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UNIT 10 APPROACHES OF ANTHROPOLOGICAL RESEARCH*

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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.

- 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

Approaches of Anthropological Research

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?

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 (Bālan, 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. (Bãlan, 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. (Bãlan, 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 Bālan (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 Bronis³aw 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 (Bãlan, 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.

Approaches of Anthropological Research

- 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?	
3)	What are the new fields of ethnographic research?	

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 (Bãlan, 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 Gheorghipā Geanā 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" (Bālan, 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

)	Who coined the terms emic and etic?

5)	What is emic and etic approach in anthropology?	Approaches of Anthropological Research

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 Westermark 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.

Approaches of Anthropological Research

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 :	Data collected is likely to be qualitative, or non-numericdata, such as:	
• the amount of land in relation to the population	 recordings of myths and conversations 	
• the numbers of people with particular health problems.	• 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

What is comparative method?
What is historical method?

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.

10.6 REFERENCES

Adams, J., Khan, H. T., Raeside, R., & White, D. I. (2007). *Research Methods for Graduate Business and Social Science Students*. India: SAGE publications.

Bãlan, S. (2011). Ethnographic Method in Anthropological Research. Romania: Pro Universitaria Publishing.

Crowley-Henry, M. (2009). Ethnography: Visions & Versions. In J. Hogan, P. Dolan & P. Donnelly (Eds.), *Approaches to Qualitative Research: Theory & its Practical Application* (pp.37-63). Ireland: Oak Tree Press.

Fetterman, D. M. (1998). *Ethnography: Step-by-step (Applied Social Research Methods)*. Stanford University CA: Sage Publications.

Ferraro, G., & Andreatta, S. (2010). *Cultural Anthropology: An Applied Perspective*. Canada: Nelson Education. Retrieved from: https://epdf.tips/queue/cultural-anthropology-an-applied-perspective.html

Geertz, C. (1973). The Interpretation of Cultures. London: Fontana Press.

Hoey, B. A. (2013, November 02). What is Ethnography? [Blog post]. Retrieved from: http://www.brianhoey.com/General%20Site/general_defnethnography.htm

Hogan, J., Dolan, P. and Donnelly, P.F. (eds) (2009) *Approaches to Qualitative Research: Theory and Its Practical Application*. Cork: Oak tree press.

Malinowski, B. (1922). Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea. London: Routledge & Kegan Paul LTD.

Mason, J. (2017). Qualitative Researching. London: Sage.

Nelson, K. (2018) Doing Fieldwork: Methods in Cultural Anthropology. In N. Brown, L. Tubelle & T. McIlwraith (Eds.), *Perspectives: An Open Invitation to Cultural Anthropology*. Arlington: American Anthropological Association. Accessed on January 14, 2019. Retrieved from: https://courses.lumenlearning.com/suny-culturalanthropology/chapter/fieldwork/

Whitehead, T. L. (2005). Basic Classical Ethnographic Research Methods. Maryland: Ethnographically Informed Community and Cultural Assessment Research Systems Working Paper Series.

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*

Contents

- 11.0 Introduction
- 11.1 Methods of Data Collection in Social/Cultural Anthropology
 - 11.1.1 Observation as a Method
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 - 11.1.4 Tools and Techniques
- 11.2 Methods of Data Collection in Physical/Biological Anthropology
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 - 11.2.3 Serology
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 - 11.3.1 Site Survey
 - 11.3.2 Excavation
 - 11.3.3 Ethno-archaeological Method
 - 11.3.4 Conservation and Preservation Method
- 11.4 Summary
- 11.5 References
- 11.6 Answers to Check Your Progress

Learning Objectives

After going through this unit, the learner will 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

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Methods, Tools and Techniques

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) Ouasi-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

l)	Anthropologists use interview schedules and guides for collecting data State wheter the following statement is true or false.
	Z LINIVEDOIT
2)	Anthropologist fill up the questionnaire during an interview. State wheter the following statement is true of false.

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.

Methods, Tools and Techniques

 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 afield 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 is 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.

Osteometryis 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 Aand 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-Aantibodies 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.

Research	Methods	and
Technique	es	

4)	Define serology. On what basis ABO blood group is classified?

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 occurrencein 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 $1.2 \times 0.50 \times 2.5$. The first unit represents the peg number and the other three represent the three measurements. The envelops 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 it's for 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 conducing a site survey?
6)	What is vertical and horizontal excavation?

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.

11.5 REFERENCES

Adams, J., Khan, H. T., Raeside, R., & White, D. I. (2007). *Research Methods for Graduate Business and Social Science Students. India*: SAGE publications.

Childe, V. G. (1956). Piecing Together the Past. *The Interpretation of Archaeological Data*. London: Routledge & Kegan Paul.

Fontein, J. (2014). Doing Research: Feldwork Practicalities. *In N. Konopinski, Doing Anthropological Research* (pp. 70-90). London and New York: Routledge.

Goode, William. J. & Hatt, P. K.(1981). *Methods in Social Research*. Tokyo: McGraw-Hill International Book Company.

Greene, K.(2003). Archaeology: An Introduction. Routledge Taylor and Francis e-library.Routledge.

Kothari, C. R. (2009). Research Methodology. New Delhi: New Age International Publishers.

Langness, L. L. (1965). *The Life History in Anthropological Science*. New York: Holt, Rinehart and Winston.

Malinowski, B. (1922). Argonauts of the Western Pacific: An account of native enterprise and adventure in the Archipelagoes of Melanesian New Guinea. London: Routledge and Kegan Paul.

Montagu, M. A. (2010). *An Introduction to Physical Anthropology*. Delhi: Surjeet Publications.

Mukherji, D., Mukherjee, D. & Bharati, P. (2009). *Laboratory Manual for Biological Anthropology*. New Delhi: Asian Books Private Limited.

Young, P. V., (1996). *Scientific Social Surveys and Research*. Delhi: Prentice Hall of India.

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 through 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 anthropologistsdo 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 anunsolved 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).

Research Design

- 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 toincrease 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 thepurpose 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

)	Give the definition of research of Emory.

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 randomobservation.
- *It is replicable:* Scientific experiments or studies are replicable as the repetition of experiments in similar conditions produce similar results everywhere.

- *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 debateand are subject to modification with new knowledge.
- *It is objective:* Scientific method yields unbiased facts rather than subjective beliefsand 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
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2)	What is scientific research?

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 ordeveloping 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 ornew 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: Descrptive 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 howassociated 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 anexisting 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 wherethe 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 asmanipulation, 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 tounderstand 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 follow the same subject over time and makes repeated observations. This design describes patterns of change and establish the direction and magnitude of causal relationships.

The anthropologists' research is not limited to a specific locality or time period; often anthropologists conductlongitudinal researches, with a long-term study of a community, region, society, culture or other unit, usually based on repeated visits (Kotttak 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

)	Write the main objective of exploratory study.

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 understudy, state the research problem in clear and precise terms. The statement of problem should briefly contain an analysis and relevance

Research Design

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 sametopic has been investigated before, and if so, how and to what extent. Do a critical appraisal of all previous studies and ascertained the gaps, if any.

The source for literature review has been libraries and documentation centers where booksand 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

what are	the sources	for selection	of a research	topic?
			•••••	•••••

Scope of Research: Delimit the scope of study dependingupon the time, money available, the size of the sample, and the ability to collectinformation. 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 thescope 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 n 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 problemOrhypothesis is the probable answer to the problem you have undertaken, and the research teststhe hypothesis. It should be clear, specific and capable of empirical test. It should be related to abody 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 moreof 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

Research Design

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 sortedout 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 theinvestigator. 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 finals 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.

Chapterisation: The chapter scheme of the report should be outlined and thepurpose 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 beignored. 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.

Research Design

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.

12.5 REFERENCES

Albert Szent-Gyorgyi, quotes (1937) Nobel Prize for Medicine.

Caliwan, E. S. (2014). *Caliwan's Notes in Sociology*. Accessed on: January 14, 2019. Retrieved from: https://www.academia.edu/7824041/Caliwan_Notes_in_Sociology.

Creswell, J. W. (2008). Planning, Conducting, and Evaluating Quantitative and qualitative research: Educational research.(3rd edition).New Jersey: Pearson.

Ferraro, G., & Andreatta, S. (2010). *Cultural Anthropology: An Applied Perspective*. Wadswoth: Cengage learning.

Henslin, J. M. & Nelson, A. (1995). *Sociology: A Down to Earth Approach*. Canadian Edition. Ontario: Allyn and Bacon Canada.

Kerlinger, F. N. (1986). *Foundation of Behavioural Research* (3rd Edition). Orland, FL: Harcourt Brace & Company.

Kottak, C. P. (1994). *Anthropology: The Exploration of Human Diversity*. New York: McGraw-Hill.

Kumar, A. K. (2012) Fieldwork and Dissertation (MANP-001) Fieldwork Manual, New Delhi, Indira Gandhi National Open University.

Macionis, J. J. (1997). *Sociology. Sixth Canadian Edition*. Upper Saddle River, New Jersey: Prentice Hall.

Marshall, C., &Rossman, G. B. (1989). *Designing Qualitative Research*. London: Sage publications.

Redman, L. V., & Mory, A. V. H. (1933). The Romance of Research. USA: The Williams & Wilkins Company.

Scupin, R., & DeCorse, C. R. (1995). *Anthropology: A Global Perspective*. New Jersey: Prentice-Hall.

http://www.scert.kerala.gov.in/images/2015/Plustwo/antrapology%20final.pdf date12/12/2018

http://www.universityofcalicut.info/SDE/Social_Research_Methods_on25Feb2016.pdf date 01/12/18

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.

SUGGESTED READINGS

BLOCK I: Understanding Anthropology

Boaz, N. T. and Almquist A.J. 1999. Essentials of Biological Anthropology, New Jersey, Prentice Hall.

Crapo, Richley 2002. Cultural Anthropology. Understanding Ourselves and Others, New York: MaCraw-Hill.

Gary Ferraro and Susan Andreatta 2018. Cultural Anthropology: An Applied Perspective, Eleventh Edition, Cengage Learning. USA.

William A. Haviland, Harald E. L. Prins, Dana Walrath, and Bunny Mc Bride 2007. The Essence of Anthropology, Thomson Wadsworth, Belmont, USA.

Kottak, Conrad P. 1994. Anthropology. The Exploration of Human Diversity, 9th ed. Boston: McGraw-Hill

BLOCK II: Origin and Development of Anthropology

Henrika Kuklick 2008 (ed). A New History of Anthropology, Oxford: Blackwell Publishing Ltd.

Malinowski, Bronislaw 1944. The Scientific Theory of Culture. Oxford: Oxford University Press.

Radcliffe-Brown, A. R. 1964. The Andaman Islanders. New York: The Free Press

Penniman, T. K. 1965. A Hundred Years of Anthropology. London: Gerald Duckworth.

Hodgen, Margaret T. 1964. Early Anthropology in the Sixteenth and Seventeenth Centuries. Philadelphia: University of Pennsylvania Press.

Madan, T. N. and Gopala Sarana (ed) 1962. Indian Anthropology: Essays in Memory of D. N. Majumdar. Bombay: Asia Publishing House.

Vidyarthi, L. P. 1978. Rise of Anthropology in India, Delhi: Concept Publishing Company.

BLOCK III: Major Fields of Anthropology

Davies, W. M. 2006. Introducing Anthropology 3rd Edition, Totem Books.

Greene, K. and Moore, T. 2010. Archaeology – An Introduction. 5th Edition Routledge.

Mair, Lucy. 1965. An Introduction to Social Anthropology. New Delhi: Oxford University Press.

Stanford, Craig, Allen, John S., and Antón, Susan C. 2010. Exploring Biological Anthropology: Hall: Boston. The Essentials (EBA). 2nd edition. Prentice.

BLOCK IV: Research Methods and Techniques

Bernard, Russell H. 1995. Research Methods in Anthropology: Qualitative and Quantitative Approaches. Walnut Creek, Altamira Press.

Brewer, J. D. 2000. Ethnography. Buckingham and Philadelphia: Open University Press.

Creswell, J. W. 2009. Research Design: Qualitative, Quantitative and Mixed Methods Approaches. California: Sage Publications.

Dancy, W. S. 1985. Archaeological Field Methods: An Introduction. New Delhi: Surject Publications

Firth, Raymond 1985. Power and Knowledge: Anthropological and Sociological Approaches. Edinburgh: Scottish Academic Press.

Kothari, C. R. 2004. Research Methodology: Methods and Techniques. New Delhi. New Age International Publishers.

Okely, J. 2011. *Anthropological Practice: Fieldwork and the Ethnographic Method.* Berg Publishers.

Srivastava, V. K. (ed) 2004. Methodology and Fieldwork, New Delhi, Oxford University Press.

Somekh, B. and C. Lewin. 2005. Research Methods in Social Sciences. London: Sage Publications.

Pelto, pertti J. and Gretel H. Pelto 1978. Anthropological Research: The Stucture of Inquiry. Cambridge: Cambridge University Press.

Watson, C. W. 1999. Being There: Fieldwork in Anthropology (Anthropology, Culture and Society) Pluto Press.

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