, zoology, palaeontology and so on.

Socio-cultural anthropology includes an intensive study of social behaviour, customary patterns in human behaviour, thought and feelings and organisation of social groups.

Archaeological anthropology involves both physical and social aspects of human lives but of what is bygone. It deals with the reconstruction of history with the help of material remains along with skeletal remains, pollen, etc. The different areas of archaeological anthropology like new-archaeology or processual archaeology, settlement archaeology, ethno-archaeology, paleo-anthropology, environmental archaeology, post-processual archaeology, etc. came into existence as a result of using varied methods of reconstruction.

Linguistic anthropology deals with the study of human languages. Anthropologist who specialise in this area is particularly concerned with the relationship between language and culture behaviour. Language is an important aspect of human behaviour and the transmission of culture has been possible only by language.

To sum up, the theoretical and conceptual framework of each branch of anthropology, while maintaining a distinct identity, aims at studying about man in totality over time and space – thus keeping intact the uniqueness of the study of anthropology.

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2.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Physical anthropology is that branch of anthropology that studies the human body, genetics and the status of man among living beings.
- 2) The publication of Charles Darwin's book *Origin of Species* started a revolution in the line of thinking.
- 3) Current fields of study in physical anthropology are Human Ecology, Forensic Anthropology, Demography, Human Growth and Development, Human Variation, Molecular, Anthropology, Population, Genetics, Human, Genetics, Palaeo-primatology, Osteology and Palaeo-anthropology.

Check Your Progress 2

- 4) Socio-cultural anthropology is the second major branch of anthropology. It is a discipline which focuses on the comparative study of human culture and society. The intensive study of social behaviour, customary patterns in human behaviour, thought and feelings and organisation of social groups, are all included in the purview of socio cultural anthropology.
- 5) Psychic unity of mankind refers to similar mentality of human beings to react and think similarly with like environmental situation at a particular period of time.

- 6) Evolutionary scheme as anthropology to reconstruct the cultural history of mankind. They were also convinced that culture had undergone progressive and development oriented changes but always in a sequence. They explained similarities in culture in terms of psychic unity of man. Based on this school of thought Morgan presented the evolutionary model of humans going through the stages of savagery, barbarism and civilization.

Check Your Progress 3

- 7) The concept of civilisation. Civilisation is marked by the presence of large complex societies, settled existences, domestication of animals, plants, specialist occupations, division of labour and trade.
- 8) Archaeological anthropology tries to find and explain the origin, growth and development of cultures in the past. Though the main method employed by the archaeologist is excavation, surveyance and data analysis also form important methods. The main aims of archaeology are to recover, record, analyse and classify material collected.
- 9) The use of ethnography in the study of archaeology is termed as ethno-archaeology. This study helps in deciphering the life ways, religious beliefs and social structure of the past lived. It is a recent form of study and is not free from complications.



UNIT 3 RELATIONSHIP OF ANTHROPOLOGY WITH ALLIED FIELDS*

Contents

- 3.0 Introduction
- 3.1 Relationship of Physical/Biological Anthropology with Other Disciplines
 - 3.1.1 Relationship with Health Sciences
 - 3.1.2 Relationship with Genetics
 - 3.1.3 Relationship with Chemical Sciences
 - 3.1.4 Relationship with Nutrition
- 3.2 Relationship of Social/Cultural Anthropology with Other Disciplines
 - 3.2.1 Relationship with Sociology
 - 3.2.2 Relationship with Psychology
 - 3.2.3 Relationship with History
 - 3.2.4 Relationship with Linguistic
- 3.3 Relationship of Archaeological Anthropology with Other Disciplines
 - 3.3.1 Relationship with History
 - 3.3.2 Relationship with Archaeology
 - 3.3.3 Relationship with Earth Sciences
 - 3.3.4 Relationship with Physical/Natural and Biological Sciences
- 3.4 Summary
- 3.5 References
- 3.6 Answers to Check Your Progress

Learning Objectives

After going through this unit, the learners are expected to:

- compare and contrast anthropology with other related behavioral or social sciences;
- comprehend the relationship of anthropology with other sciences;
- understand how different disciplines contribute to the study of anthropology; and
- know how anthropologists can collaborate with other sciences.

3.0 INTRODUCTION

As mentioned in the previous units of this block, one of the main differences between anthropology and the other allied fields is that anthropology is a holistic study of humankind because of its unique blend of biological, social, cultural, linguistic, historical, and contemporary perspectives. Paradoxically, while distinguishing anthropology from others, this breadth is what also

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links it to many other allied disciplines. It is said that anthropology is the most humanistic among the sciences and the most scientific among the humanities. As a discipline that is both scientific and humanistic, anthropology has relationship with many other academic fields.

Anthropology is not the only subject that studies humankind. Each allied discipline focuses on a particular area and trains oneself to think and study the human society and its way of life in one way or another. Malinowski states that culture is a means to satisfy bio-psychological needs of human. Anthropology is grounded in both the sciences and the humanities. According to Malinowski, anthropology stands in between natural and social science. The bio-social nature of humankind is an area of interest of anthropology where anthropology greatly overlaps with other disciplines that study human society. Anthropology thus cuts across many disciplines and always takes the help of other disciplines to support and validate the nature of study. In this way, anthropology shares certain interests and subject of the study with the other disciplines.

3.1 RELATIONSHIP OF PHYSICAL/ BIOLOGICAL ANTHROPOLOGY WITH OTHER DISCIPLINES

According to Herskovits, in the term ‘man and his works’, the term ‘man’ implies human as a ‘biological organism’ and ‘work’ stands for ‘culture’. Anthropology studies human biology and cultural diversity, both the factors are equally important and relevant since anthropology explores biological aspects like human origin, evolution and variation as well as socio-cultural aspects like society and culture.

3.1.1 Relationship with Health Sciences

Biological anthropology, also known as physical anthropology, is concerned with the study and understanding of human biological variability, including morphological variation. Anthropometry is a major tool in these studies. Anthropometry, literally ‘measure of humankind’, was defined by Ales Hrdlicka in 1939 as ‘the systematized art of measuring and taking observation on man, his skeleton, his brain or other organs, by the most reliable means and methods, for scientific purposes’. Anthropometry is the single most universally applicable, inexpensive, and non-invasive method available to assess the size, proportions, and composition of the human body.

Moreover, since growth in children and body dimensions at all ages reflect the overall health and welfare of individuals and populations, anthropometry may also be used to predict performance, health and survival. These applications are important for public health and clinical decisions that affect the health and social welfare of individuals and population. Anthropometric measures have been the subject of much epidemiologic and patho-physiologic research involving obesity, overweight, body fat distribution, and health outcomes. In short, the assessment of health risks by using anthropometry is a well-established and time-honored concept in the scientific literature.

In recent years, anthropometric indicators such as body mass index (BMI) and waist circumference (WC) are repeatedly shown to be simple yet powerful predictors of common adult chronic conditions such as Type 2 diabetes mellitus (T2DM) and cardiovascular disease (CVD).

The importance of anthropometric indices for promotion of health and primary care can be summarized at three levels:

- **Individual level:** At the individual level, the measurements can be promoted both for health care providers' use in clinical applications and for patients' use in self-monitoring over time.
- **Community level:** At the community level, simple anthropometric measurements can help in identifying sub-populations in which the risk of chronic disease is concentrated, allowing these individuals to benefit from targeted interventions to reduce health risks.
- **Population level:** At the population level, secular trends in body measurements can be tracked to help evaluate societal and environmental changes that affect individual energy balances and to monitor the effects of large-scale prevention strategies .

3.1.2 Relationship with Genetics

Anthropological genetics is a synthetic discipline that applies the methods and theories of genetics to evolutionary questions posed by anthropologists. These anthropological questions concern the following:

- the processes of human evolution,
- the human diaspora out of Africa,
- the resulting patterns of human variation, and
- bio-cultural involvement in complex diseases.

How does anthropological genetics differ from its kin discipline, human genetics? Both fields examine various aspects of human genetics but from different perspectives. With the synthetic volume of 1973 (Methods and Theories of Anthropological Genetics), it became evident that the questions posed by the practitioners of anthropological genetics and human geneticstended to be somewhat different. What distinguishes anthropological genetics from human genetics is its emphasis on smaller, reproductively isolated, non-Western populations, plus a broader, bio-cultural perspective on evolution and on complex disease etiology and transmission.

Judging from the contents of the American Journal of Human Genetics (premiere journal in the field of human genetics),we see that there is a greater emphasis on the causes and processes associated with disease, and the examination of these processes in affected phenotypes (proband) and their families. Anthropological geneticists tend to focus more on normal variation in non-Western reproductively isolated human populations. Anthropological geneticists also attempt to measure environmental influences through co-variables of quantitative phenotypes, while human geneticists less often attempt to quantify the environment in order to assess the impact of environmental-genetic interactions.

3.1.3 Relationship with Chemical Sciences

Pollution is a worldwide problem and its potential to influence the physiology of human populations is great. Studies of human growth and development in relation to pollution have increased in number and quality since the mid-

twentieth century. Many studies have found that some pollutants have detrimental effects on human growth, particularly prenatal growth. A heavy metal, lead, is commonly found in human populations and is related to smaller size of human baby at birth; studies have reported decrements that range up to about 200 grams. Studies of humans exposed to polychlorinated biphenyls, one of the persistent organic pollutants, have shown that they cause the following:

- reduced size at birth,
- advanced sexual maturation, and
- altered hormone levels related to thyroid regulation.

Thus different pollutants exert effects through different physiological pathways.

However, some studies have not observed these effects, which indicate that the situation is complex and requires further study with better study designs. Determining the effects of pollutants on human physiology and growth is difficult as it requires fairly large numbers of subjects who are not purposely exposed but for whom exposure can be measured. These effects of pollutants and the mechanisms of effect require further study and, it is hoped, to blunt or block any detrimental effects on human health and well-being.

Check Your Progress 1

- 1) What is meant by anthropometry? How does it help in the domain of public health?

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- 2) How anthropological genetics is distinguished from human genetics?

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3.1.4 Relationship with Nutrition

Nutritional anthropology has emerged as a new branch of applied anthropology over the past 20 years, and its methods are having an important influence on the methods of nutrition survey and nutritional epidemiology. Nutritional anthropology has continued to develop rapidly, providing solid information for studying key aspects of the nutrition of individuals, families, and communities. The methodological options in nutritional anthropology and strategies for field research provide a background for more specialized information on

- social behaviour and household functioning,
- the determinants of food intake,
- the analysis of energy expenditure.

3.2 RELATIONSHIP OF SOCIAL/CULTURAL ANTHROPOLOGY WITH OTHER DISCIPLINES

3.2.1 Relationship with Sociology

The social science that is closest to social anthropology is sociology. Yet there are strong and divided views on the relation between them. Both claim to study society, not just a single aspect of it, such as economics and politics, but all of it. Sociology is much older than social anthropology as it began with Auguste Comte in France and Herbert Spencer in England. The two men who are regarded as the founders of the British tradition in anthropology, Malinowski and A.R. Radcliffe-Brown, drew on the ideas of the French sociologists of the late nineteenth century. A.R. Radcliffe-Brown in a presidential address to the Royal Anthropological Institute said he was quite willing to call the subject comparative sociology if anyone so wishes.

Many of the newer British universities have combined departments in sociology and anthropology. However, universities give separate degrees in the two subjects so there must be a reason for this. The reason is a simple one: it is a matter of practice rather than theory, they deal with different subject matter and to a large extent by different methods. It might be noted that they are the branches of the study of society as botany and zoology are branches of biology.

Anthropology and sociology provide a comparative framework for interpreting and explaining human social behaviour. Although each discipline arose in response to different historical circumstances which have resulted in somewhat different traditions of emphasis and approach, the two fields draw from a common body of theory and, increasingly, a common toolkit of research methods. With the study of anthropology and sociology, one will become familiar with a wide range of human societies in all regions of the world. Those who study it will gain an appreciation for the cultural complexity, historical context, and global connections that link societies and social institutions to one another. They will also learn about key social structures and dynamics embedded in contemporary societies, including the forms of social power and privilege that exist in any society, and how these often unequal power relations are organised, sustained, reproduced, and transformed.

Anthropology is a comparative study of human kind, its aims are to describe, analyse and explain both the similarities and differences among human groups. Anthropologists are interested in characteristics that are typical or shared in a particular human population, rather than what is abnormal and individually unique. In their study of human variation, anthropologists try to focus on the differences among the different groups rather than the differences among the individuals within those groups.

In their attempts to explain human variation, anthropologists combine the study of both human biology and the learned and shared patterns of human behaviour which we call culture. Because anthropologists have a holistic approach to the study of human experience they are interested in the total range of human activity.

Check Your Progress 2

3) Who suggested the term comparative sociology for the subject social anthropology?

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4) What is the subject matter of sociology?

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3.2.2 Relationship with Psychology

The concept of personality is the basis of psychological studies. Anthropologists approach this domain from defining personality in terms of culture. Several important approaches to the study of personality have arisen over the years. Within the socio-cultural milieu, the process of personality formation is studied. The key concepts of socialisation and enculturation are utilised in this study. Various types of child-rearing practices in different societies are investigated in order to assess their implications for the development of personality.

In short, culture is reflected in personalities and personalities reflect culture. Psychological anthropologists divide the cultural institutions of a society into the following:

- Primary or basic institutions: They compromise the geographical environment, the economy, family, socialisation practices, and the polity etc?
- Secondary or projective institutions: They comprise the myths, folklore, religion, magic, art etc.

While the basic institutions condition personalities, personalities construct the secondary institutions. The relationship between culture and personality in each society is studied by psychological anthropologists.

Efficient studies by psychological anthropologists were not taken up till 1920s. The earlier work of some of these scholars lacked scientific vitality. The fundamental human conflict, which is in between human and personal needs, is multiple and must be thoroughly investigated at individual as well as social level concurrently. This aspect was realised but neither psychologist nor anthropologists alone could adequately manage all the spheres of the problem in the support of one single discipline. This understanding gave rise to the need for a two-way endeavour between psychologists and anthropologists.

Check Your Progress 3

5) What is the basis of psychological studies?

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6) What is the focus of psychological anthropologists?

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3.2.3 Relationship with History

Anthropology and history both attempt to trace the origin, expansion and advancement of culture in the past. Here we mean the age when human beings had not attained the competence of using the language as speech and also to write. Archaeologists are labelled as the historians of anthropology because they attempt to reconstruct the events of human's past. However, unlike the discipline of history which is concerned only with the past 5000 years during which human beings have left behind written materials of their accomplishments, the archaeologist is concerned with the millions of years in which human beings developed culture without the benefit of the written word and has left behind only unwritten materials or artefacts.

In this sense an anthropologist studies past cultures and tells us about the technology of past peoples by analysing the tools those people used in the past. This can throw light on the economic endeavours of the people who have utilised that technology. This artistic potential of people become visible by seeing the remains of wall engravings on different materials like on pottery, and jewellery. The settlement evidences of the houses can also focus on various spheres of social structure. Some facets of religious beliefs can also be determined by the burial sites and also by the materials kept inside or with the burials.

The main methods of archaeological anthropologists are:

- excavation to find out artefacts,
- dating to dispense a rough time period, and
- witty speculations to form the cultural history of one's past.

In all these efforts the anthropologists focus on the studies related to reconstruction of the past cultures by different methods of exploration which is a method known to infer the unknown from those materials that are well known.

Check Your Progress 4

7) What is the common study area of the anthropologists and the historians?

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8) Which period of human past is studied by historians?

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9) What is the main method used by the archaeological anthropologists?

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3.2.4 Relationship with Linguistic

One of the most distinctive features of human being is the ability to communicate through speech. The branch of socio-cultural anthropology

that studies languages is called linguistic anthropology. Linguistic anthropologists account for the diversity of languages in two ways:

- It can be shown that culture influences the structure and content of language, and by implication, linguistic diversity arises at least partially from cultural diversity.
- It can be shown that linguistic features affect other aspects of culture.

In order to reveal the relationships between language and culture, anthropologists have taken either of the two ways, which has resulted in debate and discourse on the matter. The linguistic anthropologist borrows from the socio-cultural anthropologist. The meaning and content of words and phrases in each language have unique nuances that are intelligible only to the people who speak that particular language which is a product of their culture. The language of some people may not have referential terms for certain features of the world around them. These give the clues to those features which do not hold any cultural significance to that people.

The major difference between the linguists and linguistics anthropologists is that the former are mainly concerned with the study of how languages, particularly written ones, are constructed and structured but the linguistic anthropologists study unwritten languages as also written languages. Another crucial difference between linguists and linguistics anthropologists is that those features which the former take for granted are taken into consideration by the latter. These features relate to the systems of knowledge, belief, assumptions and conventions that produce particular ideas at particular times in the minds of people.

Check Your Progress 5

- 10) How does the linguistic anthropologists account for the diversity of languages?

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- 11) State the major difference between a linguist and linguistic anthropologists.

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3.3 RELATIONSHIP OF ARCHAEOLOGICAL ANTHROPOLOGY WITH OTHER DISCIPLINES

In archaeological anthropology, man and culture are reconstructed from bits and pieces of early man and his material remains found scattered over different spaces over the surface of the earth and below the surface as well. The method of reconstruction of early man in anthropology is considered a conjunctive one. It is done with the help of many sciences.

Many sciences, such as geography, geology, archaeology, history, botany, zoology, chemistry, physics and mathematics are involved in the methodology. Anthropology of course is a very important part of the study of archaeological anthropology because it is the mother discipline and has evolved its own methodology.

3.3.1 Relationship with History

Any subject for its study of its origin and development owes to its history of origin. The reason for the slow growth and development of the sub-discipline can only be understood in the study of its history of coming into being (Penniman, 1965). History says that prehistoric/archaeological anthropology is more than a hundred and fifty years old. History also points out the nature, time and sequence of finding of different artifacts and fossil remains unclear and incomplete. On the basis of history of discoveries, the theory of evolution and understanding of development, change and diffusion mechanism can be studied. Reconstruction of cultural history is related to this discipline. Often archaeological data, combined with historical records, produce a complete picture of man and culture than either would have given separately.

3.3.2 Relationship with Archaeology

Archaeologists are anthropologists who excavate the material remains of past culture (Deetz, 1967). To begin with, archaeology is largely concerned with material remains of man, both of past and recent past. Archaeological anthropology is restricted to very early times, before the discovery of writing. Archaeology too is dependent on other disciplines for its study.

Archaeology relates to search for material objects left by man. There are two kinds of search:

- Exploration: This provides data from the surface.
- Excavation: This brings out data from beneath the surface.

Archeologists have developed methods and techniques for the recovery of materials from both exploration and excavation. After the materials are recovered, they are put into order in relation to space, time and form (Deetz, 1967). Childe (1956) in his book "Piecing Together the Past" has pointed out how inferences can be drawn beginning with drawing and describing a single artifact and then going on to making a catalogue of all the related objects in space and time. This he called assemblage. From assemblage, archaeologists go on to make inference on culture and finally interpret the total cultural regime.

3.3.3 Relationship with Earth Sciences

Earth sciences include both geography and geology. The common element between the two subjects is the prefix 'geo' meaning earth. In many respects, geology and geography are common as both of them deal with the study of the Earth. But they are not synonymous.

Geology is concerned with time and geography is concerned with space. The former studies the earth below the surface and the latter studies the surface of the earth.

Earth, which was at one time exposed, has been covered up by deposits or broken down over time, due to erosion and depositional activities of water, wind and temperature. These are studied by geologists.

When both geology and geography are taken together, they give impression of diachronic study.

- The geological aspect presents vertical dimension mainly of time.
- The geographical science provides horizontal concept of space.

Both time and space information are very important for archaeological anthropology. Relations of the two sciences with archaeological anthropology are discussed separately.

3.3.4 Relationship with Physical/Natural and Biological Sciences

Many sciences are closely related to reconstruction, mainly in connection with dating. These range from chemistry, physics, astronomy, mathematics, statistics, botany, and zoology.

There are two kinds of dating:

- Relative. This establishes the date of human remains in relation to an already dated event.
- Absolute: This establishes the date of an object in absolute numerical order of the calendar (chronometry).

An account of the relationship of these sciences with the archaeological anthropology is given below.

Radiometric dating is based on physical and chemical sciences. The most known is radio carbon method which is done on radioactive carbon (c14). Other radiometric methods are Potassium Argon method, Thorium Uranium method, Thermoluminescence, Obsidian Hydration, Fission Track, and Archaeomagnetism.

Flourine test, amino acid racemization, and nitrogen analysis are a few examples of importance of chemistry in archaeological anthropology. Moreover these subjects also provide mechanism for preservation of perishable objects.

Electronics provides means for detecting objects below the surface of the earth. With the help of electromagnetic resonance, buried objects like metal objects, burials, walls, foundations, kilns, furnaces, hearths and even pits and ditches filled up with topsoil or rubbish can be located. The satellite images help not only to identify unusual features of archaeological interest on the surface but it also points to buried objects. Remote sensing has become an important tool for the archaeological anthropologists.

Man is a part of the animal kingdom. His relation with animals may be either positive or negative. Human beings may be preyed upon by carnivores or may prey upon other animals. Human beings domesticates animals for their own advantage. With the help of zoologists, man-animal relationship and its cultural implications are properly understood. Past faunal remains are identified by the zoologists.

Dendrochronology is one method of dating that the botanists provide. Botany also helps to analyse man-plant relationship. Human beings use plant resources

as food, fibre, medicine, container and so on. They not only use plants in their natural habitat but also domesticate them. These are turning points of human history and origin of cultivation and domestication mechanism can be researched with the help of plant science.

Finally there are a number of shell fish, mollusks, micro plants, animals and virus, which are sensitive to any kind of change in the environment. They also are important marker for dating and reconstruction of environment and culture.

Check Your Progress 6

12) What is dendrochronology?

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3.4 SUMMARY

Anthropology is closely related to behavioral or social sciences. Physical / biological anthropology deals with human biological diversity in time and space. Biology deal with all living organisms including human being. The relationship between biological anthropology and biology is that both the disciplines analyse origin, evolution, heredity, variation, and anatomical and physiological features of human being.

Biological anthropology studies the physical characteristics of man. It uses the general principles of biology and utilizes the findings of anatomy, physiology,embryology, zoology palaeontology and so on.Paul Broca (1871) defined physical anthropology as the “Science whose objective is the study of humanity considered as a whole, in its parts and in relationship to the rest of nature”.

Apart from the similarities, both disciplines differ in many respects.

Biology	Anthropology
a biological science	a bio-social science
Views human beings as biological entities	Views human beingsas both biological and social entities
Studies all living organisms	Studies primates and human species.

While biology is considered a biological science, anthropology is considered a bio-social science. In the discipline of biology,a human being is viewed as a biological entity whereas in biological anthropology a human being is considered both a biological and social entity. For instance, when a zoologist tries to understand the biology of an animal, he never goes into the details of the length and breadth of the skull. Physical anthropology examines the skull in all its details. Thus, anthropology has a sort of specialization or sharpening of certain aspects of general biology.

Biologists study all the living organisms but anthropologists are restricted to study primates and human species. Subjects such as archeology, paleontology, osteology, geology, and geography help the biological anthropologists and archeological anthropologists in reconstructing biological and cultural aspects of human evolution. In using techniques to date fossils and artifacts, anthropologists take help from physics, chemistry, and geology. Anthropologists collaborate with the disciplines such as botany, zoology, and paleontology at the time of studying human fossils and artifacts.

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3.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Refer to section 3.1.1
- 2) Refer to section 3.1.2

Check Your Progress 2

- 3) A.R. Radcliffe-Brown suggested that social anthropology maybe termed as comparative sociology.
- 4) Refer to section 3.2.1

Check Your Progress 3

- 5) Refer to section 3.2.2
- 6) Refer to section 3.2.2

Check Your Progress 4

- 7) Refer to section 3.2.3
- 8) Refer to section 3.2.3
- 9) Refer to section 3.2.3

Check Your Progress 5

- 10) Refer to section 3.2.4
- 11) Refer to section 3.2.4

Check Your Progress 6

- 12) Refer to section 3.3.4

BLOCK 2 : Origin and Development of Anthropology

Unit 4	: History and development of anthropology	55-65
Unit 5	: Anthropology in India	66-80
Unit 6	: Fieldwork tradition in Anthropology	82-90



UNIT 4 HISTORY AND DEVELOPMENT OF ANTHROPOLOGY*

Content

- 4.0 Introduction
- 4.1 The Age of Reason and Beginnings of Science in Europe
- 4.2 The Political Background to Development of Social Theory
- 4.3 Anthropology as a Discipline
- 4.4 The British and American Schools of Anthropology
- 4.5 Marxism, Post-structuralism and the Emergence of a Humanist Anthropology
- 4.6 Summary
- 4.7 References
- 4.8 Answers to Check Your Progress

Learning Objectives

In this unit, you will learn the following about anthropology:

- its philosophical and historical roots;
- the political and social context of its growth;
- its initial goals;
- its diversification; and
- its development in the context of global issues and relevance.

4.0 INTRODUCTION

Anthropology is the discipline devoted to the study of human beings. It is a paradox that humans practically studied everything else before they turned their eyes on their own selves. The reason was simple: that being what they were was always taken by all human communities across the world as a given, as a taken for granted truth for which no questions were asked. Whatever was asked was answered through existing cosmologies and myths that were taken as primordial truths and never questioned. In this unit you will learn about the fascinating story of how and why after many centuries of learning to read and write and after developing the astronomical, mathematical, biological and all other sciences, humans finally turned the inquisitive gaze upon themselves.

* Contributed by Prof. Subhadra Channa, Department of Anthropology, University of Delhi, Delhi

4.1 THE AGE OF REASON AND BEGINNINGS OF SCIENCE IN EUROPE

Around the 16th century, Europe underwent a paradigm shift in philosophical thinking as it expanded its geopolitical boundaries across the world in terms of travel and trade. There was growing disillusionment with the Church and its dictums. The French Revolution as well as the American Revolution brought about the realization that the social order was not based on divine origins but was an entity that could be shaken at its roots by human action and agency. The exposure to the rest of the globe also made the Europeans realize that societies and people could be found in varieties of forms and shapes, not only in terms of physical differences but also in terms of customs, ways of life and thinking.

Even before Darwin and Wallace had formulated the theories of biological evolution, the French thinkers and the Scottish Enlightenment philosophers were formulating their hypotheses of human social evolution and the possibility of society being a human rather than a divine creation. The exposure to other cultures triggered ideas of social evolution as the European thinkers tried to explain the diversity of cultures by connecting them with their own past. Auguste Comte gave the theory of a stage-by-stage evolution of human societies. Human societies, according to him, evolved through the following stages:

- Theological
- Metaphysical
- Scientific (Reason)

Comte's thesis put Europeans at the top of the evolutionary scale. When Europeans looked at other people, they thought they were looking down as well as looking back. Comte concentrated on the reflective faculties of humans and their capacity for rational thought.

Another major contributor to theory of social evolution was Herbert Spencer, who was also a contemporary of Charles Darwin. Their (Comte's and Spencer's) theories of social and biological evolutions overlapped to some extent. Spencer's rather controversial theory that societies behave like natural systems where all those parts (people) that are weak or lack survival potential get eliminated was established as the popular conception of 'survival of the fittest' that also got mistakenly grafted to Darwin's theory of evolution. Spencer's theory was also used by the emerging industrial capitalism of Europe to justify both the spread of colonial rule and the onus that capitalism put on the individual entrepreneur.

Both Comte and Spencer along with other European scholars represented what is known as the Positivist approach to the study of social phenomenon. This approach advocated that societies were capable of being studied and analyzed as objects like any other object of scientific investigation. In other words, a scholar of society was also a scientist who could apply his analytical skills to objectively scrutinize society with the same degree of objective detachment and methodological rigour that a scientist brings to his examinations. Societies were compared to organisms and like organisms they were subjects of evolution and predictable laws.

Two of the greatest 19th century thinkers, Freud and Marx also followed this Positivist philosophy to put forward their ‘scientific’ theories of human biopsychological and social development respectively. Both, like Darwin, had great influence on later developments in social sciences and on the discipline of anthropology. A great deal of theory building in the age of Positivism was triggered by the great curiosity that Europeans had about their ‘origins’ and ultimately it was this search for the origin and evolution of human beings that gave rise formally to a discipline labeled anthropology or the Science of Man. This original definition of anthropology indicates the two basic assumptions that informed the establishment of this discipline; one, that humans were potential subjects for scientific analysis in all aspects of their being and second, that to be really ‘human’ was to be a Man.

This brings us to another philosophical paradigm of the Age of Reason or Enlightenment; the nature/culture dichotomy, and its superimposition on the female/male duality, recognized and established by almost all major thinkers of the European Renaissance, such as Francis Bacon, Freud and even Darwin. Humans with their faculty of reason were destined to dominate nature and this was also the manner of defining civilization. Women, whom both Freud and Darwin had characterised as driven by instinct, were not guided by reason, as were men. They were more like nature, biological creatures to be dominated and also protected by men. This was the mindset that attributed all intellectual activity to the realm of the masculine while the feminine was confined to the domestic domain, with the result that most of the recognized theoreticians of the west were men.

4.2 THE POLITICAL BACKGROUND TO DEVELOPMENT OF SOCIAL THEORY

No theory arises in a vacuum. Galileo and Copernicus were ahead of their times and suffered the consequences of challenging to dominant theory of their times. Darwin, however, came at the right time. He put forward a theory that completely shook what was written about Genesis in the Bible but was accepted with enthusiasm. Anthropology was developing because Europe was at its peak in colonizing the rest of the world. The relatively equal relationship established through trade was being turned into one of political domination and gross exploitation.

Trautmann (1997) has described how the British treated Indians with respect and almost awe as long as they were trading, but as soon as the rule of Queen Victoria was established Indians and their culture was denigrated to the level of savagery and all native customs were disparagingly dismissed as uncivilized. The rising needs of capitalist economy were pushing Europe to a relentless search for resources to feed its growing industries both in terms of raw materials as well for markets for selling their goods. However at the same time, the Enlightenment period was the time of flowering of ideas of equality, humanism and liberty; thoughts that originated from the French and American revolutions. There was a strong belief among the Europeans that they being ‘civilized’, were the carriers of human values of justice and democracy. There was an obvious contradiction between this faith and the genocidal activities that accompanied colonization.

It was the evolutionary theories that justified and supported the spread of European rule by creating the image of the 'primitive other'. As put forward by an array of scholars from Comte, Bachoven, Maine, McLennan and others, human societies had gone through several stages that were also linearly progressive. The peak of evolution was reached by the Western societies, whose dominance was further justified by Spencer's dictum of 'survival of the fittest'. Thus the Europeans were succeeding because they were more 'fit' and also the people they were colonizing were 'primitives' who were compared to immature children by Freud and were considered at lower stages of mental evolution by Darwin. The colonies were regressed in stages that had not quite reached the patriarchal, male-dominated civilization of the west.

Scholars such as Bachoven and McLennan, for instance, considered female domination as a sign of 'backwardness' putting matriline/matriarchy as a lower stage of human evolution. This was in compliance with the view of the nature /culture, women/men dichotomy already established (Ortner 1974). Since western societies were strongly patriarchal in both religion and law, they were superior. They were also self-professed examples of superior civilization that justified their taking over and 'civilizing' the primitives.

4.3 ANTHROPOLOGY AS A DISCIPLINE

The discipline of anthropology was finally established as a distinct discipline with Edward B. Tylor assuming the chair of anthropology at the Oxford University. The goals of the discipline were to formally study and research the origins and diversity of human beings. Darwin had firmly established that the human was a single species biologically and the race theories that had attributed differences in human societies to their racial differences were discarded at the scholarly level. If race was not the criteria then one had to look for other reasons for both the physical as well as the social differences between various human groups.

The discipline of anthropology then was to examine the biological as well as social evolution of humans and to explain the observed differences of physical types and of social and cultural life.

- The biological evolution needed to look beyond the time when humans became humans so biological evolution was rooted in paleo-anthropology (the study of fossil remains of humans and pre-human hominids) and primatology (the study of behavior and physiology of higher primates).
- The social evolution not only examined pre-historical remains and archaeological roots but also considered existing human societies as remains of the past of the most evolved societies, namely the western European.

It was this last assumption that formed the basis of the theory of social evolution where Tylor assumed that spatial differences could be translated into temporal differences. While this theory put some people on the lower rungs of the evolutionary ladder, it also based itself on what was then recognized as the theory of 'psychic unity of mankind'. Since humans were one species, it was believed their mental functioning would necessarily be the same. All humans were supposed to have one Culture, what Ingold

(1982) has called culture with a capital C. The observed differences were then explained by saying that the different peoples had evolved to different levels of culture, with the added proposition that all would ultimately attain the same level of culture as had already been attained by the western civilization.

Anthropology was at times criticized for being a colonial discipline especially as the theory of social evolution was both Eurocentric and directly or indirectly supported colonization by its definition of 'civilization' as synonymous with the west.

Anthropology diversified into four main branches:

- Physical or biological anthropology that dealt with human biological diversity.
- Linguistics that dealt with relationship between culture and language.
- Archaeology that delved into the past of human society.
- Social/cultural anthropology.

However these branches are not totally exclusive of each other and the fact of humans evolving as cultured beings, who live in society, underlies all aspects of anthropology. The initial Eurocentric bias of anthropology was later replaced by a far more relativistic and humanistic approach. The historical transformations of the world had much to do with changes in anthropological paradigms.

Check Your Progress 1

1) According to Comte human societies evolved through how many stages?

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2) What were the main ideas of the Enlightenment period?

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3) Where was anthropology established as a distinct discipline?

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4.4 THE BRITISH AND AMERICAN SCHOOLS OF ANTHROPOLOGY

The intrinsic relationship of anthropology with colonization is explicit in the further development of the discipline in its British version and the

development of what came to be known as the American Cultural Tradition. In the continent, the academic roots of British structural-functional school was drawn from the functionalism of Durkheim(1858-1917)who belonged to the French school of sociology.

The structural-functional school critiqued the classical evolutionists for their speculative theories. Moving away from the deductive theories of evolution they moved to empiricism and developed the field study method that has today become the hallmark of anthropology. They believed that each society has a structure in the form of social relationships and there is a functional logic of each part of this structure that contributes to the whole.

The basic premises of structural-functionalism was based on the axiom of cultural relativism, that cultures were not higher and lower manifestation of stages of the same Culture, but cultures in plural were each functional wholes. Each society was bounded and could be compared to a living organism whose parts contribute to the functioning of the entire body. Thus one could not study parts of cultures, like religion and kinship, by using the comparative method, as was done in classical evolutionary theory, but a society needed to be studied in its entirety and in depth, and the functional relationship between its parts established by close and intimate interaction with the people concerned.

The British anthropologists mainly responsible for this approach used it to study those societies under the rule of the Crown that needed to be governed to be in stable equilibrium. To some extent the desire of the administrators was reflected in the academic presumptions.

The fieldwork method was given its classical shape by Bronislaw Malinowski's long duration study of the Trobriand islanders. That Malinowski became a fieldworker of such dedication, not voluntarily but by the exigencies of the World War, did not deter from him being declared the master fieldworker of all times and his book *Argonauts of the Western Pacific* (1922) a manual that all anthropology students read like the Bible.

The functional studies were carried out by the British and French anthropologists in most of the colonies and they were often engaged by the colonial governments to help the administration by providing information about the people so that they could be better governed and managed. Often as in India, many administrators became anthropologists of sorts when they carried out fieldwork among the people they were required to govern. But the works of these administrator/ethnographers were not free from bias (Channa 1992).

Although anthropologists were often initially in the pay of the state, and were required to support the state agenda of colonization, as a result of long stay and intimate contact with the people they were sent to study, they often turned up against the policies of the state. Sometimes their influence changed the policies of the government, like for example the influence of anthropologist Verrier Elwin on the policies made by Nehru's government regarding the manner in which the people of North-East of India were to be governed.

Anthropologists often advocated for retention of local customs and were against undue interference in the lives of the native. The anthropologists

working in India and Africa were mostly part of governments that worked from, 'outside'. India and large parts of Africa were external colonies of the British, French and Dutch governments, that retained to a large extent their native societies and cultures; similar conditions existed in Indonesia, Burma and other colonies not totally taken over by the white populations.

In America, the situation was quite different. Here the Native Americans had not only been dispersed and their societies destroyed, many tribes and communities had been depleted to almost the last survivors, when the anthropologists began to study them. The father of American anthropology, Franz Boas, also drew his roots from German Diffusionism that emphasized history, migration and a more particularistic view of social transformation.

Unlike the classical evolutionist and functional roots of British social anthropology, the Americans, facing genocide and massive dissemination of societies could not face up to a synchronic, functional view of timeless harmony visualized by the structural-functionalists. First of all they focused by necessity on the concept of culture as against that of society because what they did get to study were not functioning societies but left-over bits of people's lives like myths, folklore, material culture and narratives of ways of lives that had disappeared or were going to disappear soon. The people they studied, like the Navaho, were a people living in reservations, in abject poverty, mental and physical misery, practicing witchcraft not to maintain a functioning society like the study made by Evans-Pritchard on the Azande, but to survive conditions of extreme hardship.

Kroeber, a direct student of Boas and a doyen of American anthropology, gave his famous definition of culture as 'super-organic, super-individual', in other words something that could still be studied even if the culture bearers were gone. Boas' Historical Particularism was not a theory of sweeping generalizations but looked upon culture as a product of history, situated in specific environmental conditions and carried by people who had particular mindsets that were conducive to the nature of culture they were carrying. In other words, Boas and his followers did not limit themselves to the domain of the social exclusively like the structural-functionalists did but looked to history, psychology and environment to explain the nature of culture.

Boas' book *The Mind of the Primitive Man* was a study in cognition and he was also influenced by Gestalt Psychology of the German school. The concept of ethos, developed by Kroeber, where he talks of the whole as being something other than the sum of its parts, was also influenced by the Gestalt school. Other scholars emerging from the American School developed the link between culture and personality further, bringing in psychological concepts to explain cultural differences, like Ruth Benedict's work (1934) on the patterns of culture that also made use of the concept of cultural ethos.

Boas transmitted his interest in psychology to his students such as Margaret Mead, Linton and others who later laid the foundations of the branch of psychological anthropology that developed out of the culture personality school. Freudian theory of early formation of personality was reformulated by anthropologists who pointed out that early childhood experiences were embedded in culturally specific methods of child rearing and therefore culture was a prime driver of personality formation. One offshoot of this theory was the concept of national culture that found great popularity.

The American School not only branched off into psychological fields but also into ecological anthropology, economic anthropology, medical anthropology and historical anthropology from its roots of historical particularism. After the Fifties, however, the separation of the two traditions almost disappeared as both structural-functionalism and historical particularism were replaced by more contemporary theories.

4.5 MARXISM POST-STRUCTURALISM AND THE EMERGENCE OF A HUMANIST ANTHROPOLOGY

After the Second World War there were again major paradigm shifts as the geo-political nature of the world changed. The synchronic and harmonious view of society was shattered and history entered into analysis in a major way. The havoc caused by the capitalist, industrial technology led to the emergence of critical theories that not only challenged the supremacy of European civilization but also raised doubts about the efficacy of the so-called objectivism of western scientific methods. The earlier native, or primitive 'others' were fast entering into the academic discourses as were women. Edward Said's *Orientalism* (1978) shows that the West's Eurocentric construction of 'Other' was biased. Similarly, feminist scholars condemned the 'white, male centric' perspective masquerading as the universal perspective.

A strong critique of western capitalism also entered through the French School of Marxism and what came to be known as the New Economic Anthropology that again brought in historicity, contradictions and critical examination of concepts that were idealized through the western capitalist mode of thought. A major outcome of the entry of Left-oriented thinkers into academic discourse was to criticize notions of modernity and development which were synonymous with western capitalism. The emergence of strong politically oriented anthropology that formed effective criticisms of existing paradigms of race, gender, class and culture gave rise also to re-examination of earlier established concepts such as 'tribe', tradition, society and culture.

Concepts like 'indigenous' replaced those like 'tribe' that were seen as imposed and having essentialist characters. The term "indigenous" on the other hand was acceptable to the people themselves for it had the political connotation of 'marginalization' that was seen as a more politically correct view of as things were.

The structural-functional definition of tribe as a bounded and ahistorical entity was criticized in the works of Wolf, where he showed that absence of history was a complete fabrication of western scholars who ignored widespread and ancient trade and migration histories to interpret history only according to the activities of the western people. Thus those so-called isolated tribes were isolated only from the west but otherwise had deep-rooted and ancient contacts with many non-western societies.

The evolutionary paradigm that hunting food-gathering people had a 'primitive' technology that prevented them from evolving to higher technologies such as of food production was likewise refuted by ethnographic evidences that showed that not only did the foraging mode of life afford the

people plenty of leisure but that hunters and foragers were often sustained by long distance trade with urban civilizations over centuries. Much of earlier formulated anthropological concepts and terminologies were thus criticized as being essentialized and artificially constructed monolithic constructions that depicted more of what the anthropologists believed was true than depicting actual situations. A pervasive criticism was that the positivist methods privileged the observer in the form of the scholar and ignored the native's voice. For instance, a simple observation made by Kapadia (1995) is that in all kinship studies the ego is taken as male but in real life in South India where she has done fieldwork, when people talk of marriage negotiations they talk of the girl and not the boy getting married; also kinship is mostly described through women and with female ego. Numerous such observations were made to deconstruct existing paradigms and taken-for-granted concepts.

Positivism was also criticized in terms of methodology. Re-studies and research by some native anthropologists and women scholars demonstrated that the methodological rigour and 'objectivism' professed by the earlier anthropologists was only a fiction. Thus Weiner(1976) in her restudy of Trobriand Islands was able to show that Malinowski for all his expertise was not able to even understand the contribution of women to ritual and trade and their social and economic importance in Trobriand society was completely overlooked.

The fieldwork situation was thus reinterpreted as one of inter-subjective interaction where the subjective 'self' of the anthropologist was engaged in interaction with those of the people he/she studied. The identity of the anthropologist was as important in setting the stage for fieldwork data collection as was the social and cultural characters of the people under study. Gender and political identities were seen as integral to the process of data collection itself, making it clear that any information about human societies collected by another human being was not an objective scientific procedure but was essentially only one form of a human interaction where all parameters including sentiments and emotions were involved.

Towards the end of the last century and as we are progressing more into the new century, anthropology is becoming a discipline that is moving away from its initial definition of the science of man. From rigid classifications and generalizations, there is emphasis on fluidity of concepts, more introspective reflexivity in analysis and recognition that human lives and situations are not amenable to imposed restrictive categorizations. From being impersonal analysts, anthropologists are emerging as mediators between the people they study and the world outside.

In this sense the anthropological method based on fieldwork and qualitative analysis has emerged as the key definition of the discipline rather than any concepts or laws that it may have generated. To a large extent the changes in science and scientific paradigms like the shift from particle to quantum physics, have also been responsible for post-modern philosophical trends.

The belief in the fixity of phenomenon and in an ordered existence is being replaced by the more mystical order of the universe, the fluidity of existence and disappearance of boundaries. The boundaries between disciplines are also breaking down so that contemporary anthropology is making interfaces

with philosophy, history, political science, medicine and other disciplines that too likewise are drawing upon anthropology, especially its qualitative methods and humanitarian approach.

Check Your Progress 2

4) What is the hallmark of anthropology studies?

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5) What was replaced by contemporary theories after the fifties?

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6) What is New Economic Anthropology?

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4.6 SUMMARY

Thoughts and theories about human societies are influenced and engendered by the historical and political context in which they take shape. Ideas are shaped by the social environment and the lived conditions of the people who are the originators of these ideas. The various historical circumstances such as the Dark Ages of medieval Europe, the reaction against the Church, the revolutions and wars that reshaped the world and the post-colonial emergence of nation-states, economic liberalization and globalization are processes that have had deep impact on people’s ways of thinking and conceptualizing.

From being creators of grand theories like that of classical evolutionism, and structuralism, anthropologists are now into more down-to-earth queries into the conditions of human life; taking sides often with the marginalized and speaking up for those with no voice. More and more anthropologists are taking critical stands against inequality, injustice and social and environmental imbalances. In the emerging times anthropology is becoming a true discipline of humans for humans.

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4.8 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Comte's thesis describes that human societies evolved through the ages of Theology, Metaphysics and Reason. It put Europeans at the top of the evolutionary scale.
- 2) The Enlightenment period was the time of flowering of ideas of equality, humanism and liberty, thoughts that originated from the French and American revolutions.
- 3) The discipline of anthropology was established as a distinct discipline with Edward B. Tylor assuming the chair of anthropology at the Oxford University.

Check Your Progress 2

- 4) The field study method has today become the hallmark of anthropology.
- 5) After the Fifties, however, the separation of the two traditions almost disappeared as both structural-functionalism and historical particularism were replaced by more contemporary theories.
- 6) The New Economic Anthropology brought in historicity, contradictions and critical examination of concepts that were idealized through the western capitalist mode of thought.

UNIT 5 ANTHROPOLOGY IN INDIA*

Contents

- 5.0 Introduction
- 5.1 Growth of Social/Cultural Anthropology in India
- 5.2 Growth of Physical/Biological Anthropology in India
- 5.3 Growth of Prehistoric/Archeology Anthropology in India
- 5.4 Summary
- 5.5 References
- 5.6 Answers to Check Your Progress

Learning Objectives

After reading this unit, you will be able to:

- understand the growth of anthropology in India from its formative phase to its current phase; and
- describe and comprehend the concepts and theoretical models that were developed by anthropologists to study Indian civilization.

5.0 INTRODUCTION

Anthropology in India was introduced in second half of the 19th century. During this period many British anthropologists came to India and conducted studies on tribals and other communities. Apart from anthropologists, British administrators also collected data on Indian communities and published monographs of their studies. This period had few trained Indian anthropologists to do research. Departments of anthropology in India universities emerged only in the beginning of 20th century and they started producing anthropology students. Many anthropologists irrespective of their nationality studied Indian society, culture and civilization.

5.1 GROWTH OF SOCIAL/CULTURAL ANTHROPOLOGY IN INDIA

Anthropological studies in India commenced in second half of the 19th century. Of the four subfields of anthropology, social/cultural anthropology in India was first to come of age. Based on the type of the work that was being done in anthropology, authors have divided anthropology into 3 or 4 phases, although Indian anthropologists such as L. P. Vidyarthi, D. N. Majumdar and Basu Roy differ in their opinion pertaining to different time periods. The following are the phases of development of anthropology in India.

Phases of Development of Anthropology in India

D.N. Majumdar		L. P. Vidyarthi		Basu Roy	
Formative period	1774-1911	Formative phase	1774-1919	Formative phase	1774-1919
Constructive phase	1912-1937	Constructive phase	1920-1949	Constructive phase	1920-1949
Critical phase	1938 onward	Analytical phase	1950 on going	Analytical phase	1950-1990
				Evaluative Phase	1990 to the present

Formative phase (1774-1919): Anthropologists introduced ethnographic studies on tribes and other populations. Most of the monographs were published on traditions, customs and beliefs of tribes and other caste communities. In addition to the above monographs, government officials' revenue reports were also published by Dalton and Buchanon. The Asiatic Society was established by Sir William Jones in the year 1784. The society began to publish articles in journals, where most of the publications were on anthropology and few were on Indian tribes. Most articles were published by British authors. An essay of anthropological interest was published in *The Indian Antiquary* in 1872.

During the formative phase the Anthropological Society of Bombay (1886) published a journal which was the first journal where number of anthropological studies were initiated. In India this phase was the beginning of scientific study of 'nature and man'. During this phase the anthropologically oriented scholars were posted in different parts of the country to study Indian society and culture. The main objective behind the posting of these scholars was to acquaint the government officials with Indian population of different regions to ensure colonial administration. During this phase when Risley became head of census operations in India, a separate wing for ethnographic survey was developed which initiated the project "People of India".

For the first time, anthropology as a subject was introduced in the Department of Sociology of Bombay University in 1919.

Some of the British social anthropologists who came to India for ethnographic work were:

- W.H.R. Riverse: conducted study on Todas of Nilgiri Hills;
- A.R. Radcliffe-Brown: well-known structural functionalists who studied the Andaman Islanders,
- Charles Gabriel Seligman and Brenda Z. Seligman: wrote on the Veddas of Sri Lanka.

Check Your Progress 1

- 1) Into how many phases the growth of anthropology in India was divided by D.N. Majumdar and L. P.Vidyarthi? Explain?

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In social anthropology scholars started publishing their ethnographic work on different population of India. Some of the notable works of this kind include *Tribes and Castes of Bengal* published by H. H. Risley in the year 1891. The book can be accessed through the link <https://archive.org/details/tribesandcastes00rislgoog/page/n4>

S. C. Roy, the first Indian ethnographer who helped the oppressed tribals of the region, started his work among the tribals of Chotanagpur and published his monograph *Munda and their Country* in 1912. Regarding the subject of anthropology Roy was of opinion that anthropology is for use, for nation-building in a positive sense, for fellow-feeling among human beings and for writing the eternal history of humankind. He wished anthropology to be taught as a subject in all universities and also as a requirement of officers in administration and bureaucracy.

L.K. Anantha Krishna Iyer published his work *Cochin Tribes and Castes*. *The Journal of Bihar and Orissa Research Society* was started in 1915 and focused on history, archaeology, anthropology and philology. During this phase some scholars from abroad carried out the ethnographic works in India. These works include the following:

- *The Khasi* (1907) by P R T Gurdon,
- *The Lhota Naga* (1922) by J. P. Mills,
- *The Lushei Kuki Clans* (1912) by J Shakespeare and
- *The Chamars* (1920) by G. W. Briggs.

The empirical study of tribal people was central to anthropology. The work of anthropological research disseminated across the country by publishing through print media.

Eastern India	Middle India	South India	North India
Risley, Dalton,	Russel O'Malley	Thurston	Crooks

For very long time till 1940, foreigner and Indian scholars primarily focused their studies on tribals. The major development of social anthropology took place in the constructive phase (1920-1949) when a full-fledged anthropology department was established in Calcutta University in 1920. Pioneers of Indian anthropology such as L.K. Anantha Krishna Iyer and R. Chanda joined the department and started a post-graduate course in the university. This was the first time when avenues for anthropology in the academics (including social anthropology) were started. L.K. Anantha Krishna Iyer published monographs on *Tribe and Caste of Ernakulam*. He also read paper on *Marriage Customs*

of the Cochin Stat' and Nambuthari Brahmins of Malabar at Indian Science Congress in 1914.

Constructive phase: In 1921 under the editorship of S.C. Roy, print journal *Man in India* was started. Among the branch of social anthropology Indian anthropologist like D. N. Majumdar, T. C. Das, M. Chattopadhyay, I. Karve, A. Aiyappan started working and publishing in the areas of social institutions. Their extensive work on social institutions provided a long needed impetus to the development of social anthropology. According to L. P. Vidyarthi a big jump in anthropology came during 25th Indian Science Congress which was held at Calcutta in 1938. The theme of the Congress was 'Anthropology in India'. Many eminent Indian social anthropologist delivered lectures and discussion were done on future anthropological research work. Apart from academic activities a lot of development took place in anthropology during the Congress. Most importantly the progress of anthropology in India was reviewed by Indian Science Congress Association and the British Association.

Many significant works including *The Changing Hoof* D. N. Majumdar, *Marriage and Family in Mysore* of M. N. Srinivas and *Hindu Methods of Tribal Absorption* of N. K. Bose may be described as the turning point in the growth of social anthropology in India. Majumdar's study on Ho in the Kolhan region of Chotanagpur was focused on culture contact and acculturation which became a basis for anthropology students. For his study he used the MARC model which means Man, Area, Resource and Cooperation. According to him the relationship between these four elements guide the existence of any society.

- Man: Human beings having biological needs and physical properties.
- Area: Spaces which they occupy, the geographical referent which forms the basis of their existence.
- Resource: Materials available in the spaces that they occupy.
- Cooperation: Relationship between the human beings studied.

Harmony in all these four elements leads to a functional unity in society. This unity breaks down due to external pressures. On the basis of his model Majumdar claimed that the Hos were being influenced by external pressures. He saw that primitive tribes are declining and this was also a primary concern for anthropologists. According to him, advanced culture impinging on a simple and passive society is causing such decline. He was not in the favor of creating reserves for tribals and including them very closely within the Hindu fold as a backward form of Hinduism. He supported them to be integrated into Indian society, a form that he called "creative or generative adaptation." He believed that dominant groups should give respect to those communities who are backward or downtrodden. A social change, in his opinion, should not be disruptive but should be incontinuity with existing cultural traditions.

Many other foreigner scholars contributed problem-oriented works on tribes at this juncture. Foremost among them were Verrier Elwin and Christopher von Fürer-Haimendr of.

Verrier Elwin worked on the tribes of Madhya Pradesh and Orissa. Among his books were:

- *The Baiga* (1939),
- *The Agaria* (1943) and
- *The Muria and their Ghotul* (1947).

During his popular work on the Baigas, he observed that Baigas were being destroyed by the landlords and the missionaries. In order to protect Baigas from exploitation Elwin suggested that the state should prevent or control their interaction with outsiders. He also proposed to government that the tribes should be left alone and they should be allowed to develop on their own. During his work on Murias of Bastar he observed that youth dormitories are an indispensable part of many other tribal societies as well. These dormitories were responsible for training the youth in various social activities and for initiating them into sexual activities. His study led others to work on the activities of the youth dormitories in other tribal societies.

Haimendr of was an Austrian ethnologist who spent nearly four decades in Indian. Among his books were:

- *The Chenchus: Jungle folk of Deccan* (1943).
- *The Raj Gonds of Adilabad: Myth and Ritual* (1948).
- *The Reddis of the Bison Hills: A Study of Acculturation* (1945).

In his studies he described extensively about the social and cultural life of these tribal communities and paid special attention to their problems and recommended welfare measures for the tribal development. In his work Haimendr of highlighted the tribals' land alienation problems in Adilabad district. Major problems and struggles faced by these tribals include curtailment of their rights by the forest department, snatching of their agricultural lands by the new 'voortekkers' and moving of non-tribals into tribals areas (Furer-Haimendr of, 1985). These classic ethnographic studies will provide models for future anthropologists. Learners must read the above ethnographies.

During the constructive phase two important institutions were established:

- Anthropological Survey of India in 1945,
- Department of Anthropology at University of Delhi in 1947.

These institutions played significant roles in the development and advancement of anthropological research.

Analytical phase (1950-1990): The work of anthropological research underwent drastic change. In the formative phase ethnographic work was dominated by administrators which were lacking in quality. But after independence the focus and interest of foreign as well as trained Indian anthropologists shifted from tribes to caste.

The work scenario of social anthropology completely changed in analytical phase (1950-1990). During this phase Indian anthropologists started collaborative work with foreign scholars. In this period renowned anthropologists and sociologists such as Morris Opher, Oscar Lewis and David Mandelbaum and their students came to India from America to study

Indian society and culture. Many of these scholars did their fieldwork in Indian villages and tested their hypothesis on the village studies. This period was termed as analytical phase because of the shift from descriptive tribal studies to analytical village and castes studies of complex societies.

For D.N. Majumdar this period began in 1938 and for Surajit Sinha this is recent phase. D.N. Majumdar contributed significantly to Indian anthropology and used the holistic-functional approach for studying the Ho tribe. In the year 1950 he established Department of Anthropology at Lucknow University and also initiated *The Eastern Anthropologists journal*.

Contact between Indian anthropologist and foreign anthropologists occurred after independence. A large number of monographs were published on village studies by foreign and Indian scholars. Indian social anthropologists such as L.P. Vidyarthi, D. N. Majumdar, M.N. Srinivas, S. C. Dube, B. K. Roy Burman, Makhan Jha, P. K. Misra, K.S. Singh, T. N. Madan, N. K. Bose, T. C. Das, Iravathi Karve, Chattopadhyay and Mukherjee made notable contributions to village and community studies.

The analytical period of anthropological researches marked the beginning of researches on Indian tribes, castes, villages and urban cities of both orthogenetic and heterogenetic natures. Marriot (1958) developed the concepts of “network and centers” to understand the dimension of Indian civilization. L.P. Vidyarthi, who was a follower of the Chicago School of thought, developed a concept called ‘sacred complex’ to analyze the contribution and importance of traditional centers of Indian civilization in a systematic way. He conducted his study in the famous Hindu religious pilgrimage spot of Bihar called Gaya. This resulted in a book called *The Sacred Complex of Hindu Gaya* in 1961. The concept sacred complex describes in detail three analytical concepts:

- a sacred geography,
- a set of sacred performances, and
- a corps of sacred specialists which are collectively termed as sacred complex.

The concept has played an integrating role by providing a meeting place of different kinds of peoples and traditions, of castes and sects, of classes and statuses. The concepts of “sacred complex” and “networks and centers” discussed similar theme conceptually. Methodologically the concept unfolds channels of cultural transmission which helps in the integration of civilization. These concepts became very popular theoretical models in anthropological literature for studying the traditional places of pilgrimage and the religious complex of the simple societies in India. He extended this study to understand the tribals’ relationship with the nature. He was of opinion that simple societies and tribes were isolated from the mainstream of civilization. The Great Tradition had never been a part of their lives. In order to study such communities he developed the concept Nature-Man-Spirit complex. He found this complex to be of great value not only to study the Maler of Rajmahals hills but also in understanding the issues related to applied anthropology.

M. N. Srinivas in his book *Social Change in Modern India* (1966) developed the *sanskritization* concept. He defined *sanskritization* as “the process by

which a low caste or tribe or other group takes over the customs, rituals, ideology and style of life of a high and, in particular, a twice-born (*dwij*) caste". In simple terms *sanskritization* means people of lower caste imitate people of higher caste (cultural mobility) owing to their improvement in the economic or political position resulting from their contact with a source of the Great Tradition of Hinduism such as pilgrim centers. M.N.Srinivas gave examples from the Ramgharias of Punjab, the Chamars of Uttar Pradesh, the Oraons of Bihar, the Bhils of Rajasthan, and the Gonds of Madhya Pradesh and said that they have all tried to *sanskritize* their way of life.

Evaluative phase (1990 to present): due to shift in anthropological research new sub-fields emerged in social anthropology. For example, anthropologists from School of Chicago such as Robert Redfield, McKim Marriott, and Milton Singer studied the interaction between the Little and Great tradition as well as 'Folk-Urban Continuum' to understand the dimensions of Indian civilization.

Robert Redfield developed concepts such as "The Great and Little Traditions", "cultural specialists", "style of life", "cultural performances" and "cultural media" to study Indian civilization. He defined civilization in three ways.

- A complex structure of Great and Little traditions. This definition emphasized culture content together with its historical sources and levels of development.
- An organization of a special kind of role-occupiers in characteristic relation to one another, and to lay people performing characteristic functions concerned with the transmission of tradition. This definition made an emphasis on the social structure of traditions (Redfield, 1955).
- With Singer, he proposed another definition of civilization in terms of self-axis, that is, in terms of a characteristic world-view, ethos, temperament, value system, cultural personality (Redfield, 1955). This definition represents the shift of description from products of culture to its psychological characterisation.

McKim Marriot (1955) developed the concept of Universalization and Parochialization to put his idea *Little Communities in an Indigenous Civilization* as a sequel to Robert Redfield's Great Tradition and Little Tradition". He examined the socio-religious organization in an Indian village named Kishan Garhi in Uttar Pradesh to put forth his view. According to Marriot, the concept of universalization refers to the "carrying forward of materials which are already present in the little tradition which it encompasses" (1955). The opposite process, which he called parochialization, is defined by him as the "downward devolution of great traditional elements and their integration with little traditional elements. It is a process of localization" (ibid). Thus, Marriot has perceptively christened two contrasting, yet complementary processes of cultural growth of the indigenous civilization in India as Universalization and Parochialization. Finally, he pointed out that these processes are by their nature, not restricted to the Hindu culture, but are applicable to all cultures having the dimensions of the great and little traditions.

During the analytical phase, Indian anthropologists such as N. K. Bose, D. N. Majumdar, and L. P. Vidyarthi studied the impact of industrialization on

tribals. Social anthropology also developed the sub-field of urban anthropology during this phase. Social anthropology was also included into many different fields, for example, Sheth's work on 'Social Framework of an Indian Factory (1970) fall into the subfield of anthropology and management.

Growth and development of Indian anthropology in the areas of medical anthropology, religion, development and psychological studies, tribal development studies, studies on ethnic identities, folklore studies applied and action research studies are more evident. After having work experiences in the above areas many Indian and foreign anthropologists helped the government in planning of economic development and social reconstruction of the country.

The above scholars while studying Indian villages developed the following distinct research methodology such as:

- Genealogical Method,
- Spatial Distribution Technique,
- Statistics,
- Text Analysis,
- Concept of Sacred Center,
- Cluster,
- Segment.

Social anthropologists moved ahead from communities' studies to complex segments like caste politics, caste power relationship with social structure, without losing their identity as anthropologist. Unlike in the west, in India, from the very beginning, sociology had a close relationship with social anthropology. The evaluative phase of anthropology brought both the discipline very close because both of the disciplines were doing research on socio-cultural aspects of tribal, rural, peasants, and industrial societies.

In the evaluate phase Indian scholars had an opinion that western anthropology has failed to explain the complexity of Indian society. In order to understand complex culture, Indian scholars developed indigenous models and alternative methodology which not only helped in establishing a refined concept but also aimed at 'Indigenusness' for maintaining the quality of National life. In fact, anthropologists in India were demanding rather an active, humanistic and critical outlook towards subject matter in order to overcome the barrier of intellectual colonialism and neo-colonialism.

Check Your Progress 2

2) Describe the new areas of research in anthropology.

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5.2 GROWTH OF PHYSICAL/BIOLOGICAL ANTHROPOLOGY IN INDIA

The growth and development of physical/biological anthropology in India can be traced back to the 19th Century. In the beginning attempts were made to study the physical features of tribal people. The research investigation began with the anthropometric measurements. Anthropometric research was carried out to study and differentiate physical features of different ethnic groups and to predict the possible origins of the population.

During the formative phase the physical/biological anthropology in India was dominated by anthropometric researches. J. Shrott was the first person to conduct anthropometric study in Nilgiris in Tamilnadu. He studied three different tribes using the necessary dimensions of the head and nose for the calculation of cephalic and nasal indices. The result of his research work was jointly published with Col. Ouchterlony in 1868 that is in formative phase. Risley in 1891 conducted comprehensive survey for most of the provinces of the British India, including Baluchistan, Ceylon and Burma (R.D. Singh 1987). In the area of Uttar Pradesh Surgeon Captain conducted anthropometric research on castes and tribes and published work in 1896. Thurston carried out anthropometric research on a large of number of groups in south India and published in several volumes in 1909.

In the time of constructive phase around 1930s, physical/biological anthropology research was conducted in the field of human genetics in general and human serology in particular. In this period research in physical/biological anthropology was advanced considerably. Physical/biological anthropologists were engaged in racial surveys, anthroposcopic observations, ABO blood group surveys and dermatoglyphic studies. Notable among these are the following anthropologists:

- H. H. Risley gave racial classification of Indian population on the basis of anthropometric survey.
- B.S. Guha carried out racial survey of India as a part of the Census of India 1931.
- N. Majumdar conducted racial survey research in Bengal, U.P. and Gujarat.
- Macfarlane, Chatterjee and Mitra did blood group survey.
- S. S. Sarkar conducted research on genetic and racial surveys.
- I. Karve conducted anthropometric studies in Maharashtra and published work in 1953.

Check Your Progress 3

3) In which year B. S. Guha's racial survey was included as a part of Census?

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In physical anthropology the different studies of socio-cultural and genetic variability defined the population of India. India is known for its biological and cultural diversity. Among Indian population due to ethnic diversity the ethnic composition is complex, but predominantly they can be divided into the Aryan, in the north, and the Dravidian, in the south.

India is a land of great cultural diversity, as is evidenced by the enormous number of languages spoken throughout the country, such as Hindi, English and other regional languages. More than 1,500 languages and dialects are spoken in India. The following regional languages are recognized as official languages by Indian constitution: Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, and Urdu.

Indian population is polygenetic and is an amazing amalgamation of various races and cultures. Anthropologists gave racial classification of Indian population by doing anthropometrics and genetic studies.

Anthropologists classified the racial elements in India on the basis of physical characters and anthropometric measurements. For example, H. H. Risley (1915) classified Indian population into the following races:

- Dravidian,
- Indo-Aryan,
- Mongoloid,
- Aryo-Dravidian,
- Mongolo-Dravidian,
- Scytho-Dravidian,
- Turko-Dravidian.

B. S. Guha (1937) classified the Indian population into the following races:

- Negrito,
- Proto-Australoid,
- Mongoloid (Palaeo-Mongoloid, long-headed, broad-headed, Tibeto-Mongoloid),
- Mediterranean (Palaeo-mediterranean, Mediterranean, Oriental),
- Western brachycephals (Alpinoid, Armenoid, Dinaric)
- Nordics.

S. S. Sarkar (1961) classified the Indian population into the following races:

- Dolicocephals (Australoid, Indo-Aryan, Mundari-speakers),
- Mesocephals (Irano-Scythian),
- Brachycephals (Far Eastern, Mongolian).

There were lot criticisms on the racial classification of population. Although S.S. Sarkar's classification was more convincing than any other classification

but contemporary anthropologists are still trying to solve the problem of racial classification of India.

B. S. Guha worked on several tribes of India especially the tribes of Assam, Bengal and Meghalaya. In Anthropological Survey of India he did research on osteological studies of historic and prehistoric human remains and materials excavated by Archaeological Survey of India. He gained expertise in racial survey of the Indian population and contributed to the creation of a racial map of India for 1931 Census operations. In order to do this he collected anthropometric measurements of subjects from various parts of the country. As Special Research Officer of the Smithsonian Institution, Washington, D. C. he worked in United States among the Utes and the Navajos of Colorado and New Mexico in 1921. He was strong believer of fieldwork and advocated it strongly. He wrote various reports on human remains excavated at Nal in 1929 and Mohenjodaro in 1931 and 1937.

Among his published works were the following:

- *The Racial Affinities of the Peoples of India in Census of India 1931*, (1935)
- *Racial Elements in the Population* (1944).

D. N. Majumdar, not only specialized in social anthropology, he also contributed to the sub-fields of physical anthropology and pre-history. In physical anthropology, he researched on blood groups, anthropometric surveys and statistical analysis of serological, health and disease. He carried out lot of physical anthropology work in Uttar Pradesh and tried to find the biometrical correlates of caste hierarchy. He opposed the concept of race and was not in the favour of single factor explanations of caste studies. He also conducted studies on school children of Lucknow state and published on Race elements in Bengal.

According to scholars from disciplines such as mathematics and statistics also joined the branch of physical/biological anthropology and helped to standardize the tools and techniques of the discipline and to scientifically validate the research hypotheses. This greatly helped in achieving the accuracy in accordance to the requirements of the research.

After the establishment of Anthropological Survey of India and Department of Anthropology at University of Delhi research in Physical/Biological Anthropology shifted to skeletal remains. Most of the skeletal remains were excavated from Mohenjodaro and Taxila. Anthropological survey of India played a major role in collecting the skeletal remains.

In the analytical phase, physical/biological anthropology was primarily involved in the following:

- interpretation of human remains.
- genetics of blood groups,
- serological studies,
- genetic adaptations
- relationship between blood groups and diseases.

In recent years, the focal area of research in physical/biological anthropology is conducting research in the field of human health and genetics.

In past two-three decades a number of studies have reported gene frequencies of one or more traditional genetic markers on many Indian populations. Bhasin along with other researchers (1992) compiled the gene frequencies for different markers from different studies on Indian populations. In this study attempt was also made to find some patterns in average gene frequencies of groups of populations defined by geography, language, ethnicity and occupation (Bhasin et al. 1994; Bhasin and Walter, 2001). A few studies have attempted studying different populations of India using the genetic and anthropometric markers at regional and local level (Tripathy et al., 2008).

Check Your Progress 4

- 4) In the constructive phase what were the focal research areas of physical/biological anthropology?

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5.3 GROWTH OF PREHISTORIC/ ARCHAEOLOGICAL ANTHROPOLOGY IN INDIA

The formative phase of Indian pre-historic/archeological anthropology began in the year 1863 when Robert Bruce Foote discovered stone tools of Paleolithic period. Robert Bruce belongs to the discipline of geology and discovered the stone tools from Pallavaram near Chennai. He also reported many pre-historic sites in southern peninsula and Gujarat. In this period many scholars, mostly from other fields, emerged who probed into the human remains.

The Archeological Survey of India was established in 1861, during the period of formative phase of anthropology, when research was conducted on historical aspects. After three decades it entered into the research of pre-history and proto-history. Until then anthropologist were working on pre-history to understand human past.

The turning point in pre-historic/archeological anthropology study came when Yale-Cambridge expedition carried out their work in Kashmir valley, Potwar Plateau, Narmada Valley and Madras Coast. In this discovery they brought out the evidence of new Palaeolithic culture from Soan in the Potwar Plateau of Himalayas. In 1922 at the time period of constructive phase prehistory was made a component in the Department of Anthropology at Calcutta University. D. Sen was a part of the above expedition from this university (V. N. Misra 1985).

The first excavation of Palaeolithic deposits was carried out by (1948) of Calcutta University at Kuliana in Mayurbhanj, Orissa. D. N. Majumdar wrote a report on the human remains excavated at Nal in 1929 and in Mohenjodaro in 1931 and 1937. Dharani P. Sen was a specialist in prehistoric archeology,

Pleistocene stratigraphy and Stone Age culture and chronology. He also researched on human environments of West Punjab (Pakistan), East Punjab, Jammu and Kashmir, Poonch and Chennai. He also excavated Stone Age sites in Mayurbhanj (Orissa) and Singhbhum (Jharkhand) and explored sites in Narmada Valley and Mirzapur.

In the analytical phase during early 1940's Archeological Survey of India organized expedition under the leadership of H.D Sankalia at the work site of Bruce Foote in Gujarat. In this site they discovered new Palaeolithic and Mesolithic sites and remains of Acheulian culture in the Sabarmati valley of Mehsana district. Sankalia also jointly excavated Langhnaj, the famous Mesolithic site with Iravati Karve, finding microlithic and other tools as well as faunal remains and human burials. In 1920s and 1930s Archeological Survey of India (ASI) made discoveries in Indus Civilization in Sind and Punjab. Since then hardly any activity has taken place in the field of pre-historic archeology.

Before independence all the prehistoric research work in India was carried out by ASI. Apart from ASI some archeological works are carried out by Calcutta University and Deccan College Research Institute. Other significant developments of analytical phase include the appointment of H.D. Sankalia as professor (1940) in the Department of Archeology at Deccan College and appointment of R.E.M Wheeler as Director General of ASI (1944).

H. D. Sankalia conducted many excavations in India and made contribution to the Indian prehistory with his discoveries. He also started the field of proto-history in peninsular India. Later on his students contributed to Palaeolithic and Mesolithic culture by finding significant remains. Among such students Malti Nagar worked on ethno-archeology and Yashodhar Mathpal worked on the cave art. R.E.M. Wheeler trained many young Indian archeologists who made important contributions to the institution. Among such the following are the main contributors:

- S. R. Rao's excavation of the Harrappan sites of Lothal and Rangpur of Gujarat.
- B. B. Lal's excavation at Hastinapur in U.P. and discovery of Painted Grey Ware cultures.
- B.K. Thapar's excavation at the Chalcolithic site of Prakash in Dhule district.
- M. N. Deshpande's excavation at the Chalcolithic sites of Bahal in Jalgaon district.
- Y. D. Sharma's excavation at the Harrappan site of Ropar.
- B. B. Lal's excavation of the Mesolithic of Birbhanpur in Burdwan district.

Check Your Progress 5

5) When was the Archaeological Survey of India established?

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Gradually after 1947 there was phenomenal expansion of prehistoric activity in India. Apart from ASI many universities played important roles in teaching and research areas of prehistoric/archeological anthropology. In India, the term for prehistory is archeological anthropology whereas in the US the term anthropological archeology is used.

Two important organizations, the Indian Archeological Society and the Indian Society for Prehistoric and Quarternary Studies firmly emerged on the horizon of Indian prehistory with their research journals. The published content of these journals reflect the growing trend towards inter-disciplinary research and a shift from the traditional history-oriented archaeology to anthropology-oriented studies.

5.4 SUMMARY

Anthropological studies in India began in the second half of the 19th century. During this period British administrators and anthropologists conducted studies and published number of monographs on Indian tribal and other communities. Establishment of departments of anthropology was gradually done in various universities from the formative phase to analytical phase. In the beginning very few Indian anthropologists published their work about the Indian culture.

The landmark in the history of anthropology in India is the setting up of the Asiatic Society in 1784 by Sir William Jones. Putting the views of notable anthropologists together, the growth of anthropology in India can be divided into four phases

- formative period,
- constructive period,
- analytical period, and
- evaluative period.

During the **Formative Phase** anthropological work emphasized tribes, a natural history approach and descriptions of the diversity of customs, traditions, and values.

In the **Constructive Phase** Indian anthropology was characterized by ethnological and monographic studies with a special emphasis on social institution.

The **Analytical Phase** of Indian anthropology saw a paradigm shift from the descriptive studies of preliterate villages to the analytical studies of complex societies.

Anthropology as a discipline began to study Indian villages, tribes, castes, urban and sacred cities. In the process of understanding Indian civilization many researchers developed concepts such as Sanskritization, Parochialization, Universalization and Sacred Complex through which exchange of cultural elements take place.

During the **Evaluative Phase** Indian anthropologists started looking critically to the works of others and self. During this period Indian anthropologists had keen interest in various subfields such as medical anthropology, religion, development studies, and psychological studies.

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5.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) According to D. N. Majumdar and L. P. Vidyarthi, the growth of Indian anthropology can be divided into three phases. For further details kindly refer section 5.1

Check Your Progress 2

- 2) Refer to section 5.1

Check Your Progress 3

- 3) B. S. Guha's racial survey was included in 1931 as a part of Census.

Check Your Progress 4

- 4) Refer to section 5.2

Check Your Progress 5

- 5) Archaeological Survey of India was established in 1861.

UNIT 6 FIELDWORK TRADITION IN ANTHROPOLOGY*

Contents

- 6.0 Introduction
- 6.1 Criticism of Arm-chair Anthropology
- 6.2 The Importance of Fieldwork
- 6.3 History of Fieldwork
- 6.4 Contributions of A. R. Radcliffe-Brown and Bronislaw K. Malinowski
- 6.5 Fieldwork in the 21st Century
- 6.6 Ethics in Fieldwork
- 6.7 Summary
- 6.8 References
- 6.9 Answers to Check Your Progress

Learning Objectives

In this unit, you will learn about the:

- genesis of fieldwork in social/cultural anthropology;
- contributions of A.R. Radcliffe-Brown and Bronislaw K. Malinowski in developing fieldwork traditions in social/cultural anthropology; and
- change in the concept of field during 21st century.

6.0 INTRODUCTION

Social anthropology is an observational, comparative and generalizing science. The meaning of this statement is:

- 1) data are collected by making use of the techniques of observation on a small unit (say, a society, community, neighborhood, group, or an institution);
- 2) propositions about the entire society are abstracted from this observational study (social anthropology is an inductive science of society, where we move from the particular to the general);
- 3) in addition, data from different societies are meticulously subjected to comparison to find out the commonalities and differences among different societies, or the units on which the study is being conducted; and
- 4) an attempt is made to arrive at a set of generalizations about the unit of study.

* Contributed by Prof. Vinay Kumar Srivastava, Director, Anthropological Survey of India, Kolkata

At one time, these generalisations attempted from a comparative study were called ‘laws’ (that is, the ‘laws of the working of society’). Today, the word ‘law’ has been dropped, mainly because we have realised that it is not possible to derive laws in social sciences, as we could do in natural and biological sciences. Human behaviour has a great deal of variability than what one finds in natural and biological phenomena. However, the idea of arriving at ‘what is common to all the units under study’ continues. In this unit we try to understand the need of fieldwork in anthropology. In this unit we study the history of radical change in fieldwork traditions from arm-chair anthropology to the field where the day-to-day activities of the human beings are observed and recorded through fieldwork. We also study how fieldwork and field is conceptualized in the 21st century and the ethical concerns in the field that an anthropologists encounters.

6.1 CRITICISM OF ARM-CHAIR ANTHROPOLOGY

An anthropological study is not based on contemplation or imaginative thinking. In the formative era of anthropology, those scholars who did not carry out any empirical study themselves but wholly relied on the information that was collected by others (such as travellers, missionaries, army personnel, photojournalists), often haphazardly, were rather derogatorily termed as ‘arm-chair anthropologists’. It meant that rather than confronting the reality themselves, they were just imagining it to be what they thought was logically possible, or could have been possible at one time, by basing them on the biased, exaggerated, and prejudiced information that was gathered by unskilled, lay persons. Often, their purpose was to shock the western world with the existence of odd and peculiar practices of the non-western people.

Once the tradition of the ‘arm-chair anthropology’ was rejected, the approach that came up was the first-hand study of a society. It meant that the anthropologist was also the data-collector, not just an analyst and interpreter of the information that hitherto had been gathered.

Today anthropologists collect their data from real societies. They live with the people in their natural habitats, collect, analyze and interpret the data to have an understanding of the structure and function of society. This real-time knowledge of society is also essential to bring about any kind of change in society. We must know what the reality is – what the society is like – before we think in terms of the changes that are likely to be introduced.

It was noted in the past that many programmes of change and many innovative projects (some of which seemed to be promising) were rejected by people because these were not in line with the customs and practices of the people and did not reflect their aspirations and demands. Thus, people rejected the proposed or introduced changes without hesitation because of their alien nature. On finding people unresponsive, in some cases, the state and the change-producing agencies thought that the people were inert and passive, and were unaware of the long-term benefits of the changes, and thus would accept the changes and innovations only when these were imposed on them, sometimes forcibly. In some such cases coercion was regarded as a reasonable method of making people change.

This view was strongly opposed by the anthropologists who thought that changes were rejected because they were introduced without the knowledge of the social life of the people. Unless the pressing needs and requirements of the people were addressed, the best programmes introduced with the best intent were destined to rejection.

Check Your Progress 1

- 1) “Arm-chair anthropologists were fieldworkers.” State whether the statement is true or false?

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6.2 THE IMPORTANCE OF FIELDWORK

The best way to know people and their reality, which has become central to social anthropological work, is fieldwork. Incidentally, one of the main contributions of social anthropology to other fields of knowledge, not only in social but also in natural and biological sciences, is in terms of the methodology of fieldwork. Today, other disciplines have introduced courses on fieldwork in their curricula and are learning the art, lore and science of fieldwork from anthropologists.

In this connection we may quote Henri Bergson, who said: “There are two ways of knowing a phenomenon: one by going round it, and the other by going inside it.” The methodology of fieldwork argues in favour of going inside a phenomenon and understanding it from within, what is known as the “insider’s view”. Fieldwork is a method of data collection in which the investigator lives with the people in their natural habitat and learns from within by becoming a member of that society.

Anthropologists have also realised the difference that exists between:

- what people think,
- what people say,
- what people do,
- what people think they ought to have done.

If anthropologists are just asking questions and noting down people’s replies, as happens in the method called ‘survey’, it will belike largely collecting information on ‘what people say they do’. It is highly likely that they may not be doing what they are saying. They may be giving the normatively correct and socially desirable replies. In other words, what they are saying may not be the truth. Anthropologists have on record many cases of this type. For instance, a respondent, a pharmacist by profession, may be boasting of his adherence to the value of honesty, but the anthropologist living in his house finds out that the same man is in fact stealing medicines from the hospital where he is working and selling them to his clients whom he is

treating illegally. This is what Paul Bohannon found out in his study of the Bunyoro. Anthropologists come to know what the reality is when they live with people for a considerable period of time and come face-to-face with their actual ways of living and not the ones they describe, which may be an 'ideal' way, or what they think should be the right way of living.

6.3 HISTORY OF FIELDWORK

The methodology of fieldwork has evolved over time with its own rules and procedures. Initially, as we learned previously, anthropology was not field-oriented. The speedy growth of anthropology took place after the publication of Charles Darwin's *On the Origin of Species* in 1859. Anthropologists were inspired to study the evolution of society and culture from its beginning. Thus, the first approach in anthropology was the evolutionary approach, which was concerned with the evolution of society, its institutions and their forms, answering questions such as the following:

- why these institutions came into existence (the issue of origin) and
- what were the stages through which they passed to reach their contemporary form (the sequence of evolution).

As said earlier, the early scholars, who later identified themselves as anthropologists, relied rather uncritically upon the information available in travel accounts and administrative reports. It is surprising that it did not occur to many early scholars that they should visit societies in the non-western world before writing on them, although some of them (like Edward Tylor and Lewis Morgan) did visit the communities of the so-called 'primitive people'. British anthropologist E.B. Tylor (1832-1917), an advocate of the theory of human development (evolutionism), assisted an amateur archaeologist in his field expedition to Mexico in the mid-1850s. In 1861 Tylor published his first work *Anahuac, or Mexico and the Mexicans, Ancient and Modern* based on this fieldwork. American anthropologist L.H. Morgan (1818-1881), working on evolutionism and a contemporary of Tylor, gave us the concept of kinship. He worked among the Iroquois while working on legal matters regarding the Iroquois and published his findings in the book called *League of the Iroquois* in 1851.

Travels to the unknown parts of the world began from the fourteenth century. With the passage of time, with an improvement in travel facility, these visits started increasing in number and so did the travel accounts. The earlier anthropologists took these materials into account for building up their theories of origin and evolution. In other words, they did not carry out any first-hand study among these communities.

In the second half of the nineteenth century, museums were gradually developing. In all these museums, a section on the ethnology of people was added. For collecting objects of material culture, which might be housed in museums, many excursions were organised and sent to the tribal areas. Their job was not only to collect the material things but also to provide a write-up on each of the material objects thus collected. In this way under the garb of museum excursions, some kind of fieldwork came into existence. British anthropologists W.H.R. Rivers (1864-1922) and A.C. Haddon (1855-1940) carried out field expedition to the Torres Straits in the Pacific, Australia

in 1898. American anthropologist Franz Boas (1858-1942) did his fieldwork among the Eskimos in Baffin Island, Canada in 1883.

By the close of the nineteenth century, the evolutionary approach came under sharp criticisms for not collecting the facts but rather relying upon the travel accounts. The evolutionary theory was criticised for the paucity of data and the need was felt to collect first-hand data about cultural facts. A general dissatisfaction with evolutionary theory surfaced when it was demonstrated that many of the institutions of modern societies were also found among the primitive people. For instance, monogamy and nuclear family were also found in simple societies. Therefore, how could one say that these institutions had evolved over time, from promiscuity and group marriage, as Morgan believed?

All these factors led to an important shift in the approach of the anthropologists. Rather than relying upon the travel accounts, the anthropologist preferred to carry out a first-hand study of the people and learn the culture the way it was led and understood by its bearers. Once fieldwork came into existence it became the hallmark of the anthropological work.

6.4 CONTRIBUTIONS OF A. R. RADCLIFFE-BROWN AND BRONISLAW K. MALINOWSKI

One of the first well-known field studies was A.R. Brown's work on the Andaman Islanders. Brown, who later became Radcliffe-Brown, spent two years (1906-08) with these people and wrote his Master's dissertation, submitted in 1910, based on the information he had collected. Although it was largely a functional study, that is to say, it was an account of Andamanese society as an integrated whole, it also had several instances where the author looked at how cultural traits had diffused. In other words, Brown's work was also concerned with diffusionism and the reason for this was that he was a student of W.H.R. Rivers, who was one of the famous diffusionists of his times. Brown's fieldwork was not exemplary, but he definitely showed that a first-hand study of society was essential to dispel all beliefs about the people that the evolutionists had held.

Check Your Progress 2

- 2) Where did A.R. Radcliffe-Brown conduct one of the first well-known field study?

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The person who laid down the premises of fieldwork was Bronislaw Malinowski, a scholar of Polish origin, who studied anthropology under C.G. Seligman. He carried out a piece of intensive fieldwork with Trobriand Islanders. He spent close to 31 months with these people:

- from August 1914 to March 1915,
- from May 1915 to May 1916,
- from October 1917 to October 1918.

In 1922, Malinowski published a book on *Argonauts of the Western Pacific* that provided an analysis of the system of different kinds of exchanges in the Trobriand society. Malinowski lived in the midst of the people; he pitched his tent in the village of Omarakana, and collected all his information by learning the language the people spoke. Brown, on the other hand, mainly collected his data with the aid of translators and interpreters.

Malinowski, in his writings, always maintained the importance of learning the local language of the people. He believed that the cultural concepts of the people cannot be grasped without knowing their language. The following principles were extracted from Malinowski's summary account of Trobriand culture, wherein he gave observations on how field work should be carried out:

- 1) The ethnographer should observe the same kind of behaviour over a length of time and should also observe it occurring at different points of time. He should not just rely upon its solitary instance, for it may be atypical. The objective of this rule is to rule out any atypical element or idiosyncrasy in social action. Our job is to understand whether a particular type of behaviour is typical in the society or is highly personal. Our interest is not in the individual, but in understanding the collective behaviour of the community. That is why the same type of behaviour must be observed over a length of time to discover the common features that exist in all its instances. This is called the method of 'concrete, statistical documentation' of human action.

Activity

To understand the essence of observation you can carry out your own observations for example while travelling by bus/metro/train observe how people behave. How they interact with each other or don't interact. How people converse on the phone in public places. Note down the different types of behaviour you observe.

- 2) The early travellers, who came from the western world, to the areas of the-so-called 'primitive' people laid their eyes upon the study of the oddities, strange customs, and manners, which their cultures did not have. They were mainly interested in identifying the differences between these people and the westerners. Thus, it was obvious that they did not pay any attention to the everyday life of the people. In comparison to this approach of 'selective study', it was argued that we should study the everyday life of people, the things which are generally taken for granted. Our job is to study the entire society, the relationship between its different parts and the way they all function together. Therefore, the need is to know the whole, rather than some of its parts, which excite interest among the visitors. The advice is to study each and every aspect of the society rather than those which appear peculiar and strange.

- 3) Malinowski says that the ethnographer lives in the village, or the site of his study, with ‘no other business but to follow native life’, to observe it as closely as possible, the ‘customs, ceremonies and transactions over and over again’. There are several phenomena that cannot be recorded by questioning them but have to be observed as they take place. For example, Malinowski includes in this list the ‘routine of a man’s working day, the details of the care of his body, of the manner of taking food and preparing it, the tone of conversational and social life around the village fires’. These occurrences, which Malinowski calls the ‘imponderabilia of social life’, need to be observed, their subtleness need to be meticulously recorded.
- 4) We should note down the exact words in which people communicate their thoughts, ideas and beliefs. These ‘ethnographic statements, characteristic narratives, typical utterances, items of folklore, and magical formulae’ should be recorded as a whole. The collection of these constitutes what Malinowski calls a ‘corpus inscriptionism’, which guides us to the understanding of the ‘mentality’ of people. Each word needs to be culturally understood and analysed. Language is the mirror of culture.
- 5) The objective of an anthropological investigation, Malinowski says, is to “*grasp the native’s point of view, his relation to life, to realize his vision of his world*”. Each culture has its own set of values, the ways of doing things, and it gives a distinct meaning to the lives of people; in other words, the hold of each culture on the lives of its people is different. If we look at this as an outsider – from an outsider’s perspective we shall never be able to understand it, for our values would come into play, and we would end up providing a biased and prejudiced view. Thus, the anthropologist has to step inside the ‘heads of the people’ under study and understand it from ‘inside’.

Malinowski laid down the basic premises of fieldwork. For a long time, he provided training in how fieldwork should be carried out. His disciples carried out the same brand of fieldwork, a lengthy period of stay with people in their natural habitat with an attempt to understand their institutions and points of view. Gradually, fieldwork based on Malinowski’s example became central to today’s anthropology. Although Malinowski did not coin the term ‘participant observation’, his entire work dealt with observing people by trying to participate as much as was possible in their day-to-day life.

Check Your Progress 3

- 3) Discuss the principles of fieldwork that emerged from the Malinowski’s fieldwork on Trobriand Islanders.

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6.5 FIELDWORK IN THE 21st CENTURY

Till now we have been discussing about how fieldwork emerged in anthropological studies and its relevance and importance. Let us now see if we are still following the traditional patterns of conducting fieldwork. Within anthropological studies with the passage of time and the changes that have taken place fieldwork has undergone lot of changes. Fieldwork today no longer means going off on an expedition to a far off place or living among the natives. The field itself is fast changing. Rarely, we would find a society in its pristine form and living on its own in absolute seclusion. Anthropologists, though primarily concerned with the lesser known societies, are also taking into consideration the developed and the developing societies.

Today anthropological fieldwork takes into account not only the 'others' but also the 'self' as anthropologists are now writing about their lived experiences. In today's scenario field could be an institution, an organization in which the focus of anthropologists is on the work culture and behavioral patterns. The field can be a rural or an urban site. Owing to the many ethical issues that have emerged in the work of the colonial fieldworkers, many of the native anthropologists have taken it upon themselves to restudy and study their own societies. Thus, anthropologists today are also working among one's own people.

Today, the virtual space is also a matter of concern for the anthropologists as human kind are carrying out much of their activities online. The virtual world has thus become a field for the anthropologists. Fieldwork can be multi-sited too. In multi-sited fieldwork the researcher conducts fieldwork in more than one site where the subject can be found. Serena Nanda's work on the *hijras in India* is a classic example of multi-sited fieldwork where she took into account the hijras living in different parts of India. A recent trend in anthropological fieldwork is researching the 'self' known as auto-ethnography where the fieldworker narrates the lived experiences of his/her life.

6.6 ETHICS IN FIELDWORK

Ethics are basically the moral principles that govern a person's behaviour towards the self and others while performing an activity. Anthropological fieldwork involves interactions with human beings where at times the researcher has to deal with sensitive data or information. Ethical issues are thus a major concern in anthropological fieldwork. The problem might begin with the selection of topic right till the presentation of the data in the form of a written report or a dissertation. Today, for example, while clicking a photograph it can also lead to an ethical issue of whether the consent of the person involved had been taken or not. Fieldwork is a part of a researcher's way of gathering information and it is the fieldworker who in a way intrudes into the lives of the people. Thus, a researcher has to be very diligent and skilled in collection and dissemination of data. While in field, the researcher needs to take into account four basic attributes related to data collection:

- 1) Confidentiality of sensitive issues which needs to be protected,
- 2) Consent of the people under study before embarking on data collection,
- 3) Utility concerns allowing the use of the data for the betterment of the community and the society at large and

- 4) Knowledge and its transmission involving the rights of the community under study as the patent for their indigenous knowledge while maintaining the authenticity of the data.

6.7 SUMMARY

Anthropology is a field-based subject. The sub-discipline social/cultural anthropology has got methods of study in which fieldwork plays a very important role. In the beginning of anthropological studies, scholars known as arm-chair anthropologists depended on accounts brought in by travellers, adventurers etc. about the different groups of people and culture they came across at different parts of the world. Scholars built theories on the basis of such information. It was gradually felt that information which was collected by having direct contact with the people produced fruitful result for the study of society and culture and for any change to be brought in. Scientific methodology for fieldwork developed from the end of nineteenth century. A. R. Radcliffe-Brown and B. Malinowski contributed greatly to the development of proper methods and techniques of data collection in the field along with the analysis of data. They also explained how the findings and result of the study can be applied for betterment of the society. In socio-cultural anthropology, the methods of investigation are developing day-by-day.

In the unit 12 we will discuss how to conduct a fieldwork. The steps involved right from the time of inception of an idea for a topic of study, to the types of preparation required for going to the field, conducting fieldwork and finally disseminating the results in the form of a report or dissertation.

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6.9 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) No. The arm-chair anthropologists did not conduct field studies.

Check Your Progress 2

- 2) A.R. Radcliffe-Brown conducted a famous field study in Andaman Islands.

Check Your Progress 3

- 3) For the answer on the principles of Malinowski's fieldwork, refer to the five principles discussed in the section 11.4



BLOCK 3: Major Fields of Anthropology

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UNIT 7 CONCEPTS AND DEVELOPMENT IN BIOLOGICAL ANTHROPOLOGY*

Contents

- 7.0 Introduction
- 7.1 Genesis of Physical/Biological Anthropology as Sub-discipline in Anthropology
- 7.2 Branches of Physical Anthropology
- 7.3 Physical Versus Biological Anthropology: An Overview
- 7.4 Summary
- 7.5 References
- 7.6 Answers to Check Your Progress

Learning Objectives

Once you have studied this unit, you should be able to understand:

- the history, growth and development of physical anthropology as a branch of anthropology;
- various areas of study that are covered under physical/biological anthropology; and
- debate concerning the nomenclature of the physical/biological anthropology.

7.0 INTRODUCTION

Anthropology is the study of human beings in time and space. Time refers to the geological time scale from the first appearance of apes and hominids to the present era tracing the evolutionary path of human beings. Space is the spatial area spread across the globe where human kind has lived and is found till date. In anthropological studies physical anthropology that deals with the evolution, physical growth and development and biological aspects of human beings has emerged as a major branch. In this unit we shall discuss the growth and development of physical/biological anthropology. The major areas of study under physical anthropology would be introduced. One of the ongoing debates about the nomenclature of this branch of anthropology, whether it should be called physical or biological anthropology or we should leave it as physical/biological anthropology would be presented.

* Contributed by Dr. Arnab Ghosh, Department of Anthropology, Visva Bharti University.

7.1 GENESIS OF PHYSICAL/BIOLOGICAL ANTHROPOLOGY AS SUB DISCIPLINE IN ANTHROPOLOGY

Questions about the nature and origin of human races stimulated early physical anthropology. Seventeenth century western scholars presumed that humans belonged to a single species, all descendants of Noah and his family. As explorers brought Europeans into contact with human phenotypes that were more and more diverse, it became evident that humanity was more variable than earlier scholars had imagined. Debates rose over the meaning and importance of these variants. Traditionally, all humans descended (or degenerated, since the Western European groups considered themselves biologically superior) from the original type. Johann Frederick Blumenbach (1752–1840), German naturalist, founder of physical anthropology, and inventor of craniology divided human kind into five races (American, Caucasian, Ethiopian, Malayan, and Mongolian). According to Biblical tradition, all contemporary human races were monogenic, that is, they were derived from Adam and Eve. If humans were created in the image of God, then God was an Englishman (or Frenchman, or German,... depending on the author’s ethnic identity). An exception to this way of thinking was James Cowles Prichard (1786–1848), an English anthropologist who proposed that Adam had been black. Prichard argued that as the descendants of Adam became lighter-skinned they acquired higher intellects and civilization. Given enough time, all races would become similar to Western Europeans, the race that in his view, had progressed farther or more rapidly.

Check Your Progress 1

- 1) Who is regarded as the founder of physical anthropology? What are his contributions?

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The idea that races were polygenic became popular in scientific circles of Europe (especially France) and America in the late eighteenth and early nineteenth centuries. Proponents of polygenism argued that differences between human races were too great to be a consequence of environmental differences and too great for humanity to be attributed to a single species. Therefore God must have created several human species. A Philadelphia physician and advocate of polygenism, Samuel George Morton (1799–1844), was widely quoted in European anthropological circles of the later nineteenth century. Morton used anthropometric measurements (anthropometry) to study human variation.

Check Your Progress 2

- 2) What does polygenism propose? Which method did Samuel George Morton use to promote the study of human variation?

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The world's first anthropology society, the Anthropological Society of Paris, was founded in 1859 by a French surgeon, Paul Broca (1824–1880). He had established an anthropological laboratory the previous year, which later became the site of a training program for anthropologists. Broca attempted to make physical anthropology scientific in the tradition of Samuel Morton. Many of the activities of these early physical anthropologists could be classified as racial craniology. Anthropometry flourished and spread rapidly from Broca's laboratory to other institutions. The conflict between polygenism and monogenism became clearer. The polygenists felt that their position was more acceptable with the tradition of the fixity of species. Broca also argued that it would be wrong to consider the diversity of racial variation as degeneration from a single superior species. John Ray's criterion that a species could be defined by its members' ability to interbreed was called into question by those who resisted the idea of a single human species.

European primate studies begin with Edward Tyson (1650–1708), a London physician and member of the Royal Society, who dissected a chimpanzee and published a comparison (Tyson, 1699) between humans and monkeys. Although people were greatly interested in behavior of monkeys and apes, most early scientific investigations were primarily anatomical. Thomas Henry Huxley's *Man's Place in Nature* (1863) attempted to apply Darwinism to understand the origins of humanity. Primatology became primarily concerned with anatomy and the understanding of the paleontological record of primate evolution. In Germany, Ernst Haeckel (1834–1919) produced an encyclopedia of primate anatomy and drew the first scientific phylogenetic trees. Since we knew the current products of human evolution, contemporary primates were seen as windows into our past and sources of understanding that could "flesh out" the fossil bones of paleontology. Anatomy was the primary focus until after 1900.

Check Your Progress 3

3) What is primatology?

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After the turn of the century, anthropometry became more quantitatively sophisticated under the leadership of Karl Pearson (1857–1936), co-founder and editor of the journal, *Biometrika*. Pearson developed much of the mathematics (statistics) that made measuring bones and bodies appear scientific, including computations for variation and correlation, and tests of significance for comparing samples. Anthropology, and certainly physical anthropology, in the last half of the nineteenth century was strongly committed to racial determinism, a philosophy that assumed the superiority of Caucasoid.

In this philosophical climate, the first Americans who were to become known as physical anthropologists appeared. Frank Russell (1868–1903) received the first Ph.D. in physical anthropology in America in 1898 at Harvard. Ales Hrdlicka (1860–1943), a migrant medical student from Bohemia, was employed by the state of New York as an associate in anthropology and pathology. In 1896, he spent a brief period in Paris studying with Leonce

Manouvrier in Broca's laboratory. Hrdlicka was hired as an anthropologist by the United States National Museum in 1903, where he remained a major personality in American physical anthropology until his death in 1943. Ales Hrdlicka established the American Journal of Physical Anthropology in 1918 and the journal still bears his name on each issue. He was a forceful figure who argued that American Indian aboriginal populations came across the Bering Straits from Asia in recent times. There was not, in his view, evidence of Paleolithic peoples in the New World. Hrdlicka, perhaps because of his Bohemian background, rejected the ideas of racial superiority and worked hard to counter Nazi war-time dogma about race. He wanted to establish a center or institute similar to Broca's famous laboratory that would be a training ground and the home of a national society of physical anthropologists. Though never able to realize his ambition to create the "American Institute of Physical Anthropology," he was able to stimulate the organization of the American Association of Physical Anthropologists (AAPA) in 1930.

Check Your Progress 4

4) Who established the American Journal of Physical Anthropology?

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Most charter members of the society were anatomists, and many of them were insightful, prolific scientists whose work laid part of the foundations for current physical anthropology. Some of the members were Franz Boas, Juan Comas, W.K. Gregory, Earnest A. Hooton, Ales Hrdlicka, William Krogman, Dudley Morton, Adolph Schultz, Harry Shapiro, William Straus, T. Dale Stewart, Robert J. Terry, T. Wingate Todd, and Mildred Trotter.

Earnest A. Hooton (1887–1954) earned a Ph.D. from Wisconsin (1911) and traveled to Oxford where he received a Diploma in Anthropology in 1912. Hooton was convinced of the validity of the attitudes of racial superiority and biological determinism that were strongly imbedded (perhaps from Morton) in the traditions of both Broca and Keith. Hooton was appointed to the anthropology department at Harvard in 1913, where he established the first major training program in the United States for physical anthropology. His first graduate was Harry L. Shapiro (1902–1990) in 1926, and most of the programs in other American universities for the next 30 years were staffed with Hooton graduates. Even today, lecture notes of American anthropology students bear the strong stamp of Hooton's outlines and interests.

As Harvard began to train physical anthropologists, the discipline began to diversify. Its roots were strongly grounded in anatomy and medicine, but there was much more to human biology than anthropometry and more interesting questions than those concerning racial origins. One of Hooton's students, J. N. Spuhler, was one of the first physical anthropologists to use discrete traits instead of anatomical typologies to compare human populations.

Dudley Morton utilized comparative functional anatomy to study the primate foot and William K. Gregory applied the same principles to primate teeth. Primate phylogenies began to assume relatively modern configurations.

Wolfgang Köhler (1887–1967), a gestalt psychologist who studied chimpanzees at the Anthropoid Station at Tenerife, Canary Islands from 1913 to 1917, conducted the first truly modern behavioral study of a nonhuman primate. His excellent book, *The Mentality of Apes* (Köhler, 1927), is still in print and still important.

About the same time (1913–1916), a Russian scientist, Nadine Kohts kept an infant chimpanzee in her home and compared its behaviour to her own infant son, Roody. Two important laboratories were established that used primates in biomedical research, the Pasteur Institute in 1923 and the Institute for the Study of Experimental Pathology and Therapeutics at Sukhumi on the Black Sea in 1927.

Robert M. Yerkes, a Yale psychologist who became interested in the psychology of apes, founded the first major American primate breeding laboratory, the Laboratory of Primate Biology at Orange Park, Florida in 1929. His students shaped the field of primate behavior in America, even though there were many other scientists studying monkeys. Two of his students attempted unsuccessful field studies of apes, Harold Bingham (in 1929) of the gorilla, and Henry W. Nissen (in 1930) of the chimpanzee.

Clarence Ray Carpenter, another Yerkes student, began his study of the howler monkey of Barro Colorado Island in the Panama Canal Zone on Christmas Day, 1931. Carpenter's was to be the first successful naturalistic study and it set the model for modern fieldwork.

Check Your Progress 5

5) What is the Laboratory of Primate Biology?

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In England, Le Gros Clark [1895–1971], the first biologist of repute to devote his entire career to the study of primates, concentrated his talents on primate anatomy, developing his concept of the total morphological pattern to understand and recognize major adaptive complexes in anatomy. Another British anatomist, Sir Solly Zuckerman, applied mathematical models to anatomical problems. A major rift took place in British anatomical sciences between Le Gros Clark's morphological patterns on one hand and Zuckerman's mathematics on the other. Zuckerman, after traveling to Africa and the United States, spent some time observing baboons at London's Regent's Park Zoo. His interest in anatomy and behaviour led to his publication of *The Social Life of Monkeys and Apes* (1932), a book that was to be a major source of popular ideas about monkey behaviour for thirty years. The growing use of monkeys in the psychology laboratory is evidenced by the publication of Heinrich Klüver's *Behavior Mechanisms in Monkeys* (1933).

Forensic anthropology, the estimation of age, gender, race, stature, and personal characteristics from human skeletal remains, is largely a development of anatomy departments where cadavers were being collected and studied. The first anthropological publication in forensic science was *Guide to the*

Identification of Human Skeletal material, an FBI pamphlet prepared by W.M. Krogman in 1939.

Check Your Progress 6

6) What is forensic anthropology?

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After the Second World War, especially between 1952 and 1954, some Japanese scientists began provisioning and keeping longitudinal genealogical and behavioural records on Japanese monkey troops. The projects were so successful that more than twenty separate troops were provisioned and studied. Denzaburo Miyadi and Kinji Imanishi formed a Primate Research Group at Kyoto University and in 1956 established a Japan Monkey Centre at Inuyama, Aichi. The Japanese studies constitute the earliest longitudinal research on free-ranging nonhuman primates anywhere in the world.

European primatology in the tradition of Haeckel continued with activities of anatomists W.C. Osman Hill, Helmut Hofer, Adolph Schultz, and D. Stark. In the 1950s, physical anthropologists broadened their interests to investigate relationships between evolution and genetic variation among humans. Watershed analyses were published by Alice Brues on the ABO blood groups in 1954 and by Frank Livingstone on the relationships between sickle-cell anemia and malaria in 1958. Physical anthropology was beginning to merge modern ideas of evolution, medicine, genetics, and ecology.

The late 1950s and the decade of the 1960s saw a rediscovery of fieldwork. One of the personalities behind this trend was an anatomist, S.L. Washburn. Another contributor to this trend toward longitudinal naturalistic studies was the anthropologist L.S.B. Leakey who sponsored numerous scientists, including Jane Goodall at the Gombe Stream National Park, Tanzania to study chimpanzees; Dian Fossey at Rwanda's Parc National des Volcans to study gorillas; and B.M.F. Galdikasin Indonesia to study orangutans. Japanese scientists expanded their studies of their native monkey species to field studies of primate biology all over the world.

Physical anthropology emerged in its modern form in the 1950s. Its transformation from disciplines of craniometry and somatology/somatometry (later changed to Anthropometry from 1980 onwards) is largely due to discoveries in genetics that expanded our focus beyond the question of human origins. S.L. Washburn, in the tradition of the British scientist Le Gros Clark, proposed in a paper, *The New Physical Anthropology* (1951) that physical anthropology should turn away from its focus on racial history and emphasis upon typology. Rather, physical anthropology should adopt a more modern scientific methodology, including experimentation and analysis of cause and effect. That article reflected the attitude of a new generation of scientists who brought modern research design to physical anthropology. Washburn was one of the many anthropologists who followed contemporary trends in biology and science and who created the modern biosocial science of physical anthropology.

7.2 BRANCHES OF PHYSICAL ANTHROPOLOGY

In this section we focus on the various fields of study in physical/biological anthropology. Initially this discipline concentrated in taking anthropometric measurements and somatoscopic observations. With the coming up of theories and the knowledge of genetics it reached new heights. We are listing below some of the fields of study in the present age.

Primatology: This field is concerned with the understanding of primates, who are known as our closest ancestors, specifically apes. The aim is to understand human nature and behaviour through a comparative study of humans and primates to ascertain the position of humans in the animal kingdom. Primatology today is engaged in anatomical studies, experiments in animal psychology and ape language, which encompasses field studies of primates in their natural habitat. Jane Goodall in 1968 started a field study of primates in Gombe Stream National Park in Tanzania, which is still going on and is considered one of the longest field studies in physical anthropology.

Palaeoanthropology: This field comprises two disciplines: palaeontology and physical anthropology. It deals with the fossil remains of human that takes into account petrified bones and footprints. The reconstruction of human beings based on fossil remains helps in the understanding of human evolution. Palaeoanthropological studies came to the forefront with the discovery of the hominid fossil (*Homo habilis*) later named Lucy in the Olduvai Gorge, Tanzania in eastern part of Africa by Mary and Louis Leakey.

Human Osteology: The study of the bones in a human body is the subject matter of human osteology. Forensic anthropology uses human osteopathy to identify the age, sex, growth, skeletal features, morphology etc. of human remains. This field is used to understand health, disease, genetics of early populations, and war crimes.

Population Genetics: This field concentrates on the study of processes like natural selection, genetic drift, gene flow and mutation to understand evolution. Physical anthropologists focuses on mechanisms of populations to comprehend the frequency, distribution and change in allele frequencies which helps in the understanding of how new species develop and their adaption to environment.

Human Ecology: Ecology is the study of the relationship of organisms with their physical environment. The thrust area here is the study of the interaction of human beings with the environment that consists of both natural, and manmade or built environment. Human ecology studies human adaptation to natural environment by building different types of shelter, and use of natural resources in localities like deserts, polar regions, high altitude, river valleys, and islands.

Human Growth and Development: This field studies growth and development of human beings from the zygote (one cell) stage to its maturity and degeneration at old age. It involves an intensive study of the embryonic stage (prenatal stage, when a baby is in the mother's womb) to birth, postnatal up to adolescence and maturity. It provides a complete picture of human growth in terms of internal factors like genetic factors (heredity traits) and

external factors like nutrition and environment that affects physical growth. This aspect throws light on the variations in populations and tries to reflect on the causes of variations.

Human Variation: No two human beings can be alike expect in the case of identical twins who might look similar yet genetically there would be variations in foot and palm prints. This sub branch of physical anthropology concerns itself with the study of the variations that occur in human beings. The branch seeks to understand human population, their genotypic and phenotypic construction in relation to environment in order to interpret human diversity over a period of time.

Human Genetics: The study of the inheritance of genes, that is, how the transmission of hereditary traits takes place in human beings is known as human genetics. This branch concerns itself with the understanding of hereditary traits that help provide answers to clinical questions of human nature, disease and its treatment. Genetic counseling, genetic screening, cytogenetic, molecular genetics, biochemical genetics, population genetics, developmental genetics, clinical genetics, genomics are some of the key study areas.

Forensic anthropology: Forensic anthropology deals with the personal identification in legal scenario of human beings either dead or alive. The application of anthropological techniques such as osteology, fingerprints, and blood types helps in the reconstruction of evidences and personal identification. This branch of physical anthropology is involved in solving criminal cases like murder, accident, decomposed bodies or such other cases where in the normal course of identification of dead bodies is a challenge.

Check Your Progress 7

7) List the branches of physical anthropology?

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7.3 PHYSICAL VERSUS BIOLOGICAL ANTHROPOLOGY: AN OVERVIEW

As discussed, physical anthropology is the study of the evolution and variation of human beings with an emphasis on the interaction between biology and culture. The interest in physical anthropology sparked off with the writings of the natural historians, or the naturalists as they were known in the nineteenth century. These naturalists were trying to answer the question of origin of species keeping aside the literal interpretations of the biblical accounts of creation. This was further reinforced by the publication of Charles Darwin's *On the Origin of Species* in 1859.

Initially physical anthropology was interested in the evolution and physical variations in human beings. Physical variation among human beings tries to answer the question of differences in colour of the skin, hair, eyes, height, weight etc. among people living in different geographical conditions. Primarily the features that are visible to the naked eyes are studied. For this purpose

the emphasis was on the anthropometric and somatoscopic measurements. This interest carried on till the early twentieth century and is still a major area of research.

However, since the late 1950s with the breakthrough in the fields of genetics and molecular biology, the interest of the physical anthropologists has shifted to understanding biological aspects in terms of human genetics, nutrition, physiological adaptation, growth and development etc. Because of the rapidly growing interest in biologically oriented topics, many prefer to call the subject biological anthropology. However, the American Association of Physical Anthropologists still use the term physical anthropology in their journals. Some anthropologists prefer to name the subject physical/biological anthropology, covering both the aspects of focus areas of human beings.

Though physical anthropology was the original term, because of the shift in emphasis to more biologically oriented topics the term biological anthropology is gaining popularity. However, the subject matter tries to concentrate equally on physical and biological aspects of human beings.

7.4 SUMMARY

This lesson reflected on the growth of the subject matter of physical anthropology. It enumerated how physical anthropology as a subject emerged in Europe and America to answer the questions of human evolution and variation across time and space. The lesson has traced the path of growth and development in various fields of interest like anthropometry, somatoscopy, primatology, forensic anthropology, biological aspects like human genetics, molecular biology etc. Various branches of physical anthropology have also been described. Finally, the question of nomenclature of the subject, whether it should be called physical anthropology or biological anthropology has been dealt with.

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7.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Johann Frederick Blumenbach (1752–1840), German naturalist is regarded as the founder of physical anthropology. His main contribution to the field of physical anthropology was the invention of craniology.

Major Fields of Anthropology

He divided human kind into five races (American, Caucasian, Ethiopian, Malayan, and Mongolian) based on physical variation.

Check Your Progress 2

- 2) The theory of polygenism argues that human beings have different origins and did not evolved from a single gene. This theory negates the biblical concept of single creation by God i.e. monogenesis. Samuel George Morton used anthropometric measurements to promote his study of human variations.

Check Your Progress 3

- 3) Primatology deals with the study of primates. The primate behaviour, anatomy and the palaeontological records are studied to understand the evolution process.

Check Your Progress 4

- 4) Ales Hrdlicka established the American Journal of Physical Anthropology in 1918.

Check Your Progress 5

- 5) The Laboratory of Primate Biology at Orange Park, Florida founded in 1929 by Robert M. Yerkes is a primate breeding laboratory. The primary aim is to understand the psychology of apes.

Check Your Progress 6

- 6) Forensic anthropology deals with the estimation of age, gender, race, stature, and personal characteristics from human skeletal remains. This branch engaging itself in the personal identification related to legal scenario is largely a development of anatomy departments where cadavers were being collected and studied.

Check Your Progress 7

- 7) The branches of physical anthropology are primatology, palaeoanthropology, human osteology, population genetics, human ecology, human variation, human genetics and forensic anthropology.

UNIT 8 CONCEPTS AND DEVELOPMENTS IN SOCIAL ANTHROPOLOGY*

Contents

- 8.0 Introduction
- 8.1 The Beginnings of Social/Cultural Anthropology and its Colonial Roots
- 8.2 Classical Theories
- 8.3 American Cultural Traditions
- 8.4 The French School
- 8.5 Symbolism and Interpretative Theories
- 8.6 Post-Colonial and Critical Period
- 8.7 Concepts of Time and History
- 8.8 The Present Strength of Anthropology
- 8.9 Summary
- 8.10 References
- 8.11 Answers to Check Your Progress

Learning Objectives

In this unit, you will be introduced to:

- society and culture as critical and constructed objects of study;
- social or cultural anthropology;
- differences between social and cultural anthropology; and
- development of these concepts within a historical framework.

8.0 INTRODUCTION

Society and Culture are words most commonly used and yet little understood. We take them as givens in our daily lives yet never stop to think, what do they really mean?

Many times culture is taken as ‘accomplishment’ so that we say a person is ‘cultured’ when we actually mean that the person has some qualities. In anthropology, to have culture is to be human.

Society too is not just a given condition in which we find ourselves but something that has evolved as the human species has evolved. Since most people took the world in which they lived as God-given or originating from some kind of supernatural interventions, the study of society and cultures was among the last to emerge in the sequence of disciplines.

* Contributed by Prof. Subhadra Channa, Department of Anthropology, University of Delhi, Delhi

Major Fields of Anthropology

The early attempts to understanding society were through the following:

- theology (having a religious base)
- philosophy
- power relations or economy (Arthaśāstra of India or the Śrutis that gave rules and regulations about social life).

Most rules were viewed as coming from a sacred source.

In the seventeenth and eighteenth century in Europe, western philosophers like Locke, Hume, Comte, Rousseau, Saint-Simon, Montesquieu (see Aron1965) and others began to think society as a creation of humans rather than of the Gods. Two aspects about society became matters of academic discourse:

- societies were not given and could change and transform.
- societies(as they were found in Europe in the seventeenth century) were not always like that; they had evolved from some past condition.

There were two historical events that were taking place at that time:

- colonisation by Europe of most of the world.
- discovery of various kinds of people across the world about whom the Europeans had little knowledge.

Since they had begun to think about society as something that had evolved, the Europeans became curious about their past. They began to think about the origins of their society. What were they like before? French intellectuals like Montesquieu and Comte were influenced by the French Revolution which showed that history indeed could be controlled by human beings. They were also influenced by what was happening in the American continent and the Civil war that was taking place there.

The concept of evolution of society was first thought about by these philosophers although not recognised as 'evolution' per se. Auguste Comte "law of the three stages" maintained that human intellectual development had moved historically from a theological stage, through a transitional metaphysical stage, to the modern positive stage of Reason.

With the theory of Human Evolution as an established scientific theory anthropology emerged as a Science of Man; a scientific enquiry into the origin, evolution and differentiation of the species Homo sapien. The term Man is also significant because during this period of intellectual development in Europe, it was also established that men had reason and women were more like instinctual and natural beings, a conception that was to have far reaching implications for gender theory. By the nineteenth century, human beings were seen as worthy of being objects of scientific scrutiny, in both their biological and their social and cultural aspects. Anthropology became an independent discipline away from both social philosophy and biology, although since it derives its roots from these disciplines the early intellectual premises of the subject are drawn from both these academic areas.

8.1 THE BEGINNINGS OF SOCIAL/CULTURAL ANTHROPOLOGY AND ITS COLONIAL ROOTS

Sir Edward B Tylor, who was appointed to the first Chair in the subject at Oxford University in England, is recognised as the father of social anthropology. He is credited with giving the first systematic definition of Culture in its anthropological sense that makes us realise it as a pan-human character rather than the legacy of the elite few. Tylor was also an evolutionist and his conceptualisation of culture was that there is only one Culture, that we can call Culture with a capital C (see Ingold 1986) and societies are different because they are at *different stages* of evolution of this Culture; this made evolution both unilinear, that is, in one direction only and progressive that is moving to a higher from a lower stage.

In Tylor's theory culture builds upon itself, that is, every institution, like religion, moved in a sequence of developmental stages that were logical progressions of the earlier stage. This theory then scaled human cultures as high or low depending upon how close or how far they were from the apex of human cultural evolution that not unsurprisingly was represented by the nineteenth century European civilization; that was also then at the peak of its political domination of the world through the process of colonisation.

Frazer in his magnum opus, *The Golden Bough* (1890), talked of the transition from Magic, to Religion to Science. He relegated much of the beliefs of so called 'primitive' people to "Magic" or an irrational system of beliefs in misplaced causation. He deemed such people incapable of higher metaphysical thinking of religion as it is found in more civilised societies which were moving towards rationality or scientific thinking.

Tylor was followed by Lewis Henry Morgan in the USA. In his magnum opus *Ancient Society* (1877), Morgan elaborated upon his theory of social evolution. He introduced a critical link between social progress and technological progress. He emphasized the centrality of family and property relations. He traced the interplay between the evolution of technology, of family relations, of property relations, of the larger social structures and systems of governance, and intellectual development.

Morgan significantly left out religion that was elaborately discussed by Tylor who also gave the definition of the first form of religion as Animism; or the belief in Soul or Spirit. Morgan was more of a materialist who founded his theory on the solid base of subsistence activities that according to him provided the clue to human cultural evolution. He was thus delightfully accepted by Marx and Engels who made use of his theory and data in their book, *Origins of Private Property and the State*.

The classical evolutionists, as this school of thought is now called, were trying to transcend the racial theory that had categorised human beings into higher and lower species; an assumption totally refuted by Darwin's theory that had firmly established *Homo sapiens* as one unified species with only superficial variations but no integral differences. The cultural theory of evolution was thus based on the premise that all humans were capable of attaining the same level of culture but due to some historical circumstances

some of them were arrested in their development and were termed as 'primitive', 'barbarian' and 'savages'. But there was always the possibility of giving an impetus to development that would quickly bring them to the same level of civilisation as the Europeans. This concept of 'primitiveness' as ascribed to the colonised people, and the belief that Europe was the pinnacle of 'civilisation' became an ideological justification for colonisation, that was then passed off as a 'civilising' process rather than for what it really was, a process of exploitation and domination.

Evolutionary theory was criticized for the following reasons:

- It was based on data from secondary sources such as travellers and missionaries who were likely to be biased and unreliable.
- Most of the theories of stage-by-stage evolution were speculative and there was no way to establish if they were true or not.
- They were also Eurocentric, since the only measure of 'development' was in terms of the culture's resemblance and distance from European Civilisation.

Thus Tylor's schema of evolution of religion put monotheism or belief in one God at the apex, while Morgan's evolution of family put the monogamous nuclear family as the most evolved form of family. Morgan was also severely criticised for his speculative postulation of primitive promiscuity (a stage when there was no rules of marriage), that was not only not confirmed by any society known, past or present but most scholars including Freud had put the incest taboo as primary to the evolution of human society.

Thus evolutionary theory was more or less discarded as being speculative, unreliable and 'unscientific' apart from being ideologically biased and Eurocentric.

8.2 CLASSICAL THEORIES

Emile Durkheim, the father of functionalism, began his career as an evolutionist and his analysis of the religion of the Australian Aborigines was to look for an original religion that could be seen as the beginning of religions of human society. The name of his book *Elementary Forms of Religious Life*, reflects the fact that he considered the Australian Aborigines to be representative of the most elementary or primitive stage of human culture. Yet what he analysed was quite to the contrary, he discovered that the religion and rituals of the Australian tribes were not simple primitive superstitions but rational institutions functional towards maintaining what he termed as the social order. To Durkheim, religion is a way in which an inner control is exerted over the individual in terms of establishing a moral order, or what may also be termed as a conscience; a way in which not only is a sacred domain established but also this domain is seen as part of the group's collective consciousness, what motivates diverse people to come together as one society, or one community.

Functionalism was a reaction to the excesses of the evolutionary and diffusionist theories of the nineteenth century and the historicism of the early twentieth (Goldschmidt 1996).

Under the influence of Durkheim, British social anthropology developed the structural-functional model based also on the organic analogy in which society was compared to a living organism with component parts, each part contributing to the whole. This model, also known as the holistic model of society, visualised society as composed of interdependent parts each functioning in a way that the entire structure was maintained in a state of equilibrium, just like the living body is healthy and functioning if each part is contributing towards the maintenance of the body in a state of harmony.

A.R. Radcliffe-Brown postulated his theory of social structure as an interconnected web of social relationships, and each component playing its own role in maintaining a state of equilibrium. Most anthropologists belonging to this school, engaged in showing how customs and rituals considered strange or exotic were in fact perfectly rational solutions to problems of actual or potential tensions in the structure of relationships that makes up society. Thus a very important contribution of this school was the concept of cultural relativism, or the idea that nothing is irrational, everything makes sense in the relevant context. For example, Radcliffe-Brown himself explained the role of customs such as 'joking relationships' in maintaining social harmony. Others like Evans-Pritchard demonstrated the functions of witchcraft, or initiation rituals or other practices in society. Thus cultures were no longer seen as 'high' or 'low' but different and making sense in particular contexts.

Consequent to the change in the concept of society and culture, the methods of data collection too were transformed to the empirical collection of data by the anthropologist from the field, in a process known as fieldwork. Since everything had to be understood in its own context, data had to be collected personally; over a long period of time till perfect understanding was reached.

The scholar who really made the method of fieldwork perfect was Malinowski, who being stranded on the Trobriand Islands during the First World War, was engaged in in-depth collection of data from the people of this island. He wrote the classic book, *Argonauts of the Western Pacific* about the Trobriand people. Till today Malinowski's method of fieldwork is taken as the prototype for anthropological data collection.

Malinowski was also a functionalist but somewhat different from Radcliffe-Brown. While Radcliffe-Brown emphasised social structure, Malinowski focused upon the individual and his needs, which he classified into primary, secondary and tertiary needs. Thus, for example, he investigated the role of Magic in giving confidence and creating a positive mindset or in regulating gardening activities.

Two versions of functionalism developed between 1910 and 1930: Malinowski's biocultural (or psychological) functionalism and structural-functionalism, the approach advanced by Radcliffe-Brown

British social anthropology developed concepts of social structure, social organisation that gave rise to elaborate kinship and caste studies and studies of ritual and religion as institutions. The focus was always on the social variables and they looked little towards any other aspects such as environment and psychology. These studies were all synchronic paying little attention to historical time, although some of British anthropologists like Edmund Leach

and Meyer Fortes examined the concepts of structural time or the manner in which institutions evolved over time.

Fortes (1906 – 1983) contended that social institutions, like family or tribe, were the building blocks of society. Through studying those institutions, especially their political and economic development, he believed that one could understand the development of the society as a whole.

Fortes' monographs on the Tallensi and Ashanti tribes of Africa laid the foundations for the theory of descent. This formed the basis of the "structural-functionalism" that dominated social anthropology in the 1950s and 1960s

Jack Goody (1919 – 2015) explained social structure and social change in terms of three major factors.

- development of intensive agriculture.
- urbanisation and growth of bureaucratic institutions that modified or overrode traditional forms of social organisation, such as family or tribe.
- technologies of communication as instruments of psychological and social change.

The basic assumptions of functionalism required historical time and change to be external to the ahistorical synchronic social orders that were seen as the normal condition of society.

8.3 AMERICAN CULTURAL TRADITION

On the other side of the ocean, in the American continent anthropology was developing in some other direction. Rather than focusing on society and structure, they began to focus on culture as something that exists outside of the organic presence of people and living societies. The reason was the nature of the American experience as compared to that of the European: Europe had colonies like India that were flourishing societies with all institutions in place whereas in the American continent the colonisation was genocidal with the Native Americans dispersed and sometimes eliminated to the last person in a tribe.

Boas, the father of American anthropology, spent his life in collecting material that he thought would fast disappear. He collected folk and oral traditions, material culture artifacts and life histories as there was very little in terms of stable social structures and functioning institutions. Boas postulated that every culture is to be understood as a process of its own history and since history cannot be understood outside of location and a people, American anthropology was concerned about geographical settings or areas, about the minds of the people who constituted a culture and aspects like folklore, material culture and myths that survived the people who created them.

Kroeber, a direct disciple of Boas, defined culture as "super organic and super individual". He wrote, "culture is super organic and super individual in that, although carried, participated in and produced by organic individuals, it is acquired by learning." Boas, of German origin, was also influenced by German Diffusionism and Gestalt psychology and not by Durkheimian notions of function and society. Thus the concept of Culture Circles (of the German

Diffusionist school) was borrowed into American anthropology as Culture Area hypothesis. Margaret Mead and Ruth Benedict, both students of Boas, laid the foundations of the culture and personality school that later developed into psychological anthropology.

From the Culture Area hypothesis there emerged concepts of culture as a tool of adaptation and the interaction between culture and environment led to the development of ecological anthropology by the works of American anthropologists like Leslie White and Julian Steward. The interest in psychology also diversified into the field of medical anthropology from the works of anthropologists like Clyde Kluckhohn who had worked on the Navaho beliefs in witchcraft and its relation to disease and cure. Thus American anthropology diversified into various branches involving various aspects of culture and the individual.

8.4 THE FRENCH SCHOOL

The French school continued with its positivist approach as given by Comte and other French philosophers. The most prominent among French anthropologist was Levi Strauss whose search for human universals lead him to postulate that the human mind is universally structured to think in terms of binary opposites and all human social reality can be analysed to reveal deep hidden structures of such oppositional thought, through which human life is made meaningful. He demonstrated that although cultures and institutions appear to vary across the range of human societies in reality they are all ruled by the law of opposition or the rule of comprehending through binary opposites. Thus to him Totemism was not a religion or anything sacred but only a way in which to understand the world, and in essence was no different than the Hindu caste system. To him the most basic mode of social relationship was that of exchange, especially the exchange of women that formed the basis of all kinship relationships.

Thus to him it was alliance rather than descent that was the most essential human relationship. In this he was opposing the British school of descent theorists such as Radcliffe-Brown who had taken the vertical relationships based on descent to be the primary building blocks of human society. Levi-Strauss thus believed, like all positivists, that a science of society in terms of the possibility of formulating universal laws was possible.

The French school, influenced by Marx, was also critical of the functional postulates of ahistoricity and stability of structures. They identified society to be layered and internally differentiated into dialectically opposed segments that makes societies dynamic. They also looked for such Marxist notions as exploitation and the importance of economy even in pre-capitalist societies.

Maurice Godelier postulated that given that kinship dominates every aspect of the lives of pre-capitalist people, one can analyse kinship itself as providing the relations of production in addition to the domestic and reproductive aspects that are usually associated with kinship. To some extent Marxism also influenced ecological anthropologists towards materialist conceptions of human culture like Marvin Harris's formulation of cultural materialism where he postulated that all cultural traits, no matter how abstract and ritualistic they may appear, like the worship of cows in India, are in the last

analysis, dictated by material considerations. Historical anthropology was also a development under Marxist influence.

8.5 SYMBOLISM AND INTERPRETATIVE THEORIES

The cultural approach also developed a keen interest in the human capacity for symbols as culture was recognised as primarily symbolic behavior giving meaning to the world that humans occupy. According to anthropologists like Clifford Geertz, the world that humans occupy is one that is created by them through their capacity to symbolise and give abstract meaning to things. This clearly indicates that the human world is constructed and not an objective space of real things, or that what we consider real is what we have constructed and made meaningful, so that culture is that received code or map of symbols that is passed down to us by our society and which is then reconstituted by our actions that conform to the symbolic codes that we internalise.

This deviated considerably from the earlier approaches that looked upon society as an ‘object’ that could be understood by a ‘scientific’ approach. Both the structural-functional and evolutionist approaches had assumed that what is observed is something real with a substantive content. For the interpretative theory, a scholar has to use what Geertz has called, “Thick description” or a very detailed description of a situation that includes the motives and contexts of a situation in full to get to the reality.

However, the interpretative approach still maintained its positivist as well as functional stand to a large extent. Thus symbols, as analysed by scholars such as Victor Turner, Edmund Leach and Sherry Ortner, were seen as powerful motivators of action but almost always in the direction of maintaining a given social order. Thus Turner’s classic description of the symbolic dimensions of puberty rituals and Leach’s analysis of ritual reversals and the symbolism of time were directed towards how the anthropologist can illuminate the function of these cultural processes that maintain the society in a state of equilibrium or order. Thus two aspects of the anthropological methodology had not changed till the seventies when these theories were popular;

- that the analysis and understanding of cultural processes is ‘external’ or apparent to the trained observer and not to the actors;
- that the anthropologist plays a critical role in objective and scientific analysis of culture and society.

But soon anthropology entered into its critical phase when most of the assumptions of scientific rationality and ‘objectivity’ of the so called scientific observer came under criticism from a variety of sources, of which the feminist and the critical approach from the ‘margins’ was the most prominent.

Check Your Progress 1

1) Who is the father of functionalism?

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2) Who introduced a theory of social structure as an interconnected web of social relationships?

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3) What is a concept developed by British social anthropologist is?

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4) Who wrote the classic book, *Argonauts of the Western Pacific*?

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5) Who defined culture as “super organic and super individual”?

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6) What is “thick description”?

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8.6 POST-COLONIAL AND CRITICAL PERIOD

Anthropology began as a western science dominated by white men. The anthropological self was both white and male such that the study of ‘Other Cultures’ was primarily the study of people colonised and referred to as ‘natives’. But post-World War II, as the world scenario changed, the identity of the anthropologists also changed; from being predominantly white to the ones who were earlier part of this “other”; in other words, natives became anthropologists, and so did women.

Anthropological thinking was influenced by the work of scholars like Edward Said, who turned a critical eye on the production of knowledge by the westerners, deeming it biased by how the west imagined the orient, rather than by actual facts. A major feminist anthropological criticism came from Annette Weiner, who having restudied the Trobriand Islands (1976), realised that Malinowski had missed out on the value of women’s work that plays substantial economic, social and ritual role in Trobriand society.

In 1930 Robert Redfield (1897–1958) published his study *Tepoztlan: A Mexican Village* in which he produced an idealist representation of a village where people lived in peaceful harmony. Redfield developed the concept of the Great and Little traditions. Oscar Lewis, in *Life in a Mexican Village: Tepoztlan Restudied* (1951) used a processual approach that focused on behaviour itself and it turned out not to conform to Redfield's rules. He found a village full of factionalism, personal antagonism, drunkenness and fighting. Lewis went on to develop the concept of the culture of poverty.

Derek Freeman challenged Margaret Mead's famous account of adolescent sexuality in Samoa. He said *Coming of Age in Samoa* (1928) was mistaken and misleading in its depiction of uncomplicated sexual freedom there and that it had been shaped to support academic theory rather than to report the realities of Pacific island society.

The moot question raised was: is it possible to collect completely unbiased data as the anthropologist too is a constituted subject raised in a culture and carries deep-seated and often unconscious views that cannot be changed by conscious efforts. In other words there is nothing called a purely 'objective' gaze.

Secondly those in the field are also not passive objects of study. They too are influenced by the presence of the observer who is also evaluated by them and their reaction to him or her is according to this interpretation. For example, Derek Freeman had said that the elderly men in Samoa had told him that they regarded Margaret Mead as a slip of a girl not worth telling the serious things.

The second methodological issue then was of inter-subjectivity or the interaction of two (or more) subjective selves in the field situation. For example, Kumkum Bhavnani (1994) has discussed how while working with white but somewhat lower class men in England she was in the ambiguous position of being coloured as well as a woman (both negative points of reference) but having high educational and social position (positive points of reference) that created ambivalence in her informants as to how to relate to her.

Feminist writers like Donna Haraway (1988) and Susan Harding (1991) among others have further criticised the very methodology deemed as 'scientific methodology', with its claim to objectivity and freedom from bias. They have shown that studies of primate behaviour among other biological studies were strongly conditioned by pre-existing stereotypes of male and female behaviours among humans. Since primate behaviour has often been used to demonstrate the 'naturalness' of human behaviour such as male dominance and female dependence, such studies served the purpose of re-establishing and justifying gender-based prejudices in human societies. Such 'deconstructions' have been part of what has been termed as the 'post-modern' phase of world in spheres of not only academics but art and literature also. Strongly influenced by the works of philosophers such as Derrida and Foucault, this point of view is critical of the perspective that there is only one truth or that there is any methodological possibility of getting at 'objective reality'. All observations, even that of science, are seen to be largely mediated by the humans who make them and the human factors is always present in any scientific work.

In anthropology, the emphasis was laid not on the data collection in ethnography, but on the way it was written down. The publication of Malinowski's diary long after his death had proved undoubtedly that the hierarchy or inequality in the position of the observer and observed is an inherent part of any fieldwork situation, no matter how meritorious the scholar.

Marjorie Shostak's (1981) publication of *Nisa*, the life history of a Kung San woman, further gave a new direction to anthropological methodology that foregrounded the 'voice' of the informant rather than that of the ethnographer. This paved the way for a way of writing that included more and more of what people said than what the observer had to say. Instead of trying to push observed data into anthropological categories, the field data was presented in as pristine a way as possible and anthropological concepts modified to explain the data rather than other way around. Thus most contemporary ethnographies use native terms to explain key concepts of a culture rather than to look for their western equivalents. Literature and folk histories, narratives and life stories became larger part of data than statistical tables and quantified data. Anthropology is now more qualitative than it ever was.

8.7 CONCEPTS OF TIME AND HISTORY

Another post-colonial criticism was directed against the ignoring of history by the structural functional anthropologists and assuming that it was only with the advent of the white men that societies began to change. In his book *Europe and the People without History*, Eric Wolf showed how the world was not only changing but there was active contact and interaction between people through long distance trade, travel and migration and that the non-western world had its history from times long before the contact with the western world.

Criticism was also directed towards such constructs as 'acephalous' or stateless societies and people such as hunter-gatherers as representing the unchanged 'past' of human beings as many of them were shown to have devolved into being marginal and stateless by the onslaught of colonisation. Even so-called 'isolated' people like the Inuit of the Arctic are now shown to be composed of many different people migrating and moving over time. Thus the assumption of equilibrium as a natural condition of societies and the presumed functionality of all institutions was also criticised. Historical analysis had shown that societies have been subject to conflict, tensions and transformations at all points of historical time.

Contemporary ethnographical works are concerned with history as a process that is integral part of all communities and people. For example, Bernard Cohen, Nicholas Dirks, Ronald Inden and other anthropologists working in India have also shown how the caste system was transformed and consolidated into being a far more rigid and bounded institution because of colonial rule and interpretation than it was in the pre-colonial times. On the other hand, 'tradition' is often invented to suit present political requirements than a thing of the past.

The concept of fixed boundaries and timeless entities has now been replaced by the far more dynamic concept of 'identity' that includes the possibility of

change, negotiation and contestation. For example, it has been shown that the caste system, far from being a rigid and defined system, is fluid, where one category may lay claim to a higher status or challenge the status of another group, or invent a new status for itself. In the present day, many castes who laid claim to high status demand to be included in OBC or SC category. Identities are thus shown to be more shaped by the present interests than by the past. Thus history is a tool by which one can examine change, contestations and fluidity of identity formations and analyse them with reference to their contexts.

8.8 THE PRESENT STRENGTH OF ANTHROPOLOGY

Thus anthropology is redefining its boundaries and also opening up to other disciplines such as history and cultural geography even as other disciplines like psychology, political science and even literature are beginning to use the anthropological methods of fieldwork and qualitative data collection. Today from its colonial past, anthropology is emerging as the humane discipline that looks at human beings with empathy and produces discourses with a human face.

Anthropologists are emerging as the voice of the marginal and the critics of materialism and consumerism in an increasingly global and market-dominated world. Anthropologists gain insights into real people's lives by their close and prolonged contact with their field areas and have now become the specialists who can deal with any kind of human problems (see Veronica Strang 2009).

8.9 SUMMARY

We went over the development of social/cultural anthropology from its early philosophical roots and colonial past to its present day. Since both society and culture are constructs and not concrete objects of study, the subject has developed as a part of human history and philosophical thoughts. Certain paradigm shifts occurred in anthropology from evolutionism to functionalism and from modernism to post-modernism, which were reflections of human. Wars, revolutions, women's emancipation and formation of modern nation states have all played their role in shaping the subject of social/cultural anthropology for it is after all a study of humans in the context of their lives and lived conditions of existence.

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8.11 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Emile Durkheim.
- 2) A.R. Radcliffe-Brown introduced a theory of social structure as an interconnected web of social relationships.
- 3) British social anthropology developed concepts of social structure, social organisation that gave rise to elaborate kinship and caste studies and studies of ritual and religion as an institutions. The focus was always on the social variables and they looked little towards any other aspects such as environment and psychology.
- 4) The classic book, *Argonauts of the Western Pacific*, was written by Bronisław Malinowski.
- 5) A.L. Kroeber defined culture as “superorganic and superindividual”.
- 6) Thick description or interpretative theory is a very detailed description of a situation that includes the motives and contexts of a situation in full to get to the reality.

UNIT 9 CONCEPTS AND DEVELOPMENT IN ARCHAEOLOGICAL ANTHROPOLOGY*

Contents

- 9.0 Introduction
- 9.1 Understanding Archaeology
- 9.2 Archaeology as Anthropology
- 9.3 Concepts of Prehistory or Archaeological Anthropology
 - 9.3.1 Temporal Division in Prehistory
 - 9.3.2 Geological Time Scale
- 9.4 Development of Prehistoric Researches
- 9.5 Summary
- 9.6 References
- 9.7 Answers to Check Your Progress

Learning Objectives

Once you have studied this unit, you should be able to:

- understand the idea of prehistory;
- understand the relationship between prehistoric archaeology and anthropology;
- interpret the significance of prehistoric remains; and
- analyse the problems in prehistoric researches.

9.0 INTRODUCTION

The idea of prehistory is closely associated with the study of human emergence on the Earth and subsequent developments. It is a story of human transformations through a long period of nearly 5 million years. Prehistory, or the earliest period of human existence, often contains the roots of present human divergence. The advancements in human biology, society and technology all have come through a long chain of transformations. To understand these transformations the involvement of a number of closely associated disciplines, often claiming separate identities by their own rights, are required. Two such streams of scientific studies are archaeology and anthropology.

9.1 UNDERSTANDING ARCHAEOLOGY

Archaeologists study the past through the understanding of material remains created through human actions. These material remains constitute the

archaeological record which helps us in imagining those past human activities (Gamble, 2003). Archaeological imagination follows a process which has been refined through various practices and theories in the last two centuries of the Christian era. However, the beginnings of archaeological study can be found in the works of Oriental historians such as the Chinese and the Arabs as well as in the writings of the Italian Renaissance.

The political context of the last two centuries was crucial for the development of archaeology as a systemic scientific discipline. This context was crucial as it attached three important ideas with archaeology — nationalism, colonialism and imperialism (Gamble, 2003).

Monuments and artificially (as against naturally) produced material remains (also known as artefacts) were often used to create an idea of national identity. Indian history is full of such instances where historical materials were used to form a pan-Indian identity. Similarly such vestiges from the past or their absence were also used by colonial powers to suit their agenda of expansion. Later the imperial powers of the twentieth century developed the idea of “world archaeology”, often erasing small boundaries created by nationalistic agendas (Gamble, 2003).

The turmoil of political ideas played a significant role but inputs from various other factors cannot be denied in shaping the discipline in its present form. Though the subject was originally developed through interests in classical monuments of Greece and Rome but three major intellectual currents of the nineteenth century decided the future course of action for archaeology.

Archaeology is indebted to geology for the understanding of huge time depth of human existence on the Earth. The eighteenth century gave birth to the modern discipline of geology through the writings of scholars like Georges Cuvier of France and William “Strata” Smith of England. The year 1785 saw the publication of a book by James Hutton which claimed that the stratification observed in rocks was due to processes still going on in the Earth (Renfrew and Bahn, 1996). Later the geologist Charles Lyell expanded this idea in his theory of superimposition or uniformitarianism (Redman, 1999). This theory provided the framework for a scientific understanding of the depositional processes or the laws of stratigraphy and also put forward the framework for the relational chronology. This concept was instrumental in understanding prehistory.

The second important principle for the development of archaeology was the understanding of the antiquity of humankind. The discoveries of the nineteenth century indicated a very long period of human existence on earth. These findings such as stone tools from the Somme valley, France allowed scholars like Jaques Boucher de Perthes (1788-1868) to argue that these material remains were human creations of a very remote past. These notions were contrary to the prevalent biblical ideas of creation which propounded that the Earth was created on 23rd October, 4004 BC at 9 am (Bhattacharya, 1996).

The third and the most important principle which changed not only archaeology but the entire course of the modern history is the theory of evolution. The ideas mentioned earlier were conforming to the findings of one of the most influential scholars of the modern era, Charles Darwin

(1809 – 1882). Darwin’s fundamental work on the *Origin of Species by Means of Natural Selection* was published in 1859 and provided the best possible explanation for the origin and development of all plants and animals (Renfrew, 1996).

This theory proposed that all life on earth is related and descended from a common ancestor. It also suggested that all living beings have gone through changes over time and these changes were guided by the mechanism of “natural selection”. This mechanism propound that in the struggle for existence, better adapted or fitter organisms will survive and less well adapted ones will die. The beneficial traits of the surviving individuals would be passed on to the next generations and gradually it would lead to the development of completely new characteristics, resulting in the birth of a new species.

Since the birth of these three new principles, archaeology has changed its courses several times and emerged as a sophisticated branch of scientific study. However the importance of these principles still remained valid in consideration to our understanding of past human cultures and will be vital for our knowledge of prehistoric archaeology.

Check Your Progress 1

- 1) State the three principles for the development of archaeological studies.

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9.2 ARCHAEOLOGY AS ANTHROPOLOGY

As we have mentioned earlier, archaeology tries to reconstruct past human cultures through their material remains or archaeological records. The archaeological record constitutes the hard facts of the archaeological research design. However, a closer look at the archaeological record will reveal that these facts or the observations of data are not simple (Gamble, 2003). These facts are never neutral or value-free. Any interpretation of the archaeological record is dependent on concepts of two levels.

At the first level stand the theoretical narratives generally followed by the discipline. Facts are arranged according to these paradigms. At the second level stand the concepts of the researcher, whose implications are no less profound.

Theoretical narratives of the discipline associate archaeology with other streams of scientific knowledge. Anthropology provides archaeology such a stream of narrative which enables the researcher of the material remains to interpret the fact in a particular manner.

We are already aware of the basic nature of anthropology. The American Anthropological Association has defined anthropology as a subject which studies “humans, past and present” (American Anthropological Association website). To understand the complex human culture, anthropology incorporates theories and methods of social, biological, physical sciences and humanities. Anthropological researches have been classified into four categories:

- 1) socio-cultural anthropology,
- 2) physical anthropology,
- 3) archaeology and
- 4) linguistic anthropology.

The third segment which incorporated archaeology as an integral part of anthropology deals with the past people and cultures. The subjects of this stream cover not only the earliest traces of human cultures but also its recent past.

Check Your Progress 2

- 2) What is archaeology?

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Theoretical narratives which are utilized by all other segments of anthropology also influence archaeological research designs. The seminal paper which made archaeology inseparable from anthropology is “Archaeology as Anthropology” by Lewis Binford (1962). Binford (1962) visualized human past as an ever-changing process, modifying and altering cultural systems endlessly. Human cultures and these processes are primary units of archaeological study. He viewed cultures as systems composed of environmental, social and ideological elements. Cultural systems can be successfully reconstructed through analyses of artifacts and their contexts in a scientific manner (Gamble, 2003).

Though archaeology as anthropology assumes basic human continuities over time and space but at the same time it recognizes the uniqueness of each human culture, which is a product of its own time and space. Archaeology is generally considered either as a separate discipline or a part of historical studies in Europe but in America it is an integral part of anthropology (Gamble, 2003).

9.3 CONCEPTS OF PREHISTORY OR ARCHAEOLOGICAL ANTHROPOLOGY

Prehistory, or the age before history, refers to a period which did not produce any written record (Renfrew and Bahn, 2007). The historical period started with the commencement of textual records. In many parts of the world, literate societies evolved at a very recent date, not much before the last two centuries of the Christian era and even where such records are available their antiquity does not go back beyond the last four millennia, whereas the story of human existence covers a huge time span. It has been rightly said that 99% of the story of human existence falls within the domain of prehistory (Renfrew and Bahn, 2007). Archaeology provides a system and method to understand cultures through material remains of this prehistoric period.

Prehistory also refers to the life of early hunter-gatherers and subsequent farming communities. It speaks about centralised human societies which

caused the rise of civilizations (Renfrew and Bahn, 2007). Prehistory does not stop at the doors of these societies but also investigates those cultural systems which continued hunter-gatherer or pastoral life style despite technological advancements in other parts of the world (Renfrew and Bahn, 2007).

Check Your Progress 3

3) What is Prehistory?

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Prehistoric archaeology or otherwise known as archaeological anthropology provides a methodical system comprising various sophisticated methods of analysis. Considering the vast time span of prehistoric period, the absence of such a system would have made the system non-functional. Prehistoric archaeology is also known as palaeoarchaeology. The term “palaeo” had its origin in the Greek word “palaios” meaning ancient. Palaeoarchaeology denotes archaeological investigations of ancient periods but not necessarily of the prehistoric era.

The word “prehistory” did not become a part of the everyday language till 1859. It was Daniel Wilson who first used the term in his book *The Archaeology and Prehistoric Annals of Scotland* in 1851. Sir John Lubbock popularized the term in his book called *Prehistoric Times* (1865). It is generally considered that Lubbock’s book was the cause behind the birth of prehistory as a discipline (Renfrew and Bahn, 2007).

Prehistoric archaeology originally developed as a part of the Culture-Historical Paradigm. The main objective of this paradigm was to understand prehistoric cultural sequence of a given area and origin and dispersion of that particular prehistoric population (Bhattacharya, 1996). Later other objectives such as studies of cultural life ways or laws which govern cultural processes became part of prehistoric researches.

9.3.1 Temporal Division in Prehistory

It is important to understand the concepts of temporal divisions and periodisation to grasp the meaning of prehistoric researches. Temporal divisions are large units of time while periods are smaller divisions within these units. Temporal divisions and periodisations of prehistoric times help in arranging material remains in sequential orders. Time has no division to mark its progress and any temporal division only exists in human mind and thoughts. These divisions are basically relative in nature and no unit of time can be compared with any other. Concepts of change, variability, continuity and direction are important for the creation of relative temporal divisions. Generally we assign a block of time containing a set of actions happening over a particular space. The entire human existence on the earth is divided

into two broad temporal units, prehistoric and historic on the basis of these above mentioned principles.

The first attempt towards temporal divisions of the prehistoric past was by Danish antiquarian Christian Jurgensen Thomsen. He divided the human past into three ages on the basis of type and technology of material remains. This scheme of periodisation is known as the Three-Age System. Thomsen divided the past into Stone Age, Bronze Age and Iron Age. The first was further classified into early and late phases by the prehistorian J.J. Worsae (1851). The Late Stone Age marked the advent of pottery and polished stone tools (Renfrew and Bahn, 2005). Sir John Lubbock rechristened these two phases as Palaeolithic and Neolithic in 1865 (Renfrew and Bahn, 2005).

In 1870 Edouard A. Lartet proposed further sub-divisions of the Palaeolithic period. In 1883 Gabriel de Mortillet divided the Stone Age into several periods corresponding with a particular assemblage of finds (Renfrew and Bahn, 2007). The basis of this classification was the types of artifacts and their technology. In his scheme of classification:

- The Lower Palaeolithic period represents the earliest era of human prehistory noted by the use of massive core tools such as hand axes and cleavers.
- Middle Palaeolithic period was dominated by flake tools such as scrapers.
- The Upper Palaeolithic period is famous for its elongated blades, bone tools and appearance of artistic activities.

The Upper Palaeolithic period is followed by a period called Epi-palaeolithic, known for its smaller blade tools and absence of art. In between the Palaeolithic and Neolithic periods exists the Mesolithic period. This temporal unit saw the appearance of geometric microliths (small geometrical stone tools) (Shaw and Jameson, 1999). The Neolithic period ushered an era of sedentary life marked by the domestication of plants and animals, profuse use of polished stone tools and the advent of agriculture.

In the latter half of the twentieth century this typo-technological scheme of periodisation was questioned. Thomson and Braidwood (1961) divided the prehistoric past on the basis of subsistence patterns of respective ages. According to this scheme of classification the earliest part of the Palaeolithic was termed as the *Food Gathering* and its later is known as the *Food Collecting* periods. The advent of agriculture marked the *Food Producing* era. However this system of periodisation did not get wide currency as our knowledge of prehistoric subsistence pattern is scanty. Significant breakthrough in prehistoric archaeology came with the invention of radiometric dating techniques in the latter half of the twentieth century.

Check Your Progress 4

4) When did human beings appear on the face of the earth?

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9.3.2 Geological Time Scale

The other important aspect of prehistoric researches is the frequent use of the geological time scale due to the huge time span it covers. The geological time scale is a sequential arrangement of earth's geology on the basis of the relative age relationship between earth's structures. The geological history of earth is divided into two eons – Precambrian and Phanerozoic. The latter started at around 550 million years ago and continues till today. Eons were further sub-divided into eras and periods (see Fig. 1). Human beings appeared on earth only at the last leg of the quaternary period in the Cenozoic era. The prehistoric past started with the Pleistocene epoch of this Quaternary period.

The Pleistocene epoch started at around 2.5 million years ago and ended at 11,500 years BP. This epoch was known for severe climatic fluctuations and long durations of ice ages. These ice ages are known as glacial and their warmer interludes as interglacial periods. The last glacial period also marked the end of the Pleistocene. Since then we are going through an interglacial period called the Holocene.

The early human existence of the prehistoric past endured severe harsh glacial and interglacial periods. Prehistoric material remains bear the testimony of human struggle against these environmental conditions.

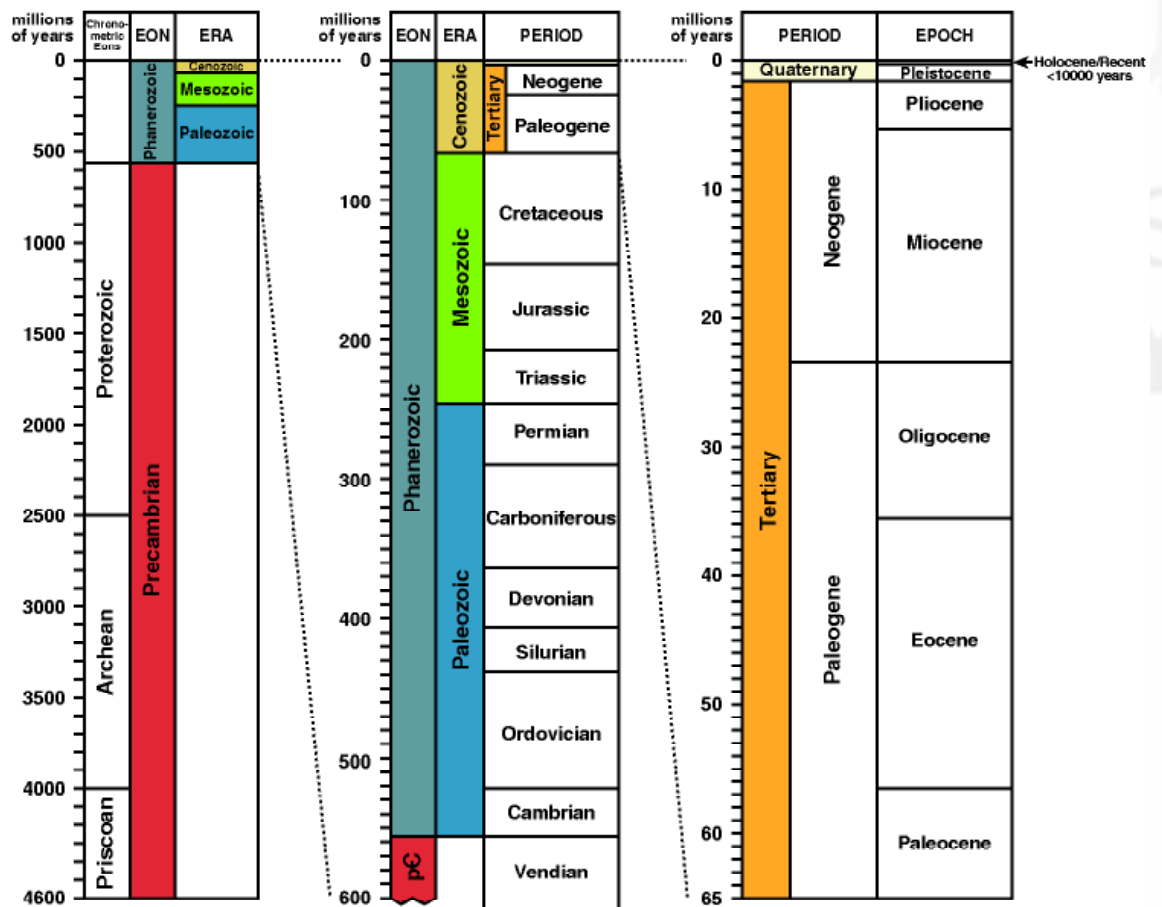


Fig. 1: Geological Time Scale

9.4 DEVELOPMENT OF PREHISTORIC RESEARCHES

The idea of prehistory could not take shape before the realisation of the limitations of the textual data. Although the origin of prehistoric archaeology can be traced back to the Italian Renaissance, the actual investigations of the remains started only in the eighteenth century. The study of prehistory was revolutionary indeed as it not only challenged the predominant notions of the day but questioned the very basic structure of the Christian theology. West Asian religions provided a theory of creation which tried to explain the human existence on the Earth. The story of creation in six days provided the theoretical context for any consideration of ancient things (Renfrew and Bahn, 2007). The very laity notions of prehistory could not be formed without challenging these religious tenets. Prehistoric archaeology owes its existence to the thinkers of the Enlightenment period and scientific revolutions of various areas of research. Prominent among these contributors were astronomers such as Galileo and Copernicus who presented an entirely new world view to the academia and laity of the day. The other equally important discipline was geology.

Prehistoric archaeology had its seeds in the works of early antiquarians in northern Europe. These antiquarians such as Richard Colt Hoare directed their investigations to burial mounds to compensate the paucity of traces of early literate civilizations in that region.

During the early days of the Renaissance, chipped stone tools were noticed all over Europe. They were eventually collected but could not be explained by the intelligentsia of the time. John Frere in 1797 realized that these chipped stone implements were creations of human beings. He talked about a period of a very remote past when metals were not in use (Renfrew and Bahn, 2007). Glyn Daniel (1962) called this observation by Frere “one of the first facts in a prehistory based on archaeology”.

The antiquarianism of the eighteenth century gave rise to new museums of northern Europe. The collections of these museums played important roles in the growth of prehistory in the later years. This was also the period which experienced the Scientific Revolution in Europe which sowed the trends of ethnocentricity in popular thinking. The Three-Age system of periodisation was born within this context of continuous accumulation of prehistoric data.

Initial researches on the Palaeolithic period were carried out in France. Boucher de Perthes found stone tools in the Somme Valley. The first reported stone tools came from Abbeville and Saint Acheul. In the middle of the nineteenth century a series of excavations was conducted in the caves and rock shelters of Pyrenees and Dordogne of France which helped the scholars in reconstructing the life of the people in the Upper Palaeolithic period. This period also witnessed the discovery of fossilised human remains of *Homo sapiens* at the rock shelters of Cro-Magno, (earlier known as Cro-Magnon man) in France. A new species of human ancestors were found at the Neander valley of Germany and came to be known as Neanderthal man (Renfrew and

Bahn, 2007). In 1879 painted art of the prehistoric period were noticed at a cave in Altamira in France.

Soon the scope of prehistoric researches expanded beyond France and Germany. Neanderthal and *Homo sapiens* remains were reported from Palestine. A new hominid species called *Homo erectus* was reported from Indonesia (Renfrew and Bahn, 2007) and several fossilised hominid remains including those of *Australopithecus* were found in Africa.

Three-Age System

The Three-Age System provides a scheme of periodisation on the basis of a relative time scale and the idea of progress. This system presented the first framework for understanding the Stone Age and its relationship with other subsequent periods. As has been mentioned earlier, Christian Jurgensen Thomsen was the father of the Three-Age System. He was the son of a wealthy merchant of Copenhagen. Thomsen was influenced by the evolutionary approach of his time and the environment of nationalism prevalent in Denmark. In 1816 Thomsen was invited by the Danish government to arrange their collection of Antiquities (Trigger, 1989).

Thomsen was instrumental in cataloguing and exhibiting this huge national treasure. Thomsen gave special emphasis to the context of the finds and divided these antiquities into different categories on the basis of the material, shape as well as decorations on them (Trigger, 1989).

On the basis of his analysis of tool types he could differentiate the objects of the Stone Age from those of the Bronze Age and objects of the Bronze Age from the ones of the Iron Age. Thomsen opened his collection of antiquities to the public in 1819 and published his researches in a book called *Ledartraad til Nordisk Oldkyndighed* (Guide Book to Scandinavian Antiquity) in 1836. He divided the entire human history into three ages – Stone, Bronze and Iron.

The advent of radiometric dating techniques in archaeology enabled prehistorians to look beyond the cultural sequences. Prehistoric archaeology is now ably helped by physics, chemistry, genetics and other allied subjects to expand the sphere of valid enquiry from probing the question of human antiquity to the origin of human species.

Prehistoric archaeology in India also witnessed a simultaneous development. Prehistoric researches in India are mainly associated with the arrival of Europeans and their activities related to surveying (Singh, 2004). Institutions and individuals played different roles and caused the growth of prehistoric study. One such institution was the Asiatic Society of Bengal, established by Sir William Jones in 1784. In a Proceedings of the Society, V. Ball mentioned about a few agate splinters discovered from the Narmada Valley by one Captain Abbot in 1845 (Chakrabarti, 2006). Similar findings were also

reported from Warangal, Bundelkhanad and Port Blair (Chakrabarti, 2006). However it is Robert Bruce Foote who is generally credited with the first stone tool in India. Foote discovered a Palaeolithic implement from Pallavaram near Madras on 30th May, 1863.

Prehistoric researches in India can be divided into three phases.

The first phase (1863 – 1900) is marked by individual surveys for prehistoric remains. Stone implements of Palaeolithic and Neolithic were reported from various parts of the country. Rock paintings were also reported from Madhya Pradesh.

The second phase (1900 – 1950) witnessed the efforts to synthesise the acquired data. In 1930 L.A Cammiade and M.C. Burkitt proposed a scheme of classification of prehistoric tools from the Palaeolithic to Mesolithic on the basis of typo-technology. This period is also marked by increasing involvement of other sister disciplines in prehistoric research. H.de Terra and T. T. Paterson of Yale and Cambridge University tried to establish a relationship of the Pleistocene glaciations and their counterparts in the sub-continent.

Check Your Progress 5

5) In which year and location was painted art of the prehistoric area found?

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The third phase (1950–till date) is known for multi-disciplinary approaches and frequent application of sophisticated technologies.

9.5 SUMMARY

In this unit we have learned about the concepts and ideas that govern prehistoric archaeology. These ideas were not only influential to the development of the discipline but changed the thought processes of the contemporary world and presented a logical world view bereft of religious dogma and superstition. Definitions of prehistory, prehistoric archaeology and archaeological anthropology help us to understand epistemological (the nature of knowledge) nuances of the discipline. The development of this stream of knowledge and the advent of radiometric dating significantly widened the scope of prehistoric studies and made it open for new questions to be asked.

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Useful Links

Evolution: <http://www.ucmp.berkeley.edu/history/evotheory.html>

Geology and Geophysics: <http://geoscience.ucalgary.ca/>

National Climatic Data Centre: <http://www.ncdc.noaa.gov/>

Physical Geography: <http://www.physicalgeography.net/fundamentals/10c.html>

9.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) The three principles for the development of archaeological studies are;
 - a) The understanding of the laws of stratigraphy (Geology)
 - b) Understanding of the antiquity of humankind and
 - c) Theory of evolution (Darwin)

Check Your Progress 2

- 2) Archaeology is the study of the past human cultures through the reconstruction of their material remains.

Check Your Progress 3

- 3) Prehistory is the period before history of which there are no written records or documents available.

Check Your Progress 4

- 4) Human beings appeared on the Earth during the last leg of the Quaternary period in the Cenozoic era.

Check Your Progress 5

- 5) In the year 1879 painted art of the prehistoric period was found in a cave in Altamira in France.





BLOCK 4 : Research Methods and Techniques

Unit 10	: Approaches of Anthropological Research	129-141
Unit 11	: Methods, tools, and techniques	142-156
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UNIT 10 APPROACHES OF ANTHROPOLOGICAL RESEARCH*

Contents

- 10.0 Introduction
- 10.1 Holistic Approach
- 10.2 Ethnographic Approach
- 10.3 Emic and Ethic Approach
- 10.4 Comparative and Historical Approach
- 10.5 Summary
- 10.6 References
- 10.7 Answer to Check Your Progress

Learning Objectives

After reading this unit, you will be able to:

- discuss different approaches of anthropological research;
- understand how ethnographic approach is used in holistic study of society and culture;
- describe how emic and etic approaches are important in ethnographic research;
- understand the purpose of comparative and historical approaches in research; and
- differentiate between comparative and historical approaches.

10.0 INTRODUCTION

Anthropology is a wide and diverse discipline which studies human biological and cultural diversity around the world. In anthropological research, an anthropologist looks at similarity and differences in social institutions, cultural beliefs, and communication styles. Anthropological research is different from research in other allied sciences. Anthropologists use different methods, tools, techniques and approaches to study society and culture. Many a time terms like method, methodology, approaches and perspectives are not used in a correct way. A method is defined as a way of conducting and implementing research, whereas methodology is the science and philosophy behind all sort of research (Adoms John et.al., 2007).

- Basically, a method is a particular methodological tool such as a case study.

* Contributed by Dr. K. Anil Kumar Discipline of Anthropology, IGNOU, New Delhi

- An approach is the line of thinking one adopts.
- A perspective is how a thing is perceived or viewed. If we conceive an approach as a procedure, perspective can be seen as a framework.

Anthropologists are engaged in empirical research as well as laboratory analyses and archival investigations. They use theories, models and tools and techniques to conduct research. Anthropologists adopt the following approaches to study human society and culture:

- holistic approach
- ethnographic approach
- comparative approach
- historical approach.

10.1 HOLISTIC APPROACH

Anthropology is a holistic science. The holistic approach of Anthropology allows understanding humankind in terms of the dynamic interrelationships of all aspects of human existence. The holistic nature in anthropology is evidenced in a number important ways. The anthropological research approach involves both biological and cultural (bio-cultural approach) aspects of humanity. In a bio-cultural approach, human beings are viewed as biological, social and cultural entities in relation to the environment. Thus anthropologists study human life in totality.

Anthropology explores the entire panorama of the human experience from human origins to contemporary forms of culture and social life. Anthropological research is conducted around the globe on all varieties of people wherever they may be found.

- Social anthropologists conduct research on different aspects of human experience, for example, marriage, family, kinship, customs, beliefs, religion, language, art, socio-economic conditions, tribes, rural people, conflict resolution, and livelihoods.
- Biological anthropologists conduct research on human adaptation, human genetics, human palaeontology, health and nutrition, epidemiology and other biological aspects of human beings.

In ethnographic studies anthropologists try to be holistic by integrating and studying all the possible aspects of a culture in the total cultural context. Different aspects of culture and society exhibit patterned interrelationships (e.g., political economy, social configurations, religion and ideology).

Culture cannot be divorced from biology and adaptation, nor language from culture. Contemporary societies cannot be understood without considering the historical and evolutionary processes. Anthropologists such as Malinowski, Radcliff Brown, Margaret Mead, Evans Prichard, Franz Boas, L.H. Morgan, and Ruth Benedict conducted their research in holistic perspective.

These days most anthropologists have become specialized and focused because the information is so vast. The research is focused on particular

issues and problems of the society and culture. This focused approach is termed as problem-oriented research approach. To illustrate, one anthropologist may focus on marital pattern of tribals, another may concentrate on farming and land use patterns. Despite the recent trends towards specialization, anthropologists persistently indulged in analysing their findings within wider cultural context. Moreover, when all the specialized aspects within the discipline are viewed together, they represent a very comprehensive or holistic view of the human condition (Ferraro and Andreatta, 2010).

Check Your Progress 1

- 1) What is holistic approach in Anthropology?

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10.2 ETHNOGRAPHIC APPROACH

Etymologically, the word “ethnography” originated from two Greek words *ethnos* (people) and *graphia* (writing). Therefore Ethnography accounts for the written presentation of a people or a population. Ethnography has its origins in the discipline of anthropology. Ethnography means a systematic detailed study about a particular culture or society, primarily based on fieldwork. Ethnographic research is conducted in the natural setting by covering everyday activities of the subjects under qualitative investigation. It also attempts to describe and interpret the symbolic and contextual meanings of the practices that are conducted in the natural setting in every usual day. In anthropology, ethnography provides a thick description of a particular community, society, or culture. During ethnographic fieldwork, a researcher collects data that he/she analyzes, describes and interprets in order to present the ethnographic account. This written account may be in the form of an article, a book, or film. The conventional ethnographic approach presumes cultures as whole units that can be grasped or comprehended as such. Traditional ethnographers live in small communities and study various aspects of their culture such as customs, behavior, beliefs, social life, economic activities, politics, and religion. Today for ethnographers a field could be virtual site, where people interact with each other every second. For example, they can conduct ethnographic research in social networking sites which include Facebook, Twitter, WhatsApp and many other apps. An important aspect of ethnographic research is to develop the skill to record the field data in a systematic way.

Ethnographic study requires a holistic approach (from *holos* meaning whole), as it is based on the idea that none of the properties of a complex system, be it physical, biological or social, can be understood and explained in isolation, but only if you consider all these components together. The whole, the structure, is the one that determines the role and importance of its parts (Bălan, 2011).

The holistic ethnographic approach involves:

- 1) An overview of the environmental context of a society, its geographical location, climate, vegetation and fauna (what in anthropology is called

habitat). In this context, the local knowledge of flora and fauna must be presented, under the name of ethno-botanical and entomological notions, which are then explained and translated in terms of Western natural sciences.

- 2) The description of material culture, i.e. the methods and means local people employed to make a living, specific technologies, which are also called elements of infrastructure and economic life, in the context of the fact that they are essentially determined by the environmental conditions presented before.
- 3) The description of non-material culture, which is preceded by a history of the society in question, to the extent that it can be reconstructed from data collected both on-site and from other sources. The elements of non-material culture are the spoken language, together with its history and its dialects, social structures (family relations, the rules that establish the status of individuals according to gender, age, membership of a particular clan, and the criteria of association between individuals), explicit and implicit rules of social behaviour, religious ideas and rituals, customs, ceremonial practices. Behind these more or less visible elements, are the mental structures underlying them, such as the values that members of the community share and ideas that constitute their general image of the world – which in philosophical terminology is called *Weltanschauung* (literally, “worldview”) – and the “ethos” of culture, as anthropologist Clifford Geertz (1973) names it. (Bălan, 2011)

Geertz defined culture as “a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate and develop their knowledge about and attitudes toward life” (Geertz, 1973). One culture’s ethos is the moral and aesthetic aspect of life and is the force that determines all aspects of individual behaviour in that culture, the values and ideas that together configure the motivation for all people’s actions: “a people’s ethos is the tone, character, and quality of their life, its moral and aesthetic style and mood; it is the underlying attitude toward themselves and their world that life reflects” (Geertz, 1973). Ultimately the ethos is the underlying force that determines in every culture the specific way of being human and configures all the actions and attitudes of its members, so that it was always the subject of a special interest from the part of ethnographers. (Bălan, 2011)

In ethnographic study, a researcher involved himself/herself in the field and lives with the community under exploration and gathers extensive data in the field notes by using different methods, tools and techniques. Some of these methods are discussed in detail in unit 11. “Ethnography in practice has evolved from the classic approach, where it was assumed the researcher could retain objectivity when exploring a new culture, to reflexive ethnography, where the role and background of the researcher is included as an integral element of the ethnographic undertaking” (Crowley-Henry, 2009).

According to Bălan (2011), following are some of the famous ethnographic monographs:

- The League of the Ho-de-no-or-nee or Iroquois (1851) by L.H Morgan,
- Ethnologische Excursion in Johor (1875), by Russian naturalist Nicholas Miklouho-Maclay

- The Argonauts of the Western Pacific (1922) by Bronisław Malinowski,
- Coming of Age in Samoa (1928) by Margaret Mead,
- The Nuer (1940) by E.E. Evans-Pritchard,
- Naven (1936) by Gregory Bateson,
- Tristes Tropiques (1955) by Claude Lévi-Strauss,
- The Lele of the Kasai (1963) by Mary Douglas,
- The Forest of Symbols: Aspects of Ndembu Ritual (1967) by Victor Turner,
- The! Kung San: Men, Women and work in a Foraging Society (1979) by Richard B. Lee,
- Urarina Society, Cosmology, and History in Peruvian Amazonia (2009) by Bartholomew Dean (Bălan, 2011).

In an ethnographic study different methods are used based on the topic and aim of the research. Methods of the study are also dependent on the methodological positioning of the researcher that enables him to answer the relevant research question(s).

Some of the methods, tools and techniques that are used in ethnographic studies are:

- interview,
- observation,
- key informant,
- rapport building,
- questionnaire,
- Survey method
- focus group discussion,
- life histories,
- field diaries,
- historical method,
- genealogical method,
- participant observation.

According to Crowley-Henry (2009), “Given the variety of methods and data collection tools open to ethnographers, ethnography can be malleable to suit a particular research agenda, provided it is made clear how the researcher is using the approach in his/her particular research undertaking”. The underlying elements of ethnography are :

- the specificity of its study of a particular culture / subculture or population, and
- the use of observation in amassing field and contextual notes pertaining to that culture / sub-culture or population (Crowley-Henry, 2009).

In ethnographic work the researcher lives with or close to the people being studied and interacts with them on a day-to-day basis for a long period, usually a year or more. Fieldwork approach for a long period of time allows the researcher to observe and examine all the aspects of cultural system, specially those aspects that cannot be addressed through laboratory or survey research. In ethnographic research they gather data from insider's point of view (emic approach). Emic approach is simply the understanding of the study host(s) from their own system of meanings or perceptions. As Malinowski (1922) pointed out in this work that the goal of ethnography is "to grasp the native's point of view to realize his vision of the world" (Whitehead, 2005).

"Most anthropologists today point to Bronislaw Malinowski, author of such landmark ethnographies as *Argonauts of the Western Pacific* (first published in 1922), as a kind of founding father to ethnographic fieldwork, the practice of "participant-observation." Malinowski's early twentieth-century ethnographies were written in a voice removed and utterly unrevealing about the nature of the ethnographer and his relationship to people studied. Since Malinowski's time, the personal account of fieldwork has been hidden away in notes and diaries" (Hoey, 2013).

Ethnography also referred as a "thick description," a term coined by anthropologist Clifford Geertz in his book *The Interpretation of Cultures* (1973) to narrate this type of anthropological research and writing. A thick description explains the behavior or cultural event in question along with the context in which it occurs. Ethnographic description also interprets the cultural events in anthropological terms. Such descriptions help readers to better understand the internal logic of why people in a culture behave as they do and why the behaviors are meaningful to them. This is important because understanding the attitudes, perspectives, and motivations of cultural insiders is at the heart of anthropology (Nelson, 2018).

"Good ethnography recognizes the transformative nature of fieldwork whereas we search for answers to questions about people we may find ourselves in the stories of others. Ethnography should be acknowledged as a mutual product born of the intertwining of the lives of the ethnographer and his or her subjects" (Hoey, 2013). "Fetterman (1998) describes the ethnographer as:

...interested in understanding and describing a social and cultural scene from the emic, or insider's, perspective. The ethnographer is both storyteller and scientist; the closer the reader of an ethnography comes to understanding the native's point of view, the better the story and the better the science" (Crowley-Henry, 2009).

Whitehead (2005) describes the following attributes of ethnography:

- It is a *holistic* approach to the study of cultural systems.

- It is a study of *socio-cultural contexts, processes, and meanings* within cultural systems.
- It is a study of cultural systems from both *emic* and *etic* perspectives
- It is a process of *discovery*, making *inferences*, and *continuing inquiries* in an attempt to achieve *emic validity*.
- It is an *iterative* process of *learning episodes*.
- It is an *open-ended emergent learning process*, and not a *rigid investigator controlled experiment*.
- It is a *highly flexible* and *creative* process.
- It is an *interpretive, reflexive, and constructivist* process.
- It requires daily and continuous recording of *fieldnotes*.
- It presents the world of its host population in human context Whitehead, 2005.

Check Your Progress 2

2) What is the meaning of ethnography?

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3) What are the new fields of ethnographic research?

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10.3 EMIC AND ETIC APPROACH

A unique feature of anthropology is its emphasis on viewing another culture from the perspective of an insider. From the beginning, anthropologists have made a distinction between the emic approach and the etic approach. The terms emic and etic were coined by linguist Kenneth Pike in 1954. For the research purpose anthropologists borrowed these terms from linguistics. The emic approach (derived from the word phonemic) refers to an insider's view, which seeks to describe another culture in terms of the categories, concepts and perceptions of the people being studied (Ferraro and Andreatta, 2010).

There is a fine line between the ethnographer's insider and outsider point of view. The fundamental rule of an ethnographer is to place him in an emic perspective.

By contrast, the etic approach (derived from the word phonetic) refers to an outsider's view, in which anthropologists use their own perceptions and concepts to describe the culture under investigation. The terms 'emic' and 'etic' were not used in ethnography until the 1950s, Malinowski first defined

the emic perspective in his functional theory without using the word.

For an anthropologist an “emic” approach means to adopt a perspective “from inside” i.e. to make a description of the behaviour, customs, ideas, beliefs (conscious or not), in terms of an individual who behaves or has ideas similar to that of the subject. The anthropologist tries to put himself in his subject’s shoes, in order to understand how he conceives things. In contrast, an “etic” approach means an external description of the same behavioural or conceptual elements, “from the outside”, i.e. in objective terms, from the perspective of the researcher, and using concepts considered to be universal and culturally neutral (Bălan, 2011).

A radically emic approach was taken by a group of U.S. anthropologists (known as ethnoscientists) during the 1950s and 1960s. In an attempt to obtain a more realistic understanding of another culture, these scholars insisted on the insider approach. More recently in the school of interpretive of cultural anthropology in America has strongly supported the emic approach in anthropological research. Clifford Geertz and others who belong to the interpretive school hold that because human behaviour stems from the way people perceive and classify the world around them, the only legitimate strategy is the emic, or insider, approach to cultural description (Ferraro and Andreatta, 2010).

Romanian anthropologist Gheorghipă Geană also supported the emic approach. He writes (2008), “Emic designates facts, beliefs, attitudes, understood in the way they are real and meaningful for members of the studied culture”, while “etic designates phenomena that are identified, described and assessed independently of the position towards them of the members of the studied culture” (Bălan, 2011).

“Most often, ethnographers include both emic and etic perspectives in their research and writing. They first uncover a studied people’s understanding of what they do and why and then develop additional explanations for the behavior based on anthropological theory and analysis. Both perspectives are important, and it can be challenging to move back and forth between the two. Nevertheless, that is exactly what good ethnographers must do” (Nelson, 2018).

At the opposite end of the debate are the cultural materialists, best represented by Marvin Harris. Starting from the assumption that material conditions determine thoughts and behaviour (not the other way round), cultural materialist emphasize the viewpoint of the ethnographer, not the native informant. There is no consensus on this issue: researcher must make a decision about which approach to take when doing research (Ferraro and Andreatta, 2010). For the last six decades there has been an ongoing debate among the anthropologists regarding the suitability of the approach to the scientific study of comparative cultures.

Check Your Progress 3

4) Who coined the terms emic and etic?

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5) What is emic and etic approach in anthropology?

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10.4 COMPARATIVE AND HISTORICAL APPROACH

Anthropology is a comparative and integrated discipline. Anthropological research examines all the societies, simple and complex. Anthropological research has two purposes:

- to collect and record descriptive data about a particular society and culture. Also called ethnography.
- to do a comparative study of different cultures (cross-cultural comparison). Also called ethnology.

In comparative approach, a research anthropologist studies a culture or society at two different point of time. Recognizing that the cultural system of a people is constantly changing, anthropologist have divided studies into two parts:

- studies that describe a culture at one period in time (synchronic study).
- studies that describes the changes in culture of a people over time (diachronic study).

In the earlier sections we have discussed how anthropologists collect data on society and culture using fieldwork method and conduct ethnographic studies. However, anthropologists are not interested in merely describing particular cultural systems and the range of variability they display. They are also interested in attempting to explain why these differences exist. In other words, anthropologists are interested in making generalizations of cultural systems. And generalizations cannot be made based on the study of a single society. For this type of research anthropologists use the comparative method to study generalizations among many societies in a systematic way. Comparative method is the method of the comparison between different societies, groups or social institutions. The objective of this method is to investigate whether and why the societies under observation are similar or different in certain aspects.

Ethnology is a branch of social cultural anthropology that conducts research on comparative study of different cultures. Cross-cultural comparison refers to the method of studying cultural phenomena across cultures of the identical period. In this particular branch, a researcher collects descriptive data from different societies and then analyzes, interprets, and compares the results of ethnography. These data are used to compare and contrast and to make generalizations about society and culture.

The history of cross-cultural comparison dates back to the late 19th century when E B Tylor and LH Morgan who developed unilineal evolution theory also called cultural evolution (the idea that cultures evolved in a progressive manner, from simple to complex). In anthropology this is the first systematic ethnological theory explain diversity among peoples of the world. However, there were some serious methodological problems in this early comparative research which resulted in the abandonment of this approach. Later this approach was modified by G. P. Murdock who stated that Culture and its peculiarities cannot be adequately understood simply by studying single cultures. Cultures should be compared with one another in order to interpret the similarities and differences across various cultures.

Historical Approach

Historical approach refers to studying a phenomenon in historical sequence and hence it facilitates comparison across time. Franz Boas, “the father of American anthropology,” is the founder of historical approach. Boas pointed at the limitations of comparative method and suggested using comparisons within a small well-defined geographical area. Historical method is primarily concerned with the past and attempts to trace the past as a means of understanding the present.

History is the study of the past and nobody can negate history. Boas was of the notion that each and every culture has its own separate past and each culture is “one of a kind”— that is, different from all others. Each society and culture has its own particular set of circumstances such as geography, climate, resources and particular cultural borrowing. Because each culture was affected by almost everything that had happened to it in the past, and because different things had happened to different cultures, each culture is unique. Evans Prichard has also emphasized on the importance historical approach in anthropology. He argued that that functioning of society cannot be understood without understanding its history. Hence, if anybody wants to study the origin and development of society and culture and how its social institutions have evolved, a historical approach is the only option.

The historical method have been definitely influenced by principles of biological evolution. This method studies social institutions in the background of whole human history. History of Human Marriage written by Westermarck presents an excellent example of study in historical method. This excellent piece of work describes the gradual evolution of the institution of marriage.

In the early 20th Century American historical approach, which was a reaction to the deductive approach, began under the leadership of Franz Boas. According to Boas, anthropology was on the wrong path. He was of the view that rather than dreaming of large, all-encompassing theories to explain why particular societies are the way they are, Boas want to put the discipline on a sound inductive footing; that is, Boas planned to start by collecting specific data and then move on to develop general theories (Ferraro and Andreatta, 2010).

In this way in anthropological research deductive and inductive approach developed. The main differences between the deductive and inductive approach is given.

Deductive Approach	Inductive Approach
Research starts from a research question or hypothesis, and then involves collecting data.	Research starts without a hypothesis and involves collecting data.
Data is collected through observation, interviews, and other methods.	Data is collected through unstructured, informal observation, conversation, and other methods.
Data collect is likely to be quantitative data, or numeric information, such as : <ul style="list-style-type: none"> ● the amount of land in relation to the population ● the numbers of people with particular health problems. 	Data collected is likely to be qualitative, or non-numeric data, such as: <ul style="list-style-type: none"> ● recordings of myths and conversations ● filming of events.

Most anthropologists, combine deductive and inductive approaches and quantitative and qualitative data to varying degrees.

“In the early years, ethnographers were interested in exploring entire cultures. Taking an inductive approach, they generally were not concerned about arriving with a relatively narrow predefined research topic. Instead, the goal was to explore the people, their culture, and their homelands and what had previously been written about them. The focus of the study was allowed to emerge gradually during their time in the field. Often, this approach to ethnography resulted in rather general ethnographic descriptions. Today, anthropologists are increasingly taking a more deductive approach to ethnographic research. Rather than arriving at the field site with only general ideas about the goals of the study, they tend to select a particular problem before arriving and then let that problem guide their research” (Nelson, 2018).

Check Your Progress 4

6) What is comparative method?

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7) What is historical method?

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10.5 SUMMARY

Anthropology is a holistic and comparative study of humankind. The anthropological research approach involves both biological and socio-cultural

(bio-cultural approach) aspects of humanity. In bio-cultural research, human being are viewed as biological, social and cultural entity in relation to the environment. Anthropologists study human life in totality. Anthropology as a comparative discipline concerns with similarities and differences of human diversity in the world. Anthropologists engage in empirical research as well as laboratory analyses and archival investigations. While conducting research they use theories, models and tools and techniques. To study human society and culture, anthropologists adopt the following approaches: holistic, ethnographic, comparative and historical. Historical method is concerned with the past and attempts to trace the past as a means of understanding the present. Anthropological research has two purposes:

- to collect and record descriptive data about a particular society and culture (ethnography).
- to compare and record different cultures (ethnology).

A unique feature of anthropology is that its research emphasizes on viewing another culture from the perspective of an insider.

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10.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) The holistic approach is a method to understand humankind in terms of the dynamic interrelationships of all aspects of human existence.

Check Your Progress 2

- 2) Ethnography means a systematic detail study about particular culture or society primarily based on fieldwork.
- 3) Today for ethnographer's field could virtual site, where people interact and they can conduct ethnographic research in social networking sites.

Check Your Progress 3

- 4) Kenneth Pike in 1954.
- 5) The emic approach (derived from the word phonemic) refers to an insider's view, which seeks to describe another culture in terms of the categories, concepts and perceptions of the people being studied. By contrast, the etic approach (derived from the word phonetic) refers to the outsider view, in which anthropologists use their own categories and concepts to describe the culture under analysis.

Check Your Progress 4

- 6) Comparative method refers to the method of comparing different societies, groups or social institutions within the same society or between societies to show why they are similar or different in certain aspects.
- 7) Historical method is primarily concerned with the past and attempts to trace the past as a means of understanding the present.

UNIT 11 METHODS, TOOLS AND TECHNIQUES*

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Learning Objectives

After going through this unit, the learner will be able to:

- understand different methods, tools and techniques in anthropological research;
- differentiate between methods, tools and techniques in anthropology; and
- plan and design suitable research methods and techniques of data collection for field research.

11.0 INTRODUCTION

To understand human cultural and biological diversity, anthropologists have developed different methods, tools and techniques to carry research. In anthropological research, data is gathered with the help of various methods, tools and techniques by doing fieldwork and laboratory work. Contemporary methods, tools and techniques in anthropology are different from those used by anthropologists earlier.

To understand human cultural diversity, social anthropologists developed a method called ethnography. In ethnographic research, data collection is carried out primarily through fieldwork. In physical/biological anthropology, human evolution and human variation are the two main areas of research. To

understand this they have certain well defined procedures by which biological traits are studied. In biological anthropology, there are methods by which certain traits are observed, some traits are measured, and others are chemically tested and so on. Accordingly, different types of apparatus, instruments and chemicals are used to carry out various observations and measurements in physical anthropology.

Social/cultural anthropologists go to field and gather data for their research by using appropriate methods, tools and techniques through direct observation.

Archaeological anthropologists also use various methods, tools and techniques to study man-made artifacts that are most times buried deep in the layers of the earth.

This unit discusses different types of methods, tools and techniques in anthropological research.

11.1 METHODS OF DATA COLLECTION IN SOCIAL/CULTURAL ANTHROPOLOGY

The terms method, methodology, approaches and perspectives have many times been used without much conceptual and operational clarity. It is difficult to demarcate each of these terms.

A method is a way of conducting and implementing research, while methodology is the science and philosophy behind all research (Adams John et.al 2007). In a field-based research a researcher first needs to decide on the topic and based on the topic select appropriate methods, tools and techniques. Broadly the following are the main methods, tools and techniques for data collection in socio-cultural anthropology. They are:

observation (participant observation or non-participant observation),
case study,
genealogy,
questionnaire,
interview,
schedule.

You will learn other methods, tools and techniques in unit six and ten. Let's understand some important methods, tools and techniques in anthropology.

11.1.1 Observation as a Method

Observation is viewing a particular incident or phenomena or even interactions and interpersonal relationship between two or more people. However, this viewing to be a part of a scientific investigation needs to be systematic and contextual. For example, if you go to a community and observe a tree in the village, just to describe the tree, its location within the village is not enough. One needs to relate this tree to the activities of the community, how the people relate themselves to the tree, the significance of the tree in the lives of the community, if that is observed, recorded and reported, the tree becomes a part of the scientific observation. Observation is further divided into:

- a) Participant observation;
- b) Non-participant observation;
- c) Quasi-participant observation.

Some anthropologists also talk about direct participation observation and indirect participation observation.

Participant Observation: Participant observation owes its subsistence to Malinowski whose study among the Trobriand Islanders of Papua New Guinea set the benchmark for fieldwork in anthropology. Malinowski had stated in order to participate in the everyday activities of the community, “one has to cut oneself off from the company of other white men, and remaining in as close contact with the natives as possible, which really can only be achieved by camping right in their villages” (Malinowski, 1922: 6). This was one of the classic ways to carry out observation and, to a certain extent, it is right to state that in order to connect with the people under study one needs to live the lives of those people. However, in the twenty-first century when the very definition of field has changed from an ‘exotic’ location far away from a researcher’s homeland, camping right in the middle of the community might not be possible, if the study area is an institution like school, non-government organization, corporate space. More so, anthropologists need not be far away from their own kind, as researchers today also conduct work among their own communities to have an insider’s view. Participant observation amounts to the researcher participating in the activities of the community under study where the researcher directly involves himself or herself to be a part of the community or activity.

Non-Participant Observation: In non-participant observation the researcher observes the activities of the community under study from a distance without getting directly involved. Here the researcher is detached and does not experience the lives of the people under study. The researcher here records observations and data as an ‘outsider; viewing the activities in an objective manner, whereas, if the observer participates and gets involved both physically and emotionally, the observation becomes subjective in nature, where the observer not only records data on the basis of observation but also on their personal experiences.

Quasi-Participant Observation: In most cases the observation conducted by researchers in the field is known as quasi-participant observation as complete participation in many cases is not possible. Many a times it is not possible for the researcher to get directly involved in the field situation. For example while studying the rites de passage in a community, a researcher may closely observe the initiation rituals being performed for the boys or girls, however, the researcher cannot in person go through the initiation rites. Thus, even though there is participation, yet it is not complete.

11.1.2 Case Study Method

Herbert Spencer was the first sociologist to use case material in his ethnographic work. A case study involves an in-depth research of a particular event, incident or phenomena where a community or a group of people are directly involved or affected. Let us take the example of the Bhopal Gas Tragedy which happened in Bhopal on 3rd December, 1984. One can study the aftereffects of the tragedy in terms of either of the following:

- physical issues
- biological issues,

- psychological issues
- medico-legal issues.

In such a study, the homogeneity of the group is described in terms of its association with the tragedy and how the individuals relate to the tragedy. Human mind has a way of remembering incidents and occurrences that are relevant to its own self. Thus, case studies of different people relate directly or indirectly to the incident when they can provide information on the same context, but from different perspectives or levels of memories and understanding of the event.

A case study is a holistic method that enables us to get an all-round perspective on a single incidence or event. Some anthropologists, like Max Gluckman and Van Velson, had also devised what was known as the extended case method. This was often used for analysis of conflicts and legal disputes and cases and basically consisted of following a case or an event over a long period of time, so that one could get an insight not only into structures and norms, but also into processes of social life.

11.1.3 Genealogy Method

Genealogy helps in tracing the line of descent. It forms an integral part of anthropological fieldwork as it connects the past to the present. Genealogical studies have also unveiled the myths and beliefs associated with ancestors and ancestor worship. For example, during a genealogical study in a Karbi village, it was seen that many people in the family shared the same name. The genealogy revealed that newborn in a family could be named only after those ancestors for whom the chomangkan (ritual related to ancestor worship) ceremony had been performed. As the chomangkan ceremony required a huge amount of funds and finances, the Karbis have almost stopped performing this ritual and in the village the last chomangkan had taken place some twenty years ago, when the study was being conducted in the late nineties.

11.1.4 Tools and Techniques

In order to conduct an interview we need to have a systematic approach. Questions are formulated so that the researcher is able to acquire relevant information from the informants during an interview. Different types of interview schedules and guides are prepared as per the requirement of the research work. For a direct interview, either a structured interview schedule or unstructured interview guide is prepared by the researcher. (what is the difference between a schedule and guide?)

Interview schedule: Interview schedule is the format used by the researcher during an interview. An interview schedule can either be structured or unstructured. A structured interview schedule has a fixed format of questions that the researcher uses while conducting an interview, which is mainly used for conducting surveys, or for gathering quantitative data. Census data is normally collected using fixed structured interview schedules. In most cases such quantitative data needs to be compiled, tabulated and analyzed.

Interview guide: Unstructured interview guide is used for taking interviews where a strict format is not followed. It is mainly used for qualitative data. The interview guide helps in structuring a few basic questions regarding the topic that have relevance and need to be questioned during an interview,

which might not be in any set framework. These questions help in maintaining the flow in a conversation and also guide the interviewer to bring the conversation back to the topic whenever the informant gets too carried away and moves astray from the topic. An interview using an interview guide can be free flowing such as while gathering information for a life history or case study.

Questionnaire: When the researcher is not physically present, a questionnaire can be sent to the informant who fills up the information. A questionnaire can be used in the virtual space too, for example, a survey can be posted online on asocial networking sites that allows a respondent to fill up the same online without having to take a print out. The difference between an interview schedule and a questionnaire is this: an interview schedule is administered by the interviewer himself/herself in the field, who fills up the information in the sheet, while for a questionnaire the researcher is directly not present with the informant when she or he fills up the answers.

The sequence of questions is very important for a questionnaire. One begins with simple and forthright questions that can be easily answered followed by more difficult and reflective questions. Often one can give multiple-choice questions where one has to choose from several options. Also one needs to place what are known as test questions. To assess the reliability of answers to vital questions, one may have to frame multiple questions to get at the same information.

For a questionnaire to be administered, the key informant has to be literate enough to fill up the form, a drawback that is not there while administering an interview schedule.

Check Your Progress 1

- 1) Anthropologists use interview schedules and guides for collecting data. State wheter the following statement is true or false.

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- 2) Anthropologist fill up the questionnaire during an interview. State wheter te followig statement is true of false.

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Interview: Interviewing, according to Goode and Hatt (1981), is fundamentally a process of social interaction. In a field situation, it is not enough to observe. Observation needs to be linked to questioning of phenomena, incidents and events. There are many ways of conducting an interview as there are many types of interviews. The basic interview techniques are:

- direct interview: the researcher meets the informant and conducts a face-to-face interview.

- indirect interview: the researcher can either send the interview questions to the informant via mail/post, email or conduct a video, web or telephonic interview.

Direct interview may be either formal or informal.

In a formal interview, a researcher needs to follow certain protocols, such as the following:

- take prior appointment with the person to be interviewed,
- take consent of the informant,
- decide on a space and time for the interview.

In many cases, the length of the interview time is also pre-decided. Such interviews involve key stakeholders, like government officials or renowned persons in their field for whom time is of the essence.

However, in a field situation in a village, most interviews are informal and, at times, impromptu. When a researcher is staying with the people she or he can conduct interviews while working with the community people, helping out with some community work or even while sharing a cup of tea in the village tea stall or at someone's place. This has been called 'deep hanging out' by many anthropologists (Fontein, 2014). During fieldwork, direct interview is the norm, either formal or informal. Consent of the participants, be it verbal or non-verbal, is of essence while conducting any type of interview.

The advantages of direct interview over indirect interview is that while interviewing, it is not just what is being said that is important but how it is being said. People may say one thing or say it in a way that what they mean is different from what they speak. Also a silence or reluctance to speak is also data in its own way. Facial expressions and emotional responses are recorded along with what is actually just spoken. Thus for anthropologists, face-to-face as well as open-ended interviews are a much preferred technique than formal structured and restricted interviews. What we call open-ended interviews also allow free flow of ideas and information, that give rise to a rich depth of data that is not possible in structured formats.

11.2 METHODS IN PHYSICAL/BIOLOGICAL ANTHROPOLOGY

Different morphological traits of man are meaningfully observed in research of biological anthropology by the following research methods.

11.2.1 Anthropometry Method

The history of scientific anthropometry goes back to the time of Blumenbach (1753-1840). He is regarded as the father of physical anthropology. Anthropometry means the measurement of man, whether living or dead. It primarily consists of the measurement of the dimensions of the body. Anthropometry is divided into Somatometry and Osteometry.

Somatometry is the measurement of the living body or the cadaver including head and face. The term cephalometry is used when the measurements are of the head and face.

Osteometry is the measurement of the skeletal bones other than the skull. The term craniometry is used when the measurements are of the skull and face. Osteology deals with the study of the bones of the skeleton.

Somatometric measurements are of different kinds: linear, girth, skin fold measurement, weight measurement and so on. The instruments used for taking somatometric measurements are:

- Spreading caliper (Martin): for taking measurements where curved areas are involved, such as head and face.
- Sliding caliper (Martin): for taking measurements of the body (blunt end) and the bone (sharp end).
- Anthropometer (Martin): for taking larger linear measurements (stature).
- Rod compass (Martin): for taking longer breadth measurements.
- Head-height needle: for ascertaining the mid-sagittal plane.
- Parallelometer: for measuring head height.
- Tape: for taking girth measurements of the body and bones.
- Skin fold caliper: for measuring the thickness of skinfolds at different parts of the body.
- Weighting machine: for recording weight of the subject.

Most of the measurements are taken from one landmark to another. Sometimes the subject stands and sometimes he or she is asked to sit while taking measurements. Paired measurements are generally taken on the left side as it is less likely to be affected by other factors such as occupational deformity.

A large number of indices can be calculated in somatometry by taking into account various measurements to look at relationship between different values. Examples are cephalic index and nasal index.

Did you know?

An index expresses the relationship between two absolute measurements. It is the ratio of two measurements expressed in terms of a percentage and the value is calculated by taking the small measurement as the numerator and the larger as the denominator and multiplying it by 100.

Utility

The science of anthropometry can be utilized in the following ways:

- To compare between different populations of the world living in different regions.
- To correlate between the form and function of different parts of the human body.
- To study physical growth.
- To study trends of changes in metric morphological traits of a population.
- To predict general physique of a population.

- To estimate nutritional status through metric values.
- To provide basic information for designing footwear, garment, furniture etc. in the field of industry.

11.2.2 Somatoscopy

The systematic visual observation of physical features of the different parts of the human body is known as somatoscopy. These observations are made for precise descriptions which are mostly qualitative. Somatoscopic observations aid in identifying racial or ethnic type. Some of the important somatoscopic traits are skin color, head hair, beard and moustache, eye, forehead, supraorbital ridges, malars, lips, nose, ear, chin, angles of lower jaw and ear lobe.

Generally, most of the somatoscopic traits are visually observed. However, in case of skin color, color charts or spectrophotometer is used. Color charts are also used to observe eye color or hair color.

11.2.3 Serology

The scientific study of blood and its properties is known as serology. Blood groups are immunological characters. They are determined on the basis of antigens present in the red blood cells, which are inherited. Populations differ in the proportions of different blood groups as there is individual variation. There are at least 15 different blood group systems.

The basic law of blood grouping is an antigen-antibody reaction. A given antigen reacts only with its corresponding antibody and not with others. The reaction can be observed in the form of agglutination. Proteins which stimulate the production of antibodies are antigens. The substances present in the serum or plasma which reacts with an antigen are antibodies. Here we will discuss only the ABO and Rh system.

ABO blood group

The ABO blood group is classified on the basis of presence or absence of blood group antigens A and B on the red cells. The blood groups are classified into the following:

- A group (has antigen A),
- B group (has antigen B)
- AB group (has both antigen A and B)
- O group (has no antigen).

In the ABO system, antibodies occur in the serum since the time of birth.

- group A have anti-B antibodies in their serum,
- group B have anti-A antibodies in their serum,
- group O have both the antibodies
- group AB have no antibodies.

As regards ABO blood grouping, the basic principle is the following:

- If unknown red cells are agglutinated by anti-A serum, the cells are classified as group A,
- If unknown red cells are agglutinated by anti-B serum, the cells are classified as group B,
- If unknown red cells are agglutinated by both anti-A and anti-B sera, the cells are classified as group AB
- If unknown red cells are not agglutinated by either anti-A or anti-B serum, the cells are classified as group O.

Instruments

- Test tubes
- Pricking needles
- Capillary pipettes
- Beakers
- Centrifuge
- Reagents
- Normal saline (0.85% solution of NaCl)
- Standard anti-A and anti-B sera.

Techniques

Open slide technique:

- 1) Prick the fourth finger of the left hand with a sterilized needle and put two drops of blood on a glass slide at two points.
- 2) Place one drop of Anti-A serum in one point and one drop of Anti-B serum in the other point.
- 3) Mix the cells on each point with a clean stirrer and then gently rock the slide.
- 4) Read the results within five minutes.

Agglutination confirms positive result.

Test tube technique:

- 1) Take two glass test tubes and add 0.85% of normal saline.
- 2) Prick the fourth finger of the left hand with a sterilized needle and gently squeeze blood into the test tubes containing saline.
- 3) Centrifuge the tubes
- 4) Pipette off the clear fluid from the top leaving behind the red cells at the bottom.

- 5) Pour fresh saline into the test tubes and repeat this process thrice.
- 6) Then repeat the open slide method to see the results.

Rh blood group system

In 1940, Landsteiner and Weiner discovered the Rh factor. They injected rabbits and guinea pigs with the blood of macaca mulatto (rhesus monkey) and found that an antibody is produced. These antibodies would agglutinate the red blood cells of all rhesus monkeys. This antibody is called anti-D. Antigen D is the most commonly involved one in problems of blood transfusion and certain pregnancies. This antibody agglutinated the red cells of nearly 85% of European population. Human beings whose erythrocytes were agglutinated by this anti-serum are called Rh-positive (Rh+) and a much smaller percent whose erythrocytes did not show agglutination are classified as Rh-negative (Rh-).

30 Rh-antigens have been discovered in course of time, and a more complex genetics is known. However, for undergraduate students, only techniques using the original anti-D serum are used.

Apparatus

Same as used in ABO blood grouping

Reagents

Normal saline

Complete anti-D serum

In physical anthropology, the study of different properties of blood plays an important role. Physical anthropology makes use of every method which is capable of throwing light upon the significant likenesses and differences existing between individuals and groups of men. However, certain points must be taken into account while taking measurements. They are:

- The measurement must be clearly defined.
- The instruments for taking measurements must be of international standard.
- Right kind of instrument should be used for taking the specific measurements.
- The procedure for taking measurements, which includes the position of the subject and orientation of the bone, must be proper.

Check Your Progress 2

- 3) What is somatometry? Write down the name and utility of any two instruments used for taking somatometric measurements.

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4) Define serology. On what basis ABO blood group is classified?

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However, it is not always possible to be perfect as instrumental error, personal error, and observational error do play their part. But earnest effort must be made to eliminate these problems and get correct measurements. Similarly, different techniques are applied for conducting bio-chemical analyses, serological tests etc., and also for collection and analyses of dermatoglyphic data.

11.3 METHODS OF DATA COLLECTION IN ARCHEOLOGICAL ANTHROPOLOGY

Archaeological anthropology is the study of past cultures to understand and reconstruct them. Famous archeologist V. Gordon Childe defines it as the study of all changes in the material world that are due to human action (Childe, 1956). Material remains of early men are found in the form of artifacts. Artifacts are defined as things men have made and unmade. These include movable items, such as tools, weapons, and personal ornaments, and immovable items, such as houses, temples, palaces, and canals. The first task for an archaeological anthropologists is to classify these artifacts. The method of classification is known as taxonomy.

Taxonomy is the basic method in archaeology. It involves description and classification of findings. Generally an archaeologist deals with components of culture formed into units known as types. Types are arbitrarily ‘designed’ by the classifier for the convenience of studying the materials of the past. Types are the items which are similar to each other in form and function. Some examples of types are handaxe, cleaver, scraper, and knife. Each type has common characters.

In other words, there are two basic methods for classification and determination of types.

Classification of types done on the basis of their usefulness;

Classification of types done on the basis of occurrence in terms of time and space. The types are related to certain behavioural traits of the prehistoric men. Types are considered as norms related to behaviour that is regulated by society. Artifacts and their types are considered against the background of the occurrence in terms of time and space, also mentioned as temporal and spatial units respectively. The research methods of archaeology include three procedures:

- Site survey (exploration)
- Excavation
- Laboratory analysis.

11.3.1 Site Survey

Survey is an extensive research method in which the archaeologist observes and records ancient remains exposed on the ground surface. Usually teams of researchers systematically sweep the countryside to find each place of historic and prehistoric occupation; each find spot is called a site. The research goal of site survey is to discover and systematically record all the evidences of human landscape modification within a locality, region or culture area.

11.3.2 Excavation

Excavation is an important principle and method of archaeology. It means extraction of material by digging, layer by layer and keeping all the materials from each deposit as a separate group. The procedure is to peel off the successive strata, a conformity with their bed lines ensuring the accurate isolation of structural phases and relevant artifacts. The excavation should proceed in precisely the reverse order of deposition i.e. the last laid deposit must be removed first and the earlier ones successively until the natural soil is reached. This will give us a good idea of the earliest culture at the site and the later cultures that came up successively until the latest represented by the uppermost layers.

In excavation, the first step is, the excavator should first decide where the trench should be laid. The layout of the trench by peg marking is an important first step in the excavation. After a detailed study and observation the excavator will decide where the trench will be laid. Normally, the highest point or the most elevated part of the site would be preferable as it would give the maximum accumulation of the occupational strata from the earliest to the latest or the phases of its layers.

Different strategies and methods have to be adopted in the excavation depending upon the aim, the area, and the time available for excavation. An accurately laid out trench system is essential for precise record as all artifacts and structures found in the excavation are described according to their position within the trenches. Different types of layouts are described below:

Vertical Excavation: A popular methods of excavation, it is also called as rectangular trenching system. Wheeler calls it as “substantive trenching”. This is useful when the area of dig is small and the objective is more to know the vertical sequence of cultures than to have fuller picture of each and every phase.

Generally in this system a rectangular trench of 10x8 or 30x20 feet may be laid outlined with two parallel rows of one meter. The pegs on one side may be numbered as 0, I, II, III, IV, and so on whereas the corresponding pegs on the other side would be as 0', I', II', III', IV'. If in the course of excavation it is felt necessary to extend the trench backward from zero, the pegs of the extended sides can be marked A, B, C, D, on the side and A', B', C' D' on the other side.

The actual excavation should be done about 50 cm, inside the peg line on all sides. In fact, the actual area to be excavated should be marked with the string lines all around. Digging should not extend up to the peg line, but

should stop within the cutting line. This is done in order to keep the pegs and the peg line undisturbed throughout excavation.

Another important feature in this method is to leave a number of intermediary baulks (unexcavated strips of partitions) at regular intervals after every three meters. This helps having proper control over the digging and correlating the sections besides facilitating access to different parts of the trench for the supervisors and labourers. Recording the artifacts and other features in the excavations is done by what Wheeler calls as the three dimensional measurements. The three measurements serve to pinpoint the exact location of each object found in the trench and help recording the stratigraphic position. These measurements are recorded in three dimensions as:

- longitudinal,
- horizontal or lateral
- downward or depth.

The measurement of each object can be recorded as 1.2 x 0.50 x 2.5. The first unit represents the peg number and the other three represent the three measurements. The envelopes into which the antiquities are to be labeled in such a way that it should contain these measurements so that at any time their exact location and their stratigraphical position can be known without doubt or ambiguity. With the help of the measurement we can reconstruct the location of the objects according to the plan and the stratigraphy.

Horizontal excavation: For horizontal or area excavation, two ways of investigation or layout are followed.

- The grid system in which a series of squares of uniform size is laid out
- Stripping complete area without the aid of square divisions or baulks.

British archaeologists, such as Wheeler and Kenyon, popularized the former method. Open stripping has gained popularity in recent years, especially in the United States of America.

The grid divides the area into a series of exact squares that are parallel to the site baseline (or latitude) and to the datum line. This orientation is necessary because it enables the archaeologist to describe accurately any point on the site in relation to the south-north axis. The size of the square boxes will depend on the depth to be excavated. Normally, 5-10 meter square will be reasonable. The squares are separated by the baulks (unexcavated strips of partitions) of uniform width of 50 cm or one meter, depending on the nature of the soil.

They help the excavator in correlation of stratigraphy from the different parts of the site. Ultimately, the baulks have also to be removed if necessary, as they should never allow covering any structural features. After the grid is laid out, the peg marks are done accurately. They can be conveniently named by means of letters or on direction and by numbers in the order. This would enable to designate and mark the square individually as A1, A2, A3, A4 etc. or B1, B2, B3, B4, and so on. The peg at the junction of four squares will have four different names for its four faces (A1, A2, B1, B2).

11.3.3 Ethno-archaeological Method

In this method examples from present day are compared with pre-historic findings to establish the function, use and perhaps thought-process behind the making of similar artifacts. For example, the material culture of the present hunter-gatherer communities may throw light on the use and function of artifacts of earlier periods. It may farther be used to understand the livelihood pattern and social and spiritual aspects of prehistoric men. But one should be careful in using ethno-archaeological method, which apparently looked similar, may not be so, as some of the scholars using these methods found out.

Check Your Progress 3

- 5) What is meant by a site survey? What is the prime objective of conducting a site survey?

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- 6) What is vertical and horizontal excavation?

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11.3.4 Conservation and Preservation Method

Archaeological findings of artifacts are priceless heritage of humankind, therefore proper care is necessary for conservation of manmade objects, which are vulnerable to temperature, humidity, light, air and so on, and biological beings such as fungus, pests, and insects. So it is the primary responsibility of all culture historians and scientists to take all precautions to conserve and preserve the objects in laboratories and museums. The task of managing a museum needs knowledge on aspects such as collection, transportation, physical cleaning, chemical treatment, and display. Artifacts need to be preserved for research, education, and knowledge of the people. It is the duty of the people to take proper care and preserve the objects in an appropriate manner, so that they can survive for a longer period of time.

11.4 SUMMARY

To understand human cultural and biological diversity anthropologists have developed different methods, tools and techniques to carry research in the discipline. In this unit we have discussed various methods of data collection in social/cultural anthropology like observation, case study, genealogy, questionnaire, schedule and interview. In addition to these methods, this unit also covered methods of data collection of physical and archeological anthropology. To understand human evolution and human variation in biological anthropology, certain well-defined methods described by which

biological traits are studied. Furthermore, the unit explained various methods of data collection used by archaeological anthropologists to study the artifacts and past cultures.

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11.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) True. Refer 11.1.4
- 2) False. Refer 11.1.4

Check Your Progress 2

- 3) Refer 11.2.1
- 4) Refer 11.2.3

Check Your Progress 3

- 5) Refer 11.3.1
- 6) Please refer to Sub-section 11.3.2 on vertical and horizontal excavations.

UNIT 12 RESEARCH DESIGN*

Contents

- 12.0 Introduction
- 12.1 What is Research?
- 12.2 Types of Research Design
- 12.3 Formulation of Research Design
- 12.4 Summary
- 12.5 References
- 12.6 Answers to Check your Progress

Learning Objectives

By the end of this unit, you should be able to:

- learn how to conduct research;
- understand types of research design and steps involved in research design;
- develop a research idea and translate it into convincing plan of research;
- do thorough and efficient review of literature; and
- formulate research problem and develop effective research proposal.

12.0 INTRODUCTION

Research means a search and re-search or a reexamination into the existing situations of humans. Anthropology has come a long way from the time of armchair anthropologists; today anthropologists do research by conducting fieldwork. Armchair anthropologists did research without going to field, relying on secondary sources and data collected from missionaries, colonists, adventurers, and business travelers. Today anthropological research takes place not only in tribal and rural communities but also in urban and industrial societies. Anthropologists can be found doing fieldwork in a wide range of places.

Research begins with a question or an unsolved problem. Anthropologists systematically collect information to answer specific questions or problem. To conduct research we need to develop research design. Each research requires different investigation. The type of research depends on:

- the subject of the study,
- the skill of the investigator,
- the aims, objectives and methodology of the investigation.

Different topics need different research design.

The goal of the unit is to learn how to identify and develop anthropological research ideas and translate them into a clear and convincing plan for

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research. This unit is designed for learners who may go on to conduct field research in anthropology and related fields or who want to gain practical knowledge about research design. After going through this unit you will develop your own research idea and be able to prepare effective research proposal.

12.1 WHAT IS RESEARCH?

Most of the anthropologists conduct their research by doing fieldwork, going to the field, which is wherever people and the cultures are, to study about their culture or any problem through direct observation.

Fieldwork

The practice in which an anthropologist collect first-hand information by systematic exploring society or culture. It involves living with study people, immersing themselves in the daily life of a culture, observing the behaviour of people and testing cultural hypotheses (Ferraro and Andreatta, 2010).

Research can be interesting as it offers you a measure of control and autonomy over what you learn. It gives you an opportunity to confirm, clarify, pursue or even discover new aspects of a subject or topic you are interested in. Research can be conducted by anyone who is interested in exploring something.

Research is a process of enquiry and investigation; it is systematic, methodical and ethical; research can help solve practical problems and increase knowledge. Research involves several questions; for example,

- What is the problem?
- Why does the problem occur?
- When does the problem occur?
- Where does the problem occur?
- How can the problem be solved?

Such types of questions rise from 'curiosity', which is one of the basic qualities of every human being. When such search or enquiry is made systematically, it becomes scientific research. Scientific research helps a researcher to develop a new idea or a concept which ultimately results in discovering new laws and theories or to improve or modify the existing ones.

Scholars have defined research in many ways. Few definitions of research are discussed below:

- Systematic effort to gain new knowledge: Redman and Morry (1933).
- Systematic, controlled, empirical and critical investigation of hypothetical relations among natural phenomena: Kerlinger (1986).
- Any organized inquiry designed and carried out to provide information for solving a problem: Emory (Caliwan, 2014).

- To see what everybody else has seen, and to think what nobody else has thought: Albert Szent-Gyorgyi (1937).
- A process of steps used to collect and analyze information to increase our understanding of a topic or issue: Creswell (2008).

The above definitions reveal the following characteristics of research, such as:

- A systematic and critical investigation to a phenomenon.
- It aims at interpreting and explaining a phenomenon.
- It adopts scientific method.
- It is based on empirical evidences and observable experience.
- It develops generalizations, principles or theories.
- It directed towards finding answer to the questions and solutions to the problems.

Every research has different purposes and objectives according to the subject of the study. In general the purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find out the truth/fact which is hidden and which has not been discovered as yet.

While conducting research a researcher must have the skill and ability of how to conduct the research. He/she should select a good topic and according to the topic choose appropriate and specific tools and techniques. In research it is important to follow structural procedures and rules are known as methodology. To carry out scientific research you must follow proper methodology. Scientific research could be defined as an organised and systematic enquiry into a physical or social-cultural phenomenon to discover new or to verify the existing knowledge.

Check Your Progress 1

- 1) Give the definition of research of Emory.

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Essentials of Scientific Method

- *It is empirical:* gives importance to direct observation and collection of data through field interaction.
- *It is systematic:* It relies on carefully planned studies rather than on random observation.
- *It is replicable:* Scientific experiments or studies are replicable as the repetition of experiments in similar conditions produce similar results everywhere.

Research Methods and Techniques

- *It searches for causes:* It is based on the assumption that there exists cause and effect relationship of factors in every phenomenon.
- *Result is provisional:* Results of scientific method are open to question and debate and are subject to modification with new knowledge.
- *It is objective:* Scientific method yields unbiased facts rather than subjective beliefs and speculations.

Research in subjects like physics and chemistry are carried out by doing experiments with different chemical reactions and physical elements. To solve their research problem they conduct experiments in laboratory.

In anthropology research is conducted on biological and socio-cultural dimensions. It is both laboratory and field-based.

- Biological anthropologists carry out their research in laboratory.
- Socio-cultural anthropologists carry out research by doing fieldwork; they are well known for their work among small-scale societies.

But today anthropologists are focusing their research on all kinds of human societies. The research is done in a systematic way by using scientific method. The term systematic implies the procedure adopted to undertake an investigation through a logical sequence.

Scientific method is a system used by researcher to generate data to understand a phenomenon, and to test hypothesis or to develop new theories or to confirm or reject old theories. It involves:

- formulation of a problem,
- preparation of research design,
- observation,
- collection of data,
- classification of data,
- analysis and interpretation of data.

Human beings, by nature, are not free from bias. So in research it is very important to understand the significance of objectivity and subjectivity, particularly in anthropological research.

- Subjectivity refers to the condition in which the researcher's likes, dislikes, feelings, emotions and attitudes influence the study. The outcome of such research may not be totally valid and reliable.
- Objectivity is the unbiased condition of any scientific research. It is free from one's likes, dislikes, feelings, emotions and attitudes. Unless the study is objective, it cannot be considered scientific.

Check Your Progress 2

2) What is scientific research?

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12.2 TYPES OF RESEARCH DESIGN

While conducting research everything has to be planned well in advance. Which type of research you are going to carry out must be decided in advance. There are various types of research design. Let us discuss some of them in the following section.

Exploratory or Formulative Research Design: In this research design the main objective of the studies are aims at

- Gaining familiarity with a phenomenon
- Achieving insights into the phenomenon.

Emphasis of the studies will be on discovering new research with new ideas and insights. The studies deal with formulation of a more precise research problem or developing a hypothesis. This research design studies basically deals with exploring new ideas and facts. It is the primary and first research done on that particular problem. Exploratory research provides the first hand or new knowledge or discovers something new regarding the study or problem. In general, exploratory research is meaningful in any situation in which the researcher does not have enough understanding to proceed with the research project.

Descriptive Research Design: Descriptive research design a qualitative research, in this design, studies provide detail knowledge and description about a particular culture, group, individual or situation. Descriptive research design mainly probe into such areas where there is research gap; these studies provide detail answers to the questions of who, what, when, where, and how associated with a particular research problem. Under this design a researcher should specify the objectives with sufficient precision to ensure that the data collected are relevant. Researchers can collect both primary and secondary data for descriptive study. Hypotheses are generally formulated on the basis of existing data. It includes ethnographic study, case study, observation and surveys. For example, ethnographic study anthropology studies detail about particular culture or group. The discipline of sociology, political science and economics conduct survey research in large-scale societies or populous nations.

Diagnostic Research Design: A study which wants to determine the frequency of occurrence of an event or its association with something else is known as diagnostic study. It is concerned with an existing problem and its basic nature and cause. The aim of this study is to obtain complete and accurate information. It also deals with the detailed or in depth knowledge of each and every aspect of the problem.

Experimental Study or Hypothesis-testing Research Design : Experimental studies are mainly designed to find out the cause and effect relationships of the phenomenon under study, or the researcher tests the hypothesis of causal relationships between the variables. It is concerned with examination of the effect of independent variable on the dependent variable where the independent variable is manipulated through treatment or intervention(s) and the effect of those interventions is observed on the dependent. The experimental designs are used in researches relating to the phenomena of several disciplines. It

consists of three important characteristics such as manipulation, control, and randomization.

Cross-Sectional and Longitudinal Research Design: There are two types of designs:

- Cross-sectional study design measures different subjects only once at a particular time period to understand the process of change in a short time period. This design provides a clear snapshot of the outcome and characteristics associated with it.
- Longitudinal study design follows the same subject over time and makes repeated observations. This design describes patterns of change and establishes the direction and magnitude of causal relationships.

The anthropologists' research is not limited to a specific locality or time period; often anthropologists conduct longitudinal researches, with a long-term study of a community, region, society, culture or other unit, usually based on repeated visits (Kottak 1994:27). Such kind of research reveals important insights on the dynamic and complex factors that affect the lives of people over longer periods of time.

Check Your Progress 3

3) Write the main objective of exploratory study.

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12.3 FORMULATION OF RESEARCH DESIGN

Research design gives the details of the ways and manners of conducting the study. It involves the following various steps to formulate research design.

Choosing a Research Topic: Selection of the topic is the first step in any research. The topic of the research should be important and feasible. The title should be brief, precise and reflect the scope of the problem under research. Generally anthropologists often find a topic to research by carrying out a *literature review*, which is the formal term for reading what others have already written about the subject and assessing its strengths and gaps. There are various sources of selection of topic but the most common are:

- From personal experience
- From something someone has said
- From something you have read or heard
- From something you have studied
- From your career aspirations.

Identification of Research Problem: After accumulating all knowledge of the subject under study, state the research problem in clear and precise terms. The statement of problem should briefly contain an analysis and relevance

of the problem. This is exactly a rationale for carrying out the study. Existing literature is reviewed and gaps are brought out. Choosing a correct problem for study is a difficult exercise, as it depends on the time, effort and commitment on the part of the scholar. The type of the statement to be employed depends on the preferences of the scholar and the nature of the problem. The problem may also be formatted in the form of making a few statements and posing questions. Basically research problem originates from the following three sources such as:

- contemporary interest
- own interest
- gaps in the field.

Significance of the Study: In this section, state the purpose of the study and explain its significance. The significance is addressed by discussing how the study adds to the theoretical body of knowledge in the field of the study. Learners also must explain how their research makes an original contribution to the body of knowledge in their discipline.

Review of Literature: In research the literature review is a major component. The researcher should be acquainted with all available literature related to the problem. Review of literature is an analysis of relevant past publications that help set the context for and define the research topic. Ascertain whether the same topic has been investigated before, and if so, how and to what extent. Do a critical appraisal of all previous studies and ascertain the gaps, if any.

The source for literature review has been libraries and documentation centers where books and various references are found in card catalogued manner. Nowadays, libraries have become computerised and most of resources are made available online. Today one can easily access the resources on internet and searching literature has become very easy. Literature review is necessitated by the fact that a researcher is probably not the first person to develop an interest in a particular problem; and hence, he or she need to spend some time in the library reviewing what theories and methods others have used to the topic in the past and what findings are there (Macionis, 1997). According to Marshal and Rossman (1989: 35), review of literature has the following four purposes:

- It demonstrates the underlying assumptions behind the general research question.
- It demonstrates that the researcher is thoroughly knowledgeable about related research and the intellectual traditions that surround and support the study.
- It shows that the researcher has identified some gaps in previous research and that the proposed study will fill a demonstrated need.
- It refines and redefines the research questions and related tentative hypotheses by embedding those questions in larger empirical traditions.

Check Your Progress 4

4) What are the sources for selection of a research topic?

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Scope of Research: Delimit the scope of study depending upon the time, money available, the size of the sample, and the ability to collect information. Some of required information may not be available to researcher which may affect the scope of the study. Then the researcher should state the scope of investigation in explicit terms and provide the limitations of study.

Objectives of the Study: Stated clearly the objectives of the study within the scope of research and in the form of statement. State your intention for carrying out this research in the objectives of a research. Usually a research contains four to five objectives depending on the research topic. These objectives can be given in a serial and articulate form, pinpointing your approach. For example you want to study the problem of divorce in the urban area. You may like to study the reasons for increase in the rise of the divorce rate among the various socio-economic class of people. Such objectives, thus, will provide the scope of the study. The objectives need to be manageable in number, clear, and inter related.

Concepts and Variables: Provide clearly the conceptual and operational definitions of the concepts and variables used in the research.

Formulation of Hypothesis: Once the selection, formulation and definition of the problem have been accomplished, the derivation of hypotheses is the most important step in the research process. Hypothesis is an unsure guess or solution to a problem. Or hypothesis is the probable answer to the problem you have undertaken, and the research tests the hypothesis. It should be clear, specific and capable of empirical test. It should be related to a body of theory and available technique. But not all studies involve testing of the hypothesis (mostly experiment based study have hypothesis). Hypothesis will help the researcher in delimiting the scope of the study. However, many of the anthropological researches are more of exploratory in nature.

Selection of the Sample: Sampling is a process of selecting samples from a group or population. These samples become the foundation for estimating and predicting the outcome of the population as well as for detecting the unknown piece of information. A sample is the sub-unit of the population involved in your research work. In this section, the researcher should mention the definition, size, representatives of the sample population in the design. If your study is based on a sample, you will have to choose a sample from the universe. Sampling can be done in many ways such as random sampling and cluster sampling.

Methods of Data Collection: In the field, anthropologists collect both quantitative and qualitative data.

- Quantitative data: Numeric information, such as household census, or the amount of land in relation to the population or the numbers of

people with particular health problems and biological data for growth, blood groups.

- Qualitative data: Nonnumeric information, such as descriptive data on culture, traditions, beliefs, customs, attitudes, recordings of myths and conversations and filming of events.

Decide upon the methods of data collection and spell out clearly, explaining their necessity and relevance. Anthropological research anthropologists use different methods, tool, and techniques for data collection.

Data Analysis and Interpretation: In anthropology during the research process anthropologists gather a vast amount data in many forms. Once the data collection is over, the process of data analysis and interpretation begins. Depending on the nature of data collected, mention in the design how the data is going to be subjected to analysis – qualitative or quantitative. Analysis is the process of isolating the constituent parts of a configuration; collected data is sorted out from the field notes and arranged in a systematic way. What information must be put first, what information to be put next, and what information must be put finally will be judged by the investigator. The data thus arranged becomes a meaningful totality. This totality is the configuration. Each part this configuration may usually appear as a chapter in the write-up or report prepared by the researcher. Each part deals with a specific aspect of the problem. If the total picture gained after going through the report is considered as a configuration, what has been gained by going through every chapter is a constituent part of the configuration. To put it in another way, the researcher isolates the constituent part of the totality and presents them in a meaningful manner. It is a very important step and should be carried out properly. Data analysis needs thorough concentration as you need to make proper notes, assign codes and transfer the raw data into a sheet on which various statistical techniques can be applied. The information obtained through personal notes, interviews and case studies can also be utilized in providing supporting evidence in the report. This is what is meant by analysis. Various ways of analyzing data are used both in qualitative and quantitative methods (Henslin and Nelson, 1995). To analyse the quantitative data researchers use sophisticated statistical techniques using computer models. In analyzing the qualitative data, the anthropologist must distinguish between his own views and the views of the people being studied (Scupin and DeCorse, 1995). There are many possible analytic schemes and some computer models for analyzing qualitative data are also available.

In the research design how the results of the investigation are going to be interpreted may be mentioned. Once the data have been analysed, you can proceed to the stage of interpreting the results. The process of interpreting is essentially one of stating what the results show. It is not a routine and mechanical process, but calls for a careful, logical and critical examination of the results obtained after analysis, keeping in view the limitations of the sample chosen, the tools selected and used in the study. There is always an element of subjectivity, which should be reduced to the minimum by the researcher while interpreting the results. In the light of interpretations of the results, you have to use all care and caution in formulating your conclusions and generalisations. These final step in the research work demand critical and logical thinking in summarising the findings of the study and comparing them with the objectives and hypothesis

formulated (if any) in the beginning. The generalisations drawn on the basis of research findings should be in agreement with facts and should not conflict with the known laws of nature.

Check Your Progress 5

5) Define sampling.

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Chapterisation: The chapter scheme of the report should be outlined and the purpose of each chapter is to be stated. Chapter plan or chapterisation will give a tentative plan for writing the report. This exercise will help you in completing your dissertation smoothly and in a systematic way. The length of the each chapter should be more or less the same.

Time budget: The time period required for each stage of work and the total duration of study are to be specified in the design.

References: In research reference are very important. You must take care to cite all the sources of information that is not from your first-hand research. Whatever material is important and relevant enough to be considered at all, should be incorporated in the body of the dissertation, needless to say that anything unimportant is to be ignored. Here, the researcher should mention the possible secondary sources that may be consulted or relied upon stream lining and strengthening the research. It should contain the name of the author, year of publication, title of the book/journal, volume number, and place of publication. It is very important to only list those references that are actually cited in the project report and not the ones which you consulted but did not cite. Author's name must be included in every reference, even if there are multiple publications by the same author or authors. The list of references must be in alphabetical order of the authors name and multiple sources by the same author or authors should be arranged chronologically. More than one publications by the same author in the same year must be designated a, b, etc. in the order they are encountered in the text and listed in the references in the same order.

Report Writing

Your writing should be clear and logically consistent. While writing a research report, whether it is a thesis, monograph, or a journal, article, utmost care is to be taken. The writing process often takes more time than most people think. So, do not leave the writing up until the last few weeks before submission deadline; instead start writing as soon as possible. It is not necessary to start writing from chapter one. You can begin writing in the middle of a chapter somewhere other than word one. Start where your evidence is strongest and your ideas are clear. Prepare an outline of what each chapter of your dissertation will include. This will assist you to plan and organize the writing process. It will also enable you to estimate how long each chapter will take to write, what areas need more work, which information needs to go where.

Break up large amounts of text with headings and subheadings. The more signposts the reader is given, the easier the dissertation will be to navigate and understand. The content of the research report differ according to the type of research. The presentation of the project should be logical and concise making use of simple common words and sentence structure. The language should be formal and straightforward avoiding colloquialism or slang. The personal pronouns I, we, you, my, our and us should not be used. Their use should be avoided by the use of such expression as ‘the researcher’ or ‘the investigator’.

12.4 SUMMARY

In any discipline research implies a search and re-search or a re-examination into the existing situations of humans. A Scientific Research could be defined as an organised and systematic enquiry into a phenomenon to discover new or to verify the existing knowledge. Anthropology as a science employs the scientific method that involves systematic collection and analysis of data to test hypotheses. Anthropologists employ a variety of methods, tools and techniques for data collection. The purpose of research is to discover answers to questions through the application of scientific procedures. Research design is the overall strategy for conducting the research. Research design has been classified into different types based on the type of research as well as the research problem:

- exploratory,
- descriptive,
- diagnostic,
- cross-sectional
- longitudinal,
- experimental

Research design gives the details of the ways and manners of conducting the study. It involves the various steps to formulate research design that from choosing a topic to writing report.

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12.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Emory defines research as “any organized inquiry designed and carried out to provide information for solving a problem”.

Check Your Progress 2

- 2) Scientific Research could be defined as an organised and systematic enquiry into a (physical or social-cultural) phenomenon to discover new or to verify the existing knowledge.

Check Your Progress 3

- 3) The main objectives of exploratory study are to gain familiarity with a phenomenon and to achieve insights into the phenomenon.

Check Your Progress 4

- 4) There are various sources selecting topics but the most common are:
 - From literature review
 - From personal experience
 - From something someone has said
 - From something you have read or heard
 - From something you have studied.

Check Your Progress 5

- 5) Sampling is a process of selecting samples from a group or population which become the foundation for estimating and predicting the outcome of the population as well as to detect the unknown piece of information.

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