

Higher Secondary Course

ANTHROPOLOGY

CLASS - XI



Government of Kerala

DEPARTMENT OF EDUCATION

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Kerala

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THE NATIONAL ANTHEM

Jana-gana-mana adhinayaka, jaya he
Bharatha-bhagya-vidhata.
Punjab-Sindh-Gujarat-Maratha
Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
Uchchala-Jaladhi-taranga
Tava subha name jage,
Tava subha asisa mage,
Gahe tava jaya gatha.
Jana-gana-mangala-dayaka jaya he
Bharatha-bhagya-vidhata.
Jaya he, jaya he, jaya he,
Jaya jaya jaya, jaya he!

PLEDGE

India is my country. All Indians are my brothers and sisters.

I love my country, and I am proud of its rich and varied heritage. I shall always strive to be worthy of it.

I shall give my parents, teachers and all elders respect, and treat everyone with courtesy.

To my country and my people, I pledge my devotion. In their well-being and prosperity alone lies my happiness.

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Dear learners,

It is with immense pleasure and pride that the State Council of Educational Research and Training (SCERT), Kerala brings forth its first textbook in Anthropology for higher secondary students. We have been trying to setup a well structured syllabus and textbook for Anthropology since the introduction of the course at the higher secondary level. Though we could frame a syllabus, we could not develop a textbook for Anthropology all these years. This textbook in Anthropology is a fulfilment of a long - cherished dream of the teachers and learners of the subject at the higher secondary level.

Anthropology is a relatively recent discipline. It is a growing science which aims to make a difference in the world by dealing with humans in all places and at all times. It is generally considered as "the most scientific of the Humanities, the most humanist of Sciences". Anthropology is in search of humans and it documents human life through field work. Hence, every part of the world that has ever had human population is the field - the laboratory - of anthropologists. It teaches a great lesson to the humanity that, in a multicultural setting, the life style of other people that appear offensive to us may be their adaptations to a particular environment. Thus anthropology helps people to be more tolerant by taking a culturally relativistic viewpoint rather than an ethnocentric outlook.

This textbook is the combined effort of a team of practising teachers and experts in Anthropology in and outside the state of Kerala. We thank them all. It is hoped that the teachers who handle the classes and the students who learn the subject will make maximum use of the inputs offered in the book.

Wish you all success.

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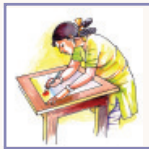
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Check your progress



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INTRODUCING ANTHROPOLOGY

UNIT

1

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Introduction

ON THE WAY TO PRETORIA



Fig. 1. 1 Mohandas Karamchand Gandhi

“The train reached Maritzburg, the capital of Natal, at about 9 p. m. Beddings used to be provided at this station. A railway servant came and asked me if I wanted one. ‘No’, said I, ‘I have one with me’. He went away. But a passenger came next, and looked me up and down. He saw that I was a ‘coloured’ man. This disturbed him. Out he went and came in again with one or two officials. They all kept quiet, when another official came to me and said, ‘Come along, you must go to the van compartment’.”

'But I have a first class ticket', said I.

'That doesn't matter', rejoined the other. 'I tell you, you must go to the van compartment'.

'I tell you, I was permitted to travel in this compartment at Durban, and I insist on going on in it'.

'No, you won't', said the official. 'You must leave this compartment, or else I shall have to call a police constable to push you out'.

'Yes, you may. I refuse to get out voluntarily'.

The constable came. He took me by the hand and pushed me out. My luggage was also taken out. I refused to go to the other compartment and the train steamed away. I went and sat in the waiting room, keeping my hand-bag with me, and leaving the other luggage where it was. The railway authorities had taken charge of it.

It was winter, and winter in the higher regions of South Africa is severely cold. Maritzburg being at a high altitude, the cold was extremely bitter. My over-coat was in my luggage, but I did not dare to ask for it lest I should be insulted again, so I sat and shivered. There was no light in the room. A passenger came in at about midnight and possibly wanted to talk to me. But I was in no mood to talk.

I began to think of my duty. Should I fight for my rights, or go back to India, or should I go on to Pretoria without minding the insults and return to India after finishing the case? It would be cowardice to run back to India without fulfilling my obligation. The hardship to which I was subjected was superficial—only a symptom of the deep disease of colour prejudice. I should try, if possible, to root out the disease and suffer hardships in the process. Redress for wrongs I should seek only to the extent that would be necessary for the removal of the colour prejudice.

So I decided to take the next available train to Pretoria”.

(From Gandhiji's Autobiography)

This was one of the bitter experiences that Mahatma Gandhi had in South Africa. In this case, he explains the gravity of colour difference that led to discrimination. In the Indian context, the practice of untouchability was the worst form of discrimination that was

prevailing for centuries. In both these cases, the basis of discrimination is the difference between two categories of people, one on the basis of colour and the other on the basis of caste. In human life, there could be a number of differences in various spheres of life, some deep rooted and others merely out of habitual formation. Not all differences may lead to such behavioural responses and reactions. It is the differences that bring about diversity in human society. We all encounter a number of differences in our day-to-day life. Most often, people are not ready to accept and appreciate human diversity. We experience diversity in every sphere of human life. There are significant variations in various aspects of human life across nations and cultures.

Have you experienced or encountered any kind of difference or variation at any time in your life?



Fig. 1. 2 Diversity in food, shelter and clothing

How did you react or respond to such variations?

Beals and Hoijer (1971) cite a few examples of such variations in their book ‘Introduction to Anthropology’.

- Eskimos of the Arctic live almost exclusively upon meat and fish.
- Mexican Indians depend on cereals and vegetables.
- Milk and its products is a luxury among the Bayganda of East Africa but for the people of West Africa it is least regarded.
- Fish is the main food of many Amerindian tribes but the Navajo and Apaches of New Mexico and Arizona consider it unfit for human consumption.
- Meat of dog is considered to be very delicious for Mexican Indians.

There are variations even in the combination of food.

- Orthodox Jews do not combine meat and dairy products.
- Eskimos do not combine sea food and meat obtained from land.
- Variations are there in the process of eating – table manners or etiquette.

Similarly, variations could be observed in dress and ornaments.

- Some Australian and Andaman Tribes go about naked.
- Others like the Bayanda of East Asia are fully clothed from neck to ankle.

It is evident that diversity exists among humans in terms of physical appearances, cultural practices, languages and life styles. In fact, such diversity adds to the beauty to our society and culture. ***Anthropology as a discipline upholds human diversity, as it is a reality which need to be appreciated and accepted.*** Anthropology enquires into the



"Difference is of the essence of humanity. Difference is an accident of birth and it should therefore never be the source of hatred or conflict. The answer to difference is to respect it. Therein lies the most fundamental principle of peace: respect for diversity".

John Hume (*Irish Politician, 1998 Nobel Peace Prize Winner, 1999 Defender of Democracy Award, 2001 Gandhi Peace Prize; b. 1937*)



We may have different religions, different languages, different coloured skin, but we all belong to one human race".

Kofi Annan (*Ghanian Diplomat, 7th UN Secretary-General, 2001 Nobel Peace Prize Winner; b. 1938*)

diversities with a curious mind. It underlines the fact that diversity is cultural, while biologically, we belong to one species.

Anthropology, is interested in studying the biological and cultural uniqueness and variations of the most intelligent species on the earth - Homo sapiens sapiens. Anthropology, as a distinct discipline with bio-social nature provides one with an opportunity to explore human

nature and culture from a holistic and integrated perspective. In this unit, we will examine the nature and feature of anthropology by understanding its meaning, definition, scope and relevance along with its origin and development.

The word **anthropology** was first coined by Aristotle, the Greek Philosopher



I. Meaning and Nature of Anthropology

You may have studied about the different aspects of human life in your earlier classes. The biological origin, evolution and variations were studied in Biology. Cultural variations in terms of food habits, belief systems, dress patterns, political systems, etc. were discussed in different Social Science subjects. But a meaningful understanding of human beings requires an analysis of both biological and social peculiarities in an integrated way. Anthropology looks at these aspects with a unique and holistic perspective. Knowledge of the meaning and definition of anthropology will help you to identify how anthropology differs from other related subjects and disciplines.

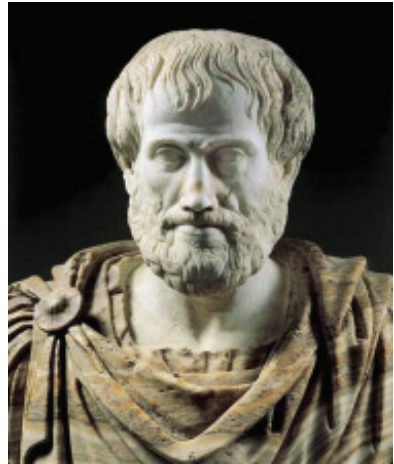


Fig. 1.3 Aristotle

Etymology and Definitions of Anthropology

Etymological meaning of different subjects is given in the box. It shows that all these subjects derive their names by combining two Greek words. Each of these words has a particular meaning and the combination of these words renders appropriate meaning to the subject. Etymologically, the word ‘Anthropology’ is derived from two Greek words

Etymological meaning of some subjects

Psychology - *psycho* + *logos*

Sociology - *socious* + *logos*

Ecology - *oikos* + *logos*

Geology - *geo* + *logos*

Anthropology – *anthropos* + *logos*

‘*anthropos*’ means 'human' and ‘*logos*’ means 'study' or 'science'. Thus, anthropology can be understood as the study or science of human beings.

Examine some of the popular definitions given by the renowned anthropologists: “Anthropology is the science of man” -

A L Kroeber

“Anthropology is the study of man and his works” - **Melville J Herskovits**

“Out of all the sciences which study various aspects of man, anthropology is the one which comes nearest to the total study of man” – **Clyde Kluckhohn**

Also examine the following definition:

“Anthropology is the scientific study of the physical, social and cultural development and behaviour of human being since their appearance on earth” - **M Jacob and B T Stern**

Anthropology is different from other subjects in many respects. Understanding the following features of anthropology will help you to realise its uniqueness.

Analyse the above definitions and identify how anthropology differs from other subjects in its study of human beings. Prepare a note on it.



Is Anthropology a social science, as it studies the social life of human beings?



Bio-Social Nature of Anthropology



Is Anthropology a biological science as it studies the biological aspects of human beings?

In the definition given by Herskovits, the term '*man*' implies human as a 'biological organism' and '*works*' stands for 'culture'. Anthropology studies organic or biological factors as well as social/cultural factors of human beings. Both the factors are equally important and relevant since anthropology studies the biological factors like human origin, evolution and variation as well as social-cultural factors like society, culture etc. As it accepts and uses the general principles of Biological and Social Science, it is considered as a **bio-social science**. It is said that anthropology is the most humanistic among the sciences and the most scientific among the humanities.

Comparative, Integrative and Holistic Nature: Anthropology is more than a bio-social science. It has many other peculiarities. Examining the contents of shown in the box, it becomes clear that different subjects deal with any one particular aspect of human being. But, anthropology, on the other hand considers human life in totality.

Biology focuses on the genetics, anatomical and physiological aspects of organisms.

Psychology focuses primarily on mental (cognitive) behaviour of humans.

Economics examines the production, distribution and management of material resources.

History presents a description of past events.

Political Science deals with political life of human beings.

Most often, people think that anthropologists study fossils, and non-industrial and non-western cultures alone which is a misconception. As a matter of fact **anthropology is a comparative and integrated discipline that examines all societies, ancient and modern as well as simple and complex**. It is also considered as a holistic science as it studies the whole of human conditions: past, present and future as well as biology, society, languages and culture.

In order to understand humans in their totality, anthropologists resort to a unique method of ethnographic investigation by conducting long term intensive field work.

Anthropology a Field Science

There are differences between a tourist and an anthropological researcher. A tourist is a passer by who watches things without any specific academic motive. But an anthropologist visits a place for research with an intention to collect reliable and valid data from the source. You can list many other differences. As anthropologists deal with human social life and culture, they give prime importance to field work method.



Is anthropologist a tourist of exotic cultures?



An extract from the diary of Margaret Mead, renowned anthropologist and field worker

At dawn on March 8th, a boat arrived from Ofu and lured by thoughts of ethnological gain, I decided to go back with the boat – a 15 foot (4.5 metre) row boat...I decided it would be expensive but pleasant. So we set out in the broiling sun with a crew of some nine Samoans. The girls were desperately sea-sick but I rested my head on a burlap bag of canned goods, and... enjoyed the three-hour pull in the open sea. The swell is impressive when viewed from such a cockle-shell of a boat. The Samoans chanted and shouted...

The whole conduct of the *Malaga* (ceremonial visiting party) was charming. My two companions were my talking chiefs, functionally speaking. They made all the speeches, accepted and dispersed gifts, prepared my meals. And these were merry companions. Even when they went to wash my clothes, one carried the clothes, but the other carried the ukulele.... There were some slight difficulties. Once I killed 35 mosquitoes inside my net in the morning, and all had dined liberally.

(Mead 1977: 55-57)

Fieldwork is the backbone of anthropological research. Anthropologists use participant observation as one of the important techniques to collect data. Physical and biological scientists need a laboratory for conducting experiments. But for anthropologists, field is the laboratory which includes any place where peoples and cultures are found. Fieldwork is the heart and soul of anthropology as it is a field science. It is a condition where the physical presence of the anthropologists is considered mandatory. It helps to observe phenomena through one's own senses. During fieldwork, an anthropologist goes to the field, stays with the people with whom he wants to interact, learns their native language, observes the phenomena under study and records them systematically. It is true that all events in the society cannot be observed and studied at once. The researcher has to



Can you imagine the whole world becoming the laboratory of Anthropologists?

wait until they occur. The researcher can also utilise other techniques such as interview, case study, genealogy...etc for collecting the information during fieldwork.



Check your progress

1. Fill the blank areas suitably.
 - a. Psycho + logos : Psychology - Study of human mind (mind) + (study)
 - b. + : Anthropology - (.....) + (study)
2. The following chart indicates the nature and feature of anthropology. Complete the blank area.

Features	Nature
Anthropology studies the biological origin, evolution, variation and social cultural features of human beings	..... Science
.....	Holistic Science
Anthropologists collect data through direct interaction with the people by observation and other methods	..... Science

3. Considering the nature and features, construct your own definition of Anthropology.

II. Major branches of anthropology

We have already examined the nature and meaning of Anthropology. From this, it is evident that Anthropology is a holistic science. In order to understand its holistic nature, it is important to know the major fields/branches of Anthropology. The branch of Anthropology that examines human biological features, is called biological anthropology. Social cultural Anthropology examines the social and cultural peculiarities of human life. Another area of Anthropological interest is the study of prehistoric culture of human being which come under archaeological Anthropology. Linguistic Anthropology focuses on the study of language, symbols and the features of human communication. Thus the scope of Anthropology includes all the four major branches as given below:

- | | |
|--------------------------------|---------------------------------|
| 1. Biological Anthropology | 2. Social Cultural Anthropology |
| 3. Archaeological Anthropology | 4. Linguistic Anthropology |

1. Biological Anthropology

Can you answer the following questions?

- Why do people differ in skin colour?
- Why do offsprings look similar to their parents?
- How are humans evolved?

In order to answer these questions, one should study human **evolution** and **variation**. Biological Anthropology gives an opportunity to understand the physical differences and changes among humans. Biological Anthropology is the branch of Anthropology that considers humans as a biological organism. As the name indicates, it studies the biological and physical characteristics of humans. Biological Anthropology starts with the study of origin and evolution of humans and analyses their diversity. It also examines the bio-social adaptation of different human populations living in different geographical and ecological settings. The knowledge of different branches of Biological Anthropology will help us to examine how it deals with human evolution and variation.

Paul Broca defines Biological Anthropology as "the science whose objective is the study of humanity considered as a whole in its parts and in relationship to the rest of the nature".

Any study of human evolution requires an understanding of the members of primates. **Primatology** is the study of living and extinct primates. Primates include human, apes,

monkeys and prosimians. Different stages of human evolution can be understood by analysing the fossil evidence of the primates. Human paleontology helps us in this regard.

Human Paleontology or Paleoanthropology: Human Paleontology studies the fossil evidences of human skeletons of different stages and thereby reconstructs the evolutionary history of humans. This helps in the classification and comparison of the fossils of different stages to determine the link between the modern humans and their ancestors.

Human Genetics: To understand how evolution works, it is important to know the mechanisms of heredity. Human genetics is the branch of biological anthropology that deals with inheritance and variation.

Forensic Anthropology:

Morphological and genetic variations among humans help biological anthropologists to identify individuals, criminals, victims of mishaps and natural calamities etc. The branch of anthropology specialised in such area is called Forensic Anthropology. The knowledge of Forensic Anthropology is applied

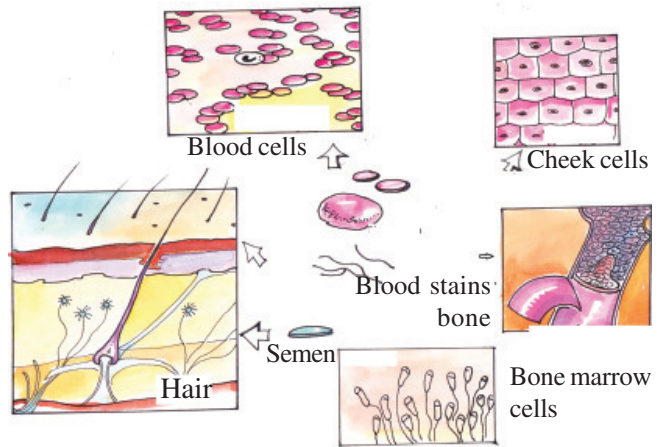


Fig. 1.4 Body parts used for forensic examination

to solve the issues related to criminal and legal matters. Forensic anthropologists are called upon by police and other authorities to identify the remains of murder victims, missing cases or people who die in disasters. From the analysis of DNA, hair with root, blood stains, drops of semen, body fluids, skin cells, cells of bone-marrow, finger prints, skeletal remains etc., forensic anthropologists are able to identify such persons. With some specialised techniques they can also identify age, sex and other morphological features of the victims.

2. Social Cultural Anthropology

Social Cultural anthropology is the study of human society and culture. It describes, analyses, interprets and explains the social and cultural similarities and differences. Social cultural anthropology concerns with the study of social institutions such as family, marriage, kinship,



“Human population construct their cultures in interaction with one another and not in isolation”

(Wolf 1982, P, IX)

religion, economic organisation, political organisation, law and the relations between such institutions. Social cultural anthropology is the study of relations and patterns of life among different types of people. The study is based on the facts, collected through direct investigation from the field using anthropological techniques.

Radcliffe Brown defines “*Social Anthropology as the natural science of society*”. Social cultural anthropology attempts to understand culture as a major mechanism by which human beings adapt to their environment. They study its origin, development and diversity as it changes through time and manifests among people.

Different sub-fields have emerged in socialcultural anthropology to contribute to the total understanding of culture in all its dimensions. Some such sub-fields are the following:

- a) **Familial Anthropology:** It makes a comparative study of families of different cultures and societies. It studies the origin of family, its forms and functions in different societies. Marriage is the basis of family and hence Familial Anthropology also studies different forms of marriage, ways of acquiring mates and marriage payments in different societies.
- b) **Economic Anthropology:** All aspects of culture are closely related. Economic activities play an important role in social organisation. Sometimes sudden change in economic sector leads to radical change in the structure and function of other sectors also. Economic Anthropology studies the economic organisation of human societies ranging from pre-literate food collecting economy to modern industrial economy.
- c) **Political Anthropology:** The administrative set up prevailing in a society also plays shaping the ways important role in shaping the ways of life of the people. The branch of social cultural anthropology that deals with the types and forms of government, state as well as stateless political organisations, regulations including mores and norms as well as customs and laws, nature of sanctions including punishment and rewards, etc. is known as political anthropology.
- d) **Anthropology of Religion:** Beliefs and practices related to supernatural powers and forces play an important role in shaping the culture of a group. Beliefs and practices associated with supernatural elements, and rituals and performances, etc., come under the purview of this specialised area of anthropological study.
- e) **Ecological Anthropology:** Ecological Anthropology studies the inter-relationship between humans, environment and culture. Environment plays an important role in shaping the culture of the people. Relationship of culture and environment, natives’

attitude of their relationship with environment etc., are studied in Ecological Anthropology.

- f) **Medical Anthropology:** Medical Anthropology is concerned with the bio-cultural understanding of humans and their works in relationship to health and disease. Local beliefs regarding health and disease, treatment and preventive measures are some of the aspects studied in Medical Anthropology.
- g) **Development Anthropology:** This sub-field addresses some of the basic concerns of human society in terms of welfare, progress and development, with the ultimate aim to ensure security, and decent livelihood for human beings. Hence, the questions of poverty, inequality, human welfare, social justice, human development and environmental sustainability become the core concerns under this specialisation.

3. Archaeological anthropology

Archaeological anthropology is a branch of anthropology which deals with past cultures in relation to environment. It examines the origin and development of human culture. This subject has been derived from the broad field of archaeology. The word Archaeology is derived from two Greek words- “*arkhaios*” means ancient and “*logos*” means study. So archaeology is the study of human activity in the past. In USA, it is considered as a branch of anthropology while in Europe it has developed as an independent discipline- Archaeology. Archaeological anthropology deals with pre-history. Pre-historic cultures did not make use of writing. Pre-historic period constitute over 99% of the human history and form the base for the study of archaeological anthropology.

Archaeologists examine the tools, pottery, other material remains left by humans as well as the remains of humans, plants and animals. The skeletal remains and their materials help archaeological anthropology to reconstruct human past. Historians mainly depend upon the written records of the past for its reconstruction. But the period before the invention of writing is considered pre-historic times. Archaeological anthropologists are interested in documents and material remains of this period. Archaeological anthropologists undertake site excavations to find out the cultural and biological remains. Different methods are adopted to date the relative and absolute age of these remains.

Knowledge without any practical ends has no justification. Every scientific discipline has applied wings. Society is the soul from which anthropologists collect materials to

Prepare a chart/collage/poster showing the bio social nature of anthropology.



flourish their discipline. They put back their knowledge in the same field for social use. Anthropologists learn and teach at the same time. This learning-teaching is not limited to the class room. It may take place anywhere people live and work. In fact, anthropology is a part of life.

4. Linguistic Anthropology

Most distinctive feature of humanity is its ability to speak. Humans are not alone in the use of symbolic communication. Studies have shown that the sounds and gesture made by some other animals, especially the apes, may serve functions comparable to those of human speech; yet no other animal has developed a system of symbolic communication as complex as that of humans. The branch of anthropology that studies human languages is called Linguistic Anthropology.

Language allows people to preserve and transmit their culture from one generation to another. Through the study of language in its



The Negroes in America

The Negroes who enter America from Africa wholly adopted themselves to the new language. Today 16 million American Negroes speak English while their forefathers know nothing but their African Negro language. Languages are neither the product of geographical condition nor the climatic condition; they are entirely social.

19th century linguists were engaged in describing and classifying languages into families and sub families on the basis of their similarities and dissimilarities. The subject was then referred as philology and not the linguistics

setting, anthropologist can understand how people perceive themselves and the world around them.

Anthropological linguistics may also make a significant contribution to our understanding of human facts. Linguistic

anthropology seeks to discover the ways in which languages are similar or different from one another. Linguistic

anthropologists study the origin, nature, meaning and development of

Structural linguistics	Grammatical pattern of languages
Social linguistics	Social behaviour in culture
Historical linguistics	Origin, comparison and classification

languages in relation to culture and patterns of speech, patterns of acting, behaving and communicating as found in different cultures. The areas of linguistic anthropology include structural linguistics, social linguistics and historical linguistics.

III. Relevance of Anthropology

Anthropology, as we found earlier, embraces all the areas of human life. Moreover, the anthropological understandings can be applied at various levels of human life. In anthropology we study about human beings of all times, places and types. Hence anthropologists are keen to examine the life of even the most isolated, simple tribal communities, who are otherwise not considered properly. Let us examine the importance of anthropology in detail.

Learning of anthropology enables students to have a holistic approach. It shares different areas of natural and social sciences. The geographical field of anthropology is global. But in terms of time, it extends to millions of years in the past. It examines the evolutionary and historical changes and shares the concern of our shared future. The study of anthropology helps the students to develop intellectually, personally and professionally. Anthropological studies being a part of the study of cultures and life style of unfamiliar societies cultivate critical thinking and skills in students. Anthropology promotes a cross cultural perspective. It allows to see ourselves as part of one human family.



Anthropology is peculiarly fitted to fill a tremendous need in liberal education. It tries to conjoin rather than fragment the knowledge of man. It can be taught so as to give understanding of the farthest past of man and yet with close relation to the life today.

- Margaret Mead-1967

Anthropology students are keen in understanding the cultural, biological, environmental, and historical bases of humanity. The self-reflection that results from applying the holistic approach and comparative method provides a broadened world view. It helps to avoid ethnocentrism (Outlook that one's own culture is superior to that of others) and is more open to acceptance of other ways of living. Students develop as global citizens, with an awareness of the world around them – their similarities, differences, and inequalities with other peoples or groups. Thus Anthropological studies help the students in personal enlightenment and self awareness , which are the fundamental goals of education.

Anthropology students are trained in oral and written communication, interpersonal skills, problem-solving, research, and critical thinking, which are needed for success in a variety of careers. These skills provide flexibility in career mobility and form a foundation for life-long learning as employment possibilities are continuously transformed. Anthropology also helps in 'knowing more about the world'. It provides global literacy, sensitivity to other

cultures, and the opportunity to ‘think outside the box’. In short anthropology is one of the important disciplines that help to grow oneself according to the needs of the society. As anthropology equips an individual for different social responsibilities, it provides a wide range of career opportunities as well. Some of the openings for an anthropology student is given below.

Career Opportunities in Anthropology

Career according to the Oxford dictionary refers to: 1) the course or progress through life or history 2) The way of making a livelihood and advancing oneself and 3) personal advancement and success in life. Chambers Twentieth Century Dictionary also refers to the advancement in profession or occupation as its meaning. Before one can become an engineer, an administrator or a statesman, or even a poet, one must become holistic in one’s perspective and approach. To such a person, nothing in the world is alien and no path is blocked or closed. It is rightly observed that, anthropology is the best suited discipline to meet this need. Anthropology, as we know, is a discipline of the whole. It also approaches worldly ideas in cultural relativistic perspective. According to Margaret Mead the fundamental values of anthropology are essential for wisdom. It is fundamental for survival. With a foundation of anthropology, the career options of a student are wide and open.

- ◆ Teaching and research in Tribal Welfare Institutions/Organisations and Anthropological Survey of India (AnSI).
- ◆ Community Development Projects of governmental and non-governmental organisations and human development departments and agencies of different world organisations (UNESCO, UNICEF, WHO, World Bank, and ILO) are some of the career areas of anthropology students.

Anthropological Survey of India (AnSI) has now grown as the world’s biggest anthropological organisation with large number of professional anthropologists and scholars. Many Anthropologists find career options among NGOs, who are working for the welfare and development of all sections of Indian Society. Anthropologists also act as part of the government in the implementation of welfare programmes.

Anthropologists are, posted at the Office of the Commissioner for Scheduled Castes and Scheduled Tribes, Social Welfare Departments of the Government of India and State governments, the Office of the Registrar General of India, the Gazetteer Division of the state information departments, Indira Gandhi National Centre for the Arts and the Ministry



Anthropology is a distinctive subject with vast career opportunities

of Tribal Affairs. There are anthropologists associated with the country's major museums also. There are career opportunities for Anthropology students in the Indira Gandhi Rashtriya

Manav Sangrahalay (IGRMS) at Bhopal. It had been separated from the Anthropological Survey of India in 1978. IGRMS is now under the Ministry of Culture and is internationally known as the 'National Museum of Mankind',

having direct affiliation to Anthropology. It acts as a facilitator for forging interrelation between Community and Museums. Anthropologists were deputed in The Indian Museum at Kolkata and the National Museum in New Delhi. The Government Museum at Chennai, the Prince of Wales Museum at Mumbai, Gujarat Vidyapith Museum in Ahmedabad all employ anthropologists and The Gurukul Kangri Vishwavidyalaya Museum near Haridwar also has a section on anthropology. The Central Bureau of Investigation also appoints forensic anthropologists to assist the officials in crime detection.

Anthropology is more than a career. It is a way of life. In everything I do, I am an anthropologist - Sherlotte Neely, Professor of Anthropology

Anthropologists are also engaged in the better-financed, semi-autonomous, interdisciplinary Institutes. Further anthropology has been a part at the Indian Science Congress Association, the Indian National Science Academy, the Council of Scientific and Industrial Research (CSIR) etc. Anthropologists were also employed by the Indian Institutes of Technology (IIT), the Indian Institute of Management (IIM), at Kolkata as well as the Administrative Staff College at Hyderabad, Udaipur and other similar institutes. Research institutes like Kerala Institute for Research Training and Development Studies of Scheduled Castes and Scheduled Tribes (KIRTADS), Kozhikode, Kerala Institute for Local Administration (KILA) also appoint anthropologists in various positions. Anthropologists also find placements in more than 20 research institutes under Indian Council for Social Science Research (ICSSR), located in different parts of India.

In spite of lack of facilities and the slow growth rate, India is the second only to the United States of America in the number of professionally trained anthropologists working in different institutions. Anthropologists conduct academic and applied research as a means to understand individual human lives within larger socio-political contexts and to ameliorate human problems. Anthropologists, both academic and applied, are engaged in many

contemporary issues that have global, national and community implications for policy-making and advocacy for individuals and groups.

Some of the other areas of Anthropological interest, in the context of the contemporary world include environmental change, Ecological Sustainability, Global Warming, Water and Land Resources, Biodiversity, Anthropogenic Landscapes, Health and Nutrition, Infectious Disease (e. g. HIV/AIDs), Health Care Policy, Resource Depletion and Famine, Bio-medicine, Alternative Medical Practices, Impediments (age, gender, race, class) to Health Care Access, Globalisation, Global Economies, Sovereignty, Trans-nationalism, Migration and Diaspora, Sustainable Development, etc.

There are more than forty universities in India with full fledged Anthropological Departments. Anthropology is also being taught at the undergraduate and Higher Secondary level in many states of India.



Prepare a chart/note/pamphlet showing the career opportunities in anthropology.



We should use anthropological knowledge and perspective for the benefit of the society

Applied Anthropology

The term applied is not a recent origin. It was used by D G Brinton in his speech as early as 1875. But it is used mainly since late 1920s and early 1930s. Applied anthropology simply refers to the practical uses of anthropology findings. The systematic use of such a study for an effective administration in India was realised as early as 1807. The court of directors of British East India Company made a formal decision that such knowledge would be of great use in the future administration of the country (Roy 1921). As per this idea, Francis Buchanon was appointed to undertake ethnographic survey.

Applied anthropology refers to the application of anthropological knowledge, data, perspective, theory and methods to identify, assesses and solve contemporary social problems. All sub-fields of this discipline have applied scope. They serve the humankind with a specialised anthropological knowledge.

Applied anthropology uses anthropological perspectives to identify and solve contemporary problems that affect humans. Deforestation is one such problem.

Let us examine the applied scope of the four sub-fields of anthropology.

The **Biological anthropologists** cover a large number of spheres in applying the knowledge of biological anthropology. They use the knowledge of anthropometry in designing clothes, footwear and furniture and designing machinery, artificial limbs etc. Data on human osteology, serology and genetics have medical application. They also contribute to disease research, diet and nutrition, health planning, reconstructive surgery, genetic counseling and eugenics. Inputs of biological anthropology also help in forensic tests to identify criminals and crime.

The **Socio cultural anthropologists** undertake studies concerning human social problems. They can contribute to the understanding of labour disputes, minority problems, community development projects, economic development schemes, friction in industry to minimise tension, etc. It has become therapeutic science of human relations. They understand the psychological attributes of people along with the values of culture and can suggest contextual solutions. There are large numbers of external agents which continuously threaten to modify a customary way of life. An anthropologist with profound expertise studies and tries to restore the equilibrium of a social system. At the beginning, the major potentiality of cultural anthropology was in the application of anthropological knowledge in the administration of native people. The anthropologists could make themselves useful by undertaking studies like hereditary factors in crime, the significance of race, the role of education in human society etc.

Major Areas of Applied Anthropology

- ◆ Education / health / culture
- ◆ Family planning programmes
- ◆ Community development programmes
- ◆ Problems of crimes and criminals
- ◆ Labour problems
- ◆ Industrial and urban problems
- ◆ Problems of culture contact

The **Archaeological Anthropologists** offer general information and education to the people through museums where the reconstruction of human culture found through excavated materials are kept open for public view. It enhances the knowledge about the past on which our existence depends.

The **Linguistic Anthropologists** serve many practical purposes related with 'exotic' languages. Linguistic Anthropologists improve the methods and materials for intensive

instruction in a large number of foreign languages. Some linguistic anthropologists work with government agencies and indigenous people to document the disappearing languages.

Action Anthropology

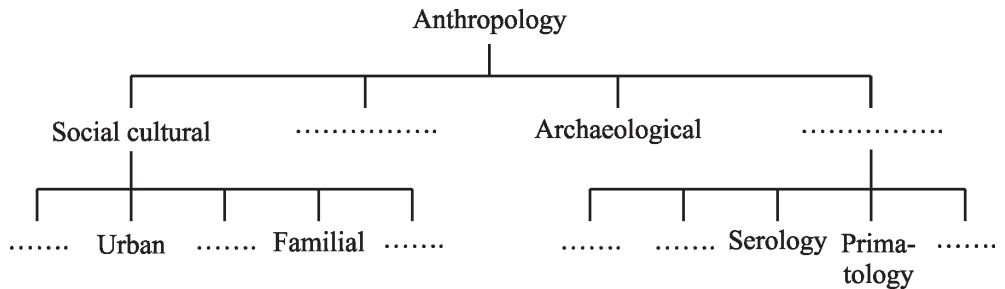
Sol Tax, an American anthropologist was the first to use the concept ‘*action anthropology*’. The action anthropologists involve themselves ultimately with social problems and perceive the study in a context of action. Anthropologists accept a problem as their own and proceed through trial and error method.

The method of Action Anthropology is wholly clinical or experimental. Action anthropologists seldom keep themselves as mere observers. They recognise their own responsibilities in solving human problems. Therefore they stick on to the problems until they are solved. In the way of problem solving, action anthropologists may generate new theories and findings acceptable to general anthropology.



Check your progress

1. Complete the chart below



2. Prepare a seminar paper on the holistic nature of anthropology
3. Examine the important areas where the knowledge of anthropology can be applied.

The above listed areas clearly indicate that anthropologists are required to involve in almost all areas of human life. It is also clearly evident that anthropology is related to most other subjects dealing with human beings. The following area examines how anthropology relates with other subjects.

IV. Relationship between anthropology and other disciplines

Whether anthropology should be included within natural science or social science is the debate on which anthropologists differ. In the beginning, it was considered as natural science under the influence of evolutionism. It has not been clear to many anthropologists whether they regard anthropology as a natural science or social science. Malinowski, a Polish born British anthropologist, states that culture is a means to satisfy bio-psychological needs of human. In this way, according to him, anthropology stands in between natural science and social science.

Anthropology and Biological sciences

Anthropology is the science of human. But biology examines all living organisms including human. Both the subjects analyse origin, evolution, heredity, variation and anatomical and physiological features of human being. Charles Darwin is considered the father of both the subjects.

But these subjects differ in many respects. While biology is considered a biological science, anthropology is considered a bio-social science. Biology views human as a biological entity but anthropology considers the biological and social peculiarities of human. When biology gives importance to experiments anthropology gives importance to fieldwork.

We know that the subject matter of anthropology is human diversity. In this, biological diversity is very much significant from the point of view of human evolution and development. The focus of biological variation unites five special interests within biological anthropology.

- ◆ Human Paleoanthropology (evolution as revealed by the fossil records)
- ◆ Human Genetics
- ◆ Human growth and development
- ◆ Human biological adaptability
- ◆ The evolution, behaviour and social life of monkeys, apes and other non-human primates.

These interests link anthropology/biological anthropology to other fields: Biology, Zoology, Geology, Anatomy, Physiology, Medicine and public health. Osteology - the study of bones - helps paleoanthropologists, who examine skulls, teeth and bones to identify human ancestors and to chart changes in anatomy overtime. A paleoanthropologist studies

the fossil record of human evolution. They often collaborate with archaeologists, who study artifacts, in reconstructing biological and cultural aspects of human evolution. Different types of tools provide information about the habits, customs, and life styles of the ancestral humans who used them.

Genetics, one of the fields of anthropology/biological anthropology enlightens the causes and transmission of variations. During the life time of any individual, the environment works along with heredity to determine biological features. For example, people with a genetic tendency to be tall will be shorter if they are poorly nourished during childhood. The area of human growth and development investigates the influence of environment on the body and how it grows and matures. Anthropology, along with zoology shares the areas of primatology.

The primates include our closest relatives - apes and monkeys. Primatologists study their anatomy and physiology, evolution, behaviour and social life, often in their natural environments. Primatology can assist paleoanthropology, as primate behaviour may shed light on early human behaviour and human nature. For much of the 20th century, the concept of popular medicine or folk medicine, has been familiar to both medical practitioners and anthropologists. The term was also used to describe the health practices of aborigines in different parts of the world with particular emphasis on their ethno - botanical knowledge. The concept of folk medicine was taken up by professional anthropologists in the first half of the 20th century to demarcate between magical practices, medicine and religion to explore the role and the significance of popular healers and their self medicating practices.

Anthropology and Social Sciences.

Different social sciences study the different aspects of humanbeing and society in different ways. Anthropology is the science of humans. Anthropology studies human life of all time, place and types. Hence, historical, comparative and inter - disciplinary analysis is indispensable for anthropological study. It is clear that the anthropologists gain significant knowledge input from History, Sociology, Psychology, Political science, Economics and many other social sciences.

Anthropology and History

History studies about the social life of the past. It resorts to written documents to analyse the past culture and society. It examines how humans lived and how their life differed in different societies. Anthropology also deals with the social life of humans.

It examines how they lived, how their life changed over time and how they gave birth to different social institutions, like family, political systems, etc. Thus, both anthropology and History share a great deal in common.

However, as independent disciplines, history and anthropology differ in many respects. Anthropology is a bio - social science while history is a social science. When history deals with the past, anthropology deals with human beings of all times. Likewise, when history examines the cause and effects of events, anthropology analyses the social cultural aspects of that event. Moreover, when history uses secondary data, anthropology gives importance to primary data collected through participant observation.

Anthropology and Sociology

Sociology is a science of human society. It studies human behaviour in social surroundings. Thus, it is clear that the subject matter of sociology and anthropology is common to a great extent. Sociology and anthropology are highly influenced by each other. For example, the views of Durkhiem, a sociologist had greatly influenced the doctrines of anthropologists like Malinowski and Radcliffe Brown. Hoebel has stated that “Sociology and Social Anthropology, in their broadest sense, are one and the same”. A L Kroeber, an American anthropologist considered sociology and anthropology as twin sisters. In Great Britain, social anthropology was regarded as a branch of Sociology.

However, in its traditional sense, there are several differences between Sociology and Anthropology, in terms of the field of study, approaches, perspectives and orientations between the two subjects. Anthropology studies culture directly with intensive field work over a long period. But, sociology studies societies mostly through secondary sources. Anthropological studies are largely qualitative, while sociological studies, on the other hand, are quantitative. Anthropological studies are also holistic in nature as it studies both the social and biological aspects, while sociology examines the social aspect of human beings. Today, however, particularly in the Indian context, Sociology has absorbed many of the elements of social cultural anthropology.

Anthropology and Psychology

Social anthropology and psychology are concerned with human behaviour. Social anthropology deals with society and culture in which individuals are a part. We have Psychological anthropology as a branch of social anthropology. It examines the relationship between human culture and behaviour. Psychology focuses on individual behaviour.

It examines how people respond to specific motivations. Social psychologists study individual behaviour under social environment. Social anthropologists also study human society, social institutions and groups. Relationship between psychology and anthropology can also be seen in their main branches ie. social psychology and social cultural anthropology.

However, psychology is concerned with individual behaviour whereas anthropology focuses on group behaviour. It also analyses inter-relationship among the members of the society. When Psychologists give importance to clinical experiments, social anthropologists depend greatly on fieldwork. Psychologists devote particular attention to feelings, emotions, and motivations of individuals. Social anthropologists study social relationship of individuals to analyse social organisations.

Anthropology and Political Science

Both subjects have many common features. Both social anthropology and political science examine social life of human beings. Political science contributes to anthropology the facts regarding the organisation and activities of the state, while Social anthropology contributes to political science the knowledge of origin of the state from stateless society.

When anthropology studies the form of governments in state and stateless societies, political science studies the institutionalised forms of governments in state system alone. Moreover, when political science deals with the political life of society, anthropology concerns with the total social life.

Anthropology and Economics

Social anthropology and economics are closely related. Both the subjects consider humans as social being. The economic life of the individuals is examined in both the subjects. Any change in the economic



Anthropology is related to almost all the social and biological sciences.

system, in turn, causes changes in other aspects of society and culture. Hence, the study of culture requires an insight into the economic system as well. However, when economics deals only with the economic life of the people, anthropology is related to the whole of social cultural life. Economics gives importance to the economic life of modern complex societies, while anthropologists are interested in simple economies and its evolutionary link with modern economy.

Let us find many other similarities and differences between anthropology and social and biological sciences and prepare a comparative chart.



Check your progress:

1. Find the pair
 - a. Psychology: Study of human behaviour, Psychological anthropology:
 - b. History: Social science, Anthropology:
2. Prepare charts showing the differences between anthropology and other social and natural science.
3. Examine the uniqueness of anthropology that makes it different from other subjects.

V. Origin and development of Anthropology

Anthropology even though a new subject, occupies an important position in the academic arena of the world. Today it is taught in almost all the famous universities of the world. Moreover anthropologists are employed in different levels of administration. It took long time for anthropology to develop as an independent discipline of teaching and research. Eventhough human was intrinsically curious to know about worldly phenomenon, a systematic analysis of human life originated very late. Here we shall examine how the subject anthropology achieved its present status in the world and in India.

Human curiosity and Anthropological excavations

The enquiry in to the human existence and the curiosity to know the secrets of human life, which forms the anthropological thought, has been as old as the humanity itself. However the systematic efforts to unravel the secrets of humanity can be seen since the time of the Greek philosophers in the western world and in Vedic literature of ancient India. In a sense we all ‘do’ anthropology because it is rooted in a universal human trait ‘curiosity’. We are curious about ourselves and about other people, the living as well as the dead, here and around the globe. Later on people began to enquire about other cultures with specific objectives like conversion, administration of isolated communities etc. Let us

examine how the subject anthropology evolved over different periods.

Origin and Development of World Anthropology

We have just been familiarised with the meaning and the different areas of anthropology. Its wide and varied scope is one of its unique peculiarities. But, do you think the scope of anthropology was so wide in the initial stage of its development? Anthropology is comparatively a new subject, and the origin and growth of the subject has taken place through centuries. Any attempt to understand human life can be considered an introduction to anthropological understanding. The growth of anthropology in the world and in India, in different stages is discussed below.

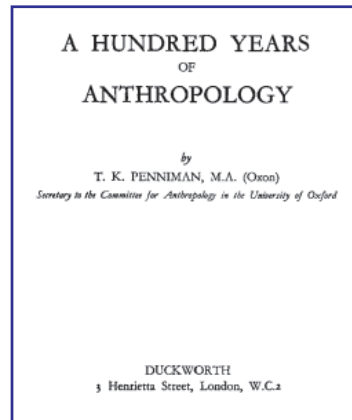


Fig.1.5 Cover Page of 'A Hundred Years of Anthropology'

Different attempts have been made to recount the development of anthropology in the world. Among these, **T. K. Penniman**'s contribution is worth mentioning. He classifies the development of anthropology into four periods. He proposes these classifications in his book '*Hundred Years of Anthropology*' (1935) as discussed below:

1. Formulatory period (before 1835) : This is the first and longest period in the history of Anthropology. It extends from the time of the Greek historians, philosophers and naturalists. Penniman considers **Herodotus** (484 - 425 BC) as the first anthropologist. He is also considered as the father of Greek Ethnography. He travelled through out the world and researched about races and customs entirely alien to him. Herodotus asked some questions like the following:

Is the father natural head of the family or the mother?

How much time must be allowed for the development and diffusion of human varieties?

Thus Herodotus collected a large number of facts about peoples in different cultural stages. He not only talked about the origin of culture, but also described the spoken language, physical types, material culture, marriage and divorce, social laws customs etc.

Protagoras (480-410 BC), is another Greek philosopher who has contributed to the knowledge about human beings and culture. In his opinion "man is the measure of all

things”. He was the first to propose the theory of relativism. He also introduced the evolutionary scheme, which explains how different social traits come into existence. Another Greek scholar of this period is **Socrates** (470-399 BC). He was of the opinion that every society is guided by certain universal values. He mainly put forward the philosophical aspect of social thinking. **Plato (428 – 348 BC)**, another Greek thinker proposed the ideas about state, marriage, education, etc. According to him, humans outside social control, are but animals and it is really the society that makes the individual, a social being. Like Plato, **Aristotle (384 – 322 BC)** also proposed his view of the state and the humans. He had clearly understood the difference between functional and structural similarities. This is clear from the fact that he classified bats with the mammals and not with the birds and the whales with the mammals and not with the fishes. Aristotle believed that the state determines the behaviour of humans. Without law and justice, humans would be the worst of all animals and he also proposed that human being is a social animal.

In the medieval period, various travellers and explorers wrote details about the people they encountered. Among these, Marco-polo (1224-1313) and Vasco-Da-Gama (1397-1499) contributed a lot towards the enrichment of knowledge on Anthropology. During the 17th century, Francis Bacon and Thomas Hobbes formulated different theories for the study of society. John Lock provided the metaphysical foundation upon which the Anthropologist formulated their formal definition of culture. German philosopher Immanuel Kant (1724-1804) wrote the book *Anthropology* in 1789 suggesting the animal origin of man and concluded that human knowledge comes from pre-human condition.

There was a lot of curiosity to learn about the different races of human kind during the 16th century. Demonstration of blood circulation by **William Harvey** in 1628, and the discovery of microscope by **Leeuwenhoek** opened a new world of study. **Vesalius** had made an attempt to compare human being with ape. He also tried to dissect the human body. In 1735, **Carl Linnaeus** published his book ‘*Systema Naturae*’ where in he has clearly mentioned about the inclusion of human in the Zoological classification.

During 16th and 17th centuries, Christian missionaries travelled all around the world for the spread of Christian ideology and conversion of people into Christianity. They studied the culture of native people to make their attempt of conversion easy. During the period of colonisation British administrators conducted many studies on native people to make their administration easy. Edgar Thurston, (*Castes and Tribes of India*) William Crook (*Tribes and Castes of the North Western Provinces*), Verrier Elwin, (*Philosophy of NEFA*) and John Russel made significant contributions in Anthropology by conducting various studies on the culture of different groups in India.

2. Convergent Period (1835-1859) : During this period, divergent views about the origin of biological and social aspects of human being were expressed by scholars of different countries. Among these, the contribution of Karl Marx (1818 – 1883) , Charles Lyell (1797 – 1895), and of William Smith (1769 – 1839) are important. Marx accepted the dialectical process as the moving power of history. In the field of Archaeology, Boucher Deperthe’s discoveries of flint implements at Abbeville in 1838 and 1846, Dr. Rigollet’s discovery at Saint Acheul in 1854 are some of the new developments. Neanderthal’s discovery at Dusseldorf in 1857 gave a new outlook about human evolution. James Prichard classified and systematised the facts about races of humankind in his book *The Natural History of Man* in 1833 and *Physical History of Man* in 1836. He proposed the differences of colour, hair, stature and form and examined the criteria of racial classification. The convergence of all these ideas was completed with the publication of **Charles Darwin’s** book *The Origin of Species (1859)*. In this book, he proposed his theory of organic evolution popularly known as ‘Darwinism’. With the publication of this book, physical evolution of human being based on scientific investigation was established. Thus, diversities of arguments expressed about origin of human being and society came to an end with the publication of *Origin of Species*.

3. Constructive Period (1859–1900): During this period Anthropology started as an independent discipline in many universities. A Department of Anthropology was started in Oxford University in 1884 and Cambridge University in 1900. Scientific researches and publications by scholars like E B Tylor, James Frazer, Henry Maine, and L. H. Morgan, came out during this period. Different branches of anthropology like ethnology, pre-history, social anthropology and physical anthropology were also evolved.

Apart from England, Germany and USA, anthropological researches had flourished in France and some other countries as well. Contributions of Emile Durkhiem in France helped to popularise Anthropology in France. Some important journals like ‘American Journal of Folklore’, ‘Bulletin of the Royal Asiatic Society of Great Britain and Ireland’ (now known as ‘Man’) etc. were also started during this period. Large number of anthropological articles were published in these journals. Colonial administrators had also published their reports and papers in this journal. The researches done by British officers like Edgar Thurston, Russel, and others facilitated the growth of anthropological tradition in India.

4. Critical Period (1900 onwards) : Penniman used the term ‘critical’ to denote this period because of the crucial contribution made to the development of Anthropology during this period. Some significant developments had also marked this period. The first chair of

social anthropology was started in 1908 in the University of Liverpool in Britain. It was chaired by Sir James Frazer. The first Anthropology department in India was started in the University of Calcutta in 1920. In 1919, Social anthropology had been introduced as a subject in the Department of Sociology at the University of Bombay.

During this period, different schools of thought in anthropology were founded. Functional school of thought, structural school of thought, school of diffusion, and culture and personality school are prominent among them. Authors of this period specialised in theorising the concepts, definitions and different aspects of culture. For instance, B K Malinoswki, based on his field expedition among the Trobriand Islanders proposed his idea of Functionalism. Radcliffe Brown, based on his study of the Andaman Islanders established his theory of Social Structure during this period. Similarly, the American scholars such as A L Kroeber, Ruth Benedict, Margaret Mead, and Clark Wissler played their own role in shaping the destiny of world anthropology.

As in the world, anthropology flourished in India at a very slow pace. As a subject that shares infinite curiosity towards human being, anthropology flourished in India as well.

Growth and Development of Indian Anthropology

The course of development of anthropological thought and study in India was slow but steady. Basu Roy describes the following phases of development of Indian Anthropology, while some other anthropologists differ in their opinion regarding the time span of these periods.

1. Formative phase (1774 - 1919)

During this period the emphasis of anthropological studies was on tribal life and the diversity of their customs in India. Many Encyclopedia on tribes and castes were published. In addition to the ethnographic reports, revenue reports of Dalton, Buchanon, and Lord Baden Powell also examined the social cultural situation of India during this period.

The foundation of Asiatic Society of India by Sir William Jones in 1774 was an important landmark during this period. This became the Asiatic Society of Bengal in 1784. By this time, the society also started publishing its journal regularly.

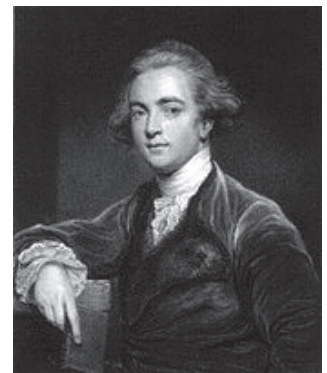


Fig. 1.6 *Sir William Jones*

By 1872, **The Indian Antiquary** was published. It contained many articles of anthropological interest. In 1886, the Anthropological Society of Bombay published its journal. It was the first journal, exclusively for anthropology.

Some other individual efforts were also initiated during this phase. H H Risley published his report on the Tribes and Castes of Bengal in 1891. Later he became the Head of Census operations in India. During this period, the project People of India was also started. Risley developed a separate wing in the census operations for ethnographic survey.

The publication of Journals helped to disseminate anthropological outlook in India. In 1912 S C Roy published the monograph **Munda and their country**. The Journal of Bihar and Orissa Research Society was started in 1915. As mentioned earlier, Anthropology had been introduced as subject in the Sociology Department of Bombay University in 1919. According to D N Majumdar, the formative phase ended in 1911. However, for L P Vidyarthi, this period extended up to 1920.

2. The Constructive Phase (1920-1949)

Anthropology came into the curriculum of Post-graduate studies in Calcutta University by 1920. L K Ananthakrishna Iyer and R Chanda, the pioneers of Indian anthropology, joined the department during this phase. Another remarkable step during this period was the publication of journal 'Man in India' in 1921, under the editorship of S C Roy. The 25th Indian Science Congress was held at Calcutta in 1938 and the focal theme was 'Anthropology in India'. A joint session of the Indian Science Congress Association and the British Association reviewed the progress of anthropology in India. This was the first review of the anthropological researches in India. In 1939, Verrier Elwin published his book '**The Baiga**'. In this book he had proposed that the tribes should be left alone and they should be allowed to develop in isolation, away from the mainstream. The need for a full-fledged anthropological research organisation was fulfilled by establishing **Anthropological Survey of India** in 1945. B S Guha was the first Director of this institution at Calcutta. In 1947, a Department of Anthropology was opened in the University of Delhi.



Fig. 1.7 Anthropological Survey of India, Kolkata

3. The Analytical Phase (1950-1990)

For D N Majumdar (1950), this phase began in 1938, and carried on to the present. The earlier anthropologists like Surajit Sinha, called this, the recent phase. By this time, Indian anthropologists started regularly interacting with foreign anthropologists. Many kinds of collaborative works were taken up. Moreover, during this period, there was a shift from the descriptive studies of preliterate societies to the analytical studies of complex societies.

Some anthropologists from abroad came to India to conduct research. Their works created a momentum to the anthropological researches in India. The villages they studied became famous. A large number of village study monographs were published in the 1960s through the Census of India 1961. The first of these was a study of Ghaghra by L P Vidyarthi. These studies helped to generate new concepts and ideas. The works of L P Vidyarthi, B K Roy Burman, R M Makhan Jha, P K Misra, K S Singh, and T N Madan are worth mentioning.

During this period, some anthropologists developed distinct research methodology to conduct their studies. These include T C Das (using genealogies to study the Parum society), N. K. Bose (spatial distribution technique used to date Indian temples, use of human geography in study of culture-historical issues as well as the use of family histories in studying social change in urban centres), Chattopadhyay and Mukherjee (use of statistics in studying social change), Iravati Karve (text analyses incorporated with kinship studies) and L. P. Vidyarthi (using the concepts of sacred centre, cluster and segment to study sacred complexes).

4. Evaluative Phase (1990 to the Present)

During recent times new areas of Anthropology and different sub-fields within these areas have been emerging. Interest in Medical Anthropology, Religion, Development studies and Psychological studies are more evident. Numerous papers have been published by Anthropologists in India concerning (a) change leading to tribal identity, integration, vanishing culture and planning, (b) emergence of industrial Anthropology, (c) increased emphasis on tribal demography, and (d) integrated study of tribal regions. Important contribution has been made to Action Research, Socio-Psychological Research, and Folk-lore researches, Studies of Power Structure and Leadership and Anthropology of Religion.

To conclude in the words of L. P. Vidyarthi, “The journey of Indian anthropology still continues”. It has gone much ahead under the influence of and in collaboration with the British and American anthropologists. Of course, in a broader perspective, they will continue to influence the Indian social science for some more time. Anthropology originated a little late. But today it has become an important discipline all over the world. This subject is taught in almost all renowned universities with greater importance. In some western countries, apart from anthropological institutions, anthropologists are appointed in various other areas as well. Thus, anthropology occupies a significant position and holds a great relevance in the modern world.

Let us prepare a seminar paper on the topic ‘*Colonialism and the Development of Indian anthropology*’. Along with the text book you may also resort to other sources like books, web resources etc.



Check your progress:

1. What are the different stages of development of Anthropology in the world as proposed by T K Penniman.
2. Arrange the following important years in time scale and write about its relevance in the development of Indian Anthropology.
(1774, 1912, 1945, 1920, 1919, 1939, 1921)

Let us sum up

- As the very term implies, anthropology is the study of human being. But it is different in many respects from other subjects dealing with humans.
- While the social science subjects examine the social aspects and biological sciences deal with biological features of human being, Anthropology analyses both the biological and social peculiarities of human being. So Anthropology is considered a bio- social science. More over, it examines humans in a holistic perspective. Human beings of all places, all types and all the times come under the purview of anthropology. In its endeavour to examine human life and culture anthropologists resort to a field based methodology.
- The subject is divided into different branches. Social cultural anthropology studies the human society and culture. Biological anthropology examines the origin, evolution

and variation among human beings. It includes various areas like primatology dealing with primates, serology dealing with blood groups and forensic anthropology. Archaeological anthropology, another branch examines the prehistoric cultures of human being. Another branch, Linguistic anthropology examines the origin evolution and variation of languages as part of human culture.

- The distinguishing feature of anthropology is its holistic nature. It is concerned with humans in all places of the world and it traces human evolution and cultural development for millions of years in the past to the present day.
- Anthropologists are engaged in various teaching and research institutions, different Governmental and Non-Governmental Organisations, Museums and Social Welfare Departments.
- Since anthropology is a bio-social science, it is related to many biological and social sciences. Anthropology is very much related to biology. Both study the origin and evolution of human beings. Anthropology is also related to many social sciences like, Sociology, History, Economics and Political Sciences.
- The enquiry into the human existence and the curiosity about the secrets of human life, lead to the development of anthropological thought. T K Penniman classified the origin and development of anthropology into four periods namely Formulatory, Convergent, Constructive and Critical period.
- Various stages of anthropological development in india, were classified as formative phase, constructive phase, analytical phase and evaluative phase.

The learner demonstrate the ability to :

- ◆ Identify the meaning and definition of anthropology and specify its nature and scope.
- ◆ Distinguish the major branches of anthropology and demarcate their scope.
- ◆ Appreciate the importance of anthropology and identify areas of its application.
- ◆ Relate anthropology with other disciplines and establish its inter-disciplinary nature with illustrations.
- ◆ List out the instances of explorations as a result of human curiosity.
- ◆ Identify the major land marks during different periods in the development of world anthropology as a discipline.
- ◆ Identify the major land marks during the different periods in the development of Indian anthropology.

Evaluation Items

1. Find the odd item and justify.
 - a. Serology, ethnography, osteology, palaeontology
 - b. Economic Anthropology, Forensic Anthropology, Political Anthropology, Familial Anthropology
2. Draw a flowchart showing different branches of anthropology.
3. Find the pair.
 - a. Osteology: bones, Serology:
 - b. Study of pre historic culture: Archaeology,
Study of the relationship between language and culture:
4. In a debate conducted in your classroom some students argued that since anthropology is included in the humanities combination it is a social science. Some others argued that Anthropology deals with human origin and evolution it is purely a biological science. What is your opinion? Substantiate.
5. The years given below are related to the development of anthropology in india. Arrange the years with its corresponding significance in a historical time line. (1921, 1945, 1784, 1920, 1912, 1919, 1938)
6. Examine the special features of anthropology that make it distinctive from other disciplines.
7. Examine the meaning, scope and subject matter of anthropology.
8. Match coloumn A, B and C properly.

A	B	C
a. Formulatory Period	Charles Darwin	Trobriand Islanders
b. Convergent Period	Aristotle	British Anthropologist
c. Constructive Period	Malinowski	Greek Philosopher
d. Critical Period	E B Tylor	Origin of Species

BASICS OF SOCIAL CULTURAL ANTHROPOLOGY

CONTENTS

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 - British and American Traditions
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 - Community
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Introduction

- ◆ From where did you acquire your mother tongue?
- ◆ How did you learn to eat?
- ◆ How did you learn to worship?

All these are not inherited by birth, but learned and acquired from one's family, peer groups, schools or from other social groups. We learn many things from our family, even before we step into the school or mix into the society. Though we all learn these things from our respective families, differences might exist amongst us in our ways of worshipping, the types of food we prefer, dress pattern, settlement pattern and so on.

- ◆ Why do these differences exist amongst us?

We learn these differential ways of life from our family, community and society. Anthropologists study family, community, society and religion as social institutions. They also study the role of these institutions

play in the process of learning certain ways of life that are different from another. As human beings, we all live in a society, each characterised by a distinct way of life, which we call culture. Hence, there is no human society without culture nor is culture possible in the absence of society. Yet, the concepts, society and culture are abstract in nature. After studying this unit, we shall get a vivid picture of what constitutes a society and its culture.

I. Meaning and Scope of Social Cultural Anthropology

The Branch of Anthropology that concerns with the study of social institutions and the social and cultural aspects of human life is known as Social Cultural Anthropology. Till early 19th century, the term Social Cultural Anthropology was not popular. Almost everyone who was interested in the study of 'primitive' people and their culture was known as Ethnologist. In Britain the major focus of anthropological studies was social relationship or social structure. But in America the early anthropologists gave importance to the understanding of culture or the way of life. In both the countries there are Universities with Social Anthropology and Cultural Anthropology as subjects. In India, which had been influenced by both the British and the American traditions, the term Social Cultural (or Social and Cultural or Socio-Cultural) Anthropology is used increasingly. Hence, the main focus of study of Social Cultural Anthropology is on both social structure and culture. However, in different places without much of a difference this is almost interchangeably referred to as Social Anthropology, Cultural Anthropology, Socio - Cultural Anthropology, Social and Cultural Anthropology or Social Cultural Anthropology. Yet, all these studies on how human beings live throughout the world are concerned with the similarities and differences among the contemporary cultures and societies.

Familiarity with some of the definitions of Social Cultural Anthropology would help you to make an understanding of its scope.

Definitions

- ◆ According to Piddington '*Social Anthropologists study the cultures of contemporary primitive communities*'.
- ◆ Charles Winick defines Social Anthropology as '*the study of social behaviour especially from the point of view of the systematic and comparative study of social forms and institutions*'
- ◆ Encyclopedia Britannica defines Social Anthropology '*as a social science engaged in the comparative study of human societies*'.

- ◆ Beals and Hoijer in their book *'Introduction to Anthropology'* (1956) state that 'Cultural Anthropology *studies the origin and history* of Man's cultures, their *evolution and development* and the *structure and functioning of human culture in every place and time*'.
- ◆ M.J. Herskovits, in his book *'Man and His Works'* (1955) points out that Cultural Anthropology studies *the way man has devised to cope with natural settings and social milieu, and how bodies of customs are learnt, retained and handed down from one generation to the next*'.

Analyse the above definitions, by focusing on the italicised part, find out the characteristics of Social Cultural Anthropology.

- It is a study of pre-literate as well as modern societies
- It is a study of structure and function of societies
-
-

Why do we study Social Cultural Anthropology? The answer is quite evident.

The main aim of social cultural Anthropology is to understand and appreciate the diversity in human behaviour, and ultimately to develop a science of human behaviour. This is attained through the comparison of different people throughout the world.

All Anthropologists agree that some social cultural features are universal. That means, they are almost common to all cultures. These include family, marriage, kinship, economic organisation, political organisation, religious organisation, social control etc. Social Cultural Anthropologists mainly focus on these universal aspects of culture to study the social relationship. They study how these social institutions have originated and developed. They also study the changes that have occurred in these institutions from the past to the present. As you learned earlier, there are several sub-fields in social cultural anthropology. All these specialised areas are closely related to each other. For instance, in our society, marriage is formalised with the help and in consultation with other members of the family and society. It might involve decision making, religious sanction and ceremonies, economic liability, etc. Hence, the knowledge of the institution of marriage would be incomplete without the knowledge of its links with other institutions like family, religion, economic and political organisation, etc. All these aspects are studied in an interrelated manner, in Social Cultural Anthropology, with an in-depth approach through its specialised fields.

As we have noticed earlier, while studying the social and cultural aspects of human beings, emphasis is seen given either to society or to culture or both. This has become more or less an approach or tradition in Britain and America.

British and American Traditions

If you had carefully read the definitions of Social Cultural Anthropology given in the beginning, you would notice that some scholars have used the term Social Anthropology and some others have used the term Cultural Anthropology. You must be curious to know why they have used different titles for dealing with same or similar aspects. Likewise, you might also come across books entitled 'Social Anthropology', 'Cultural Anthropology', as well as 'Social and Cultural Anthropology' as given below:

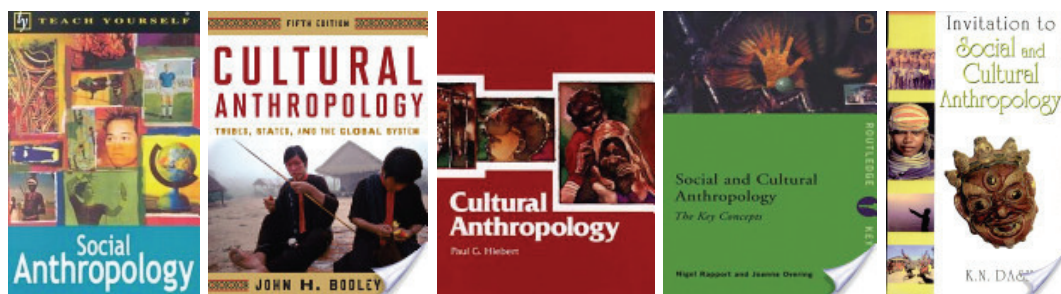
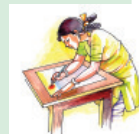


Fig 2.1 Books showing different anthropological traditions

You will be interested to know if there is any difference in the content of their approach, and how these differences came into being.

Examine the contents of some of these books available in your library or through Internet Browsing and find out for yourself, if there are differences in the subject matter of these books and in their approach, and if so what? Discuss it in groups and prepare a discussion note for presentation.



Anthropology is a large and diversified subject, which is practiced differently in different nations. The term Social Anthropology is popular in Great Britain and other Commonwealth countries. They emphasise on the study of social structure and social relations. To them, society is more important than culture. Culture cannot exist without human society. So they used the term social anthropology. The British Anthropologists like Radcliffe-Brown, W.H.R. Rivers, Malinowski, Evans Pritchard and many others used the term Social Anthropology in their writings. They concentrated on the study of social relations

such as family, marriage, kinship, economic organisation, political organisation etc.

American Anthropologists on the other hand believed that culture is the most important aspect of human existence. It is culture that makes the human society distinct. They study the origin, development and diversity of culture, and how it is transmitted from generation to generation in different societies. To them, culture includes society and hence they use the term 'cultural anthropology'. This is evident from the definitions of Erikson and Herskovits, stated above.

Earlier, due to the influence of Britain, the term 'Social Anthropology' was used in India also.

However, the influence of American anthropologists in Indian soil had changed the Indian perspective in this regard. The Indian anthropologists realised that it is not possible to separate society and culture in Indian context. Hence, they preferred to use the term that synthesised both the usages namely, social and cultural anthropology.

The main focus of Social Cultural anthropology is the study of culture and society. It is essential to have a detailed understanding of these concepts. We have seen earlier that, all of us do not have the same child rearing practices, same type of sheltering, and the same food habits. All these have undergone changes over these years. But take the example of animals. Have the child rearing practices, sheltering, and food habits of animals undergone any change? No. Why is it so? What makes humans different from animal species? The answer is clear. It is the way of life - culture - that makes humans different from animals. Culture is changing. Hence, changes occur in human behaviour and way of life. This concept of culture is the core subject of study in Social Cultural Anthropology.

II. Concept of Culture

A common way of life makes humans unique among other animals. However, all human societies have no common way of life. It is culture which differentiates humans from non-humans and among humans themselves. The term culture is used with different meaning. As a scientific term, culture refers to all the features of a society's way of life like food production, mode of dress, living habits, food preference, art, architecture and layout of



Evans Pritchard while writing the history of Anthropology writes, "In Britain, the subject was taught at Oxford since 1885 under the name 'Anthropology' not 'Social Anthropology' or 'Ethnology'. It was started in Cambridge in 1900 and London in 1908. But the first University Chair which used the title Social Anthropology was started in 1908.

(Source: Social Anthropology – SL Doshi & PC Jain 2002)

field farms, system of education, beliefs, values, art and literature. Thus, the term culture stands for the sum total of all human behaviour - verbal and non-verbal - and all human-made products - **material and non-material**.

The definitions of culture will help you to understand the concept in a better way.

Definitions of Culture

- ◆ According to M. J Herskovites "*culture is the man-made part of environment*"
- ◆ According to Ruth Benedict "*culture is not the content of social life, but it is an order and organisation of social life*".
- ◆ In the words of Bronislaw Kaspar Malinowski "*culture comprises of inherited artifacts, goods, technical process, ideas, habits and values*".
- ◆ The first Anthropological definition of culture was given by Edward Burnet Tylor (1871). To him culture "*is that complex whole which includes knowledge, beliefs, art, morals, law, customs and any other capabilities and habits acquired by man as a member of the society*".

Analyse the definitions and trace out the characteristics of culture

- Culture is complex
- Culture is created by humans
- Culture consists of material and non-material aspects
- Culture satisfies human need
- Culture is always that of a society and not of an individual
- Culture has the quality of adaptation
- Culture is universal: it exists in all human societies
- Culture is learned: it is obtained through the process of enculturation and not by hereditary
- Culture is diffused to other places through culture-contact
- No culture is inferior or superior
-
-
-

From the above discussion we have seen that all human populations have culture. There is no society in the world without culture. But some cultures are technologically more advanced than others. Some cultures depend completely on nature for their livelihood, while some others depend on the most modern technology for food production. Some are literate and some others are not. The introduction of alphabet created remarkable changes in all areas of human life. Some scholars, especially the early Anthropologists, considered it as a stage of development of culture. They termed it as civilisation.

Culture vis-a-vis Civilisation

You have studied about many civilisations in your previous classes.

- ◆ Indus valley civilisation
- ◆
- ◆

What are the characteristics of life during these civilisations?

- ◆ Housing, drainage, beliefs,.....,,

It is the way of life of the people of that period. Simply we can say that the way of life of a particular society is culture. Some scholars distinguish culture from civilisation and consider civilisation as the peak of development of culture. To them civilisation is characterised by civil social organisation in cities. That means, it is based on non-kinship groups like local kings or rulers. This is in contrast with kinship organisation of traditional society, where family, lineage and clan exerted influence on the members of the society. The evolutionists like E B Tylor, L H Morgan and others considered civilisation as a developed stage of culture. According to them society had passed through three successive stages of development namely, savagery, barbarism and civilisation. Civilisation is characterised by the invention of alphabet and writing. All human societies have culture and civilisation is one form of culture.

Discuss the following points in groups in the context of civilisation and culture.



- ◆ No culture is inferior or superior
- ◆ Culture is universal
- ◆ If so, considering civilisation as a developed form of culture is not appropriate. Consolidate your conclusions and present in the class.

We have seen that culture comprises visible items like dress, ornaments, house, etc. and invisible items like knowledge, beliefs, morals, norms, customs, values etc. It shows that some of the cultural elements are observable and others not. Invention of alphabet is the characteristic feature of civilization. Can alphabet be included under visible items of culture? Yes, it is visible when it is written. But it is meaningful only to those who recognize it as a symbol. For others, it is only some meaningless figures, mere signs. Hence, it cannot be treated as a visible item of culture. Knowledge of the visible and invisible elements of culture will help you to understand culture in a comprehensive way.

Material and Non-material Culture

Culture comprises both material and non-material aspects. Those aspects of culture which are visible are called material culture. According to Malinowski material culture is the physical aspects of culture. It includes house, household articles, vehicles, dress, ornaments, road, weapons, means of transport etc.

The aspects of culture which are not visible are non-material culture. These include knowledge, beliefs, values, religion, social organisation, philosophy, ideas, etc. They can be understood only through close interactions with the people.

List out the material and non-material elements connected with your school and prepare a chart/table.



Check your progress

- Match the columns properly

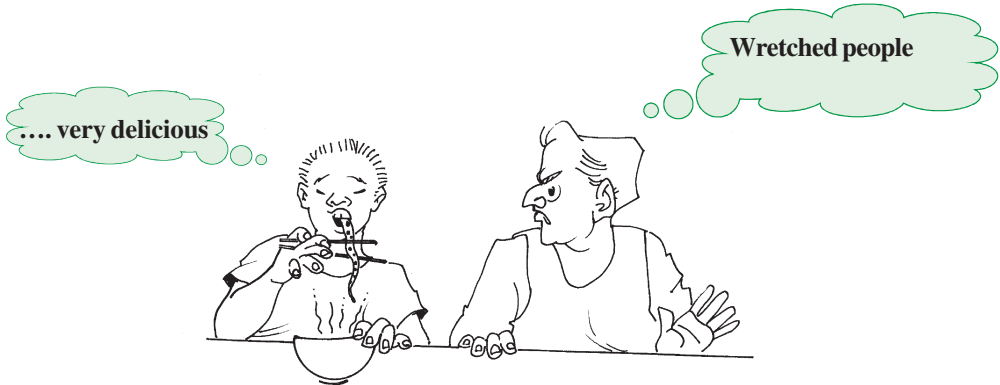
A	B
Social anthropology	Indian Tradition
Cultural Anthropology	British Tradition
Social Cultural Anthropology	American Tradition

III. Concepts related to Culture

We have seen that the belief systems are important part of culture. There exist different types of belief systems in different cultures. These belief systems have originated and

developed within the worldview of a particular culture. These may not be applicable to other cultures.

Look at the following conversations. Whose viewpoint is correct?



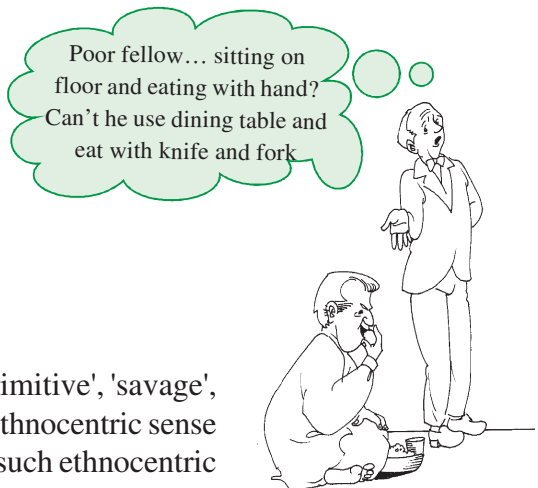
What inferences would you get from the above statements?

People often try to judge other cultures with their own cultural standards. This has resulted in creating lots of problems in a multicultural setting. Ethnic violence and cultural conflicts are the results of these attitudes. Anthropology has always advocated against judging other cultures with their own cultural standards. This has resulted in two famous cultural concepts in Anthropology: *ethnocentrism* and *cultural relativism*.

Ethnocentrism and Cultural Relativism

Ethnocentrism is an attitude of judging other cultures based on the norms and values present in one's own culture. Most people grow up thinking that their culture is 'the' way of life and that of others' is strange and meaningless. It is mainly because we consider our own culture to judge other cultures. This attitude is called ethnocentrism.

Now, we know that the terms like 'primitive', 'savage', 'barbarians' and so on had been used in an ethnocentric sense even by the anthropologists. It is because, such ethnocentric



attitude dominated the studies of other cultures, during colonial period. The British, who considered their life, language and culture superior to others, thought that it was 'white men's burden' to civilise the colonies.

Opposite to *ethnocentrism* is the attitude of *cultural relativism* (Some use the term 'ethno relativism'). It is based on the idea that each culture must be understood in its own standards. The beliefs and values of a culture should not be used to judge other cultures. The idea of cultural relativism holds the view that no culture is inferior or superior. One is not better than others. Each culture contains its own unique pattern of behaviour. So, each culture must be judged on the basis of its own norms and values. The attitude of cultural relativism aims to respect and appreciate cultural diversities.

Can you support killing of people on grounds of ritual purity?



The attitude of relativism can be developed by learning other cultures, by way of making friendship, by sharing food, by reading

books, listening to music and by appreciating the differences of other cultures. The most important and valuable contribution of anthropology to humanity is the concept of cultural relativism.

Can untouchability be allowed on the basis of cultural relativism?

Is the practice infanticide justifiable on the grounds of relativism?

Examine the above conversations and discuss the following points in your groups:



- ◆ Is it possible to take a cultural relativistic stand, in a multi-ethnic cultural setting like India?
- ◆ How far cultural relativism and violation of human rights go hand in hand?

*What are your findings and conclusions?
Present it in the form of a report.*



Each culture views its belief and values as good and upright. For example, the practice of untouchability, infanticide, and similar other practices are not considered as evil by an insider (native). But the perception of other cultures may be different. This shows that what an insider considers as culture may be different from that of an outsider's perception. Anthropologists understand this difference mainly because they study 'other cultures'. These two views of culture can be understood by studying the concepts of *emic and etic*.

Emic and Etic Culture

What the people think about their own culture is emic and what an outsider thinks about a culture other than his own is etic. The term emic refers to what insiders do and grasp about their own culture. It includes people's view of reality and their explanation of why they do and the way they do.

Observe the emic and etic views from the following examples:

Emic view	Etic view
There is a local belief that the nails and hair removed from the body are not to be thrown in the open space, because there is a chance of the same being used for black magic causing harm to the person concerned.	The etic side of it may be that throwing nails and hairs carelessly is not hygienic, and it will in turn mix up with food materials.
In Hindu families, the elders do not allow the coconut piece (half) open inside the home saying that it is done on the occasion of death.	Keeping half of the coconut open will lead to the coconut becoming dry and unfit for use.

Do you know?

The words Emic and Etic had been coined by a linguist Kenneth Pike. It has been taken from the words phonemic and phonetic.

Cultural Anthropologists and Ethnographers always try to draw an emic view of culture through participant observation. In ethnographic research, the researcher attempts to compare the natives' (insiders') view of culture with that of an outsider. The view of a native on the meaning and importance of her/his own culture and the perception of an

outsider about same are equally important. Local statements, perceptions, categories and opinions help the ethnographers to understand how culture works within. At the same time, an etic view could look to other explanations in an objective way without being coloured by the emic view. Furthermore, the emic view might represent the hidden rationality of a particular belief which the insiders might not be conscious of. To be holistic in one's study, the researcher should utilise both these views.

Collect the local beliefs and practices known to you and find out the emic and etic meaning of those beliefs and practices.



You have studied about material and non-material culture. You must now be able to list out the material and non-material cultural elements of your classroom. How far can these elements be divided further in a meaningful way? By taking your classroom as a whole, try to list out all its elements. These would include bench, desk, table, chair, chalk, window, teaching, learning, friendship, respect, feelings, etc. Can you divide these elements into further meaningful units? For example if the desk is divided further, it might lose its use-value and meaning. Cultural elements can be divided into the smallest meaningful units, as minute aspects of culture. So, the study of smallest and indivisible unit of a culture is indispensable for a holistic understanding of culture.

Culture Trait and Culture Complex

The smallest and indivisible unit of a culture is called '**culture trait**'. It is the smallest functional unit of a culture. If it is divided further, there will be no meaning or function. Cultural trait can be material or non-material. Material traits include house, radio, mobile phone, watch, television, furniture, dress and ornaments and non-material traits include beliefs,



Emic and Etic views of the concept of sacred cow

A group of people in India, do not kill or eat cows because they believe that cow is sacred. They do not kill or sell their cattle even in extreme needs. We can see large population of cows, wandering freely through both rural areas and streets, undisturbed by the millions of hungry and malnourished people. The concept of sacred cow actually plays an adaptive role in the ecosystem. Cattle are very essential in Indian economic set up where ploughs and carts are pulled by the cattle, cattle manure is used as fertilisers and fuel. For all these, the cows need to be protected. The doctrine of ahimsa towards cows puts full command of unorganized religion, not to destroy the valuable resource even in extreme needs.

(Adapted from Marvin Harris, 1974. Cows, Pigs, Wars and Witches: The Riddles of Culture)

values, knowledge, concepts, symbols, gestures, world views, customs, traditions, hand-shake, greetings, touching of feet, blessing, kissing, sprinkling of water on idols, saluting flag, walking barefoot etc.

Large number of cultural traits that combine to form a meaningful segment of culture is called a **culture complex**. A cultural trait will be meaningless, if it is separated from the culture complex. For example, a chalk, as a cultural trait, is important only if it is a part of classroom education. When it is separated from classroom and put in an agricultural situation, it will be meaningless. School, Family, religion, factory, agriculture, etc. are examples of culture complexes. If kitchen is considered as a culture complex, then the items like stove, utensil, mixer grinder, cooker, fridge, knife, glass, plate, the knowledge of making and preserving food are all culture traits.

List out the cultural traits taking family, religion, marriage etc. as cultural complexes, and present the same in the form of a chart.



You must have seen the children involved in family role-play, taking up different roles such as that of father, mother or sibling. From where did these children learn this game? It is a type of role imitation. They have seen their mother, father or other members in the family, in different roles. The children imitate their elders. Similarly, we have imbibed unconsciously many things from our family.

Family is the basic social unit for the process of enculturation



- ◆ How did you learn the way of praying and performing rituals?
- ◆ How did you learn to behave with other members in the society?
- ◆ From where did you learn the way of addressing your relatives?
 - ◆ Observing and imitating parents
 - ◆
 - ◆

Enculturation

Enculturation refers to the process by which one learns the way of life and behaviour of one's own culture. It will help the person to become an active participant of that culture. An individual can participate in the society, only if he/she learns the norms and values that exist in the society. A child learns toilet training, the way of addressing relatives (kinship terms), the way to behave with elders in the family, the beliefs and practices of his/



Fig. 2.2 Enculturation



Fig. 2.3 Enculturation

her culture by imitating and observing. Thus by imitating the elders in the society children acquire the knowledge of role which each person had to perform, the role of father, mother, grandmothers etc... How to face problems, how to co-operate with others, way of welcoming others, (hospitality), manners and how to look after the aged people are to be imparted through family itself. The process of enculturation starts from birth and ends only at death. After learning the basic behaviour from family, the person enters into society. When the individual encounters new situations each time in his/her life, one has to learn further lessons of behaviour based on his/her basic learning. Even a grown-up person has to understand how to tackle with one's occupation, how to interact with the spouse, in-laws etc. So enculturation is a continuous process. The major agencies of enculturation include parents, family members, elders, peer groups and society.

Sometimes a person learns other cultures willingly or unwillingly. For example, the tribal children, though they have their own language or dialect to transact, learn the language of other cultures while in contact. Likewise, a person is compelled to learn another language while interacting with people in a new situation. In both these cases, original culture might

undergo change due to the influence of other culture. Anthropologists take interest in the study of this process of culture change.

Acculturation

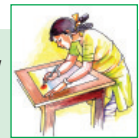
Acculturation refers to the changes that occur in one's culture due to continuous contact with other culture. It occurs when one culture dominates over other culture(s). It may happen intentionally or accidentally. For instance, Indian culture has undergone changes due to continuous contact with western culture. Similarly tribal cultures in India and elsewhere also witness widespread changes due to the contact with non - tribal cultures.

Due to the political and technological changes in the past decades, isolated indigenous populations all over the world are losing their identities. There are various forms of acculturation like *deculturation and transculturation*.

Deculturation is the process by which a culture loses its cultural identity due to contact with other cultures. Many tribal cultures are losing their identity under domination of external cultures.

Transculturation is the process of exchange of cultural traits among different cultures. Indian culture adopting English language and the European culture adopting Ayurveda are examples of transculturation.

Find out instances of acculturation, deculturation, and transculturation from the situations known to you. List out those instances of acculturation and present it in your class.



Culture Shock

Imagine a situation when you encounter an entirely different culture, with a strange language, food pattern, housing pattern and belief system. The problem may sometimes be simple or hazardous. List out the problems which you are likely to face in such a situation:

- ◆ Problem of communication
- ◆ Problem of food
- ◆
- ◆

Such a situation may include strangeness in the material culture, food ways, dress pattern, ideas, concepts, beliefs, practices etc. The whole set of feeling towards an unfamiliar situation can be called as culture shock. Culture shock is the psychological or social maladjustment, experienced when people encounter a strange cultural situation for the first time. It is a frightening feeling of alienation. It may result in adjustment problems. When a person is compelled to live in another culture where snake meat is delivered as regular food item, it will be a culture shock as far as that particular individual is concerned. Individuals differ in their ability to adapt with new situations. ***Ethnocentric people are more exposed to culture shocks.*** On the other hand, cultural relativists may find it easy to adapt to new situations, and overcome from culture shock.

Anthropologists who were trying to explore the different cultures, with their approach of cultural relativism also experience culture shock.



Did you ever come across the situation of culture shock in your life? Write an account.

There is widespread technological advancement in all spheres of life especially, during the last decade. You might have seen that even the older generation could not escape from adapting to these latest technologies. Mobile phones, internet, transport, and other modern amenities have made life more 'convenient' to a section of people. Even then, some people are not ready to change their traditional beliefs and way of life. For instance, there are people who are reluctant to change their beliefs regarding supernatural causes of disease. Why is this so? Anthropologists are of the opinion that the non-material aspect of culture changes very slowly as compared to the material aspects of culture.

Culture Lag

W.F. Ogburn in his book '*Social Change*' introduced the concept '*culture lag*'. According to him, compared to non-material aspects of culture including beliefs, values,



Do Anthropologists get culture shock in the field?

My first impression of Bahia community was of smells. Alien odors of ripe and decaying mangoes, bananas and passion fruits and swatting of the fruit flies which I had never seen before. There were strange mixture of rice, black beans and unidentifiable meat and floating pieces of skin. I remember one oatmeal soup and a slimy stew of beef tongue in tomatoes. At one meal a disintegrating fish head, eyes still attached, but barely stared up at me..... Gradually the smells, sounds, sensations and taste grew familiar to me.

Adapted from: Conrad Phillip Kottak: 'Assaul on Paradise: Social Change in a Brazilian Village', 1999

morals, etc. material culture changes more rapidly. In other words, the non-material part always lags behind the material part. The gap between the rate of changes in the material and the non-material culture is referred to as 'culture lag'.

Due to the rapid development of science and technology, our material culture had undergone radical changes. We have constructed roads, railways, airports, dams, big houses, etc. Now, we are more exposed to the latest electronic devices. During the last 200 years in India, much of the material culture has been borrowed from the west and many cities in India have been competing with western towns in the adoption of the latest aspects of material culture. Culture is changing very rapidly in areas like fashion, dress, artifacts, beautification, art and recreation. However, the pace of change has been very slow in the sphere of religious beliefs and cultural values. We have always experienced a gap between the changes in these two aspects of culture. This is called culture lag.



Check your progress:

1. Match the following

A	B
Visible aspects of culture	Culture trait
Smallest functional unit of culture	Cultural relativism
Beliefs, values and morals in a culture	Enculturation
Considering one's own culture superior	Deculturation
A child learn the kinship terms	Ethnocentrism
Even though economy is developed the status of women does not change	Non-material culture
Each culture has its' own values	Material culture
Tribal people lost their original culture due to culture contact	Culture lag

2. Find the odd one and justify.
Family, trade union, political party, student association
3. Make pairs by using the following culture trait and culture complexes.
(Father, Agriculture, Prayer, Blackboard, School, Sickle, Religion, Family)

We have examined different aspects of culture, which is one of the central themes of Social Cultural Anthropology. Another important theme of Social Cultural Anthropology is Society. The concept of society has different connotations in different contexts. You might have already learned what a society is in your previous classes. You have already heard about different types of societies like Girijan Co-operative Society, Milk society, Tribal society, Kerala society, Urban society etc. Do humans alone have society? No, ants, wolves and bees have societies. Then, what are the differences between human society and the societies found among other organisms? We often use the term society in our daily life without knowing the exact meaning of the concept. In this part of the unit, we will examine the various aspects related to the concept of society.

IV. Concept of Society: Meaning and Definition

A society is composed of individuals. They interact with each other on the basis of some shared behaviour. It is a network of relationship between individuals. So the essence of society is social relationship and social behaviour. This social

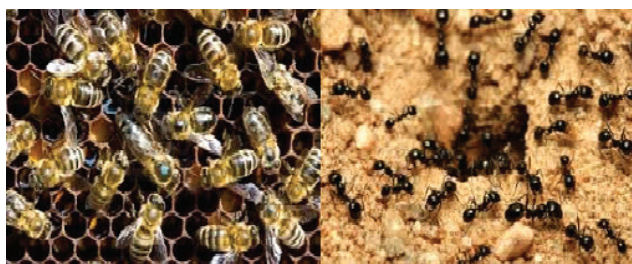


Fig. 2.4 Society of bees and ants

behaviour shared by the members, known as culture. Thus, society is composed of people who are interacting on the basis of shared beliefs, values and activities.

In a limited sense, the grouping of bees and ants can also be called as societies as it is composed of members who are interacting on the basis of certain shared behaviour. But society among animals is instinctual in nature, formed to meet the basic requirements of physical needs, and reproduction.

In human society, members are recruited by means of reproduction within the group. On rare occasions, members are recruited through enslavement, immigration, adoption or conquest.

On the other hand, the members in occupational or service societies like labour co-operative society, milk co-operative society, etc. are not recruited by means of reproduction. They are made up of some individuals with limited goals.

In short, the basic characteristics of human society can be summed up as the following:

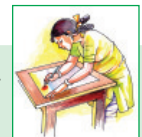
- ◆ It has a definite territory
 - ◆ It has a culture
 - ◆ It is a permanent, independent, and integrated group
 - ◆ Members are recruited by means of reproduction
- According to Maclver and Page, society is '*the web of social relationships*'.
 - According to Ralph Linton *society is an organised group of individuals. A culture is an organised group of learned responses, characteristics of a particular society.*
 - In the words of S F Nadal, *culture is the way of life of people while a society is an organised, interacting aggregate of individuals who follow given way of life.*

Every society is governed by a set of standardised way of behaviour. These standardised behaviour controls the activities of the members in the society.

Culture and Society

The terms culture and society are frequently used interchangeably. In simple terms, society is always made up of people and the way they behave is culture. A society is not a culture but it has culture. Culture, on the other hand, is a product of society. It refers to the material aspects as well as ideas, meaning and knowledge that people share. Culture belongs to a body of people who share a common tradition. Society and culture are the two sides of the same coin. The emphasis on one over the other has been the hallmark of the two traditions in Anthropology, namely, Social Anthropology of British Tradition and the Cultural Anthropology of the American tradition which you had learned earlier.

Prepare a chart distinguishing the characteristics of society and culture and present the same in the class.



Society and community are often used synonymously. For instance, Indian society/community, Chinese society/community, Tribal society/community, etc. However, though both the terms are related, they are different and have distinct meaning. The term society has a broader implication while the term community is a restricted implication. For instance, we talk of the Indian community settled in the United States; but use the term Indian

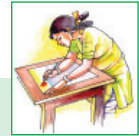
society while referring to the collective entity of all the people in India. In Malayalam language, the term community is translated as 'samudayam', and the term society as 'samooam', and the term culture as 'samskaram'. All these three terms in Malayalam have a common character implying collectivity.

Community

According to Maclver and Page, community refers to a group, small or large, whose members live together in such a way that they share the basic condition of common life. It is a small cultural system and its members derive their personal identity from their community membership. Caste and tribe are some of the examples of community. Some communities like the tribes, live in a common geographical boundary and share common economic resources. All people possess the feeling of community sentiments in thinking, thought, ideologies and common cause of activities.

Activity:

Prepare a chart, distinguishing the characteristics of society and community.



You have to behave in schools as per the norms and rules. Similarly, as a member of a society you are guided by the norms and values. The society executes these norms and values through family, marriage, religion and many other social institutions.

Institution

The aspect of culture that is governed by a standardised way of behaviour existing in a society is called institution. According to Radcliffe Brown, institutions involve socially approved pattern of behaviour of members. It is guided by the norms and values existing in the society.

Family is an institution



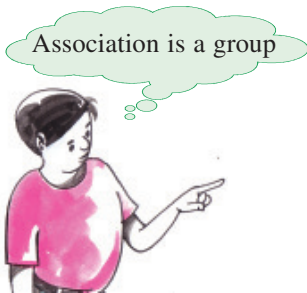
Family is a social institution. There exist different norms of behaviour between the members in a family. Deviation from the rule is not permitted or accepted. The status and role of each individual in a society are also controlled by this institutionalised behaviour. Marriage, economic organisation, political organisation, kinship etc. are other social institutions.

Anthropologists study social institutions like family, marriage, kinship etc. as cultural universals. In order to understand the culture of a given society, different institutions and its inter-relationship must be studied. All the institutions are interrelated and integrated.

Besides these social institutions, there exist different groups in each society, which are known as associations.

Association

- ◆ Have you heard the name of any Association?
- ◆ Are you a member of any of the Associations such as Students' Association, Alumni Association, Residents association etc.



There are some other associations like police associations, teachers associations, etc.

All these are formed with a specific objective. Association refers to a group of persons formed with a specific objective or a set of objectives. They are relatively small and localised. The members of an association try to satisfy their needs which do not come under the purview of the social institutions like family. Each association has its own specific guidelines of behaviour for its members. Important features of Association include the following:

- ◆ Associations are formed for specific purpose
- ◆ Membership is optional
- ◆ It is a temporary group (once the target is achieved, it may get dispersed)
- ◆ It is not restricted to a particular area
- ◆ It provides a code of behaviour for all its members.
- ◆ In modern times, associations are adaptive devices to fight for the rights of individuals and groups.

Malayalee association in Mysore try to help the malayalees in Mysore when they are in need. They take initiative to celebrate the Kerala festivals to maintain their native culture.

KALA (Kerala Art Lovers Association) in Arab countries try to unite the Malayalees and popularise the Kerala art and culture

Prepare a digital presentation distinguishing the characteristics of society, community, institution and association.



Group

Like associations, individuals with common interest join together to form different groups. Associations are different from Groups.

List out the names of the groups in which you are members.

- ◆ Play group (Cricket, Football, Tennis etc.)
- ◆ Family
- ◆ -----
- ◆ -----
- ◆ -----

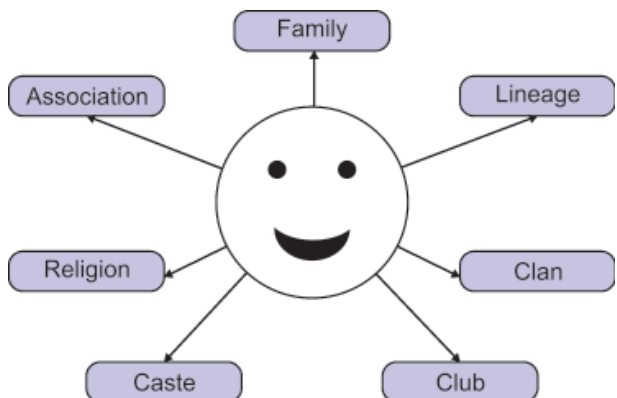
Individuals having common interests may join together to form a group. S F Nadel (1951) defines group '*as a collection of individuals who stand in a regular and relatively permanent relationship*'.

In some groups, all the members have face to face relation and interact with each other. This type of group is known as **primary group**. For example, family, local club, plays group, tribal settlement, or a village community.

Sometimes, large scale social organisations are formed in a society based on profession, political affiliation, occupation etc. They are **secondary groups**. All members in a secondary group may not know each other. But they become its members with view of common goal. Trade unions, professional associations, political groups and religious groups, are some examples of secondary groups.

Group can also be based on relationships. If the members of a group are related through blood or by marriage, it is known as kin group. Family, lineage and clan are kin groups.

Among different groups, family is regarded as universal and permanent. A person who is a



member of one group could be a member of many other groups like family, lineage, clan, caste and religion.

It is this inter-connection that maintains the society. Working or functioning of a society means working or functioning of different institutions, associations and groups within it.

Analyse the above chart and make inferences and present in the class.



Check your progress

- 1 Differentiate between institution and association.
- 2 Fill the table with the features of society and culture.

Society	Culture
.....
.....

V. Status and Role

An individual, being a member of an association or group or institution, has a position in that group. Corresponding to one's position, one has to perform some duties also. The positions and duties of an individual have to be examined to understand the social relationships.

At home you have some duties to perform. What are they? But when at school your duties may change according to the situation? What does it show? The duties or roles change according to the situations and positions .

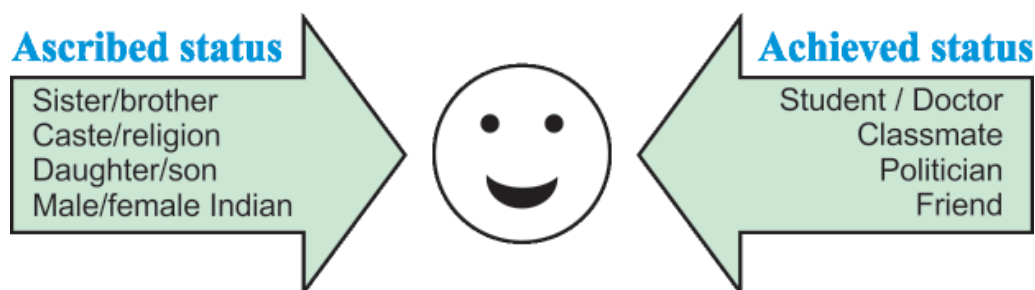
The position, which an individual occupies in the society, is called status. The duty, which a person has to perform according to one's status, is role. The position of an individual determines the duties one has to perform. A person could be a father, son, husband or brother at home. He may be an officer, workman, or a labourer outside his home. He is expected to perform certain duties that are associated with his different positions.

Status also implies ranking. It refers to one's ranking in relationship to other positions. For instance, the ranking of a leader is always at the top of the group. Social status is to be recognised by prestige. For example in school or college, the status of Principal and students are different.

There is no status without role, and there is no role without status. Each status consists of a related role. *A set of duties associated with a single status is called role.*

Status: Ascribed and Achieved

Generally there are two types of statuses: one occupied by a person by birth and the second occupied through one's own effort. The status which an individual occupies by birth is called *ascribed status* and the status which an individual acquires through one's own effort is known as *achieved status*.



The status of women in Kerala is relatively high in comparison with many other states in India. There could be various reasons for this. Discuss in groups how the change in the status of women reflects in their roles. Based on the discussion, prepare a note for presentation.



Check your progress

1. Prepare a chart showing different status and roles of a teacher, who is head of a school, family and an arts club.
2. Prepare a chart showing two types of status with examples.

VI. Social Structure and Social Organisation

You know the term structure, which means, the arrangement of parts in relationship to each other. What is the structure of an automobile engine? It is the arrangements of parts. The structure of our body means the arrangement of organs. Likewise, institutions are arranged in a society as parts in a machine or organs in a body. That means, institutions are the parts in a society. Individuals are arranged in different social institutions. That means individuals are the parts in a social institution.

The arrangement of activities in an automobile engine is its organisation. Similarly, the arrangements of activities of individuals and institutions in a society form social organisation. The study of social structure and social organisation is inevitable in understanding the functioning of society.

Social Structure: Structure is the ordered arrangement of parts. A structure of a classroom consists of the arrangement of windows, doors, walls, black board, benches, desks and so on. The basic elements of a society are individuals. They are arranged in different institutions and groups in relationship to each other. The basic institutions of a society consist of family, marriage, kinship, economic organisation, political organisation, etc. In short, social structure is arrangement of individuals in these social institutions in relationship to each other. These arrangements help for the smooth functioning of the society.



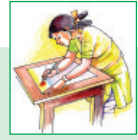
"Components of social structure are human beings. The structure itself being an arrangement of persons in relationship institutionally defined and regulated"

Radcliffe Brown(1952) : Structure and Function in Primitive Society

Social Organisation: How does a class room function? How are the duties of the teachers and students organised? A class room through the collective organisation of students, teachers, and the principal functions on the basis of syllabus, time table, rules and regulations of the institutions.

Social organisation is the way by which the activities of different parts of the society are organised. The arrangement of the activities of the individuals and groups in the society is social organisation. Thus, social structure is the arrangement of persons in different social institutions while social organisation is the arrangement of the activities of these institutions.

Find out the structure and organisation of the following and make a presentation of the same in the class:



- (a) A family (b) A factory (c) A political organization

VII. Ethnography and Ethnology

The concept of society and culture, and its various components like culture trait, culture complex, status, roles, association, community, group, etc. have been discussed above. You know that the central theme of social cultural anthropology is the study of society and culture. To understand society and culture in its comprehensive sense, anthropologists depended on simple societies. They studied the way of life of these societies and compared them with other societies to understand cultural similarities and cultural diversities. Most of the studies in anthropology earlier were categorised under ethnography and ethnology.

Ethnography

Ethnography is a simple and holistic description of a particular culture, at a particular period of time. An ethnographer collects data through direct interaction with the people. The settlement pattern, dressing, food habits, economic activities, political organization, family, marriage, kinship, beliefs, practices, rituals, customs, etc. are studied in detail in ethnographic studies. Ethnographic studies had been a primary concern of Social Anthropology from its very beginning.

For an ethnographic study, two types of data are required, quantitative and qualitative. Quantitative data consists of data pertaining to population, male-female ratio, size of houses, number and size of different types of house hold equipment, quantity of crops produced, income, quantity of material used and so on. Qualitative data include data pertaining to beliefs, sentiments, knowledge, social network of family, marriage, kinship, religious beliefs, practices and life cycle rituals, etc. Data collection in ethnography is primarily based on field work. Ethnographic field work involves living in close contact with the people under study. As all aspects of culture are related, the ethnographer must study the whole of social life, in relationship to each other. In ethnographic research, the researcher usually selects small-scale societies.

Brief History of Ethnographic Studies

Beginning of ethnographic studies can be traced back to the period of Herodotus in



Why Social Cultural Anthropologists have shown special interest in the study of pre-literate societies?

Most of the early Anthropologists were engaged in the study of 'primitive' or pre-literate societies. It was mainly to understand the way of development of modern societies through the study of living people with simple technologies. Pre-literate societies are different from non-literate societies. Non-literates are the contemporaries of historical people with access to writing. On the other hand, the pre-literates are those who lived prior to or away from the historical people or the mainstream population. Pre-literate or the so-called primitive people were relatively simple in their technologies and material possessions as compared to the historical societies. They were small in number, homogeneous, lived in relatively isolated places and had little contact with the outside world. However at present anthropologists study all types of societies irrespective of pre-literate or literate, simple or complex, rural or urban societies.

the 3rd century BC. Herodotus travelled to different places and met more than 50 different groups of people and described their culture. He was considered as the father of Greek Ethnographic studies.

The travelogues produced by the explorers including Marco Polo, Columbus, Vasco-de-Gama and others during the era of exploration in the 15th and 16th centuries brought out wonderful and exotic accounts of the people living in remote corners of the non-European regions of the world.

The Christian missionaries, in the process of their work of conversion carried out studies of different cultures of the people in different parts of the world.

Scientific ethnographic studies were started during end of 19th century. E.B. Tylor started field work to understand the culture. He stayed one year in United States and six months among the Mexicans to collect first hand information. Though he was not a real field worker, he verified the data collected by his students to ensure the accuracy. L.H. Morgan of America published the book 'League of Iroquois' (1951) based on the field work among the Iroquois tribes of America. He interviewed many Iroquois people and collected data on their dance forms, religious beliefs, customs and traditions, language, material culture, form of government, family organisation etc. As he was ignorant of the native language, he utilised the help of an interpreter called Ely Parker throughout his study.

Meanwhile, European administrators also tried to study the people of their colonies in their attempt to "civilise and rule" the colonies. In this context, the contribution of Edgar Thurston, 'The Castes and Tribes of South India' is worth mentioning. Many Anthropologists

Do you know?
Herodotus is the father of
Greek ethnography



were appointed by the British, to study the native culture of their colonies. By the beginning of 20th century, W.H.R. Rivers, a British Social Anthropologist, came to India to Study the Toda tribe of Nilgiri Hills in Tamil Nadu. His Monograph *The Toda*, was published in 1906. During 1906-1908, Radcliffe-Brown, the student of W.H.R. Rivers conducted field work among the tribes of Andaman Nicobar Island, and his book *'The Andaman Islanders'* was published in 1922. In 1912, ethnography on the tribe Munda, titled *'Munda and Their Country'*, was published by S.C. Roy. He was the first Indian Scholar who conducted an Ethnographic study of an Indian tribe. Hence, S.C. Roy was considered as the father of Indian Ethnography.



Fig. 2.5 Malinowski doing fieldwork among the Trobriand islanders

However, significant change in the approach of Ethnographic study was brought in By Bronislaw Kasper Malinowski. He conducted three years of intensive field work (1914-1918) among the tribes of Trobriand Island. He used the method of total Participant observation, and followed the native language throughout his study. It was a turning point in the field approach of Anthropology and hence, he was known as the *father of field work tradition in Anthropology*.

His book, based on the field work among the Trobriand Islanders was published as *'The Argonauts of Western Pacific'* in 1922. It made a new beginning in Ethnographic studies. Since then, following the method of Malinowski, a large number of ethnographic studies were published by different scholars throughout the world.

Practice of early anthropologists in documenting endangered cultures was called Salvage ethnography or urgent ethnography

Ethnographic studies were conducted in Kerala on different castes and tribes by different scholars. The earliest of such studies was the **'Castes and Tribes of Cochin'** by L.K Anandakrishna Iyer, published in 1911. Later, he was invited to head the First Department of Anthropology in the University of Calcutta in 1920. He is widely considered as the father of Indian Ethnology. His son, L.K. Krishna Iyer produced the work *Travancore Tribes and Castes* and his grandson Bala Ratnam became the third in the line to continue

this tradition of Anthropology. Some of the recent examples of ethnographic studies in Kerala include Rajalakshmi's study of 'Mullukkurumbas of Kppala'. A. Ayyappan's study 'Iravas and Culture Change', P.R.G. Mathur's study of the 'Mappila Fisherfolks of Kerala' and Ananda Bhanu's study of 'Cholanaickan, the Cave Men of Kerala'.



Check your progress:

1. Fill the blanks areas suitably.

Name of Scholar	Community studied	Book Published
W.H.R Rivers	.....	The Toda
Radcliffe Brown	Tribes of Andaman island	.....
.....	Trobriand Islanders	.....
S.C.Roy	.....	Munda and their Country
A. Ayyappan	.....	Iravas and Culture change

Prepare an ethnography of your own Caste/Community. You can utilise the following hints and refer the brief sketches of ethnographic reports given in appendix.



Ethnographic Profile of a Community

- I. Name and area of the community for study
 - (1) Name of the community, its synonym and etymology
 - (2) Present day distribution
 - (3) Mother tongue
 - (4) Other languages spoken
- II. Entering the community
 - (1) Permission of the local government officers
 - (2) Co-operation of community elders

- (3) General persons: Key informants

III Ethnographic Details

- (1) Food habits: Staple food, drinks, smoking etc.
- (2) Social: What are the major social divisions/ groupings and their hierarchical order, if any in the community? What are the chief functions of these sub-divisions?
- (3) Institution of marriage: What are the marriage rules? Age of marriage, bride price/ dowry. Rule of residence after marriage. Rules regarding divorce
- (4) Family pattern: Types/forms of family, rules of inheritance in family, succession pattern; Inter-family linkages in and outside the community.
- (5) Life cycle rituals: what are the major rituals observed on the occasion/state of (a) birth (and how names are given) (b) adolescence (c) marriage (d) death and (e) any other function. Any significant changes reported lately in the ritual performance.
- (6) Economic activities: what are the major resources? Occupation of the community: (a) traditional (b) primary and (c) subsidiary. The marker system, forms of trade, barter exchange etc. Patron client relationship (jajmani system) or any other form of socio-economic interdependence changes that have come about after independence in various economic pursuits.
- (7) Mechanism of social control: What are the traditional and statutory councils and the regional associations (sabha) in the community? Composition and function of such councils / regional associations. Forms of punishment and reward.
- (8) Religious attributes: Mention religion the community professes. What are the main family, clan, village and regional deities? What are the major sacred centres / shrines / pilgrimages. Role of ritual specialists. What are the major festivals and significance associated with them? Changes in religious organisation of the community.
- (9) Intercommunity linkages: Traditional linkages and Modern linkages.
- (10) Impact of development programmes: Literacy and education, health, drinking water, employment and self employment, communication, electricity, and any other parameters.

IV Any other observations of importance concerning life and culture of the community.

V Writing Report

The following points should be taken up appropriately, in a report

- ◆ Title and subtitle
- ◆ Statement of the problem
- ◆ Objectives of the study
- ◆ Description of the studies related to the problem
- ◆ Methodology: area of group selection, sampling, specific hypothesis, techniques used for study
- ◆ Organisation of data: description and analysis and presentation of quantitative data in table, graphs, photographs etc.

- ◆ Conclusions
- ◆ References of text
- ◆ Appendix

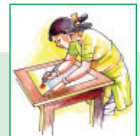
(Essentials of Cultural Anthropology: A.R.N. Srivastava pp 57-58)

Ethnology

Ethnology is the comparative study of races and cultures. In Britain, Social Anthropology was earlier known as Ethnology. Ethnologists classify people on the basis of their distribution. It looks at people from an etic point of view. Ethnology can also be called as a historical study. It is different from ethnography. While ethnography requires primary data and close relationship with people, ethnology does not require direct interaction with the people. Ethnology can be based on different ethnographic studies. The important features of ethnology can be listed as below:

- ◆ Ethnology is narrative
- ◆ Ethnology is historical
- ◆ Ethnology is comparative
- ◆ It can be based on ethnographies.
- ◆ It need not be based on primary data.
- ◆ It studies cultures at different times and in different places.

Now you are familiarised with the contents of Ethnology and Ethnography. Prepare a chart showing the difference between the two.



Let us sum up

- ◆ The Branch of Anthropology that concerns with the study of social institutions and the social and cultural aspects of human life is known as Social Cultural Anthropology. Some scholars have used the term Social Anthropology and some others have used the term Cultural Anthropology. The term Social Anthropology is popular in Great Britain and other Commonwealth countries. Cultural anthropology is popular in America. In India, the term social cultural anthropology is in vogue.

- ◆ The first Anthropological definition of culture was given by Edward Burnet Tylor (1871). To him culture "is that complex whole which includes knowledge, beliefs, art, morals, law, customs and any other capabilities and habits acquired by man as a member of the society".
- ◆ Some scholars distinguish culture from civilisation and consider civilisation as the peak of development of culture. Culture comprises both material and non-material aspects.
- ◆ Two famous cultural concepts in Anthropology: ethnocentrism and cultural relativism. Ethnocentrism is an attitude of judging other cultures based on the norms and values present in one's own culture. Opposite to ethnocentrism is the attitude of cultural relativism.
- ◆ The two views of culture can be understood by studying the concepts of Emic and Etic. What the people think about their own culture is emic and what an outsider thinks about a culture other than his own is etic.
- ◆ The smallest and indivisible unit of a culture is called 'culture trait'. Large number of culture traits that combine together to form a meaningful segment of culture is called a culture complex.
- ◆ Enculturation refers to the process by which an individual learns the way of life and behaviour of his own culture.
- ◆ Acculturation refers to the changes that occur in one's culture due to continuous contact with other culture.
- ◆ Culture shock is the psychological or social maladjustment, experienced when people encounter a strange cultural situation for the first time. Ethnocentric people are more exposed to culture shock. A gap between the changes in the material and non-material aspects of culture is called culture lag.
- ◆ A society is not a culture but it has culture. Culture, on the other hand, is a product of society.
- ◆ Community refers to a group, small or large, whose members live together in such a way that they share the basic condition of common life.
- ◆ Institutions involve socially approved pattern of behaviour of members. It is guided by the norms and values existing in the society. Family, marriage and religion are institutions.

- ◆ Association refers to a group of persons formed with a specific objective or a set of objectives.
- ◆ Like associations, individuals with common interest join together to form different groups. Associations are different from Groups. There are primary and secondary groups.
- ◆ An individual, being a member of an association or group or institution, has a position in that group. Corresponding to one's position, one has to perform some duties also. The status which an individual occupies by birth is called ascribed status and the status which an individual acquires through one's own effort is known as achieved status.
- ◆ Social structure is the arrangements of individuals in society. The arrangement of the activities of the individuals and groups in the society is social organisation.
- ◆ Ethnographic studies had been a primary concern of Social Anthropology from its very beginning. It is the descriptive study of a culture.
- ◆ Ethnology is the comparative study of races and cultures.

The learner demonstrate the ability to

- ◆ Analyse the meaning of social cultural anthropology and appreciate the British, American and Indian traditions.
- ◆ Identify the meaning and definition of culture, elucidate its characteristics and components and differentiate culture from civilisation.
- ◆ Distinguish the different concepts related to culture and ascertain its application.
- ◆ Distinguish the concept of society from culture and delineate various terms and concepts associated with society.
- ◆ Ascertain the concepts of role and status and appreciate their application in day to day life situation.
- ◆ Analyse the meaning of social structure and delineate it from social organisation.
- ◆ Identify the difference between ethnology and ethnography and write auto ethnography.

Evaluation Items

1. While arranging some books in the Library, the Librarian asked you 'Why do the books having same content, have different titles like 'Social Anthropology', 'Cultural Anthropology, 'and Social Cultural Anthropology' etc. How will you explain to her about these differences? Explain this based on different traditions of Anthropology.
2. Do you think culture is universal? Identify the universal elements found in all cultures of the world.
3. Identify the cultural traits from your locality and arrange them into various cultural complexes, and explain the relationship between both.
4. 'Working of the society is the workings of social institutions' explain this based on the analysis of different social institutions like, family, marriage etc.
5. 'Family is a social institution and a primary group' justify this statement based on your knowledge of institution and group.
6. Prepare a time line showing major turning points in the development of field work for ethnographic studies in anthropology.
7. Prepare auto ethnography.
8. Classify the following terms under two suitable headings:
(Descriptive, racial distribution, comparative study, field work, a culture, secondary data, monograph, two or more cultures.)
9. Prepare 10 objective questions and their answers for conducting a quiz competition in your class on the topic 'Concepts of Society and Culture'.

Appendix

Brief Ethnography of the Toda

The toda is a pastoral tribe who live in the Nilgiri hills of South India. The Todas live there with four other tribes namely Badaga, Kota, Kurumba and Irula. They are tall, fair, with long and narrow nose, long head with black wavy hair. The word Toda has been derived from the name 'Tundra' - the sacred tree of the Todas. Numerical strength of Toda population is very low and government have taken some important measures to protect them.

Material culture: The Todas present a classic example of pastoral economy. They know neither hunting nor agriculture, and rear only buffaloes. They make various products like ghee, cheese, butter, curd from milk of buffaloes. These products are partially consumed by themselves and the rest is sold or exchanged with the neighbouring tribal communities.

Division of labour: Each family is engaged in caring large number of buffaloes. The males of the house take the animals to the field regularly. In the morning the Females are not allowed to enter into the dairy house because of the taboo - Milk is indispensable in the socio-religious life of the tribe. Milking is done twice a day - early in the morning and in the evening. The buffaloes are of two types, some are regarded as the ordinary type and other are sacred. The ordinary buffaloes are maintained by an individual family a for ordinary use, whereas sacred buffaloes are kept in the special shed. Milk from the sacred buffaloes is offered to gods.

Food: The Todas are purely vegetarians. Their favourite dish is rice, boiled in milk. They also prefer curd, churned milk and plain milk. They take vegetables and green leaves as their principal meals. Meat of the sacrificed buffaloes is considered as sacred, so they take this during annual festivals. Both males and females of the Toda community are addicted to liquor. The habit of smoking also prevails among both the sexes.

Reciprocity: The markets of the Todas are actually the homes of the neighbouring people. Neighbouring communities like Badaga supply them agricultural products in exchange of milk, the Kotas supply the various utensils made of clay and iron and the Irula and Kurumba, the hunting gathering group bring different forest products like honey fruit, tubers, vegetables etc.

Settlement: The Toda village consists of ten to twelve huts called 'Mandu'. The huts are of two types. The first type is half-barrel in shape. A hut is divided into two portions, inside

room and outside room. Inside room is used as a workshop where the females have no entry. The outside room is meant for living and other house hold work. The second type of hut is not barrel in shape. It is circular in shape and made of stone. This type of hut is used to keep the sacred buffaloes.

Dress: Todas are simple people. The males use a long strip of white loin cloth which has to be thrown over the shoulders, after covering the waist. This is their traditional dress. Sometimes they use clourful cloth for covering the upper part of their body. Women use long thick cloth covering almost the entire body. They keep long hair in plait. They use ornaments like ear- rings, nose-rings, nose pin etc. The Toda women are expert needle workers.

Social Organisation: Todas are endogamous, marriage alliances occur exclusively within the tribe. The tribe is divided into two subdivisions called moiety - Thartharol and Teivaliol. Each of these two moieties are again endogamous. The members of Thartharol consider themselves superior to the Teivaliol.

Family: Todas exhibit polyandrous type of family. A woman with her multiple husbands and children usually form this type of family. The husbands may or may not be brothers. Children are known after their 'mother'.



BASICS OF BIOLOGICAL ANTHROPOLOGY

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Introduction

Most of us are familiar with the interesting story of king Solomon who cleverly solved the dispute between two women both claiming a child to be theirs. When the king ordered to cut the child into two and give half part to each of the women, the actual mother step down from her claim. She agreed to give the child to the other as she wished the child should live. So the wise king found out the actual mother.



Fig 3.1 Dispute over maternity-settlement in King Soloman's court in an artist's imagination.

Do you think such disputes can be solved in this way in the modern times?

In one case, a 13 month old child was in the news. A young woman launched a legal battle against a man, who took away the baby within two days of its birth. This man and his legally wedded wife claimed the baby to be theirs. However the hospital records showed that the woman who registered the case was the real mother. To resolve the dispute the supreme court took resort to DNA profiling technology and ordered the test to be conducted for the couple, petitioner and the child.

You have already studied about DNA and RNA in your previous classes. Along with DNA there are many other factors that distinguish an individual from another. So we know that the biological variation of human is affected by hereditary factors and environment. It would be interesting to understand such biological variations of human along with knowing in detail his/her biological origin and evolution. This unit on biological anthropology would help to understand all these areas of human life by examining various theories of evolution, concepts related to heredity and, variations.

I. Meaning and Scope of Biological Anthropology.

We have learned earlier that as human beings we are curious about so many things. As you know, anthropology addresses those questions of curiosity that concern all about human beings. The following are such questions related to our biological nature.

- ◆ How did the humans originate? Where did they originate?
- ◆ Are we related to other animal organisms including the apes and monkeys?
- ◆ Why did the offspring look like or look different from their parents?
- ◆ Why do the humans look so different from each other?
- ◆ What is the basis for human variation and diversity?
- ◆ Is there anything common among all human beings?

We can go on and on with a number of questions as shown above. These are some of the questions that the biological anthropology is concerned with, in its attempt to explore the human species in its totality.

Biological anthropology, also known as physical anthropology, studies the biological characteristics of humans. Biological anthropology deals with the study of biological origin, evolution and variation of human beings. It is interested in the comparative study of the past, present and future of human life from a biological point of view. It also analyses the biological adaptation of different human populations living in different geographical and

ecological zones. Biological anthropology looks for scientific evidences in its analysis and inferences. In the process, it uses some of the general principles of biology and utilises the findings of anatomy, physiology, embryology, zoology, paleontology etc.

For a systematic study of this kind, there are many fields of specialisation within biological anthropology as the following:

- Paleoanthropology
- Primatology
- Human Genetics
- Forensic Anthropology
- Serology
- Dermatoglyphics
- Anthropometry and Craniometry
- Paleopathology
- Bio-archaeology
- Neuro- Anthropology
- Biomedical Anthropology

Let us take a brief look into these specialised areas of biological anthropology before proceeding further.

Palaeoanthropology earlier known as human palaeontology is the study of human origin and evolution, particularly as inscribed in the fossil record. Palaeo anthropologists are interested in reconstructing the evolutionary stages of humans, based on fossil evidences. They work with archaeologists, and geologists, in unearthing fossil remains from many parts of the world. The knowledge of osteology helps them to examine, measure, and reconstruct these remains to understand the course of human evolution, and identify the possible lines of descent from our ancestors to the present form, *Homo sapiens*.

Primatology is the study of primates, the group to which prosimians, apes, monkeys and humans belong. It focuses on how the behaviour of non-human primates is similar to that of the humans. The anatomy of non-human primates especially monkeys and apes has been studied to ascertain the similarities and differences between these primates and humans. This type of study helps to trace the evolutionary relationship between human and

non-human primates because of the remarkable similarities between monkeys, apes and humans.

Human Genetics is the study of gene structure and action and the patterns of inheritance of traits from parents to off-spring.

Forensic Anthropology deals with legal matters from an anthropological perspective. It is the application of osteology, paleopathology, archaeology, and other anthropological techniques for the identification of modern human remains or the reconstruction of events surrounding a person's death and for legal purposes.

Serology: It is a scientific study of blood groups. It studies plasma serum and other red cell enzymes. In practice, the term usually denotes the diagnostic identification of antibodies in the serum. Serological tests are also used forensically, particularly concerning a piece of evidence.

Dermatoglyphics is the study of skin ridges on finger palms, toes and soles. Finger print patterns are not only used in Forensic investigation but also is genetics to know the variation between two populations.

Anthropometry is the systematic art/study of taking measurements on skeletons and living human beings.

Craniometry is the sub branch of anthropometry deals with the measurement of craniums.

Each of these specialised areas within biological anthropology contributes to the understanding of the biological aspects of humans. The important biological aspects of human beings would include those that are related to the theories



New areas of Biological Anthropology

Paleopathology is a study of disease in antiquity. It studies the traces of disease and injury in human skeletal remains. More over it focuses on pathogenic conditions observable in bones or mummified soft tissue. It also concentrates on nutritional disorders, variation in stature or the morphology of bones over time, evidence of physical trauma, or evidence of occupationally derived biomechanic stress etc.

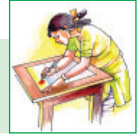
Bio-archaeology is the combination of human osteology or the study of human bones with archaeology to study the human bones associating them with the location of its recovery in order to understand the past human populations

Neuro-Anthropology is the study of human brain, evolution and culture as neurological adaptation and environment.

Bio-medical Anthropology incorporates perspectives from the biological and medical anthropology subfields. It mainly seeks to improve medical practice and biomedical science through the holistic integration of cross-cultural or bio-cultural, behavioral, and epidemiological perspectives on health. As an academic discipline, it is closely related to human biology.

of human evolution, human genetics and human variation. The present unit focuses on each of these aspects for a detailed examination.

Prepare a chart showing the different branches of Biological Anthropology.



Check your progress

1. Find the pair.
 - a. Study of blood : Serology , Study of bones :
 - b. Study of fossils: Palaeoanthropology, Study of primates :
2. Fill the blank areas suitably.
 - a) Biological anthropology, also known as studies the characteristics of.....
 - b) The study of finger prints is known as

II. Theories of Human Origin and Evolution

The most important question that has always been exciting human mind is about human origin and destination. Where did we come from and where are we heading to? Modern palaeontological evidences and scientific developments tried to find out an answer to these questions by reconstructing the human past. We were able to trace back to our origin with evidences based on the theories of evolution. To understand the human origin and evolution, we have to first look in to the emergence of life on the earth.

Emergence of Life on the Earth

You must have studied in your previous classes, some of the basics of the beginning of the universe and about the formation of life on the earth. The earth is one of the planets that revolves around the sun. It is believed that the earth was formed about 4500 million years ago. According to one theory, it is thrown into the sun's gravitational field by the explosion of a star called Supernova. There was no life on earth until half of its life span. About 3000 million years ago life appeared on earth in the form of protoplasm (protozoa) at the meeting place of water and land. It is believed that life is originated from inorganic matters due to many physical-chemical conditions prevalent at the time of earth's evolution.

Earlier Theories of Evolution

Along with knowing the time of origin of life, it is equally important to know how life forms originated as well. Different theories were proposed about the origin of life. Let us examine those earlier theories of evolution.

Theory of Spontaneous Origin: According to Greek philosophers like Aristotle, Democritus and Thales, life has originated repeatedly from inanimate materials or non-living things in a spontaneous manner.

Theory of Divine Creation: A Spanish monk Father Sudrez proposed this theory. According to Genesis of the Old Testament of the Bible, the world was created by supernatural power. The theory specifies that all creations including plants, animals and human on earth were created during those 6 days. Since all the species were created individually by God, the theory does not accept the idea of origin of new species from ancestral forms.

Theory of Eternity: This is an orthodox theory. It believes that some organisms were already present, from the very beginning of the universe. Those organisms still exist and will continue to live in future, in addition to some new forms. According to this theory the original forms are eternal and they have been preserved automatically.

Theory of Virus: Some scientists believed that virus was initially responsible for the emergence of the life. The viruses hold a transitional stage between living and non-living forms. By nature, virus is non-living, but when it reaches into the body cell of the living host, it behaves as living. Therefore, it is believed that such a creature might possess a role in the emergence of life.

Theory of Cosmic Origin: Richter developed this theory and was supported by Thomson, Helmholtz, Von Tiegheim and others. This theory advocated that the first life seed had been transported through the cosmic particles from other planets. According to these scholars, the meteorites that travelled through the earth's atmosphere, contained embryos and spores in them, which gradually grew and evolved into different types of organisms.

Theory of Catastrophism or Cataclysm: French Geologist, Georges Cuvier proposed this theory. His observation was based on the fossil remains of varied organisms. According to him, the earth had to face severe natural calamities at different times during which many animal species have been destroyed. But each time when the earth settled after a great

catastrophe, relatively higher forms of animals appeared to replace the situation. According to him, a series of catastrophes were responsible behind changes, where previous sets of living creatures got replaced by new creatures of complex structures. As per his scheme, corals, molluscs and crustaceans appeared in the first phase. Then came the first plants, followed by the fish and reptiles. The birds and mammals appeared thereafter and in the last phase, human beings emerged.

- ◆ What do you think about the shortcomings of these theories?
- ◆ Are the propositions in any of these theories based on solid evidence?
- ◆ Do they have any scientific basis?

The earlier theories mentioned above were not accepted by scholars, as they lacked scientific basis. But later theories tried to explain the phenomena of organic evolution based on various evidences. Let us examine them in the following section.

Theories of Organic Evolution

The term evolution was first applied by the English philosopher Herbert Spencer, to mean the historic development in life. In this context, human biological evolution started with the origin of life. The first successful formation of protoplasm initiated the life, and the continuous development proceeded towards complexity to give rise to different life forms of evolved types.

In the theory of evolution it is a universally accepted fact that there is a change in the form of organisms from the past to the present and also from the present to the future. This transformation of animals and plants into new and different species resulted in the diversification of life forms. We cannot perceive this process of diversification in our life time. It moves from simplicity to complexity and from homogeneity to heterogeneity. **Evolution is a process that results inheritable changes in a population spread over many generations.**

First living existence was very minute and unicellular. As the time passed on, most of the unicellular forms were transformed into multi-cellular forms. Along with this, the geo-environment of the earth also underwent a process of continuous change. As a result, simple forms of organisms were transformed into very complex types of organisms. This process of change has been designated as organic evolution.

Scholars agree that evolution was the important factor of origin of new life forms. But they proposed it in different ways. To get a comprehensive view of organic evolution, let us examine each of them in detail.

Lamarckism

Jean Baptist de Lamarck (1744-1829) was a French biologist. Who for the first time, recognised that all life on earth is the product of evolutionary change. Lamarck spent the early part of his life as a botanist. Then at the age of 50, he turned his attention to zoology, particularly to the study of invertebrates. His extensive studies on invertebrates formed a base in zoological classification. He was the first scholar to recognise the distinction between invertebrates and vertebrates. As a result of his systematic studies, he became convinced that species were not constant but rather were derived from pre-existing ones. By consolidating all these ideas, he proposed his theory of evolution in his book *Philosophie Zoologique* 1809 which is known as Lamarckism.



Fig. 3.2 Jean Baptist Lamarck

Lamarck believed that organic changes seen in animals resulted from the influence of environment. According to him, when the environment changes, animals need to change their body structure as well. In certain environmental conditions, organisms have to use certain body parts more. It may cause for changes in body structure. He postulated that such changed characters are variations in organisms. These characteristics would be transmitted to the offspring. Lamarck proposed these ideas as two different laws as the following.

- i) **The law of use and disuse:** According to Lamarck, a living body is influenced by the environmental factors and ultimately this phenomenon initiates an adaptation of organisms to its surroundings. As per necessity, some parts of the body may be used more and more. Therefore, those parts tend to show more development or changes in course of time, while, the other parts of the body, which may not be required much, will become weak or degenerate due to constant disuse. Thus Lamarck argued that, if an organ is put to continuous activity it will develop to the maximum extent and disuse of the same may lead to degeneration.
- ii) **Inheritance of acquired characters:** Evolution is the result of adaptation of organisms to the environment. Modifications produced during the life time of organisms become hereditary and will be inherited by the offspring. Thus, the theory of inheritance of acquired character states that all the modifications which the organism

acquired during its life time in adaptation to the environment are automatically transmitted to the next generation and so become a part of heredity.

To support his theory, Lamarck presented several examples. The most remarkable one is associated with the long neck and tall front legs of giraffes. According to Lamarck, the ancestors of giraffe were normal animals with reasonably long neck and forelimbs. They depended on grass and bushy vegetation for their survival. But a sudden scarcity of leafy vegetation due to some environmental factors, forced the giraffe to depend on leaves of tall trees and for that they had to stretch their neck and forelimbs. The continuous stretching of these organs resulted in the long neck and long forelimbs of present day giraffe.



Fig. 3.3. According to Lamarck continuous stretching of neck and forelimbs resulted in evolution of organs among giraffes

In another example, he mentioned that the ducks are unable to fly because their wings became weak, when they stopped flying. Again, the birds that started to live in an aquatic environment, gradually acquired webbed feet through the conquest of survival. Lamarck also cited other examples like limblessness in snake and certain cave-dwelling forms. All these changes were held to be cumulative from generation to generation and also hereditary.

Do you think that all the acquired characteristics in one generation will be transmitted to the next generation?

Criticism of Lamarckism

Lamarck's theory had been criticised from many angles. Most of the scholars did not accept this theory. The German scientist August Weismann criticised the essence of Lamarck's theory of inheritance acquired characters by his experiments, which involved cutting off the tails of mice for over twenty one generations. All tailless mice in all generations produced their offspring with tails. Therefore, he reached to the conclusion that the environmental factors might have an influence on the body cells, but it is not enough to profess a change of reproductive cells.

Characters of an organism would not be inherited unless the change could occur in the reproductive cells. According to Weismann the body of an animal is composed of two parts viz. germ plasm (germ cells) and somatoplasm (body cells). Only those characters

which are located in the germ plasm will be inherited. As a result of these experiments, Lamarckian law of inheritance of acquired characters lost its evolutionary ground. But the effort towards finding facts related to organic evolution continued. Charles Darwin's interest in this field gave birth to new findings. Later on it became the basis of evolutionary principle. Any study of organic evolution will be incomplete without the examination of Darwin's theory, commonly known as Darwinism.

Darwinism

Charles Robert Darwin (1809-1882) was a British biologist, born on 12th February 1809 in Shrewsbury, England. He was nominated to the position of a young naturalist for the voyage on H.M.S. Beagle. It was in this ship, Charles Darwin sailed around the world. The voyage on the 'Beagle' started on 27th December 1831 and Darwin visited many Islands in Atlantic ocean, some of the islands in the Pacific ocean including **Galapagos Islands**, many places on the coasts of South America and finally returned after five years on 2nd October 1836. During this voyage, Darwin took note of the flora, fauna, and the geology of the places visited. He also made extensive collections of living and fossil specimens of different species. He was writing his theory in 1858 when Alfred Russel Wallace sent him an essay which described the same idea, prompting immediate joint publication of the theories of both of them.

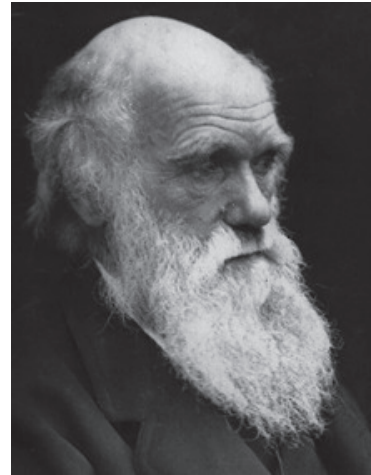


Fig. 3.4. Charles Robert Darwin

He presented his theory of evolution in the book *On the Origin of Species by means of natural selection in 1859*. Darwin argued that new species had evolved from older species and he described the mechanism behind the transformation process. Darwin's theory of evolution is based on the following five principles:

- ◆ Organisms produce more offspring than can possibly survive.
- ◆ Organisms face a constant struggle to survive.
- ◆ Organisms within a species vary.
- ◆ Organisms best suited to their environment survive
- ◆ Those organisms which survive will reproduce and pass on their genes to the next generation.

Each of these principles is explained below.

Over-production: All species have a tendency to produce more and more offspring in order to increase the number of population. For example, a salmon produces 28,000,000 eggs in a single season; a single spawning of an Oyster may yield as many as 114,000,000 eggs; a common round worm (*Ascaris lumbricoides*) lays about 70,000,000 eggs in a day. Elephants appear to be one of the slowest breeders, having a life span of about hundred years. The active breeding age continues from thirty to ninety years, during which a single female may produce six young ones. Darwin calculated that starting from a single pair of elephants, at this rate reproduction would result in 19,000,000 elephants after 750 years. Similarly a jackfruit produces many seeds in a fruit. All these are examples of the possibility of over production in different species. This huge production is to ensure the survival of the species. Even though species are produced in larger number, the population of a particular organism remains more or less constant.

Struggle for Existence: Darwin claimed that there was a continual 'struggle for existence' in nature, in which only the fittest would survive. This understanding of Darwin had come partly from his reading of Thomas Malthus's *Essay on the Principle of Population*. As a result of over production, there is a struggle for existence among organisms. Since the number of is persons is large, there is competition for food, shelter, mates etc. According to Darwin, struggle for existence may be of different types as follows:

- Intra-specific (Intra-species) struggle:** The members of same species struggle among themselves for food, shelter and mates.
- Inter-specific (Inter-species) struggle:** The members from different species may go on fighting for survival. A member from one species may hunt other members of other species as food. For example, tiger hunt goat and deer, cat hunt rat and so on. According to Darwin, in the animal kingdom, a species often stand as prey to other



Charles Darwin

Charles Robert Darwin (1809-1882) was born as the fifth son of his parents. He had elementary schooling in Shrewsbury. In childhood he took little interest in studies, but showed great interest in hunting birds and shooting dogs. His father and teacher considered him as little below with average in intelligence. Although in school, he showed some interest in mathematics and chemistry most of his time was spent in watching the birds, collecting insects etc. In 1825, Darwin was sent to Edinburg to study medicine, but soon he discontinued the course. After this his father wanted him to be prepared for the post of a clergyman, in the Church of England. So Darwin was sent to Cambridge. While studying at Cambridge, he gained friendship with some eminent scientists, such as the botanist Dr. Henslow and the geologist Sedgwick. Dr. Henslow's friendship entirely changed Darwin's life.

species, which clearly indicates a struggle for existence. In other cases, a single species may be used as food by different species. A tiger and lion may fight to get a deer.

- c. **Environmental struggle:** Organisms of different species struggle against the environmental hazards like earthquake, flood, drought etc. Only those species with better adjustment with the environment will survive.

Darwin believed that the struggle is a continuous process and it is the way to survival. Struggle is predominant among the members of the same species as they depend on identical requirements of life.

Variations: Variation is the tendency of an organism to deviate from the parental generation. Darwin observed that variety is a universal phenomenon seen among members of the same species in terms of structure, function, physiology, behaviour etc. These variations play a very important role for adaptations in the environment. Some variations are considered as favourable and others are unfavourable. Organisms with unfavourable variations easily get defeated in the struggle for survival. In course of time, they become eliminated from the world. On the other hand, variations that are useful to adapt to the pressures of the environment survive long. The new trait of advantageous characteristics is passed on to the future generations.

Survival of the Fittest: The struggle for existence, leads to the survival of the fittest. When there are too many of an organism in an area, they compete for resources such as food and perhaps shelter, for example trees and caves. Darwin found that those organisms more suited to their environment or better adapted are more likely to survive. Those that are unfit will get eliminated. The surviving species will reproduce more number of offspring than those who are less adaptive.

Natural Selection: The surviving individuals will give rise to the next generation. The successful variations are transmitted to the succeeding generations. The accumulation of advantageous traits in future generation gradually brings changes in species. Successive generations in this way tend to become better adapted to their environment. As the environment changes, further adaptations occur. The operations of natural selections occur for many generations. As a result, further changes occur in the organism. Eventually, a new species may evolve. Furthermore, certain members of a population with one group of variations may become adapted to the environment in one way, while others, with a different set of variations become adapted in a different way or become adapted to different environments. In this way two or more species may arise from a single ancestral stock.

The organisms always struggle to maintain their existence, as nature decides the survival of the fittest. Adaptive traits preserved through natural selection gradually bring changes in the characteristics of the species and thus evolution occurs.

Examples of Natural Selection

1. The finches of Galapagos

The finches of Galapagos Islands provide an excellent example of natural selection. Some species of finches have short thick beaks. They are used to eating seeds, fruits and buds. Some others have long straight beaks. They subsist primarily on nectar from flowers. If environmental condition suddenly changes some characteristics may be more favoured than others.

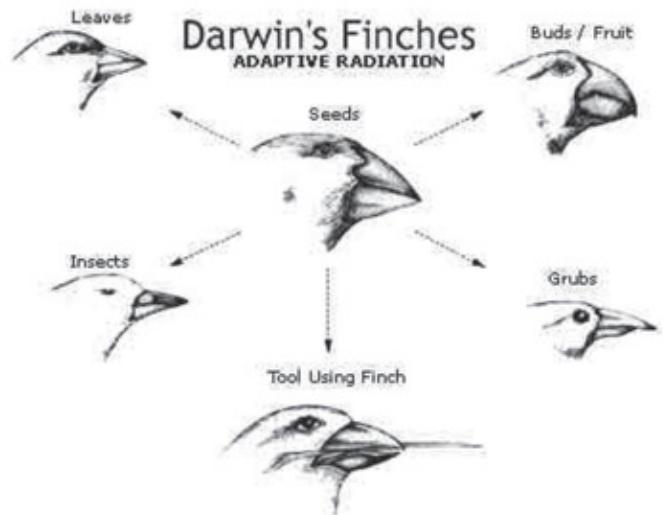


Fig. 3.5 Darwin's Finches

2. Industrial melanism in moth

The changes that occurred in the moth population in different areas of England are the best example for natural selection. Before Industrialisation, the tree trunks were lighter and light coloured moths were predominant. Dark coloured moths were also present but they were limited in number. As a result of industrialisation, the pollution resulted in the darkening of tree trunks. So the light coloured moths become more visible to birds and were therefore eaten by their predators. As a result of this at the end of 19th century the common light coloured moths were almost completely replaced by the black variety

The theory of origin of species by natural selection is regarded as a major advancement in evolutionary thought. Darwin contributed to the modern understanding of biological evolution by documenting the variation of living forms and identifying the key process of natural selection. Like most nineteenth century scientists, however, he did not understand heredity or how specific traits are passed from one generation to the next. His theory lacked the knowledge of modern genetics. However, mutation theory explained the causes of variations among organisms.

Neo-Darwinism

Darwin could not explain systematically how variations exist. Hugo-de-Vries (1840-1935), a Dutch botanist, proposed the mutation theory of evolution in 1901. According to this theory, new species evolve from earlier species not by natural selection but by sudden heritable changes in the genotype of an organism (characteristics of individuals), which he called 'mutation'. According to him, mutation is the chief cause of variation which leads to the formation of new species. Mutation theory distinguished heritable variations from environmental variations, which Darwin failed to understand in his theory of natural selection. Combination of Mutation theory and Darwin's theory of Natural Selection together is said to be New-Darwinism.

Synthetic Theory of Evolution

Darwinism, in its original form, failed to explain satisfactorily, the mechanism of evolution and the origin of new species. The inherent drawback in the Darwinian ideas was the lack of clarity as to the sources of variation and the nature of heredity. In the middle of twentieth century, scientists had come to a consensus to employ all sorts of knowledge, genetic, ecological, geographical, morphological, paleontological, etc. in order to examine the actual mechanism of evolution. Such consensus on evolution includes factors such as natural selection, gene recombination, reproductive isolation, mutation, migration, hybridization and genetic drift. With these factors, evolution at different contexts was explained in an effective way.

The synthetic theory of evolution does not discard all previous propositions, rather, it considers them as partially important. Therefore, we find the amalgamation of various concepts namely **natural selection, mutation, Mendelian principles, genetic drift, gene recombination and population genetics** in this theory of evolution. But it is interesting to note that modern genetics does not acknowledge the mutation theory in its original form,



Genetic Drift

The random changes in the gene frequency occurring by chance alone are called genetic drift. The effect of genetic drift is very small in a large population but it is large in a small population.

Gene Recombination

The reshuffling of gene combinations which provides new combination of existing genes during crossing over is called gene recombination. Since, recombination adds new gene combinations in the gene pool, it is considered as an agent of evolution.

as proposed by De-Vries. At present, evolution appears to be a complex process, involving several complex forms.

Activity:

1. Let us collect more information about creationism and evolutionism from various sources like, books internet etc and conduct a debate on the topic 'Creationism vs Evolutionism'.
2. Conduct a seminar on 'Theories of Organic Evolution and the Future of Humans'.



Check your progress

1. Find the pair
 - a. Origin of species: Darwin, Philosophic Zoologique:.....
 - b. Mutation theory: Hugo-de-Vries, Natural selection:.....
2. Find the odd item
 - a. Use and disuse, natural selection, overproduction, variation
 - b. Acquired character, struggle for existence, constant use, change in size
3. Identify the most scientific theory among the different theories of organic evolution. Substantiate your answer.

We have discussed the various processes related to evolution. The main concern of anthropology is human being. So it is important to examine how each process of evolution worked in the evolution and formation of human beings.

III Human Evolution

Human being is a product of evolution. Human evolution is intimately related to the origin of life and its development on earth. It is customary to speak of evolution - from amoeba to human - as amoeba is the simplest form of life. But in reality, there are several organisms like virus which are earlier to amoeba. The origin of single celled species from organic molecules was the most complex step in evolution. It might have consumed the same extent of time from protozoan to human. So, to examine how humans evolved, the knowledge of other species in the animal kingdom and their phylogenic position are also important. Classification of organisms is made in different ways. Let us examine it.

Classification of Animal Kingdom

Carl Linnaeus, a professor of botany in the university at Upsala, Sweden, is known as the father of taxonomy. He made systematisation and classification of plants and animals by introducing binomial terms. As per this, each plant and animal was assigned a genus name and a species name. He called humans as *Homo sapiens*, *Homo* being the genus, and *sapiens*, the species. The following is a taxonomic classification of organisms in the animal kingdom.

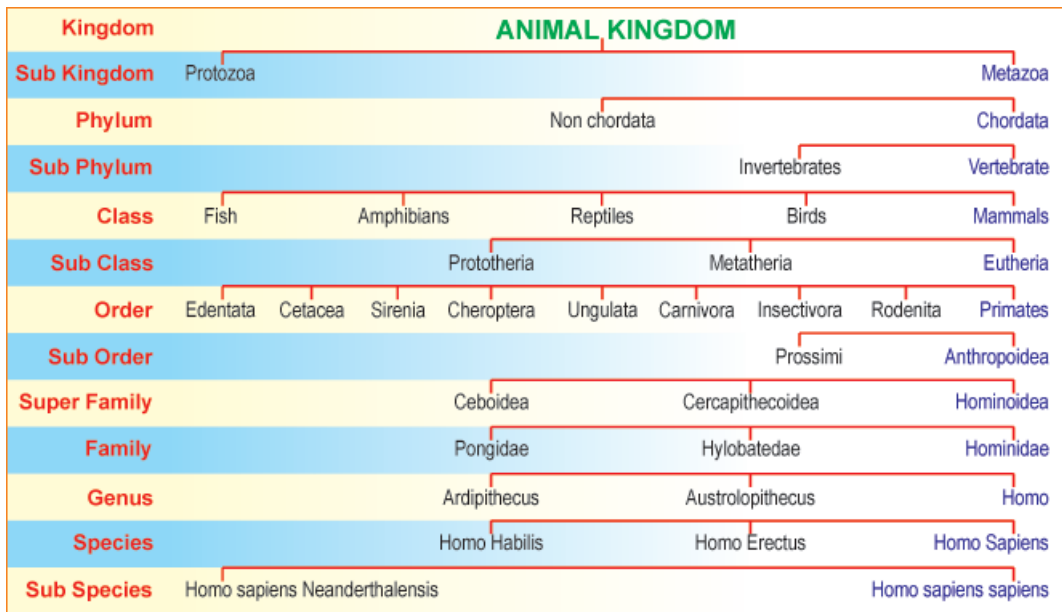


Chart.3.1. Taxonomy of Animal kingdom

Human's Place in the Animal Kingdom

- Living beings on earth are classified into two **kingdoms**: namely plant kingdom and the animal kingdom. Human is the most developed primate in the animal kingdom.
- Animal kingdom** is divided into two sub kingdoms namely, protozoa and metazoa. Protozoa includes unicellular organisms. They reproduce through asexual

reproduction, i.e. through cell division (e.g. amoeba). The sub-kingdom metazoa, to which the humans belong, have multiple cells, and the feature of sexual reproduction.

- ◆ **Metazoa** consists of two Phylums, chordata and non-chordata. Chordate, to which Humans belong, possesses a dorsal nervous system starting from the brain. It moves along with spinal column. The internal bony segments of the spinal column put humans in the sub-phylum vertebrates.
- ◆ **Chordate** is classified into different classes, of which, the humans come under the mammals. The mammals are placed in the topmost position among the vertebrates. They are warm blooded and are able to maintain a constant body temperature. They have two sets of teeth, deciduous and permanent which are embedded in the sockets. The teeth are of different types (heterodont), such as incisors, canines, premolars, and molars. Mammals have breasts and the mothers nourish their babies with their own milk. The females of the mammals not only feed the young ones after birth but also establish a social relationship with their offspring. This trait of establishing social relationship is a milestone in human evolution.
- ◆ The class **Mammals** or Mammalia is again divided into three sub-classes namely Prototheria, Metatheria and Eutheria, the last of which includes the placental animals including humans. Among them, the unborn young are developed in the maternal womb. The mother possesses placenta to nourish foetus during its development before birth, directly from the blood stream of the mother through placental plate.

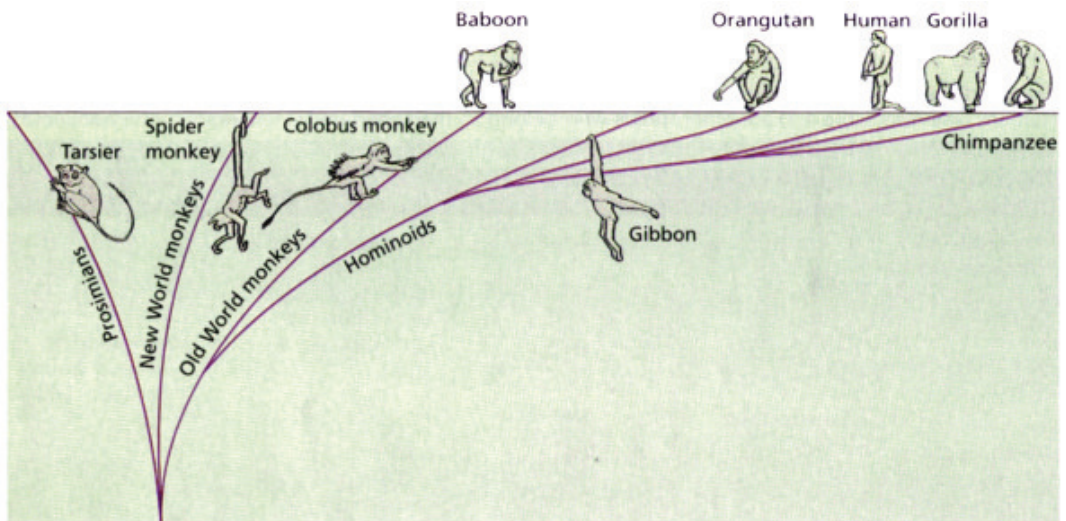


Fig. 3.6 Primate evolutionary tree

Source: Roger Lewin, *Human Evolution: An Illustrated Introduction*, 1993, P. 44

- ◆ The sub-class **Eutheria** is again divided into different orders, of which, the Primates are placed at the top, as the term means 'the First'. The human is placed in the order Primates. The following are some of the characteristics of the order Primates:
 - The brain is large in proportion to body size.
 - prehensile hand - (ability to grasp)
 - Developed fingers, nails and toes
 - Flexible fore arm
 - Opposable thumb
 - Reduced canines
 - Centrally placed foreman magnum
 - Remarkable reduction in prognathism
 - Erect posture
 - Loss of opposability of great toe
 - Eyes are located forward on the skull.
 - They have the tendency to give birth only one offspring at a time.
 - They have a prolonged growth of maturity.

- ◆ The order **Primate** is divided into two sub-orders namely, Prosimii and Anthropeidea. Tupiforms (Tree Shrews), Tarsiforms (Tarsiers - Malaysia), Lumeriforms (Lemur - Madagascar) and Lorissiforms (Lorise of Africa and Asia) are included in the sub-order prosimii. Humans, along with apes and monkeys are included in the suborder Anthropeidea. It is characterised by frontally located eyes, stereoscopic vision and the bony eye socket.

- ◆ The sub-order **Anthropeidea** contains three super families - Ceboidea (Old World monkey), Cercopithecoidea (New World monkey) and Hominoidea. The humans along with apes belong to the super family Hominoidea. They are characterised by the absence of tail and cheek pouches, presence of 32 teeth, modified pelvis suited for upright posture, etc.

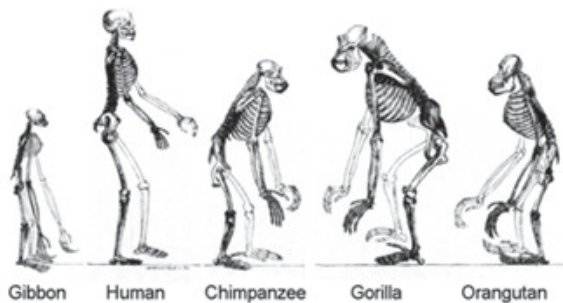
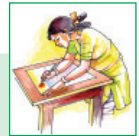


Fig. 3. 7 Comparison of Hominoidea skeletons

Gorilla are included in the family Pongidae, while Gibbon is included in the family Hylobatidae. The humans including the extinct and the living come under the family hominidae which is characterised by the nasal bridge, vertical fleshy nasal groove, lumbar curve, bony chin, true erect posture and less body hair.

- ◆ The family **Hominidae** consists of different genus like Australopithecus, Ardipithecus and Homo. Humans are included in the genus Homo.
- ◆ The genus **Homo** includes different species like habilis, erectus and sapiens. Human is considered a 'sapien'. This species is further divided into the sub-species Homo Sapiens Neanderthalensis and Homo Sapiens Sapiens'. Thus anatomically modern human is scientifically known as Homo Sapiens Sapiens.

Prepare a table showing the phylogenetic classification of animal Kingdom and human's position in it.



It is evident that in physical appearance human is having close resemblance with apes. But when we are included in the family Hominidae, apes are included in the family hylobatidae or Pongidae. Thus the above classification clearly illustrates that human have many thing in common with apes while we become a different species due to the differences that we have with the apes. Let us make a comparative analysis of human and apes.

Relationship between Human and Apes

Apes are human's closest relatives. The modern and extinct apes and humans which come under the super family Hominoidea are known as Hominoids. They are sub classified in to three families namely Hylobatidae (gibbon) Pongidae (chimpanzee gorilla and orangutan) and hominidae (humans). The representatives of the family Pongidae are also known as great apes. The modern apes include gibbon, orang-utan, chimpanzee and gorilla.

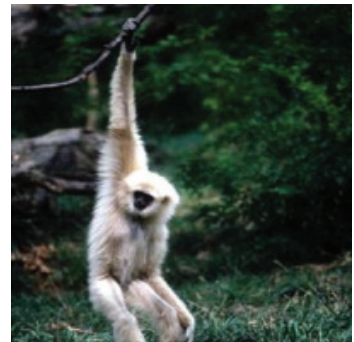


Fig. 3.8 Gibbon

Gibbons are small arboreal creatures that rarely exceed three feet in height. Their brain capacity is small. They show highly developed visual power. Weight of an adult may go up to 50 kg. The cranial capacity ranges from 76 to 90 cc (Cubic Centimetre). The extra ordinary length of hands helps them in brachiation.

It is the ability of swinging from branch to branch of the tree. Body is covered with black woolly hair but the face does not show any hair. Digital formula is $3>2>4>5>1$ for both hands and feet. Considering the above characters, the scholars suggest that the gibbon stand a long way off from the direct line of human ancestry.

Orang-utans that lives in Borneo and Sumatra seems to be closely related to gibbon. Orang-utans are also arboreal but their movements are slower than gibbons because of larger size and greater body weight. The height of an adult male is more than 4 feet and weight varies between 60kg to 80 kg. Body is covered with reddish brown hair. The cranial capacity ranges from 365 cc to 425 cc. A higher cranial capacity gave a little more intelligence. They are capable of making a variety of facial expressions. The digital formula of this animal is $3>4>2>5>1$. Canines are big in size.



Fig. 3.9 Orangutan

The **chimpanzee** is more human like than orang-utan. Average height of adult male is 5 feet and weight is about 125 kg. Skin colour is variable between black to brown. Cranial capacity is estimated between 400 cc to 500 cc which is more than gibbon and orang-utan. They can be taught many activities involving control and intelligence. They are even capable of using tools. Chimpanzees possess well developed pointed canine teeth. Although they have resemblance with human, the anatomical traits are largely similar to gorilla. It has been agreed that modern chimpanzees do not stand in the direct line of man's ancestry.



Fig. 3.10 Chimpanzee

The **Gorilla** is the bulkiest among all primates. The adult male is about five and half feet in average. Their weight is about 200 kg. Cranial capacity ranges between 450 cc to 550 cc which runs more or less parallel to chimpanzee. They spend most of the time on ground and



Fig. 3.11 Gorilla

usually walk on four limbs. The body is covered with black hair except chest and face. Face of the gorilla is almost flat with a slightly elevated nasal bridge. Shape of the face resembles humans while nose is similar to other apes. Lips are also very thin like other apes. Gorilla is the strongest of all primates. You may have visited zoos and observed the physical features of apes. What are the features that make the apes different from humans?

As in the case of physical structure, human is very much different from apes in functional aspects also. For instance, humans walk bipedally with an accurate erect posture. Bipedal-walks among apes are occasional with semi-erect posture. The thumbs among apes are quite short, the size of brain is much larger as well as developed among human with complex cortical structure, which is not found in apes. Human has the power of articulating speech.

Examine whether the factors listed in the comparative chart prepared by you include the following similarities.

Resemblance between humans and apes

- None of them possess tail.
- Vermiform appendix is found in human and apes.
- They have blood of similar types.
- Structure of the uterus and placenta are similar.
- Opposability of thumb.
- Both are omnivorous.
- Both the species are characterised by stereoscopic vision.

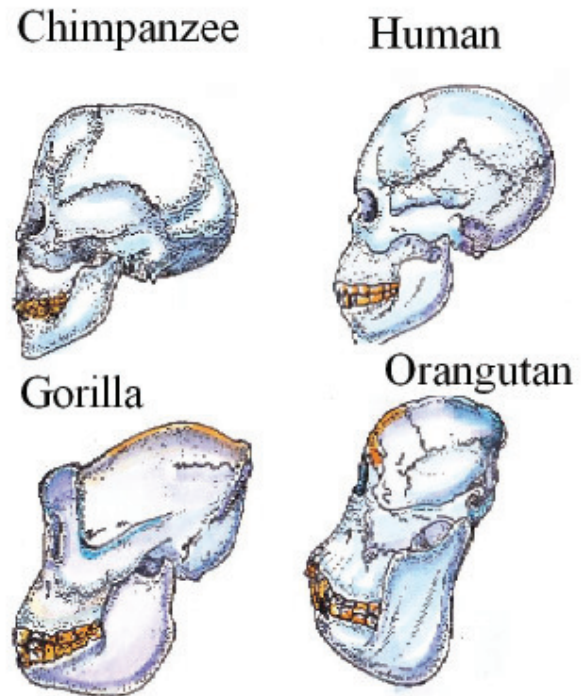


Fig. 3.12 Comparative picture showing the skull of human and Great Apes

The following chart will give a comparative picture of humans and apes.

Characteristics	Human	Chimpanzee	Gorilla	Orang-utan
Cranial capacity	Lowest about 1000cc	Highest about 500cc	Highest about 550cc	Highest about 425cc
Forehead	Well developed	Not much developed	Not much developed	Not much developed
Nasal bridge	Well raised	Absent	Absent	Absent
Nasal bones	Short and broad	Short and flat	Long	long
Chin	present	Absent	Absent	Absent
Canine	small	Large, pointed, sharp	Very large, pointed, sharp	Large, pointed, sharp
Foramen magnum	Placed anteriorly at the base of the skull	Placed posteriorly	Placed posteriorly	Placed posteriorly

Table.3.1 Comparison of skull of Human, Chimpanzee, Gorilla and Orang-utan

In the phylogenetic chart we found that the family Hominidae includes three genus *Ardipithecus*, *Australopithecus* and *Homo*. We trace human evolution by examining the fossil evidences of such earlier specimens. So paleontological evidences are important in reconstructing the evolutionary sequence of human. The evolution of human and pre-hominid forms present fascinating evidences in support of human evolution. Here, let us examine the early Hominids that represented the different stages of human evolution.

Prepare a collage/chart/or presentation(Power Point)showing the similarities and differences between of humans and apes.



Early Hominids and Humans

In 1871, Darwin published his book 'The descent of man' in which he described in detail the evolution of human. He observed that humans had evolved from some more primitive forms. According to him the common ancestor of humans was hairy, tailed, quadruped (four limbed), probably with arboreal habits. That common ancestor had evolved

from minute organisms of the remote past. Human evolution probably began with an unspecified arboreal climbing primate, that we call ape.

Palaeontological evidence shows that the human evolution take place some where in Asia and Africa. These two continents show greater number of fossils than that of Europe. Evidences show that all the primates disappeared since eocene epoch in North America. Moreover, South America was dominated only by platyrrhine monkeys. Humans entered the new world from old world. Hence, some strongly argue that humans originated first in Asia, while others argue that Africa is the birth place of humans. Yet another argument is that, evolution did not restrict to any continent. It followed different lines in different places. However, Darwin considers Africa as the cradle of humankind. L.S.B. Leaky and his wife Marry Leaky, eminent palaeantologists upheld this view.

Humans are the most motivating, stimulating, talented and exceptional of all organisms on earth. In course of evolution, humans are the only animal that gained the capacity to create and sustain a way of life- culture. The biological make up, unique to humans, helped them to develop culture. Culture itself is the product of organic evolution. Culture gave humans capacity to adapt biologically with environment. The biological modifications like erect posture, bipedal locomotion, the grip function of hands and stereoscopic vision helped humans to develop articulation of speech, and other social cultural behaviour.

Dryopithicines who lived 20 million years ago regarded as ancestor of both apes and human. It consists of 3 varieties namely Dryopithecus, Ramapithecus, and Gigantopithecus. Dryopithecus and Gigantopithecus are included in the family Pongidae and Ramapithicus is included in Hominidae. Human evolution, based on fossil skeletal remains, shows that it had passed through four important stages namely Australopithicines, Pithecanthropines, Neanderthals, and Cro-magnon. It is believed that about 4 million years ago, in pliocene epoch, the first undoubted hominid named Australopithecus having biped, erect posture appeared on earth.

Australopithicines: Australopithicines represent the first stage of hominid evolution. Australopithicines are ape-like in many respects. They are characterised by small brain case, bi-molar teeth and facial prognathism. Their cranial capacity ranges from 400 to

Ardipithecus; the First Bipedal Ape?

In 1992, a team of researchers led by Tim White discovered fossils from Aramis of Ethiopia. They may be the earliest hominid. The name given to the species was ramidus and it was distinct from the Australopithecus. It has ape-like dentition, bipedal locomotion and an overall hominid- like skeleton.

700 cc. Strongly built supra-orbital bridges, massive jaws, absence of forehead and a number of other features resemble with apes. However, they differ from the apes as they lack projecting canines, downward facing foreman magnum and extended and expanded ilium. Australopithecene include different varieties like Australopithecus Africanus, Australopithecus Afarensis, Australopithecus Boisei and Australopithecus Robustus.

Australopithecus Africanus: The first discovery of an australopithecine fossil was made by Raymond Dart, an Australian anatomy professor in South Africa, in 1924. He discovered a well preserved fossil from the commercial quarries near Taung, South Africa. This fossil was named as Australopithecus Africanus. This species is also known as Taung Child or Taung Baby as the fossil was of a child discovered from taung. Prof. Dart has estimated its cranial capacity as 520cc. This indicates that their brain is larger

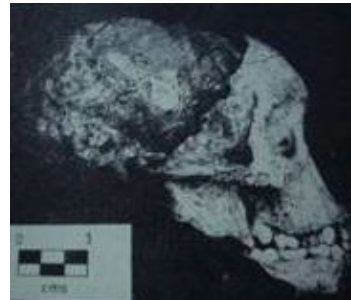


Fig. .3.13 Fossil of Taung Child

than that of the chimpanzee. Based on the position of foramen magnum, the large hole in the skull where the spinal cord enters, Dart claimed that Australopithecus africanus was probably a bi-ped. Since Dart's original find, hundreds of other fossils of Australopithecus have been found, first in South Africa and late in Kenya, Ethiopia and in Tanzania. As they were discovered, many were given a number of different specific and generic names but all of them were considered a single genus Australopithecine.

Australopithecus Afarensis: The fossil evidences of Australopithecus afarensis was discovered by Donald Johanson at the Hadar site in the Afar desert region of northern Ethiopia in 1974. Its age was estimated about 3 million to 4 million years ago.

The Australopithecus afarensis was an erect, bi-pedal creature. Donald's finding, scientifically designated as Australopithecus Afarensis, became popularly known as Lucy. It had a small cranium (440cc), and a large canine teeth. The Lucy's skull

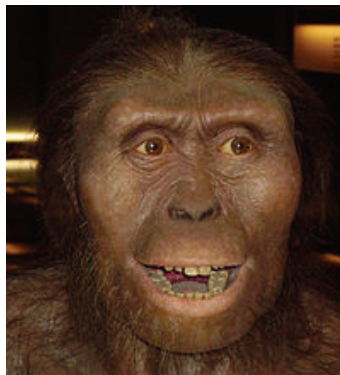


Fig. 3.14 Australopithecus Afarensis



Fig. .3.15 Lucy

resembles that of modern chimpanzee. Lucy was bi-pedal in movement and she was 3.5 to 4 feet tall.

Homo Habilis: The fossil remains of *Homo habilis* were discovered by Dr. Leaky at Olduvai in East Africa in 1962. The remains are parts of skull, upper jaw and lower jaw. The *Zinjanthropus* and *Homo habilis* are contemporary representatives but the *Homo habilis* is considered as more advanced type. According to Leaky *Homo habilis* resembles *Homo sapiens*. But some scientists argue that *Homo habilis* is a variant of Australopithecine, which may be regarded as relatively progressive Australopithecus.



Fig. 3.16 *Homo Habilis*



Homo Ergaster

Homo ergaster is an extinct species of *Homo* that lived in eastern and southern Africa during the early Pleistocene between 1.8 million and 1.3 million years ago. The south African palaeontologist St. John T Robinson first discovered a mandible of a new hominid in South Africa in 1949. He named it *Telanthropus capensi*. The most complete skeleton of *Homo ergaster* was discovered at Lake of Turkana, Kenya in 1984 by Palaeontologists Kamoya Kimeu and Alan Walker. They nick named the 1.6 million years old specimen as 'Turkana Boy'. *Homo ergaster* was probably the first hominid to use 'what we would recognise as a human voice'. The well developed brain and physical capabilities suggest the use of linguistic or symbolic communication of *ergaster*.

Pithecanthropines: The second stage of human evolution is represented by Pithecanthropines. It includes a variety of specimens like *Homo erectus*, Java man, Peking man and *Homo heidelbergensis*.

Homo Erectus: In the early 1891, the first fossil of *Homo erectus*, the 'erect ape' man was found on the tropical Island of Java, by the Dutch scientist and the Army doctor Eugene Dubois. The fossil is popularly known as Java man. In 1894, he named this fossil as *Homo erectus* or *Pithecanthropus erectus*. Dating shows that, it is 1.9 million years old. Subsequently many discoveries were made from different regions in different times and are known by different names such as *pithecanthropus*, *sinanthropus* (China), *atlanthropus* (North Africa), *telanthropus* (South Africa), etc. All these are variants of a single species called *Homo erectus* and shows a close resemblance to human.



Fig.3.17 *Homoerectus*

Pithecanthropus erectus or Homo erectus shows the following features.

- ◆ Cranial capacity ranges from 775-1300 cc
- ◆ Large and broad face
- ◆ Chin is absent
- ◆ Depressed nasal bridge
- ◆ Molar teeth are reduced in size.
- ◆ Poor development of frontal ribs.
- ◆ Broad and flat nasal bone.
- ◆ Slightly projected canines.
- ◆ Prognathism on the lower part of the face.
- ◆ Increase in brain size and decrease in body size.

The skull of Homo erectus is thick, long, and broad, with the cranial capacity ranging between 775-1300cc. Significantly, the Homo erectus skull differs from that of Homo sapiens in low forehead, suggesting the poor development of their frontal lobes. They have a large broad face and depressed nasal bridge. The post cranial skeleton of Homo erectus is quite like that of modern human. The brain of Homo erectus shows an increase in size more than that of Australopithecus. It doubles that of Australopithecines and two- third of modern human. All the fossil remains have the characteristic features of thick bones, low forehead, parallel dental arches and no chin. Homo erectus with distinct hominid posture and with only few ape-like features, essentially represent a stage of human evolution. It is ancestral to Neanderthal and modern Homo sapiens.

Neanderthal: Neanderthal is often referred to as early Homo sapiens. The stage of Neanderthal is represented by Neanderthal (hu)man, who lived in Europe, North Africa, and parts of Asia during the period intermediate between Homo erectus and modern humans. In 1856, a skull cap along with some bones was discovered at Neanderthal valley (near Dusseldorf) in Germany. The term



Homo Heidelbergensis is an extinct species of the genus Homo which lived in Africa, Europe and Western

Asia from at least 600000 years ago and may date back 1300000 years. It is very likely the direct ancestor of Homo Sapiens in Africa and the Neanderthals in Europe. The fossil evidences of Heidelbergensis was first discovered near Heidelberg in Germany in 1907 by Otto Schoetensack.. Homo heidelbergensis may have been the first species of the homo genus to bury their dead. Some experts believe that Homo heidelbergensis like its descendant Homo Neanderthalensis acquired a primitive form of language.



Fig. 3.18 Neanderthal Fossils

Neanderthal (hu)man was first coined by Irish anatomist William King, in 1863. Subsequent discoveries of a large number of skeletal remains were made in different parts of Europe and all of them showed a good number of common characters. On the basis of these common characters, they are grouped together under a common name Neanderthal (hu)man. It is believed that, Neanderthal (hu)man lived in Europe, North Africa, and parts of Asia from about 1, 00, 000 to 35, 000 years ago. Neanderthal (hu)man is specifically adapted to cold conditions. It is believed that Neanderthal (hu)man practiced hunting, gathering and agriculture. They used fire and stone tools. Neanderthal (hu)man lived in groups and used animal skin as clothes. The important characteristic features of Neanderthal (hu)man include large cranial capacity of about 1300cc to 1750cc, maximum skull breadth at the middle point resulting in a barrel-shaped skull, absence of chin, facial prognathism, absence of vertical forehead, larger brain size, big jaws and teeth and unflattening of maxilla.

Cro-Magnon: The term Cro-Magnon has been derived from the Cro-Magnon hills of France, from where remains of five human skeletons were discovered. It consists of skeletons of two adult men, one woman, an infant and an old man. The first discovery was made by **Louis Lartet in 1868**. Cro-Magnon man produced stone and bone tools. They had also made beautiful cave paintings.

The skull of Cro-Magnon is large and massive. The cranial capacity is estimated as 1590 cc. The forehead is broad and moderately high. The head is associated with short, broad and flat face. The nasal bones are high. The maxillary regions show marked prognathism. It is believed that after a long 50000 years of evolutionary process, Cro-Magnon was modified into modern human.



What happened to Neanderthal?

Neanderthals and modern humans coexisted in Europe for the last 20,000 years. What happened to Neanderthals? Three answers have generally been considered. Firstly, they interbred with modern humans and the unique Neanderthal characteristics slowly disappeared from the interbreeding population. Second, they were killed off by modern humans. Third, they were driven to extinction due to competition with modern humans.

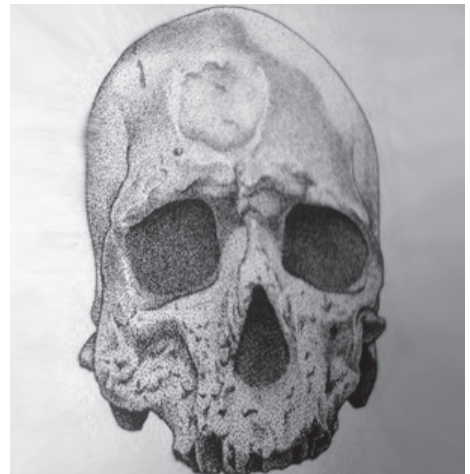


Fig. 3.19 Cro-Magnon Fossil



Prepare a picture /CD album or a digital presentation on evolution of early hominids and humans by collecting pictures of fossil evidences from internet/web sites.

Early Forms of Homo Sapiens

Cro-Magnon fossil remains were believed to be the first species of Homo Sapiens. But this hypothesis was rejected after the discovery of a few other fossil remains. These fossil remains exhibited a large number of characteristics of Homo sapiens. Some of the newly discovered fossil remains have been named as London skull, Swanscombe man, and the Grimaldi man.

The London Skull: This fossil evidence was discovered in 1925 from central London. It is also known as **Lady of Liouds**, because it belonged to a woman of 50 years. Although this skull presents many features of Neanderthal (hu)man, it still seems to be closer to the Cro-Magnon (hu)man than Neanderthal (hu)man. The cranial capacity of the skull has been calculated as 1260 cc which is 40 cc lesser than present day English women. This London skull comes from the deposits of upper Pleistocene.

The Swanscombe man: The fossil remains of Swanscombe (hu)man were discovered from Swanscombe in Kent, England during 1935-1936. In form and features, the bones are almost same to modern English women. The cranial capacity is 1325cc which shows similarity with that of modern skull. Important exception is that remarkable thickness and the great breadth of the occipital bone.

The Grimaldi Man: In 1901, **Prof. Verneau** discovered two skeletons from a cave named Grotte des Enfants in the village of Grimaldi on the Mediterranean coastal regions. One of the skeletons was of a woman about 30 years and the other of a baby of about 15 years. Both the skulls are long, narrow, and high. The cranial capacity of the female skull is

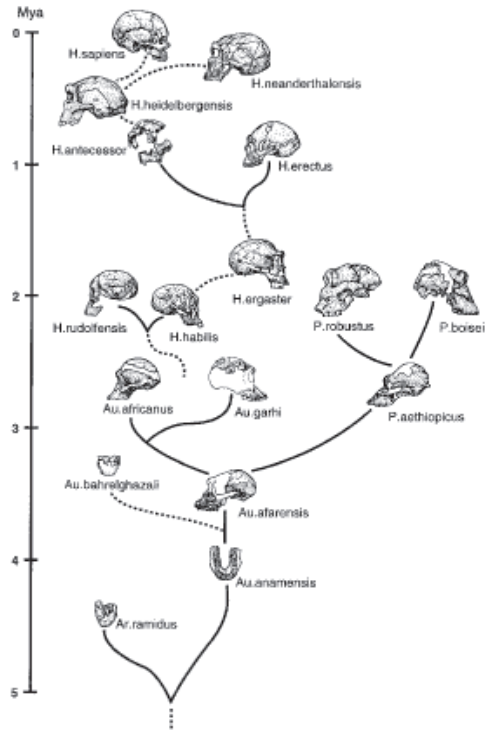


Fig. 3.20. Evolution of Hominids

1265cc. The boy skull is 1455cc. The forehead is straight and well developed as well as bulging to some extent. The face is broad; it is narrow below the cheek bones. The supra-orbital bridges are feebly developed. The orbits are large and rectangular. The chin is poorly developed and there is a marked facial prognathism. It is a Negroid feature. The teeth are large and prominent. The dental characteristics resemble the Australian aborigines, but the majority of the characteristics show affinities to the negritos.

The Grimaldi man is comparable to the modern Negro. Prof. Sollas and Boule have pointed out the strong resemblance of Grimaldi with the Bushmen of South Africa. Some believe that Cro-magnan and Grimaldi were two non-distinct racial groups with many distinct common features.

Homo Sapiens Sapiens: Homo Sapiens Sapiens is the scientific name of anatomically modern humans. They have settled in different environmental conditions and acquired distinctive traits. The skull consists of two parts, the cranium and the face. The cranial capacity ranges between 1300 cc to 1450cc. The forehead is bulging and supra-orbital bridge is diminishing. The power of vision is stereoscopic. Canines are reduced in size. The big toe is no more opposable. The arms are shorter than the legs. The vertebral column has four curves. The body is more or less hairless. They have the power to articulate speech. These special attributes placed human to the top place in the animal kingdom.



Fig. 3. 21 Trend in Human evolution



Check your progress

1. Identify the different stages of human evolution
2. Name the fossil discovered by Raymond Dart
3. List out the features of following

<i>Australopithecus</i>	<i>Homoerectus</i>	<i>Neanderthalman</i>	<i>Cromagnon</i>

So far we have discussed about the paleontological evidences in the process of human evolution. We know that present day human has gone a long way from the earliest

hominoids. Still we possess most of the characteristics of the early humans. How did these features transmit from generation to generation. To know this fact, we require the understanding of genetics.

IV Human Genetics

Genetics is a branch of biology, dealing with heredity and variation. The term genetics is derived from the Greek word 'gen' which means to generate or to grow. The term was coined by William Bateson in 1905. Human genetics is the study of human heredity and variation. It is found that offspring resemble their parents. The individuals of a particular human population show some general similarities and also differences among themselves. The similarities are produced due to inheritance of parental characters. Some inherent characters of human are biologically transmitted from generation to generation. Human genetics deals with the principles that explain the similarities between parents and their offspring and the differences among the individuals of a single species.

Inheritance involves the activity of a distinct functional unit known as genes, which are transmitted from parents to offspring and govern the development of the characters of an individual. The character or trait denotes morphological, anatomical and physiological features of an organism. The variations of characters are produced due to variations in genes. Genetics is a science of inheritance and variation. It may be defined as *the science dealing with the structure, organisation, transmission and functions of genes and origin of variations in them.*

Basic Principles of Heredity and Variation

One of the most important features of reproduction in organisms is that each new individual bears a close resemblance to his/her parents. Though children resemble their parents, they are not identical. They differ in certain traits from their parents. Thus, all the offspring are not alike. They show differences among themselves.

The tendency of the offspring or the young ones to resemble their parents is called **heredity**. Heredity may be defined as the transmission of characteristics from one generation to successive generations of living beings. The tendency of the offspring to differ from their parents and also among themselves is called **variation**. The variations which are transmitted from one generation to another are called heritable variations. But the variations which are brought about by external factors are called non-heritable variations. They are not-transmitted. Variation is a rule of nature and variability is the characteristics of all living organisms.

The basic principles of heredity and variations were put forward by **Gregor Mendel**. He pointed out that the inheritance of traits was carried out through certain 'factors', which was later called genes. Genes are the hereditary unit of an organism. In all organisms the hereditary traits are transmitted from parents to offspring. The genes have three major functions as follows.

1. They have the ability of self-duplication and are hereditary in nature.
2. They are susceptible to an occasional change by way of mutation.
3. They carry all the information essential to the functions of a cell.

The genes are located on the chromosomes in both male and female gamete. So chromosomes carry and transmit the hereditary traits. The chromosome itself is formed by two chemical substances, namely DNA (Deoxyribonucleic acid) and RNA (Ribonucleic acid). Recent experimental evidences have revealed that DNA is a genetic material.

Mendel's Law of Inheritance

Gregor Mendel (1822-1884), the father of genetics was born in North Moravia, Austria, at present a part of Czechoslovakia. In 1856, in a monastery garden, Mendel began a series of experiments to reveal the basic principles of genetics. Gregor Mendel's experiment on garden pea is regarded as the great land mark in the study of genetics. Mendel studied the inheritance of seven contrasting traits in pea plants. For each trait there were only two forms. The plants have either tall or short forms. Mendel crossbred pure strains of tall and short plants. Their offspring were all tall in the first generation, which is designated as F1 generation. Mendel then interbred the plants of F1 generation to produce the F2 generation. In this generation, short plants reappeared. Among thousands of F2 generation, there was approximately one short plant for every three tall ones.



Fig. 3.22 Gregor Mendel

From similar results with other six traits, Mendel concluded that although a dominant form could mask the other form in hybrid, the recessive was not destroyed. Recessive traits would appear in unaltered form in later generations because genetic traits were inherited as discrete units. Mendel discovered that heredity is determined by discrete particles or

units. These particles or units are known as genes. The genes are located in the chromosomes. Chromosomes are arranged in pairs. Humans have 46 chromosomes, arranged in 23 pairs, one in each pair from the father and the other from the mother.

Mendelian genetics is based on two laws namely, Law of Segregation and Law of Independent Assortment.

The law of segregation states that alleles, the unit of heredity, exist within the individual in pairs. The pairs are segregated during the production of gametes, so that a gamete has only one pair of each kind.

Law of Independent assortment states that the separation of one pair of genes does not influence the separation of other pair of genes. Gene pairs on one set of homologous chromosomes do not influence the distribution of gene pairs on other chromosomes; they separate independently from one another during meiosis and are randomly assorted in the gametes.

Cell Division and their Genetic Significance

Cell is the basic unit of all forms of life. Basically two kinds of cells are directly involved with heredity; somatic cells and sex cells. The body is composed of various kinds of specialised tissues consisting of billions of somatic cells continuously being manufactured to replace those that have died. Sex cells are similar to somatic cells but play no part in the structural composition of the body. They originate in the testes of males and ovaries of females and their function is to transmit life and hereditary traits from parents to offsprings. In all organisms the focal point of heredity is the nucleus, which is located in the centre of the cell and separated from the cytoplasm by a thin nuclear membrane.

In contrast, human sex cells or gametes are produced through the process of meiosis—two successive cell divisions that produce cells with only half the number of chromosomes (23). Meiosis reduces the amount of genetic material to half to prepare for sexual reproduction. During fertilisation when the two sex cells are joined together, they reproduce a new organism with 46 chromosomes. It is during meiosis and sexual reproduction that Mendel's principles of segregation and independent assortment operate.



Check your progress

1.is known as father of Genetics?
2. Identify the hereditary unit of an organism?
3. Expand DNA and RNA

V. Human Variation

Humans are varied in nature in many respects. The human variation can be in terms of the physiological features, emotional and psychological differences. The important observable feature is in terms of the bodily factors. Based on such physical features, we can classify human beings into different races.

Human Races

The term race is used with a variety of meanings. Sometimes, it is taken as synonymous with nationality like Chinese, Russian, American, etc. In another sense, it applies to a group of people speaking the same language, such as Aryan race, German, Dravidian etc. The term race, some times, refers to any group of individuals who have been bound together for a considerable time by a common habitat, history, tradition, language and religion. But the most authentic meaning of race is physiological. The concept of race is deeply rooted in colour, facial features and stature. These characteristics are hereditary in nature, which are transmitted from one generation to another.

Race is defined as a collection of individuals sharing in common certain observable physical traits transmitted through biological inheritance.

As the paleontological evidences prove, the entire human species have a common origin and all of them are Homo sapiens. Differences are found to exist between the physical characters of humans due to heredity and environment. On the basis of physical characters, human beings are grouped into different races. There is nothing called pure races of the world. The process of mixing of races originated long back. Human races can be classified only on the basis of physical traits and not in relation to any kind to mental or intellectual superiority or inferiority. The inner capacity for pre-development of mind and culture is found equally in every race. Hence, distinction between races is not based on cultural difference or intelligence.

In determining a race, physical characters are examined. Physical characters are of two types

1. **Indefinite physical traits:** This cannot be measured using instruments. It can only be observed. e.g. colour of skin, hair and eye.
2. **Definite physical traits:** This can be measured using instruments. e.g. height, structure of nose, face, etc. Naturally humans are classified according to these features. Let us examine various criteria used for racial classifications.

Criteria for Racial Classification

Racial classifications are made on the basis of certain genetic traits referred to as racial criteria. The main criteria for racial classification includes skin colours, form, texture and colour of the hair, structure of face, structure of nose, colour of eye, head form, stature and blood groups.

1. Skin colour: Humans exhibit a great variety in skin colours. The colour of skin is determined by the amount of melanin pigment present in the skin. The amount of melanin present in an individual is a hereditary character. Mainly three shades of skin colour are found in humans, white skin (Leucoderms), yellow skin (Xanthoderms) and black skin (Melanoderms).

2. Hair Form/Colour/Texture: Hair is the most convenient and striking character used for the classification of race. The races are classified on the basis of form of hair, colour of hair and texture of hair. On the basis of form, hair is classified into stretched, smooth, wavy, broad wavy, narrow wavy, curly, woolly etc. On the basis of colour, hair, due to the amount of pigment present, is classified into dark brown, black, golden hair, light brown, reddish colour etc. On the basis of texture, hairs are classified into coarse hair, medium hair, fine hair etc.

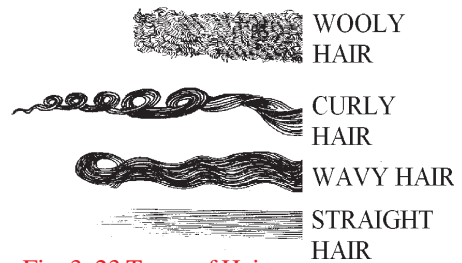


Fig. 3. 23 Types of Hair

3. Face: The humans exhibit significant variation in facial index, facial prognathism, and in the degree of chin development. The formula for facial index is:

$$\text{Facial Index} = \frac{\text{facial length}}{\text{facial breadth}} \times 100.$$

On the basis of facial index, faces are classified into broad face (Leptoprosopic), medium face (Mesoprosopic) and narrow face (Euryprosopic). Facial prognathism is the degree of forward projection of the face. When the face does not show any forward projection it is called Orthognathism.

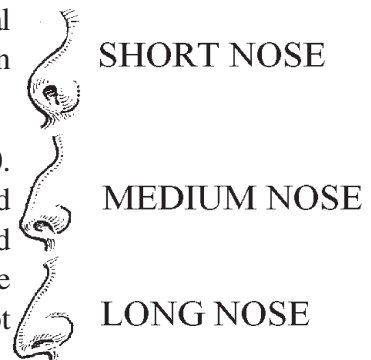


Fig. 3.24 Types of Nose

4. Nose: Noses are classified on the basis of nasal index and nasal bridge. Nasal index is calculated as:

$$\text{Nasal Index} = \frac{\text{Nasal breadth}}{\text{Nasal length}} \times 100$$

On the basis of nasal index, noses are classified into broad nose, medium nose, and narrow nose. On the basis of nasal bridge it is classified into short, medium and long.

- Leptorhinae (Narrow nose) - 70%
- Mesorhinae (Medium nose) - 70% above
- Platyrrhine (Broad nose) - 85% above

5. Eye: On the basis of colour of the eye, it is classified into blue eye, dark brown eye, brown eye, and grey eye. In addition to this there are mangoloid eye characterised by epicanthic fold and non-mangoloid eye.

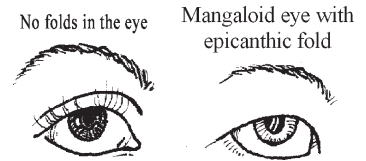


Figure 3.25 Types of Eye

6. Lips. On the basis of the thickness of the lips it is recorded as thin, medium, thick and puffy.

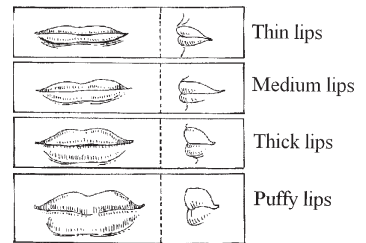


Fig. 3.26 Types of Lips

7. Ear: Variations are also seen in the ear structure viz. small and rounded with little ear lobe, longer and narrow with free ear-lobe and the intermediate between the two.

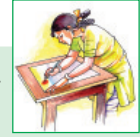
8. Head forms: Head is a measurable character and based on the head index or cephalic index, it is classified into narrow head (Dolicocephalic), medium head (Mesocephalic), and broad head (Brachycephalic). This classification is made based on the calculation of cephalic index. $Cephalic\ Index = \frac{Head\ breadth}{Head\ length} \times 100$

9. Blood groups: Blood group is a trait which remains constant and unaffected by environment. There are four types of blood groups namely. A, B, AB, and O. In every race, people who have these blood groups are found but the proportion of their members differ from race to race. We shall learn this in detail at the end of this unit.

10. Stature: On the basis of stature humans are classified into five groups, namely: very short, short, medium, tall and very tall. Average stature of modern man is 5'6". However, a usual range varies from 4'3" to 6'6" for males and 3'11" to 6'2" for females.

Stature	Male	Female
Very short	Below 4'11"	4'7"
Short	5'0"-5'3"	4'8"-4'11"
Medium	5'4"-5'7"	5'0"-5'3"
Tall	5'8"-5'11"	5'4"-5'6"
Very Tall	6'0" and above	5'7" and above

Table 3.2 Classification of human stature



Collect details of definite and indefinite traits among at least 10 members of your locality and prepare a report on it.

Based on the above mentioned criteria the entire humanity is classified into different racial groups as presented below:

Major Races of the World: In the absence of standard techniques of measurement and definite knowledge about the racial significance of the various physical traits in human, various schemes of classifications have been made by different scholars. The most commonly recognised classification is that which include three major races, namely Negroid, Mongoloid and Caucasoid, which are further subdivided into as many as 30 sub-groups.

1. Negroid Race: Negroid races are originally found in Africa. They are characterised by brown to black brown skin, very broad and flat nose, low nasal bridge, strong prognathism, brown to black hair, coarse texture of hair, woolly hair, slight body hair, brown to brown black eye etc. The Negroids have been divided into African Negroid and Oceanic Negroid and they are again sub-divided into many other groups.

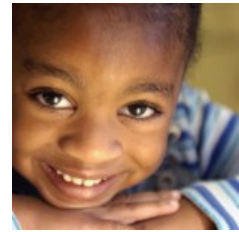


Fig. 3.27 Negroid

2. Mongoloid Race: Mangoloid races are characterised by yellow brown or reddish brown skin colour, broad and flat face, brown to brown black hair, coarse texture and straight form of hair, brown to dark brown eye, medium stature, broad and flat face with prominent cheek bones. The Mongoloids are again sub-divided into many types namely Central Mongoloid, Northern Mongoloid, Southern Mongoloid, and American Mongoloid. They are mainly found in Asia and America.



Fig. 3.28 Mongoloid

3. Caucasoid Race: Caucasoid races are found in Europe, Palestine, Iran, Northern India, Baluchistan etc. They are characterised by features such as pale reddish white to olive brown skin colour, medium to tall stature, wavy and straight hair, dark brown hair colour, light blue to dark brown eye colour and high nasal bridge. The Caucasoid races are further divided into a number of ethnic groups such as Mediterranean, Nordic and Alpine.

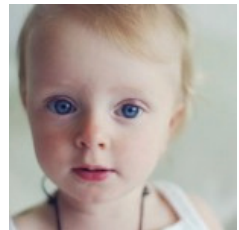


Fig. 3.29 Caucasoid



Prepare a digital presentation/album, in groups, of different racial groups of the world. Along with the material in the text book, resources from other books and internet can be used for this.

Race and Racism: Even though human beings are classified into different racial groups, we know that no race is superior or inferior to another. But there is some kind of such discrimination. You may recollect the autobiographical account of Gandhiji at the beginning of the first unit about the discrimination he faced on the basis of colour in South Africa.

Racism is the belief that one race is superior to the others and is associated with discriminatory acts and attitudes towards the 'inferior' race. People of a few races consider themselves superior to others. Probably the idea of racism originated in fifteenth century, when some Greek scholars divided mankind into two groups - the civilised and the barbarians. The famous Greek philosopher Aristotle also proposed two groups - one group is free by nature and the other which is not free (slaves). In the middle age, different authorities have presented their hypothesis of superior races. Thus the concept of superiority versus inferiority was unconsciously nurtured in the mind of people. From the biological anthropological view, racism is a cultural phenomenon that has no genetic basis.

All humans of whatever race are currently classified by the anthropologist or biologist as belonging to one species, *Homo sapiens sapiens*. In other words, it is to say that the differences between human races are not great, even though they may appear so, i.e. black versus white skin. It is well established that all races of humankind in the world can interbreed because they have so much in common. All races are said to share 99.99+% of the same genetic materials which means that division of race is largely subjective, and that the original races were also probably mere subjective descriptions and nothing more.

Let us collect more details about racism from the works of, Mahathma Gandhi, Nelson Mandela, Abraham Lincoln and Martin Luther King. Based on the input, prepare an article/seminar paper on the topic 'Race and Racism'.



Check your progress

1. Find the pair
 - (a) Caucasoid: Olive skin, Mangoloid:.....
 - (b) Negroid: Brown black eye, Caucasoid:.....

2. Fill in the blank boxes

Leptorrhine	
	Medium nose

3. Prepare a chart showing the Comparison of physical characteristics of major races of the world in the following format.

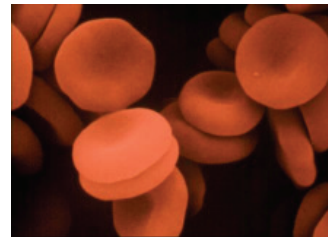
Characters	Caucasoid	Negroid	Mongoloid
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So far, we discussed about race as a variation. Did you find that blood groups among different populations also have such common occurrence? People with some particular blood groups are distributed in certain areas. Thus, blood group also acts as variation in human populations. It will be interesting to find out how this special kind of tissue is distributed in human population.

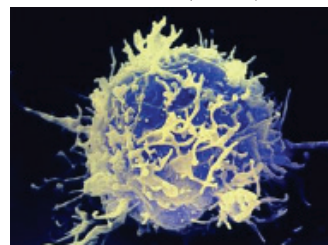
Blood Groups

The study of blood group has an important role in physical anthropology, particularly in population genetics. Blood is a special type of tissue in the human body and it performs two functions. Firstly, it supplies nourishment to the body by carrying oxygen from the lungs to the cellular elements of the tissues in other parts of the body. Secondly, it helps in removing the waste products (especially carbon-di-oxide). It gets accumulated in the body due to metabolic activities. Besides, this particular tissue has the ability to destroy the foreign invaders such as various harmful bacteria that enter from outside.

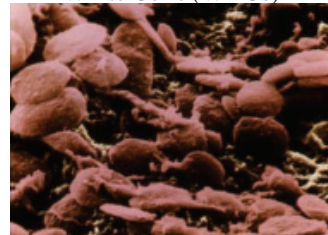
The blood is fluid connective tissue containing two components namely, blood plasma and blood corpuscles. The blood corpuscles include **RBC**, **WBC** and **Platelets**. Blood plasma contains two components namely the clotting protein fibrinogen and serum. If we take a sample of blood in a test tube and keep it for a



Red Cells (RBCs)



White Cells (WBCs)



Platelets

Fig. 3.30 Blood tissue

considerable period of time with an anticoagulant, we can find the faintly yellow fluid plasma full of numerous suspended particles known as blood corpuscles. The red blood corpuscles (RBC) or erythrocytes usually settle at the bottom of the tube leaving white blood corpuscles (WBC) or Leukocytes above. But on the top of the test-tube, maximum portion of faint yellow fluid forms with plasma layer.

The plasma contains three principle proteins like Albumin, Globulin, Fibrinogen. The Fibrinogen has got some special characteristics so that it causes clotting of whole blood. The other substances found in blood plasma are amino acids, sugar, salt, fat etc. A clear fluid is obtained if coagulating and coagulable elements can be removed from plasma. The clear fluid is called serum in which fibrin is no longer found.

Whenever any foreign molecule (protein) is injected into the blood of humans, the blood will react to eliminate or neutralise that foreign substance from it. Such foreign substances are called antigens. Antigen may be a plant or animal protein or a viral or bacterial toxin. The response to the appearance of such an antigen in the blood is the production of another protein molecule called antibody. Antibodies are produced by plasma cells. The interaction between antibody and antigen changes the form of antigen, so that it can be destroyed or eliminated from the blood.

ABO Blood Group System: In 1900-1902 Karl Landsteiner divided the human beings into three groups with reference to their blood groups, which later on increased to four as shown by Sturli and Decastello. However the groups are denoted by the letter A, B, AB, and O, based on the presence or absence of antigens.

The RBC of humans contains two antigens, namely antigen A and antigen B. The blood serum contains two antibodies namely antibody a, and antibody b. The RBC that contains antigen A agglutinate with the blood serum containing antibody a. The RBC with antigen B agglutinates with the blood serum containing antibody b. Out of these

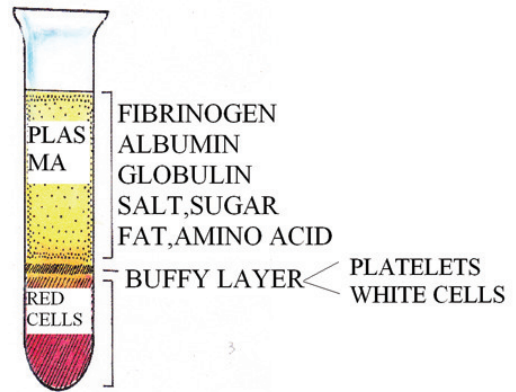


Fig. 3.31 Components of blood

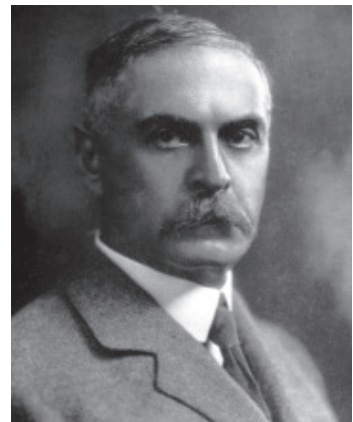


Fig. 3.32 Karl Land Steiner

two antigens, a person might have one in the cell or might contain both or none. Thus, the whole human population can be identified into four categories as regard to the presence of antigens in the RBC. A person having antigen A in the RBC is referred to as A group, a person having antigen B in the RBC is referred to as B group. The person having both antigen A and antigen B in the RBC is referred to as AB group. If both antigens A and B are absent in RBC, the person belongs to O group.

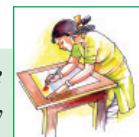
Rh factors (Antigen D) : In 1940 Landsteiner and Weiner discovered the Rh factor. They demonstrated that if the blood of a Rhesus monkey is injected to the rabbit, a serum may be obtained. The particular serum from the rabbit agglutinates certain human blood. This new agglutinative factor of the blood has been referred as Rh factor.

Rh factor is a type of antigen (protein) first discovered in the blood of Rhesus monkeys. Later, it was found that some human beings also possess this factor in their blood. If the Rh factor is present in the blood, it is grouped as Rh positive, and if absent, it is Rh negative. Rh factor is inheritable and therefore the Rh negative mother and the Rh positive father may have an Rh positive baby.

Blood Group Identification

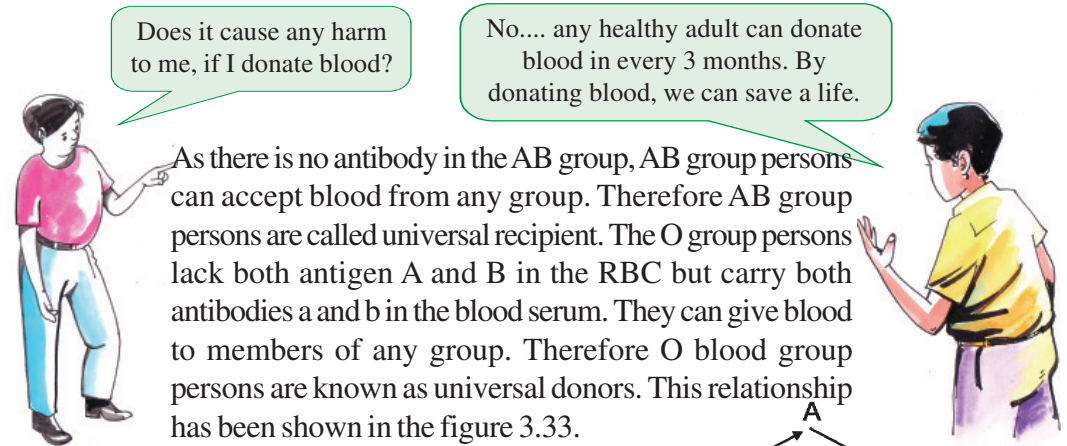
Blood group of a person can be identified by adding a drop of blood to the known blood serum. Blood group identification test is also known as agglutination test. Agglutination refers to the clumping together of RBCs. There are two types of blood serum namely anti-A and anti-B. If the RBCs in the blood agglutinate with anti-A anti serum only, the blood group will be A. If the RBCs agglutinates with anti-B anti serum only, the blood group will be B. If the RBCs agglutinates in both anti-A and anti-B blood serum, the blood group will be AB. If agglutination does not take place in both blood serum, the blood group will be O. Apart from this, anti-Rh blood serum (anti-D) is utilised for identifying the Rh factor. If agglutination takes place with anti-Rh blood serum (anti-D), the blood group will be Rh positive and if the agglutination does not take place with anti Rh blood serum, the blood group will be Rh negative.

1. *Conduct a blood group detection camp in your school with the help of Primary/Community health centres or any voluntary agencies.*



Blood Transfusion: Blood transfusion is the intravenous injection of blood for restoring the blood volume. The blood transfusion is safe when the group of the donor and the

recipient are known before hand. If the donor and the recipient have the same blood group, agglutination (blood clotting) does not occur.



As there is no antibody in the AB group, AB group persons can accept blood from any group. Therefore AB group persons are called universal recipient. The O group persons lack both antigen A and B in the RBC but carry both antibodies a and b in the blood serum. They can give blood to members of any group. Therefore O blood group persons are known as universal donors. This relationship has been shown in the figure 3.33.



Check your progress.

- Examine the figure 3.33 and complete the following table suitably.

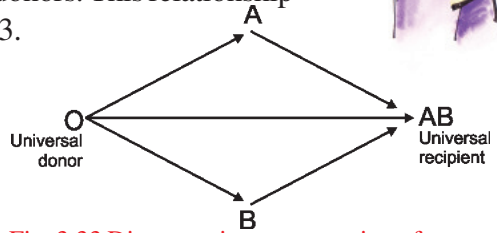


Fig. 3.33 Diagrammatic representation of blood transfusion

Blood groups	Antigen in RBC	Antibody in blood serum	Give blood to	Receive blood from
A		Anti b		O,A
B	B		B, AB	
AB		Nil		O, A, B, AB
O				O

- Find the blood group based on the data given in the table.

Unknown blood sample	Antigen	Anti Body	Group identified
1	A	Anti b	?
2	B	Anti a	?
3	AB	Nil	?
4	Nil	Anti a and Anti b	?

Inheritance Pattern of Blood Groups: The heredity pattern of blood group is now fully known. The three genes in the chromosomes i.e. A, B and O are responsible for blood group variations in the persons. It seems that A and B type possesses equal expressive power while the O is recessive in both A and B. It is also observed that the internal mixtures of these genes produce six different genotypes. But as O is recessive we find only four phenotypes of blood groups. Corresponding to four blood groups i.e. A, B, AB, and O, there are four types of genotypes. Blood group A possess genotypes AA, AO, blood group B possess genotype BB, BO blood group AB possess genotype AB and blood group O possess genotype OO. This is given in the table 3.3.

Phenotypes	Genotypes
A	AA, AO
B	BB, BO
AB	AB
O	OO

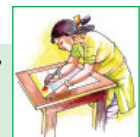
Table 3.3 Phenotypes and Genotypes

Now you will be able to find how blood groups are inherited from the parents to the offspring. Following are some of the problems in which you are required to find the possible blood groups of the children. You can refer to the example given below.

Problem: *If the parents have blood groups A and O, what would be the blood groups of their children?*

Group A x Group O Genotypes & Phenotypes AA, AO x OO	
<p>Possibility 1</p> <p>AA x OO</p> <p>AO AO AO AO</p> <p>A A A A</p> <p>Ratio. A= 100%</p>	<p>Possibility 2</p> <p>AO x OO</p> <p>AO AO OO OO</p> <p>A A O O</p> <p>Ratio. A=50%, O = 50%</p>

Let us examine the following problems and try to find the possible offsprings to each of the parents



Problem 1- Parents: A X B

Problem 2 -Parents: B X O

The inheritance pattern of blood groups from parents to the offspring is now well-known. Do you know that marriage between persons having certain blood groups will cause some diseases? It is caused by the incompatibility of certain blood groups.

ABO Incompatibility: Several researchers took interest in searching the relationship between ABO blood group phenotypes and the diseases. Though they could not find any direct correlation, but demonstrated a list of incompatibility. The compatibility or incompatibility was decided on the basis of matching of the phenotypes of the parents. The compatible mating was referred to as homo-specific, or suitable for mating, while the incompatible mating was termed heterospecific, means not suitable for mating because it may lead to certain diseases. Various combinations could be possible in both situations which are listed in the table 3.4. Similarly Rh factor also causes some kind of incompatibility.

MALE	Compatible Mating (homo-specific)	Incompatible Mating (hetero-specific)
	FEMALE	FEMALE
O	O, A, B, AB	Nil
A	A, AB	O, B
B	B, AB	O, A
AB	AB	O, A, B

Table 3.4. ABO Compatibility and Incompatibility

Rh Incompatibility: When an Rh negative mother carries an Rh positive foetus due to her marriage to an Rh positive male, the Rh antigen from the Rh positive foetus passes on to the placenta and finally to the blood of the mother. This causes the production of an antibody in mother's blood. As the blood circulation from the foetus to the mother is very slow, the formation of antibody in mother's blood takes a long time. But when the mother carries a second foetus having Rh positive blood, the mother's blood with Rh antibody will be circulated to the foetus. When this antibody passes through the placenta to the foetus, which is Rh positive, immediate reaction takes place to destroy the foetal red cells. This will cause haemolytic diseases to the foetus. This condition is known as *erythroblastosis foetalis*.

Apart from the commonly seen ABO blood groups, there are some other groups prevalent in human populations. Some of them are the following:

MNS System: Thirty years after the discovery of ABO blood groups, in 1927, Landsteiner and Levine found another blood group system known as MNS system. It consists of two antigens namely M and N. These two antigens possess no natural antibodies. They are present in the red cells of all human beings. When the red cells of a person show M antigen, the blood group is designated as M. Similarly, the presence of N antigen marks the blood types as N and when both M and N are present, the blood group is termed as

MN. The M and N antigen are equally dominant. The M and N factors exist simultaneously along with A, B, AB and O factors, in the same blood without having any relation to them.

In 1947, Sanger and Race found out another antigen known as S. It occurs especially among the individuals who possess M, N or MN blood types. Unlike M and N antigens, S antigen possesses an antibody also. The M, N and S antigens show very close affinity with each other and are known by the name MNS system.

Bombay Blood Group: This is a rare blood type which was first discovered in Bombay by Dr. Y.M.Bhende in 1952. The individuals with the rare Bombay phenotype do not express the H antigen, the antigen which is present in the blood O. As a result, they cannot make A antigen or B antigen in their red blood cells, because A antigen and B antigen are made from H antigen. For this reason, people who have Bombay phenotype can donate RBC to any member of the ABO blood group, but they cannot receive blood from any member of the ABO blood group system,. They can receive blood only from the people who have Bombay phenotype.

Determine the blood group and find out the possibilities of donation in the animation movie provided virtual lab facility available in your school.



Check your progress

1. Imagine that your friend, who belongs to AB blood group is in need of blood transfusion. Find the blood groups that he/she can he receive? Substantiate your answer.
2. The blood group of father and mother is O. Find the possible blood group of their offspring with the help of diagrams.
3. Prepare a table showing the antigens and antibody of blood groups A, B and AB.

The knowledge of biological anthropology will be of great help in the day-to-day life of human. The application of this knowledge is discussed below.

Application of Biological Anthropology

Biological anthropologist has considerable application in the field of medicine. The relationship between body structure and disease, the question of whether a particular disease is hereditary or social- cultural are some of the areas of application for biological anthropologists. Data on diseases are collected from many countries in an effort to determine what social conditions might be involved in the causes and cures of diseases.

A recent development and remarkable achievement of biotechnology is DNA fingerprinting. The DNA of an individual can be compared with the DNA in a hair, bit of blood or a drop of semen. The forensic anthropologists make significant contributions in this field. Similarly biological anthropological knowledge is applied in defense sector and industries.



Fig. 3.34. Application of Biological Anthropology

Let us sum up

- ◆ Biological Anthropology is one of the major fields of Anthropology. It studies the emergence of humans and its evolution. It also studies how and why contemporary human populations differ from each other. The subject matter of biological anthropology includes the study of human origin, growth, evolution, anatomy, human heredity, human variation, human races, blood groups, etc. The major sub fields of biological anthropology include Palaeoanthropology, paleopathology, Bio-archaeology, Human Osteology, Human Biology, Primatology, Human Genetics, Forensic Anthropology, Serology, Dermatoglyphics, Anthropometry, Neuro-anthropology and Bio-medical Anthropology.
- ◆ Lamarck, the French biologist was the first, who proposed the theory of organic evolution. Later on, many theories emerged, but the most acceptable one was that of Charles Darwin.
- ◆ Charles Darwin proposed the mechanism of natural selection to account for the evolution of species. Natural selection depends on variation within a population. The four sources of biological variations are genetic recombination, mutation, genetic drift, and reproductive isolation.
- ◆ Mendel's and subsequent research in genetics and other understanding of the structure and function of the DNA and RNA help us to understand the biological mechanisms by which traits may be passed from one generation to the next.
- ◆ Although no living primate is a direct ancestor of humans, we do share a common evolutionary history with the other surviving primates. Studying the behavioural and anatomical features of our closest relatives may help us to make inferences about

primate evolution. Studying distinctive human traits may help us to understand why the lines of primates that led to humans branched away from the line leading to chimpanzee and gorilla.

- ◆ No one trait is unique to primates. However, primates do share many features such as relatively large brain in proportion to body size, prehensile hand, flexible forearm, opposable thumb, developed fingers and nails, stereoscopic vision, long maturation of the young and a high degree of dependence on social life and learning.
- ◆ Within the Order Primates, the humans belong the Sub Order Anthroidea, Super Family Hominoidea, Family Hominidae, Genus Homo and the species Sapiens.
- ◆ The fossils, comparative anatomy and behaviour and the knowledge of ancient environments give us enough idea of when, where and how primates emerged and diversified.
- ◆ Dryopithecine who lived 20 million years ago is regarded as the ancestor of both humans and apes. The earliest hominid Australopithecine appeared in Africa about 4 million years ago. The succession of species from Australopithecine to Homoerectus then to Neanderthal (hu)man and the further evolution of Neanderthal to Cro Magnon and to the modern homo sapiens represent the course of human evolution. Homo erectus, emerged about 1.8 million to 1.6 million years ago, was the first hominid to live in Europe and Asia, and to learn to use fire .
- ◆ Neanderthal is often referred to as early Homo sapiens, who lived in Europe, North Africa, and parts of Asia during the period from about 1,00,000 to 35, 000 years ago.
- ◆ The fossil evidences of Cro-Magnon was discovered by Louis Lartet in 1868. from Cro-Magnon hills of France. Cro-Magnon man produced stone and bone tools. Cro-Magnon people had also made beautiful cave paintings.
- ◆ Human genetics deals with human heredity and human variation. The basic principles of heredity and variations were put forward by Gregor Mendel, who pointed out that the inheritance of traits was carried out through certain factors which was later called 'genes.'
- ◆ The genes are located on the chromosomes in both male and female gametes, which, in turn, are formed by two chemical substances, namely DNA (Deoxy ribonucleic acid) and RNA (Ribonucleic acid).
- ◆ On the basis of physical characters human beings are grouped into different races. The commonly held classification of human population was mainly into three races, namely, Negroid, Mongoloid and Caucasoid.

- ◆ Racism is the belief that one race is 'superior' to another and is associated with discriminatory acts and attitudes towards the 'inferior' race. From the biological anthropological view, racism is a cultural phenomenon that has no genetic basis. All humans of whatever race are currently classified by the anthropologist or biologist as belonging to one species i.e., *Homo sapiens sapiens*.
- ◆ The study of blood group has an important role in Biological Anthropology, particularly in population genetics. The whole human population can be classified into 4 categories as regard to the presence of antigens in the RBC. These include, A, B, AB, and O.
- ◆ As there is no antibody in the AB group, the AB group persons can accept blood from any group and hence, they are called universal recipient. The O group persons can give blood to members of any group and hence they are known as universal donors. If the Rh factor is present in the blood, that blood is grouped as Rh positive, and if absent, it is Rh negative.

The learner demonstrate the ability to

- ◆ Identify multiple theories of biological evolution and evaluate and appreciate the scientific nature of the theories of organic evolution?
- ◆ Locate humans' place among the primates, compare the features of human and apes and categories and arrange the fossil evidences of human evolution?
- ◆ Identify the basic principles of human genetics, appreciate the Mendel's Law of inheritance and make out the genetic significance of cell division?
- ◆ Identify the racial characteristics of human population and observe races as an adaptive variation?
- ◆ Identify blood groups as a factor of human variation and distinguish blood group compatibility and incompatibility?

Evaluation Items

1. Prepare a seminar paper on theories of organic evolution with the help of the following hints:
 - a) Survival of the fittest, struggle for existence, variation, over production.
 - b) Inheritance of acquired characters; use and disuse theory
 - c) Mutation, Genetic drift, Chromosomal aberration

2. Prepare a flow chart showing the phylogenic position of human beings in the animal kingdom.
 - a. The chart should include order, sub-order, super family, family, genus, species etc.
 - b. Write four main features of primates and Homo sapiens.
3. List out six features that distinguish humans from an ape, based on your observation.
4. Fill the blanks choosing from the options given below.

A	B	C
Australopithecine	.....	South Africa
Pithecanthropus	.....	.....
.....	Dussel dorf	.....
.....	Louis Lartet	.....

(Richard B. Leaky, France, Raymond Dart, Cro-magnon, Germany, Neandarthal, Jawa, Eugene Duboise)

5. Find the odd item and justify your answer.
 - a) Australopithecus, Neanderthal, Pithecanthropus, Ramapithecus
 - b) Neanderthal, Dryopithecus, Ramapithecus, Ardipithecus.
6. After a theft, a police Inspector gets a knife from the site. Which Branch of Anthropology will help the police to identify the criminal?
7. Distribute the six racial features given below under the three major races

(a) Moderate body hair	(b) Dark brown skin colour
(c) Scanty body hair	(d) Little body hair
(e) White skin colour	(f) Yellow skin colour
8. Write three classifications of human skull, based on the index of length and breadth.

(a) Long head	.....
(b)	Mesocephalic
(c) Broad head	.....

9. Name the Branch of anthropology that focuses on the study of blood groups.
10. The following table shows the agglutination reaction of blood samples. Identify the blood groups and explain the agglutination reaction in each blood group. Draw the diagrammatic representation of blood transfusions.

Blood Sample	Anti Serum A	Anti Serum B	Anti Serum D	Group Identified
1	?
2	++++++	++++++	?
3	++++++	++++++	?
4	++++++	++++++	?
(..... indicates no reaction) (++++++ indicates reaction)				

11. A gynecologist advises a woman to take an anti Rh vaccine after her first delivery. What would be the reason? How would this vaccine help her in the next pregnancy?
12. The blood groups of two couples are given below. Explain the genotypic and phenotypic blood groups of their offspring with the help of diagrams.
 - a. AB X O
 - b. AXAB
13. Imagine that your father belongs to the AB blood group. In case of emergency, from which blood group can he receive blood? Substantiate your answer.
14. Choose the correct genotype of ABO blood group from below
 - a. O, A, B, AB
 - b. OO, AA, BB, AB, AO, BO
 - c. A, B, AB
15. Prepare a table showing the antigens and antibody of blood group A, B and AB.



BASICS OF ARCHAEOLOGICAL ANTHROPOLOGY

CONTENTS

I. Meaning and Scope of Archaeological Anthropology

- Archaeological Anthropology and Pre-history

II. Geological Time Scale

- Formation of earth
- Geological ages - Era, Period, Epoch

III. Basic Concepts in Archaeology

- Tool
- Site
- Industry
- Culture
- Artifact
- Assemblage
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IV. Three age System

- Dawn of Stone Age - Eolithic
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- Palaeolithic Period - Lower, Middle and Upper
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- Stone Age in India
- Megalithic culture
- Megalithic evidences in Kerala

VI. Dating methods

- Relative Dating
- Absolute Dating

VII. Modern trends in Archaeological exploration

Introduction

You are now well aware that, some anthropologists are interested in the human fossil record, DNA and how humans evolved and vary as a species. Some other anthropologists live in communities around the world for months or even years together to understand their respective customs, behaviour and way of life. Some other anthropologists focus their attention on the symbolism of language as the tools of communication, its origin as well as its underlying the super structures, and its social functions and cultural elements. Again, some anthropologists excavate the ancient remains of past cultures to find out what our ancestors did and how they lived. The job of an archaeologist is a tiresome one. But an archaeological discovery would unravel the mysteries related with human culture.

Archaeological discoveries were many times quite accidental. The discovery of a Homo Sapiens baby, popularly known as archaic baby was a similar discovery. Archaic baby is a fossil of the Middle

Pleistocene. It was discovered by a team led by Dr. Rajendran, UGC Research scientist and Archaeologist Department of History, Kerala University at Oldai in Villupuram district of Tamil Nadu in South India. In the human evolutionary stage the Oldai human fossil, named 'Laterite Baby', belongs to the *Homo sapiens* (archaic), and it is the Second Oldest human fossil, next to the Narmada fossil, from India. The human fossil from Oldai is significant as it provides evidence of human origin and of India's importance in the story of hominid evolution.

Latest technologies were employed to ascertain whether it was a human fossil. The age of the fossil was also determined by using latest technologies. An archaeologist's job involves fieldwork, including careful digging, excavation, or exploration for material remains left by past humans. These materials include bones, teeth and hair, clothing, art, cookware, buildings, weapons and any other materials made or used by past humans. These will help an archaeological anthropologist to reconstruct the past cultures.

You know that archaeological anthropology is that branch of anthropology which deals with the study of pre-historic culture through remains left by ancient humans.



On 14th October 2001 a suspected fossil was discovered within the ferricrete at Oldai in Villupuram district of Tamil Nadu in South India. In order to prove the existence of a faunal fossil with the ferricrete it was subjected to various radiological methodologies such as X-ray, Scanning 2D, 3D, and Scanning Electron Microscopy (SEM). X-ray had identified, for the first time, the presence of a faunal fossil within the ferricrete. Subsequently 2D scanning was applied, and could distinguish the human cranium within the ferricrete. Then with the 3D scanning hundreds of images were taken that identified it as a human baby skull. It was further scanned with 3D software which identified three cervical vertebrae with the skull. Then SEM was applied to understand various characteristics of the skull in detail that recorded perfect nature of fossilized cranial bone structure, blood vessels, membranous tissues, brain tissues, RBC etc. It shows a peculiar type of preservation of the fossil within the ferricrete. In this context the absence of any micro organisms within the skull is significant. In order to make one to one comparison a human foetus skull has been examined under SEM and proved beyond doubt that the entombed fossil is that of a human child.

Since dating of the fossilized bone is difficult, attempt was made to find out the age of the matrix in which it was found. The ferricrete which covers exactly over the cranium has been taken for Thermo luminescence dating. The TL date of 0.166 million years (1,66,000 years) of the ferricrete clearly shows its age to the Middle Pleistocene and the same chronology has been taken as the approximate age of the entombed human fossil (Rajendran *et al.* 2004: 1-4).

(Source: Rajendran, P, Koshy, P and Sadasivan, S 2006. *Homo sapiens (Archaic) Baby Fossil of the Middle Pleistocene. Ancient Asia 1:7-13, DOI: <http://dx.doi.org/10.5334/aa.06102>*)

Did you ever think of the following and wanted to find an answer?

How were the earth formed and the culture originated on earth? Who made the first tool and where did it first appear? When did people start developing stone tools? Who were the first artists and painters? When did humans start agriculture and who first started it? How can archaeologists date objects from the past? Who built umbrella stones and other large monumental structures made out of laterite rocks? Why these megalithic monuments are abundant in Kerala?

You will get an answer to these questions by learning this unit in the process of your exposure to the basics of archaeological anthropology. Let us start with the meaning and scope of archaeological anthropology.

I. Meaning and Scope of Archaeological Anthropology

The word Archaeology is derived from two Greek words- "arkhaios" means ancient and "logos" means study. So archaeology is the study of human activity in the past. In America, it is considered as a branch of anthropology while in Europe it has developed as an independent discipline.

Archaeological anthropology attempts to reconstruct the past. To be more specific, archaeological anthropology studies the origin, growth and development of past culture. The intention of historians and archaeologists are same in reconstructing the past. But history is based on written records of the past life. The written documents cover only the last five thousand years because the invention of alphabet took place only around 5000 years BC. Archaeology supplements the rest of the period in the history of humans by reconstructing the ancient past from the material remains.



Do you know the role of physical environment, geography, climate, flora, fauna etc in the evolution of humans?

The archaeological anthropologists try to reconstruct the events of human past dating back to millions of years ago. Archaeology tells us about the technology used in the past by analyzing the tools people have left behind. These tools would give more or less a clear picture about the economic activities of the people.

Archaeological Anthropology tries to understand the formation of earth, the emergence and evolution of life through geological ages. This study is confined to the

studies of climate, geography and culture. *The physical environment played an important role in the course of human evolution.*

Archaeology and Anthropology through a Conversation

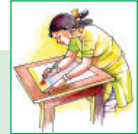
The relationship between anthropology and archaeology must be identified. The following conversation between an archaeologist and an anthropologist will help you to identify the relationship and the distinctions between the both.

- ◆ *Anthropologist:* As you know, Anthropology is a holistic and scientific study of humans across time and space. A person interested in archeological aspects with anthropological perspective, becomes an archaeological anthropologist.
- ◆ *Archaeologist:* Exactly so. As Archaeologists, we undertake a scientific study of the past societies and cultures through their material remains. We document and explain the origins and development of human culture. We also study cultural history, evolution, human behaviour and ecology, of both pre-historic and historic societies. Thus, the Archaeologists become enriched by the anthropological perspectives in the process of the reconstruction of past human lives and cultures.
- ◆ *Anthropologist:* You are right. When we say Archaeological anthropology, it refers to the broad sub field of anthropology, which is concerned with the study of extinct cultures. The interest of archaeological anthropologists may not go beyond the enquiry about the cultures while the archaeologists go a step further and show special interest in the discovery, preservation and conservation of the archaeological sites and monuments.
- ◆ *Archaeologist:* Yes. In fact, the humans existed long before the development of written records. Archaeology explores far back from the time before written languages existed. So it is often referred to as Pre-Historic archaeology.
- ◆ *Anthropologist:* But there is also ethno-archaeology.
- ◆ *Archaeologist:* Yes, you are right. They are interested in the contemporary pre-literate societies by living among them and recording what they do and what they leave in the ground, how they utilise the space and what they do not leave behind, as exactly as the Anthropologists do. In this way, we can say that archaeology forms part of the holistic perspective of anthropology.
- ◆ *Anthropologist:* To put it differently, anthropology becomes truly holistic only with the integration of Archaeology in its broad field.

- ◆ *Archaeologist:* It means that anthropologists should closely work with the archaeologists and vice versa, in the understanding and exploration of human cultures from the ancient to the present.
- ◆ *Anthropologist:* No doubt about it. Anthropology becomes holistic only when it is integrated among all its branches including archaeological anthropology.

Activity:

From the conversation given above, what are your conclusions regarding:



- ◆ *The relationship between archaeology and anthropology.*

You can discuss it and present it in your classes suitably - either in the form of a poster, comparative chart, or discussion note.

By looking at the above conversation, you will now be in a position to understand the nature of archaeological anthropology. Let us look into the details one by one.

We have been talking about pre-history. Do you know the importance of pre-history in archaeological anthropology? Pre-historic cultures did not make use of writing. This period constitutes over 99% of the human history and form the base for the study of archaeological anthropology. Many a times, Archaeology and Archaeological Anthropology as used interchangeably.

Let us examine the following chronological events in the history of human evolution. This would help us to understand the importance of studying pre-history.

- ◆ Human ancestors originated in about 3 million years BP.
- ◆ Human behaviour, including language, religion, art, music, myth, cooking, games and jokes originated in about 50000 years BP.
- ◆ Homo sapiens arrived:
In Eurasia during 125,000-60,000 years BP.
In Australia around 40,000 years BP.
In the Americas around 15,000 years BP.



Before Present years is a time scale used mainly in archaeology, geology and other scientific disciplines to specify when events in the past occurred. The present use of A.D. and B.C. are related with Christianity. This is not suitable in a multi cultural world. The abbreviation B P is used to denote Before Present. Archaeologists chose the year 1950 as ‘the present’. Though radiocarbon dating was invented in the late 1940s, this date is used considering the fact that radiocarbon dating became practicable in the 1950s.

- ◆ In Hawaii, Easter Island, Madagascar and New Zealand between 300 AD and 1280 AD .
- ◆ Homo sapiens lived as hunters gatherers around 10 0000 years BP.
- ◆ Homo sapiens began to practice agriculture about 12,000 years BP.
- ◆ Writing appeared on earth around 5000 years BP, i.e. human had acquired capability of written language relatively very recently.

What conclusions can be arrived at regarding the importance of studying pre-history?



Check your progress

1. How is archaeology an essential part of anthropology?
2. Examine the importance of studying pre-history?
3. What is ethno-archaeology?

The study of human pre-history will be incomplete without an understanding on the origin of earth and the time scale over which humans progressed in pre-history and historic period.

Formation of Earth

The formation of earth is related with the formation of solar system. The formations of the solar system have begun around 4.6 billion years ago.

Look at earth's formation through a 24 hour clock. In this imaginative clock, measuring a 24 hour time span, dinosaurs, mammals and humans would be last in the line of evolution on the clock. The following info graphic looks at the origin and evolution of life as comprised into a 24-hour clock. This 24-hour clock analogy will be helpful in getting some perspective related to the lifespan of the Earth. In this clock midnight (0:00:00) marks the formation of Earth.

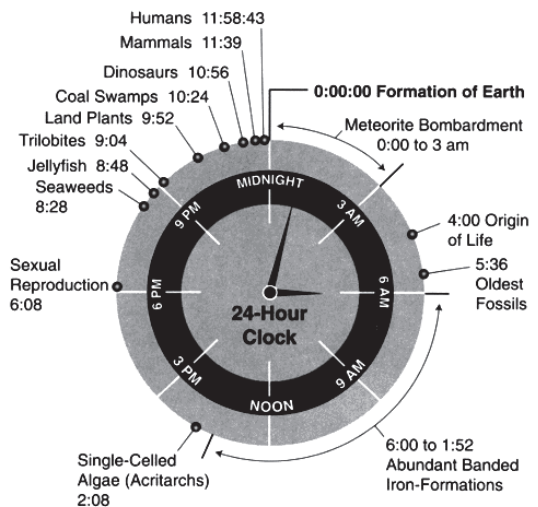


Fig 4.1. Formation of earth in an imaginative clock

A closer look at this imaginative clock would reveal that during the long history of earth humans appeared at one minute seventeen seconds at midnight. Dinosaurs were wandering earth just before 11 pm (11:39). You can look at this info graphic to find out the emergence of earth and origin of other organisms on earth. The study of the physical, chemical, and biological processes and products of the earth is very much essential in archaeology to understand the pre-history.

II. Geological Time Scale

You may better know how the universe and earth were formed. The study of the history of earth and an understanding of the time scale over which humans developed in pre-historic period is very much important in archaeology. In that sense, study of the physical, chemical, and biological processes and products of the earth (Geology) helps archaeologists very much.



The study of the rock layers on earth is important to understand the past history of earth. This study is known as stratigraphy. Paleontologists, Archaeological anthropologists, Geologists and other scientists are interested in the study of formation of rock layers. Different types of rocks are formed during different periods of time in the history of earth. ***Geological time scale is an important system of chronological measurement that relates stratigraphy to time.***

There exists a general agreement that planets as such were formed by the accumulation of gas and dust in a cosmic cloud. The astronomers are of the opinion that, universe has been existing for some 15 billion years. (1Billion = 1,000,000,000) Evidence from radiometric dating indicates that the relative age of our earth, where we now live in, is about 4.54 billion years. Life on Earth originated about 2 billion years ago. The whole history of earth can be organized chronologically. This is known as geological time scale.

Geological Ages: Era, Period, Epoch

Geological time scale is related to Stratigraphy. It is used in the study of sedimentary and layered volcanic rocks. The geological time started with the deposition of sedimentary rocks. The oldest stratum of such rock was created about 2.5 billion years ago. The earliest rocks of the world are found in Canada.

Scientists have divided earth's history into different categories of varying sizes. The largest sub division of geological time is recognized as **Eras**. However, some Geologists consider **Eons** as the longest division of geologic time.

In the beginning of earth formation, the sediments became hardened to give rise to stratified rocks. Evidences of life was completely absent in earliest rocks. So these types of rocks are termed as azoic rocks, meaning lifeless rocks. As there was no trace of life during this era, geologists do not consider azoic as an Era.



EONS

Some Geologists consider Eons are the longest division of geologic time.

The **Hadean** was the first eon which existed between 4.6 and 3.8 billion years ago. **Archean Proterozoic** and **Phanerozoic** are other eons.

Each era includes a number of periods. Periods are again subdivided into epochs. The oldest time periods are usually shown at the bottom of the geological time scale and the most recent time period on the top. Differences exist among geologists regarding the time periods in geological time scale. Modern Geologists have divided the geological time span into five eras as follows:

1. Archaeozoic (4000 million to 2500million years ago)
2. Proterozoic (2500 million to 541million years ago)
3. Palaeozoic (541million to 252million years ago)
4. Mesozoic (252 million to 66 million years ago) and
5. Cenozoic (66 million years ago to the present)

Each of these eras has been named after its most characteristic form of life. The smaller sub divisions of eras are called **Periods**. There are four such periods. They are

GEOLOGICAL TIME SCALE								
Geological Age			Time Span (B C) Millions years			Life forms		
Eon	Era	Period	Epoch	From	To		AppDuration	
PHANEROZOIC EON	CENOZOIC	QUATERNARY	HOLOCENE			0.01 to Present	continues	Modern Humans
			PLEISTOCENE	2.6	0.01	2.59		Homo Erectus, Neanderthals, Cro-Magnons evolved
		TERTIARY	PLIOCENE	5.3	2.6	2.7		Ancestors of present day apes and first hominids
			MIOCENE	23	5.3	17.7		Dryopithecus, Sivapithecus etc appeared
			OLIGOCENE	33.9	23	10.9		Anthropoid apes like propliopithecus & parapithecus
			Eocene	56	33.9	22.1		Abundance of small primate
			PALEOCENE	66	56	10		Earlier primates like Lemuroids and Tarsioids
	MESOZOIC	SECONDARY	CRETACEOUS		145	66	79	Extinction of dinosaurs, pterodactyls, & toothed birds
			JURASSIC		201	145	56	Spread of dinosaurs
			TRIASSIC		252	201	51	Dinosaurs, pterodactyls, early crocodiles appeared
	PALAEZOIC	PRIMARY	PERMIAN		419	252	47	Large amphibians and Trilobites
			CARBONIFEROUS		359	419	60	Fish, first trace of reptiles, variety of insects, moss and fern
			DEVONIAN		419	359	60	Ancestors of present day fish, rise of amphibians, forest land
			SILURIAN		444	419	25	Land plants, sharks, sea scorpions appeared
ORDOVICIAN				495	444	51	First trace of vertebrates, primitive fish appeared	
		CAMBRIAN		541	495	46	Molluscs, star fish, trilobites	
PROTEROZOIC EON	PRECAMBRIAN							
		PRE CAMBRIAN		2500	541	1959	Multi cellular life forms -metazoa	
ARCHEAN EON								
		ARCHEAN		4000	2500	1500	Unicellular sea dwelling life forms -protozoa	

Table. 4.1 Geological time scale- based on data provided by Geological Society of America (2012)(Source: www.geosociety.org)

Primary, Secondary, Tertiary and Quaternary periods. The sub divisions of the period are labeled as **Epochs**.

In the above chart the first era is called **Archaean** where elementary form of life first appeared in Archaean sedimentary deposits. The second era is known as **Proterozoic** which corresponds with **pre-Cambrian** epoch. The third era is called Palaeozoic which is divided into six epochs. They are **Cambrian, Ordovician, Silurian, Devonian, Carboniferous** and **Permian**.

The last five epochs of Palaeozoic era, starting from Ordovician to Permian is categorized as **Primary Period**. Primary period has been regarded as the '**Age of fishes and ancient Life**'. The fourth era is Mesozoic which has been classified into three epochs namely, the **Triassic, Jurassic** and **Cretaceous**. These three epochs under Mesozoic era are categorized as **Secondary Period**. The last era called Cenozoic is classified into two major periods - Tertiary and Quaternary. The tertiary period comprises of five epochs namely **Paleocene, Eocene, Oligocene, Miocene** and **Pliocene**. Paleocene epoch witnessed the emergence of earliest Primates like primitive Lemuroids and Tarsioids.



Glaciations and Pluviations

Glaciation

Pleistocene witnessed great climatic fluctuations called glaciations. These fluctuations occurred repeatedly at frequent intervals. It produced spectacular changes in the deposition of land and water. Glaciations are the condition of being covered with glaciers or masses of ice or the process of covering the earth with glaciers or masses of ice. In earth's history, there was long-term reduction in the temperature of the earth's surface and atmosphere, resulting in the presence or expansion of continental ice sheets, polar ice sheets and mountain glaciers. This period is known as ice age. It implies the presence of extensive ice sheets in the northern and southern hemispheres. Within a long-term ice age, individual strikes of cold climate are termed glacial periods and occasional warm periods are called interglacial. Thus, we are still in the ice age that began at the start of the Pleistocene epoch. The last glacial period was the most recent glacial period within the current ice age, occurring in the Pleistocene epoch. The Holocene epoch is the current inter-glacial. The four glacial episodes in central Europe are known by different names like Gunz, Mindel, Riss and Wurm with three inter- glacial sequences.



Pluviation

During the Pleistocene epoch, there was an extended period of abundant rainfall lasting many thousands of years. Four major phases of rain fall was noted. Each phase is called a pluvial period and it corresponds to glacial period. Inter Pluvial period appeared between two pluvial periods like inter glacial periods. Inter-pluvial periods are marked for comparatively lower rain fall. As result of pluvial and inter-pluvial periods, rise and fall of water level is noted in lakes and rivers. Pluvial episodes in East Africa are known by different names like, Kageran, Kamasian, Kanjeran and Gamblian with three inter pluvial- periods.

Abundance of small Prosimians was noted during eocene epoch. That is why this epoch is termed as the '**Golden age of Prosimians**'.

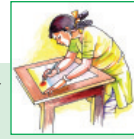
In the *Oligocene* epoch, primitive anthropoid apes like Propithecus and Parapithecus appeared.

During the *Miocene* epoch, monkeys and anthropoid apes diverged from the ancestral stock. Various kinds of monkeys, including Dryopithecus, Sivapithecus and Proconsul, appeared during this epoch. At the end of this epoch, some apes had gained erect posture with bipedal gait.

The last epoch of the tertiary period is *Pliocene*. Traces of ancestors of present day anthropoid apes were noticed during this epoch. The forerunners of the first hominid who used stone tools existed during this epoch.

The Quaternary period of Cenozoic era is divided into two epochs - Pleistocene and Holocene. The *Pleistocene* is famous for glaciations and pluviation. The early forms of modern humans like Homo erectus, Neanderthals, and Cro-Magnon evolved during this epoch. Humans are, therefore, considered as Pleistocene animal and Pleistocene epoch is regarded as epoch of humans. This short span is remarkable as far as evolution of Homo sapiens is concerned. Stone tool cultures developed in full-fledged form during this epoch.

The *Holocene*, meaning 'the recent' is the last epoch of Quaternary period. This epoch extends from the last phase of last glaciations up to the present day. The contemporary Homo sapiens sapiens or anatomically modern humans of different races rapidly spread across globally during this epoch. Drastic cultural changes have been noticed and humans progressed towards 'civilization'.



Collect images / drawings of life forms that existed during different geological epochs and arrange them chronologically to prepare an album. Give suitable titles and descriptions. You can collect images from internet sources and prepare a presentation or CD album.



Check your progress

1. is a branch of geology which studies rock layers and layering
2. Study of the physical, chemical, and biological processes and products of the earth are called
3. The longest division of geological time scale is called.....
4. Why are humans considered as Pleistocene animal?

For a comprehensive understanding of archeological anthropology, one should study the basic terms and concepts related to Archaeology. Some commonly used terms have special meanings in archaeology. For example the concept of culture in anthropology is different from archaeological concept of culture, which will be discussed later in this section. Now we should go through such terms and concepts related to archaeology, which will help us to understand the pre-history through the material remains left by early humans.

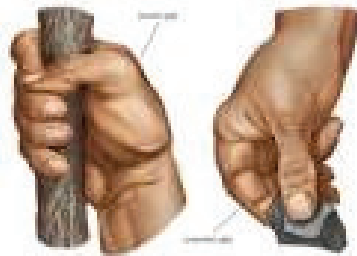


Fig.4.2 Opposable thumbs-characteristic of primates

III. Basic Concepts in Archaeology

A tool is an important concept in archaeology. We use different types of tools in modern times. Stone tools were the earliest types of tools in human history. With the



What is the use of your thumb and other fingers? Humans have an opposable thumb. How does this opposability help humans to manipulate small objects with thumb tip-to-finger tip precision grips? Opposable thumbs allow the digits to grasp and handle objects and are characteristic of primates. Opposable thumb was an important step in evolution of humans. It was tool making that really placed humans apart from other organisms. Hence tools defined our species. And if tools define our species, then it is our thumb we have to thank.

introduction of agriculture, tools were replaced with mechanical tools. With the development of nanotechnology, tools were becoming microscopic in size.

- ◆ What is a tool? How is it different from an artifact?

These are some of the questions which often confuse us. Let us examine important terms and concepts related to archaeology to find an answer to these confusions.

Tool: The ability to handle tool is not the only skill of humans. Some other organisms are found using tools in one way or other. For example, sea otters of California bring boulders up from the sea bottom to crack mollusks. Likewise, great apes are found using sticks and strings. They can throw pebbles from a distance for defense. But all

these animals lack proper insight and ability to make or prepare tools. Humans make and use tools with insight, skill and intelligence. Evolution of brain went side by side with the evolution of hand to make and use tools among humans. Thus, *a tool is an object especially designed and thoughtfully made by humans for a particular purpose*. For example hand axe, bow and arrow, etc. are tools carefully made for particular purposes.

Artifact: *An artifact is an object that may or may not be modified through the working of humans, but bears use mark.* It is an object that may or may not be a fully prepared tool. For example, a statue is an artifact but is not a tool. Similarly, all tools are artifacts. A naturally obtained stone or pebble is an eco-fact. It becomes an artifact only when it is modified by humans.

All artifacts are not tools but all tools come under the category of artifacts.

Site: A site in archaeology refers to a specific space where tools and artifacts have been found. A large area is to be considered as a site when the entire space produces artifacts in a larger area without break.



Fig.4.3. Tools used by modern humans



Fig.4.4 knife -stone and metal

Assemblage: Assemblage is a collection of pre-historic artifacts in one region. It is a collection of pre-historic artifacts from a definite level of the site.

Industry: Industry denotes the manufacturing activity. Any set of artifacts fashioned or used by a single human group of pre-historic days is called an industry. Assemblage of artifacts of same age in a site is called an industry. Sometimes, a particular site may have evidences of several industries. In this way, we can use expressions like stone industry, bone industry, microlithic industry etc.

Tradition: If a particular group of tools are found continuously through time, it may be called as a tool tradition. A tradition involves the progress as well as modifications in a given set of tool types. It is a method of making tool. The terms like Acheulian, Levalloisian and Aurignacian. indicate the names of different traditions.

Culture: In archaeology, culture means the tradition of a broad period. It is the assemblage of industries made by the people of a same group. Apart from industries, culture also denotes other factors like art, burial, custom, etc of the group. In cases of culture, we think of relics along with the people who left those relics. For example, when we use Palaeolithic culture, Mesolithic culture or Neolithic culture, we think of the people with their respective work.

Culture complex: This refers to a group of traditions under a single culture in a cluster of sites in a geographical area. For example, Soan culture complex in India where a group of traditions has been manifested in a limited geographical area.



Fig.4.5. An archaeological site where tools and artifacts are found



Check your progress

1. Fill suitably with tool and artifact
 - a) All are not but all come under the category of
 - b) is a specific space where tools and artifacts have been found.
2. Distinguish assemblage and industry?
3. Differentiate culture in Archaeology and anthropology?

How can we study the human cultural progress and development? For that we have to classify the pre-historical archaeological period in to certain stages. We have seen that

different tools, artifacts, traditions and industries are there in pre-historic times. After Stone Age, technology and materials used of making tools were changed. Archaeologists classified the human past in to different stages. This classification is made on the basis of tools made and used by the people.

IV. Three Age System

The entire period of pre-history is divided into three ages. These periods are collectively known as three age system in archaeology. The categorization of pre-historical archaeological periods into three ages was developed by Danish archeologist C J Thomson (1788-1865), and it was the first ever artifacts classification in the world. They include Stone Age, Bronze Age and Iron Age. The three age system of classification argued that the three different

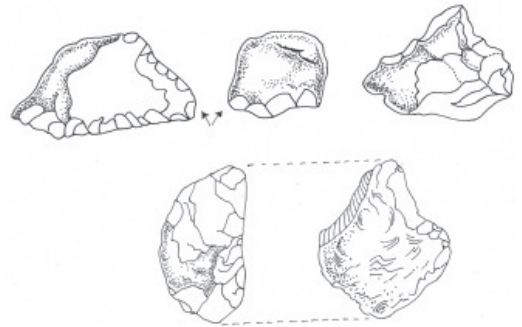


Fig. 4.6. Some eoliths

technologies were progressed through, in a linear fashion from Stone Age to Iron Age through Bronze Age. However, these three age classifications have their drawbacks because some cultures never developed through a linear progression. Instead, certain cultures moved directly from Stone Age to Iron Age. Moreover, some Stone Age cultures still exist in isolated areas. However, these classifications provide a useful way to study the human cultural progress and development. Later another Danish archaeologist Worsae classified Stone Age into Paleolithic, Mesolithic and Neolithic periods based on field experience.

In the ongoing sections, we will concentrate on the cultural development during the Stone Age. You have already studied something about Stone Age and its cultures in your lower classes. We will now study in detail about the types of tools and implements. used by the pre-historic people and the technology used by them for the preparation of tools and implements. The life and culture of Stone Age people will also be examined in this section.

Dawn of Stone Age - Eolithic

Humans are unique primates. Though several other primates and some other non-human primates make and use tools, only humans make and use many types of tools. Humans also use tools to make other tools. This particular trait makes humans a unique

primate. The earliest tool users were now regarded as hominids who are the closest ancestors of humans.

Stone Age refers to the pre-historic time period when people made stone tools. Apart from this, wood, bones and other materials were also used for tools. The Stone Age literally starts with Palaeolithic period. However, some earlier authorities tried to prove the existence of a 'pre-palaeolithic period', also known as 'Eolithic' or 'Dawn of Stone Age'. At the same time, this classification has not been accepted by many pre-historians. In the Eolithic culture, the stones have been slightly worked. Sometimes, it is very difficult to determine whether these stones have been worked or not. The Greek word 'eos' means Greek Goddess of dawn and 'lithos' means stones. Hence, eolith means the dawn of Stone Age. There is no clear proof of human handy work on eoliths. Moreover, eoliths were not found along with any human skeleton. Some believe that the tool makers of Eolithic culture lived in pre-pleistocene or late pliocene period. That is, eoliths might be present in the early Pleistocene epoch. But all these are based on speculations. A lot of studies on Stone Age cultures revealed that if eoliths are to be human-made implements, they must be placed in the Palaeolithic tools, the earliest period of Stone Age.



Check your progress

1. Fill the blanks suitably
 - a) The categorization of pre-historical archaeological periods into three ages was developed by-----
 - b). According to three age classification-----was the earliest age and -----
--came later.
2. Can we say 'Dawn of Stone Age' as 'pre-palaeolithic period' or 'Eolithic'? Why?

The Stone Age has been divided mainly into three periods namely Palaeolithic, Mesolithic and Neolithic. During these periods different types of stone tools were made and used by pre-historic people. They have resorted distinct methods and techniques for the preparation of different types of stone tools. The technology used for making such tools has progressed from simple to more complex styles over the passage of time. On the basis of the evidences of stone tools, we shall now discuss stone tool typology, technology and morphological factors.

Stone Tool typology

Different types of stone tools were widely used by the Stone Age people. The basis

of this classification is mainly the technology resorted by the people to make these tools. So, on the basis of technology, stone tools can be classified into three types. They are core tools, flake tools and blade tools. We shall discuss each tool types in detail.

1. Core tool types

A piece of rock or pebble or nodule can be shaped into a stone tool by flaking. Flaking means striking the stone from the nucleus of the original rock or pebble with the help of another hard rock. In such cases, the detached stone particles are called flakes. These flakes are treated as waste products in core tool tradition. After detaching the flakes, the main rock, pebble or nodule is called core or core tool. Core tools are of two types - one is single edged core tool and the other is bi-facial core tools. Core tools are mainly found in lower Palaeolithic period. The hand-axe tradition contained the core tool cultures.

Single edged core tool: Single-edged core tools are made by flaking either on one side (e.g. chopper) or on both the sides (e.g. chopping tool) of the cutting edge and they are made mainly on pebbles.

Bi-facial tool: Bi-facial tools are mostly made on core and are made by flaking around the periphery. It is a more or less pointed and its upper and lower surfaces are worked. They are made both on core and larger flakes and are the principal element of hand axe tradition of lower Palaeolithic period.

2. Flake tool types

In the case of core tool, the nodule becomes the tool, while the flakes are considered as waste products. However, when these pieces of flakes are utilized for tool making, they are called flake tools. The core is the basis of flake tool. But the difference is noticed in its production. Sometimes large flakes are served as the core for further flaking.



Artifacts or Geofacts - A “great” mistake

In the late 1960s Louis Leakey, one of the first Paleoanthropologists, claimed that a place in California, called Calico Hills contained early human tools. This claim was met by disbelief, as no evidence of early humans has been found in North America. It had to be taken seriously because the claim was made by none other than Leakey. A group of Paleoanthropologists met at the site on Leakey’s request. What was the result? The alleged tools were natural objects, not made by humans.

(Source: Vance Haynes, “The Calico Site: Artifacts or Geofacts? Science, 181 (1973) 305-10, taken from Ember Carol R, Melvin Ember and Peter N Peregrine, Anthropology, p. 106)

3. Blade tool types

Blade tools are very well made flakes. These uniformly long parallel-sided flakes are detached from specially prepared cores. Blade tools are thin and long. The length of blade tool is double than breadth.



Check your progress

1. Fill in the blanks suitably with flake, core, and blade.
 - a) Stone tools can be classified into ----- tools, -----tools and ----- tools.
 - b) The hand axe is a -----tool.
2. The core is the basis of flake tool. How?
3. Distinguish between flake tools and blade tools.

Tool Technology

There are various methods for flaking employed at various times during the Stone Age. **Direct percussion method or block-on-block method, indirect percussion method, Controlled percussion method and Grinding and Polishing method** were the important methods employed by Stone Age people for tool preparation.

a) **Direct percussion method or block-on-block method:** Flaking by direct blow is called direct percussion. It is purely block-on-block devise. Three different types of techniques have been distinguished. They are called anvil-stone, stone-hammer technique and cylinder-hammer technology. In anvil-stone technology, some massive tools were produced by hitting the core against a large fixed stone called anvil. In stone-hammer technique, the lump of stone which has to be flaked is held by hand. On the other hand, a pebble of suitable size is selected as striker. The lump is stricken repeatedly at some particular point. The cylinder-hammer technique is an evolved form of stone-hammer technique. The technique involves a powerful blow, with skillful control of finger.



Fig. 4.7. Direct percussion method

b) **Indirect percussion method:** An indirect flaking technique with the help an intermediate tool is the feature of this indirect percussion method. This intermediate tool is

somewhat like a chisel. It is placed on a particular point from where a flake is supposed to be detached. This technique requires more control of skilful fingers in comparison to direct percussion method. Stone Age tool makers greatly depended upon indirect percussion method because it can produce large number of flakes and blades without much wastage. Since punch has been used in producing flakes it is called punching technique. Since, at the end of the process, a fluted core is left out, it is also called fluting technique.

c) Controlled percussion method:

Controlled percussion means flaking with pressure involving patience and skill. Here, small flakes are removed from some definite point of the core with the help of a suitable implement made of stone or bone. This method requires great precision. Implements with fine cutting edge can be produced by this method. Controlled percussion methods apply to trimming the cutting edge of tools.

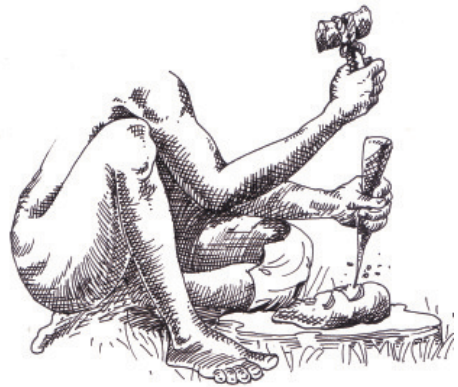


Fig. 4.8 Indirect percussion method

d) Grinding and polishing method:

Grinding and polishing method came into being for making smooth-faced cutting edge for axe-head and adze-head. These types of tools are for making wood carvings especially for boat or dwelling construction. This new method was well-flourished in Neolithic period. After flaking, the whole surface and the cutting edge have to be rubbed on a large sand stone slab. Sand may be used as an abrasive.

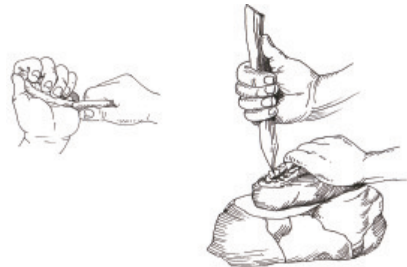


Fig 4.9. Two methods of pressure flaking- A wooden tool or antler was used to press rather than strike off small flakes.



Check your progress

1. The important tool making technology of the pre-historic people are classified in to four. They are:
 - a) percussion method b) Indirect method c) percussion method and d) and..... method.
2. Anvil-stone, stone-hammer technique and cylinder-hammer technology are different types of method.

3. Axehead and Adze head are tools of period.
4. Grinding and polishing method well-flourished in..... period.
5. Name the methods from the descriptions?
 - a) 'Small flakes are removed from some definite point of the core with the help of a suitable implement made of stone or bone'.
 - b) 'Inter mediate tool is placed on a particular point from where a flake is supposed to be detached'.

How do you differentiate an ordinary rock from a stone tool?

Rocks can be flaked naturally by knocking against other rocks in a river bed or rolling down from a rocky hill. To consider a core tool as a naturally flaked rock, Archaeological anthropologists look for three distinct features.

1. Firstly the tool has to be made of the right kind of rock. The rock must be flakable and durable.
2. Secondly, Archaeological anthropologists look for bilateral flaking. Bilateral flaking occurs when flaking occurs from two sides of a stone to form a cutting edge. Natural process may knock a couple of flakes from one side of a stone.
3. Thirdly, Archaeological anthropologists look for retouching. Retouching occurs when additional flakes are removed from an existing tool in order to re sharpen it.

In addition to this Archaeological anthropologists also examine the context in which the tool is found. For a comprehensive understanding of the nature of stone tools, we have to look into the stone tool traditions.

Stone Tool Traditions

On the basis of stone tool evidences, the stone tool making tradition of stone ages can be divided into four. They are chopper-chopping tradition, hand-axe tradition, flake tradition and blade tradition. The Hand axe tradition consists of core tool cultures and flake tool tradition consists of flake tool cultures.

1. Chopper-Chopping tradition

Certain stone tool traditions of Asia, probably of later Pleistocene age, are characterized by roughly worked pebble chopper tools. It is a true biface tool although not as finely worked as the later hand axe. A hand axe is worked all over its surface with

pointed tip and rounded butt end. The cutting edge of the chopping tool is not straight. It has a single straight or curved cutting edge flaked from a pebble or from a chunk of stone.

2. Hand-axe tradition

The hand axe tradition includes three cultures namely Pre-Chellian culture, Chellian or Abbevillian culture and Acheulian culture.

(a) Pre-Chellian Culture: This early culture was discovered from the Cromer forest bed in England. In 1904 V. Commont called it as Pre-Chellian culture. Typologically very crude type of hand-axes, including chopper, discs, scrapers etc. have been collected as major findings. Choppers are pebble



Fig 4.10. Different types of Hand axes.

tools. It has irregular cutting edges and was formed through the removal of flakes from one side of a stone. The geological age of this culture is early Pleistocene epoch. This culture flourished in Western Europe and Africa. No definite representation of this culture has been found with this tradition. However, some archaeologists feel that Australopithecine might be responsible for this culture.

(b) Chellian or Abbevillian Culture: Previously, this culture was named as Chellian after the site Chelles in Northern France. The name Abbevillian was taken from the site Abbeville in France. It is mainly a bi-facial core tool culture. Mostly, crude hand axes are the important tools of this type found in the lower Paleolithic period. The Hand axes are manufactured either with

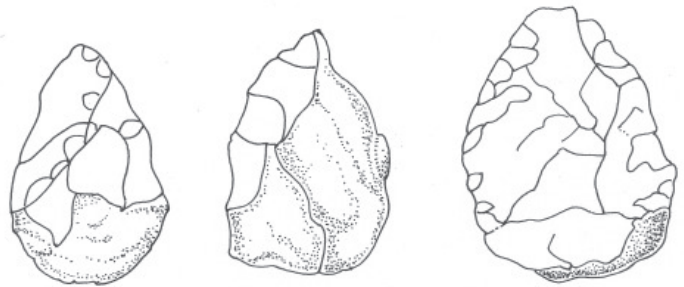


Fig. 4.11. Abbevillian type hand axe

stone-hammer or with anvil-stone technology. Direct percussion method or block-on-block technique was employed. Besides hand-axes, knives on flakes are also found in this culture. It can be the first tradition of the bifacial core-tool culture of the lower palaeolithic.

(c) **Acheulian Culture:** Acheulian culture covers the longest time span of the tool making tradition of the Paleolithic period. The principal findings were found at Somme valley at St. Acheul in France. There are lower, middle and upper Acheulian cultural sequences. Acheulian hand-axe tradition is bi-facial, core-tool culture. The geological age of this Acheulian culture is middle Pleistocene. Acheulian- Levalloisian complexes are found in Africa and Asia with lower and middle palaeolithic.

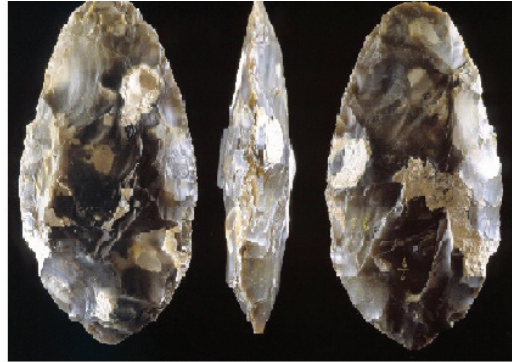


Fig. 4.12. Acheulian Hand axe.

3. Flake Tradition

The flake tool tradition is a major tool tradition of the middle Paleolithic period. It includes Clactonian of the lower palaeolithic period and Levalloisian and Mousterian in middle Palaeolithic period.

(a) **Clactonian Culture:** Clactonian is the first flake tool culture. The name Clactonian is associated with the site at Clacton-on-Sea in England. Some core-tools are also found along with Clactonian tools. The manufacturers of hand- axes produced some waste flakes, with Clactonian characteristics. But true Clactonian flakes came from the chopper-like cores. The geological age of this culture is lower Pleistocene. It is widely distributed in Western Europe, Africa, Western and Southern Asia including India. No definite human group can be pointed out as the carrier of this culture. However, Neanderthals were probably responsible for Clactonian culture.

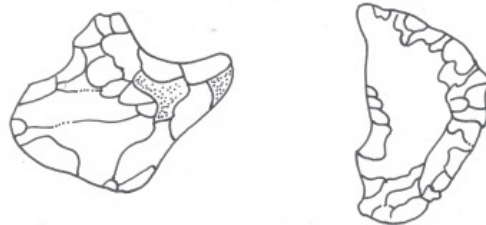


Fig 4.13. Clactonian tools

(b) **Levalloisian Culture:** The name Levalloisian is associated with a site named Levallois-Perret in France. It is flake tool culture of flake tradition. The technique of Levalloisian culture is quite different. Careful preparation of the platform and the core is



Fig. 4.14. Levalloisian tools

required. At first core is prepared which looks like the back of a tortoise. Then the flake is detached from this tortoise core. As a result of direct blow, the flake is split-off from the tortoise core.

(c) **Mousterian Culture:** Mousterian culture is associated with the middle Palaeolithic period. The difference between Lower Palaeolithic and middle Palaeolithic is mainly from typological point of view. Hand-axes and flake tools were present in the lower Palaeolithic, whereas, Core-tool cultures have totally been transformed into flake tool cultures. The rock-shelter of Le-Moustier in France is the site of Mousterian culture. It is mainly a flake tool culture, without hand-axes.



Fig. 4.15. Mousterian tools

IV. Blade Tradition

The blade tool tradition started in Upper Palaeolithic comprises four cultures namely, Perigordian, Aurignacian, Solutrian and Magdalenian cultures.

(a) **Perigordian Culture:** The Perigordian culture is named after a site of Perigord in France. The Perigordian tools are blades of flint with razor-like edge. The hunters might have used this as knife. The lower Perigordian culture in the early Upper Palaeolithic shows abundant large curved points known as Chatelperronian points. The upper Perigordian shows straight points which is known as Gravettian points. The geological age of Perigordian culture is Late Pleistocene.



Fig. 4.16. Blade making- During the Upper Palaeolithic, the stone is flaked to create a striking platform, then long parallel-sided flakes are struck around the sides providing sharp edged blades.



Fig. 4.17. Perigordian tools

(b) Aurignacian Culture: Aurignacian culture is named after a rock shelter known as Aurignac in Southern France. The bone was also extensively used as javelin points, chisels, perforators and arrow straighteners. The geological age of this culture is upper Pleistocene and Cro-Magnons are responsible for this culture. The Aurignacian culture is traceable all over Europe. It is also found in Africa and India.

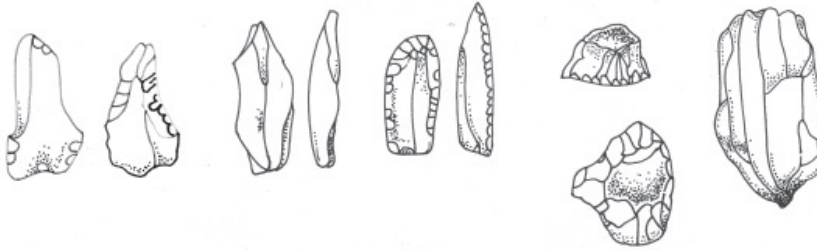


Fig. 4.18 Aurignacian tools

(c) Solutrean Culture: Solutrean culture is named after the site located at Solutre in France. The Solutrean tools are more or less thin and flat. Tools like shouldered points existed along with earlier tools like graters or burins, end scrapers, side scrapers, points and bone tools. The Solutrean culture has limited distribution in Central Europe. Cro-Magnon might be responsible for this Solutrean culture.



Fig. 4.19. Solutrean tools

(d) Magdalenian Culture:

Magdalenian Culture is named after the rock-shelter of La Madeline in France. Magdalenian culture is the last phase of Palaeolithic period. It is noted for the abundance of bone and antler tools. These include tools such as scraper heads, barbed points, and harpoons for spearing fish and hammers. The typical Magdalenian tools are long and parallel-side blade implements. Upper Palaeolithic art reached its full richness during this cultural period. The geological age of Magdalenian culture relates to the final part of Upper Pleistocene epoch. The Chancelade group of people might have been responsible for Magdalenian culture.



Fig.4.20. Magdalenian tools

Draw different types of stone tools ranging from core tool, flake tool, and blade tool with descriptions and prepare a picture album.



Check your progress

1. How do you differentiate an ordinary rock from a stone tool?
2. What is bilateral flaking?

V. Life and Culture in Stone Age

1. Palaeolithic Period

The first pre-historic culture is known as Palaeolithic. The Greek word 'palaios' means old and 'lithos' means stones. So Paleolithic means Old Stone Age. Palaeolithic period is divided into three phases. They are lower Palaeolithic, middle Palaeolithic and upper Palaeolithic. The sequence of European Palaeolithic culture is different from African and Asian Palaeolithic cultures. The European Palaeolithic culture belonged to the entire Pleistocene epoch which is divided into lower, middle and upper categories. The estimated age of European Palaeolithic period is in between 2,000,000 years BP to 10,000 years BP. The evolution and development of tool tradition and culture is noted from core tools to blade tools through flake tools. How life and culture evolved during the stone ages would be very much helpful to understand the cultural progress of Homo Sapiens Sapiens over the course of time. Let us examine the progress of life and culture in lower, middle and upper Palaeolithic period, Mesolithic and Neolithic periods.

(a) Lower Palaeolithic Period

The climatic changes, that began about 16 million years and 11 million years ago, gave rise to open spaces like African savannas and diminished African rain forests. These changes helped ground living primates adapting bipedalism. It might have increased the hominid's ability to see the predators and preys while moving through tall grasses of the savanna. The bipedalism helps them to free their hands for carrying, transferring foods and using tools etc. The use of stone tools is considered as one of the signs of culture. The earliest stone tools are found in East Africa. Even though stone tools were found at various sites of East Africa, before the time of homo species, most anthropologists believe that it is not australopithecines but members of Homo species like Homo habilis and Homo rudolfensis made the first stone tools. Their brain is relatively larger (630-640cc) than that

of australopithecines (380-450cc). They have powerful and relatively long arms and were partially arboreal. They appeared around 2.3 million years ago. The oldest stone tools including core tools (choppers) and flakes were found at the very bottom of famous Olduvai Gorge site. This lower Pleistocene material gives important information on the life style of early hominids.

The entire culture of *Homo erectus*, the second stage of hominid evolution, is often regarded as Lower Palaeolithic. The artifacts and tools dating from 1.5 million years to 200,000 years BP have been mostly produced by *Homo erectus*. It seems some of the tools during this period were produced by hominids other than *Homo erectus*. The Acheulian tools dating back from 1.5 million years BP to more than a million years BP are very much similar. *Homo erectus* is the only hominid that covers this entire period. Hence, *Homo erectus* is mostly responsible for Acheulian culture. Likewise, Chellian or Abbevillian culture was also contributed by early form of *Homo erectus*. The Acheulian tools are widely found in all areas of the old world.

Some Acheulian sites have the evidence of big game hunting. Some experts argue that big game may have been scavenged. Another important milestone in the history of human culture is the use of fire. Earlier evidences of fire are noticed during the lower Palaeolithic period. *Homo erectus* thought to have hunted animals using fire. The fire drives is a technique still used by contemporary hunters and gatherers. They learned to control fire for warmth. Evidences of camp sites are reported from Acheulian sites. Some huts are said to have work space and central hearths.

(b) Middle Palaeolithic period

The middle Palaeolithic is different from the lower Palaeolithic mainly from the tool types. The hand-axes or bifaces were replaced by the end of the middle Palaeolithic. The core tool cultures have been transformed into flake tool cultures during this period. Though Clactonian and Levalloisian flake tool cultures evolved during the lower Palaeolithic, it became further developed during the middle Palaeolithic. Apart from this, Proto-Mousterian and Mousterian tools were also developed during this period. The Mousterian culture shows complete absence of core tools. However, in early Mousterian levels in France, small hand-axes from flakes were found together with Mousterian tools. The tool assemblages of this period in Africa are known as Acheulian.

The middle Palaeolithic also witnessed the transition from *Homo erectus* to *Homo sapiens*. The cultural period is also associated with the Neanderthals in Europe and dates back from 300,000 years to 40000 years BP. *Homo sapiens* have been found in many

parts of the Old World - Africa, Asia and Europe. Some of these Homo sapiens may have lived earlier than the Neanderthals in Europe. For Africa, the term middle stone age is used instead of middle Palaeolithic.

Most of the excavated Middle Palaeolithic home sites in Europe and Africa are in caves and rock shelters. So we can say that Neanderthals lived mostly in caves or rock shelters. However, open-air sites have been found in Europe. Some of the occupants of the famous Moldova site of Western Russia lived in river-valley houses framed with wood and covered with animal skins. Skeletal evidences of wolf, fox with their paws missing revealed that animal skins were made into clothing. They hunted a wide variety of animals both big and small, birds and collected fish.

Neanderthals were the first humans to purposely bury their dead. This is evident at Le Moustier where a skeleton of a 15-16 year old boy was found with a beautifully fashioned stone axe near his head.

(c) *Upper Palaeolithic period*

The last part of the Old Stone Age is termed as upper Palaeolithic. It covers approximately 1/10th of entire Palaeolithic period. The Upper Palaeolithic period dates back from about 40,000 years BP to 10,000 years BP. Though short in life span, pre-historic humans made great cultural progress during this period. In Africa, this cultural period is known as later Stone Age and may have begun much earlier.



Fig .4.21 Upper Palaeolithic bone tooth horn-ODK tools.

During the upper Palaeolithic period, more specialised stone tools were made and it is termed as blade tools. The hand axes and flake tools were replaced by blade tools during upper Palaeolithic period. Another characteristic feature of upper Palaeolithic is the introduction of bone tools. Apart from flint and rock, bones were also used as a material for making tools. The ivory, antler, bone, teeth and horns were utilized for tool making. So this culture has been referred to as Osteodontokeratic (bone tooth horn-ODK) culture.

The upper Palaeolithic culture also showed the beginning of cave art. The blade tool tradition of the upper Palaeolithic comprises three tool cultures namely Aurignacian, Solutrean and Magdalenian. Among these, the Aurignacian is again sub-divided into Chatelperronian (Lower Aurignacian), true Aurignacian, (Middle Aurignacian) and the Gravettian (Upper Aurignacian). Later some scholars have noticed the existence of another culture belonging to upper Palaeolithic known as Perigordian between Mousterian and Aurignacian culture.

The life-styles during the Upper Palaeolithic period were similar to life-styles before. People were mainly hunters, gatherers and fishers who lived in small bands. They made their camps out in the open, in skin-covered huts and in caves and rock shelters.



Fig 4.22 Bison painting in Altamira a cave in Spain and Bhimbetka rock painting in India

However upper Palaeolithic is characterised by the emergence of art. The Upper Palaeolithic art includes painting on cave walls and stone slabs, and carving tools, decorative objects, and personal ornaments made out of bone, antler, shell and stone. The usual subject matter of the pre-historic art is the animals of that period. The figures of those animals have been portrayed in paintings, engravings and sculptures. But the most important feature of Upper Palaeolithic art is the absence of complete scene. The art tradition of the Upper Palaeolithic period can be divided into cave art and home art. Home art includes all types of objects that have been projected in engravings and carvings on stone, bone, antler, ivory and the round shaped sculptures of that time. Apart from certain geometric forms in stylised designs, several engravings of human figures are included in home art. The artistic productions on the walls of the caves are immobile in nature and called as the mural art or cave art. Most Archaeologists believe that human population increased considerably during the Upper Palaeolithic period. Other important new inventions like the bow and arrow, the spear-thrower, and tiny replaceable blades that could be fitted into handles appeared for the first time.



Check your progress

1. Fill the blank suitably
 - a) Earlier evidences of fire are noticed during the period.
 - b) Upper Palaeolithic is characterised by the emergence of..... art.
 - c) were the first humans to purposely bury their dead.
 - d) The middle Paleolithic period is also associated with the Neanderthals in Europe
2. How did the climatic changes affect the life in the early palaeolithic period.
3. Who might have made the first stone tool?
4. Who were responsible for Acheulian culture?
5. What is the indication of life rituals during the Lower Paleolithic period?
6. Write true or false
 - a) The core tool cultures have been transformed into flake tool cultures during the middle palaeolithic period.
 - b) Human population increased considerably during the Upper Palaeolithic period.

2. Mesolithic Period

Mesolithic or microlithic Age is part of the Holocene epoch. The Mesolithic period has been counted as 10,000 B C and it was a brief period in human history in comparison to Palaeolithic period. The time span of the Mesolithic period in Europe is considered to be in between 23000 BP and 12000 BP. Some Archaeologists claim that it is between 15000 BP to 8000 BP. Some non-lithic innovations were made during this period. Microliths were the characteristic tools of Mesolithic age. These tools are small in size i.e., it measures only 3/16 inch or even less in size. Bow and arrow were invented and pottery were introduced.

The stone tool types in Mesolithic Europe have been classified as Azilian, Tardenoisian, Austrian, Maglemosean, Kitchen, Kitchen Midden or Ertebolle, and Campignion. Lot of environmental changes were also noticed during Mesolithic period. Rapid increase in atmospheric temperatures was noticed. Animals found in cold climates like mammoths, reindeers, woolly rhinoceros withdrew themselves or died. New species succeeded them. Change of climate forced people to change their diet. Mesolithic people diverted their attention to items like fish, shell fish and water fowl. Apart from food gathering, fishing and collecting were added. Though Upper Palaeolithic people invented bow and arrow for the first time, its material evidence was mostly found during the Mesolithic period.



Check your progress

Fill the blanks suitably.

1. were the characteristic tools of Mesolithic age.
2. The important development during Mesolithic period was wide spread practice of the invention of

3. Neolithic Period

Neolithic is also a Greek word means New Stone Age. The period since the discovery of agriculture to the rise of urban culture has been termed as Neolithic Age or new Stone Age. This period lasted approximately from 8000 BP to 15000 BP. The distinction between Palaeolithic and Neolithic tools and implements were quite clear. The Palaeolithic tools and implements were crude in nature as it was made solely by flaking. However, Neolithic stone tools and implements were made by flaking, pecking grinding and polished. Humans became a food producers instead of food gatherers in the Neolithic period. V. Gordon Childe termed this change as 'Neolithic Revolution'.

Twentieth century anthropologists defined Neolithic Age in terms of domesticated plants and animals. They also counted the presence of pottery and absence of metal. The biological development of humans was more or less complete by this time. It is evident from the capacities for cultural innovations of humans. Hunting and gathering economy compelled humans of Palaeolithic period to lead a sedentary life style. The food production ensured the availability of food. Increased availability of food facilitated quick growth of population which settled down in permanent habitations. Neolithic culture advanced very quickly within a period of a few thousand years.

Possibly it was the women who started the art of cultivation. When man used to go out for hunting, the women would gather wild plants and fruits from the forest. They, for the first time noted that, the seeds falling on ground grew up into plants from which seeds could be available again. Thereafter, by continuous trial and error, they learnt the art of agriculture. As a consequence of agriculture, population growth was accelerated, settled life started, which paved the way for important developments in the Neolithic life. Wide spread use of pottery, invention of wheel development of weaving industry, building of houses, and manufacturing of boats, development of social organisation and development of culture as such started during this period.

Prepare a seminar paper on the topic Neolithic Revolution and present it in your class.



Check your progress

1. Point out the major distinction between palaeolithic and Neolithic tools.
2. What do you mean by Neolithic Revolution?
3. Fill in the blanks suitably.
 - a) coined the term 'Neolithic Revolution'

Stone Age in India

Numerous pre-historic sites have been identified from different parts of our country. This reveals that we have a rich cultural tradition starting from the palaeolithic period. Different pre-historic materials, excavated from several sites, include burials, structural remains, animal and human bones, rock art, and above all, stone tools, exemplifies our rich cultural heritage. Stone Age in India began with Paleolithic. Remains of the Homo erectus in the Narmada Valley in Central India show the presence of human life in India since middle Pleistocene, which is around 200,000 to 500,000 years ago. Bhimbetka cave art is the oldest known Stone Age art that belongs to first permanent settlement of human being. The megalithic monuments found in different parts of India are another instance of our rich cultural heritage. In this part we shall look in to the pre-history of India.

Palaeolithic period in India

The tools belonging to palaeolithic period had been found from various parts of India. It may be noted that, skeletal remains of palaeolithic period has been discovered in India from Bhimbetka and Hathnora in Madhya Pradesh and Odai in Villupuram district of TamilNadu too have shown the presence of palaeolithic cultures.



Bhimbetka- World Heritage Site

The Bhimbetka rock shelters are located in Raisen District of Madhya Pradesh. It is an archaeological site of the Palaeolithic period. The earliest human activities are known from the numerous stone tools including hand axes, cleavers and also the pebble tools. The Auditorium Rock Shelter at Bhimbetka is dated to nearly 100000 years. The rock art of Bhimbetka has been classified into different periods, ranging from upper palaeolithic, Mesolithic, Chalcolithic, Early historic, Medieval etc. Bhimbetka was declared a World Heritage Site in 2003.

Identical tool manufacturing technique and similarity in the form of tools is an important aspect of south Indian palaeolithic cultures. The form and technique are identical with that of tools found in England and Africa. The important palaeolithic tools discovered in different parts of India are discussed below.

Soan Culture: Crude flakes were found near Soan river valley, near Sivalik hills of Panjab (now in Pakistan). It is characterised by large number of pebble tools, flake tools and blade tools. The presence of Abbevillian-Acheulian complex was noted. This is known as Soan industry, which is formed by pebble and flakes. The Narmada valley is also famous for mammalian remains and human artifacts. Large flakes and hand-axes of Abbevillian-Acheulian type were found among the Narmada group.

Madras Culture: The palaeolithic tool from Pallavaram near Madras shows old and new Stone Age tools. The tools found near Madras have been equated with Narmada and Soan on the basis of its typology. The Madras industry produced Acheulian type tools. A large number of cleavers, cores and flakes have also been found. This is located near Attirampakkam and Vadamadurai. This industry is known as the Madras industry.



Narmada Man

The discovery in 1982 of a fossilized skull in the central Narmada valley in Madhya Pradesh provides the first scientifically recorded evidence of human skeletal remains from the Indian subcontinent dating to the late Middle Pleistocene of 300,000 to 150,000 years ago. Dr. Arun Sonakia of the Geological Survey of India found the fossil exposed on the ground surface of thick Quaternary sediment of fluvial origin and embedded in a fossiliferous gravel accumulated on the north bank of the Narmada river. This is near the village of Hathnora and some 40 km northeast of Hoshangabad town. (Kenneth A. R. Kennedy, 2006)



Need for preservation of our cultural Heritage. What can we do?

Like Bhimbedka, numerous archaeological sites and many other buildings and monuments invite our immediate attention as such cultural heritages are threatened with destructions.

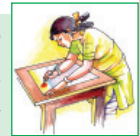
Cultural heritage includes material culture (such as buildings, monuments, landscapes, books, works of art, and artifacts), non-material culture (such as folklore, traditions, language, and knowledge), and natural heritage (including culturally significant landscapes, and biodiversity). It is the duty of every citizen to preserve the great cultural and natural heritages of our country. Anthropologists and Archaeological anthropologists give topmost priority to preserve cultural heritages.

Mesolithic period in India

Microliths are the peculiar tools Mesolithic period. Sankalia (1962) says, in India the term 'Mesolithic' stands for the late Stone Age. Some microlithic tools have been proved later to be part of Neolithic culture. In Brahmagiri, near Mysore, Wheeler recovered 102 microliths. A. Aiyappan has also described some Mesolithic artifacts from Tirunelveli in Tamil Nadu. It comprises flakes, blades, chopping tools and points. Another microlithic industry has been discovered in the Sabarmati Valley. In the upper layers of this industry, microliths were associated with hand-made pottery. Vast majority of Indian microliths are simple flakes with no re-touching. The oldest human skeletal remains so far known from India came from the Mesolithic level.

Activity

1. As students of anthropology, you can conduct a field visit to archaeologically important place in your locality and prepare a report to be presented before the local self government, inviting their attention to preserve the heritage.
2. You can collect archaeologically/ culturally important materials for a heritage museum in your school.



Neolithic period in India

Stone Celts, adzes, chisels, picks, fabricators, ring stones, hammer-stones and sling-stones are important Neolithic tools found in India. The first discovery of Neolithic objects was made in Uttar Pradesh in 1860. Celts and other artifacts have also been discovered from Bihar, Odisha, Bengal and Assam.

The true Neolithic culture is also marked by agriculture and domestication of animals. Such evidence is almost not available in India. Polished Celts, bone awls and polished black-coloured pottery were also found from different parts of India. On a comparison of the Indian Neolithic sites with the South East Asian Neoliths, it can be seen that the tool types of the Neolithic period of India have almost a continuous distribution in South East Asia.

Megalithic Culture

In late Neolithic period, the custom of erecting gigantic monuments became popular. This great structure built on large-size stone is called megaliths. The Greek word 'megas' means great and 'lithos' means stone. These great structures served funerary or cult purposes. Unlike palaeolithic people, Neolithic people gave importance to burials.



Fig. 4.23. Megaliths: Menhir, Cromlech and Dolmen

Most of the 'megalithic monuments' are made by stone blocks available in nature. A few of them are slightly shaped; others are rude. Megalithic monuments are classified differently. These classifications are made on the basis of number of stone blocks. They are: Menhir which made of large single stone pillar, Cromlech, a circle of menhirs. Dolmen: The word Dolmen is derived from two words such as Dol (means table) and men (means stone or rock). It is composed of vertical stone blocks which support a roof slab, like tabletop. Megaliths are found all over the world. It flourished in Europe around 2000 BP. Megaliths occurred first in Neolithic but continued through Bronze Age till late in the Iron Age.

Megalithic evidences in India: Megaliths are found all over India except in a few areas like the plains of Punjab, Ganga basin, deserts of Rajasthan, and parts of North Gujarat. They are concentrated in peninsular India, especially in the states of Kerala, Tamil Nadu, Karnataka and Andhra Pradesh.



Fig. 4.24. Umbrella stone Ariyannur Trissur, Kerala.
Source, Archaeological survey of India, Kerala

The megalithic monuments of peninsular India, believed to have been erected in the Iron Age from 1500 BP and can be broadly categorized into sepulchral (funereal) and non-sepulchral (commemorative) monuments. They are either built of large stones or black and red-ware. Homogeneous group of iron tools and implements are also associated with the megalithic monuments. They are mostly collective burials as bones of more than one person have been found.

The Dolmen type of megalithic structure is found in Bastar, Madhya Pradesh and Assam. Some passage graves are found in Central India and Assam. The Menhir type is reported from Kerala, Orissa, and Assam. The Cromlech type is the speciality of Kerala and Tamil Nadu. In these areas some special types of megaliths are found. They are Topi Kal, Hood-stone, Barrow, Cairn and Pit-circle.

Topikkal is popular in Kerala. It looks like an umbrella without a handle. So it is called 'hat stone' or 'umbrella stone'. The **Hood-stone** is also popular in Kerala. This is a large dome-shaped stone whose flat face rests over the ground. **Barrow** is found all over south India. These are simply earth-mounds. **Cairn** is like barrow, but made up of stone. This type is found in Chotanagpur among the Oraons. **Pit circle** is a kind of lithic structure placed within a pit in the form of circle.

The pottery associated with megalithic monuments in peninsular India is black and red ware. Some of the iron objects found in megalithic monuments include flat Celts arrow heads, tridents, swords, spearheads and spikes, wedges, bill-hooks, sickles and hoes. Many bronze objects were also found from some graves.

Megalithic evidences in Kerala: The megalithic monuments found in Kerala are classified into ten categories. They are: 1. Menhir 2. Stone alignment 3. Cist 4. Dolmen 5. Laterite dome 6. Laterite chamber 7. Umbrella Stone (kudakkal) 8. Hat stone 9. Hero stone and 10. Urn burials.



Ariyannur is a megalithic site with huge umbrella-like stones (Topikkal) covering the burial. Six Umbrella stones stand here in a group. The monument excavated under eminent Archaeologist BK Thapar, between 1949–50, was under the Department of Archaeology. The laterite hillocks of Ariyannur rise to about 50 metres. Another reference in Ariyannur dates back to early 15th century in the poem 'Chandrotsavam'.

Collect pictures of Megalithic monuments and prepare a digital presentation.



Megalithic culture is not dead and its elements still exist among the pre-literate tribes. A lot of iron objects have been discovered from the megalithic remains in Peninsular India. There is an argument that Aryans brought iron to India. Perhaps the Dravidians were the builders of megaliths who adopted the use of iron from Aryans. But they met a heavy blow by those invading Aryans. There are counter arguments that Dravidians were slow to adopt the revolutionary means, which gave the Aryans their initial superiority. However, creation of megaliths is still a mystery. We are not very sure whether the Aryans or Dravidians or any other group were the builders of megaliths. Indigenous development of the Megalithic culture is quite obvious according to Dr. K.R.U. Kennedy (2002). There is no foreign element found in any of the Megalithic structures.



Who were the builders of megaliths?



Check your progress

1. Fill Suitably
Skeletal remains of palaeolithic period have been discovered in India from in Madhya Pradesh, in Madhya Pradesh and district of TamilNadu.
2. Say true or false and justify
 - a) Megalithic is not a dead culture.

VI. Dating Methods

Accurate knowledge about the age of artifacts or archaeological remains is one of the major tasks in archaeological investigations. A fundamental factor in interpreting and reconstructing the cultural past is by calculating the age of artifacts and other related cultural remains. There are two approaches of establishing the chronology - relative dating and absolute dating or chronometric dating. Relative dating methods do not establish precise dates for archaeological remains. Absolute or chronometric dating method scientifically establishes accurate and precise dates of cultural remains of the past.

1. Relative dating methods

Some of the dating methods are Stratigraphy, fluorine analysis, seriation and pollen analysis. Let us discuss some of the relative dating methods.

(a) Stratigraphy

Stratigraphy is based on the principle of 'super-position of layers'. The law of superposition says sedimentary layers are deposited in a time sequence. The layers on the bottom will be the oldest and the layers on the top will be the youngest. That means in undisturbed situations, oldest layers are deposited first and newest layers are deposited last. Likewise, archaeological materials found in the lowest stratum will be the oldest, whereas, the materials found in the uppermost stratum will be the recent ones. However, some geological activities like, earth quake and volcanic eruptions, shift the position of materials found in layers or stratum. This will adversely affect the dating of the material, and hence, the need for alternative dating methods.

(b) Fluorine Analysis

Fluorine is a non-metallic element in the form of pale yellow highly reactive gas. Bones lying in the earth absorb fluorine dissolved in percolating water and result in the formation of stable fluor-apatite. Therefore, older a fossil is, higher is its fluorine content. This method cannot give an absolute chronological age, because the amount of fluorine differs from soil to soil. But this method is suitable for the relative dating of bone materials found in the same site.

(c) Seriation

Pottery making technology was not known to humans for pretty long time. Usually pottery has been found in the sites of agricultural practices while hunting and gathering people seldom exhibited this. Handmade pottery differs in size, shape, surface-finish and decoration. The style of craftsmanship changed from time to time. Therefore, it is possible to arrive at certain conclusions regarding where the ceramics had been in use for a long time. Thereby, the relative age of the pottery can be established.

(d) Pollen Analysis

Pollens are the microscopic grains containing the male reproductive cells, discharged from the anther of flowers. These pollens are very small in size and relatively a small part of pollen is released from the flowering plants. But these pollens are quite durable under certain conditions. They remain preserved in peat bogs, lake mud and desert soil. Each type of tree has its own recognizable shape of pollen grain. Analysis of tree-pollen reflects the tree composition of a particular area during the period of formation of the deposit. By studying the earlier strata of peat deposit, one can find out the changes that took place in the flora-pattern from one period to another. The pollen analysis is also helpful in detecting

the climatic changes. It is also helpful in reconstructing the stages of forestation after the glaciations in Europe. It is understood that birch trees came first, followed by pine and oak respectively. So a kind of relative dating is possible with Pollen grains. Pollens also bear the evidence of agricultural activities in Neolithic sites.



Check your progress

Fill in the blanks

1. System of dating archaeological remains and strata in relation to each other is called
2. In stratigraphy, archaeological materials found in the lowest stratum will be the....., whereas, the materials found in the uppermost stratum will be the ones.

2. Absolute Dating Methods

Some of the absolute dating methods are Dendrochronology, Radio-Carbon method, Potassium-Argon method and Thermo luminescence method. Let us examine these methods in detail.

(a) Dendrochronology: A tree builds up new layer on its trunk every year. By counting the annual layers one can easily find out the age of the tree when it is cut down. The width of the rings and the relative distance between the rings reflects climatic variations over a period of time. For example some rings look thick and some others are thin. During the years of plenty of rainfall, a tree absorbs more nutrients, moisture, etc., and tree rings grow wide. Likewise, during drought season tree rings will become narrow. Since all trees in an area are affected in the same manner, the ring sequences follow a general pattern. By comparing the tree ring layers in two areas, one can differentiate the climatic conditions between two regions. But its method is complicated and trained personnel are needed. Experience in handling, recording, and interpreting the sequence and competence to take decision on the absolute date are necessary. Dendrochronology cannot be applied to all kinds of trees in all kinds of environment. Sample from the same environment may be used.

(b) Radio-Carbon method: Radio-carbon dating is a very valuable and widely used method of dating. It is based on the measurement of the decaying rate of radioactive carbon, known as Carbon-14 (C14). In 1941, Willard F Libby discovered the Radio-active atom of carbon. The element of carbon has three isotopes, namely Carbon-12, Carbon-13, and Carbon-14. The first two isotopes are more or less stable and Carbon-

^{14}C is unstable and unsteady. It gives out radio-active rays and changes. All living matter possess a certain amount of a radioactive form of carbon (^{14}C). The quantity of ^{14}C normally present in organisms has been estimated. Radioactive carbon is absorbed from the air by plants and then consumed by animals that eat the plants. After an organism dies, it no longer takes any of the radioactive carbon. Carbon 14 decays at a steady and slow pace. The rate at which the carbon decays is known as "half life". ^{14}C has a half life of 5730 ± 40 years. The materials to be dated is burned in very high temperature in laboratories and reduced to exact carbon and that is measured. The objects like leather, hair, cloth, charcoal, wood and bone can be dated using this method.

The radio carbon method is not free from disadvantages. First of all, it is not possible to cover a long span of time, not more than 60,000 years. Secondly, radio-carbon level is generally calculated in terms of present day atmosphere, but we are not sure whether the same level of radiocarbon was present in the past.

(c) **Potassium-Argon method:** This method also follows the principle of radio carbon method. A radioactive form of potassium-40 is utilised here the rate of decay of which is known. After disintegration, it produces Argon-40 and Calcium-40. Therefore the ratio of Potassium-Argon may be measured to ascertain the date of minerals and rocks in a deposit. It does not date fossil specimens directly. The half life of radioactive potassium is 1330 million years. It works well in case of the sites which are 500,000 years or more. So, this method is quite useful to date very old pre-historic materials. Very old archaeological sites have been dated by this method. This method is also not free from drawbacks. This method of dating can be applied to rocks and sediments which are rich in potassium. Such types of rocks are available only in volcanic areas. Now, you know why potassium-argon method cannot be applied to the sites of South Africa, while East Africa yields good result.

(d) **Thermoluminescence method:** This method is related with pottery and minerals. Thermo-luminescence is the emitted light from pottery, which can be measured. If the ground-up pottery is heated to about 500 degree Celsius, some sort of light comes out. This phenomenon is the result of radioactive influence of the metallic element like uranium and potassium present in the clay and surrounding soil. The geological thermo-luminescence was driven out at the time of original heating of pottery. But, as the pottery remain further exposed to a steady natural radiation, it again revives the capacity of thermo-luminescence. Age of pottery can be determined by measuring this thermo-luminescence.



Check your progress

Fill in the blanks

1. Method of dating fossils in which the actual age is measured is called
2. Absolute dating method is also known as dating.
3. C14 has a half life of \pm Years.

VII. Modern trends in Archaeological Exploration

Aerial Survey (Remote sensing)

Aerial survey is a type of regional survey. It is conducted using camera attached to air craft, balloons or even kites. It is possible for quick mapping of large or complex sites. Aerial survey helps to document the status of archaeological dig. Apart from Aerial Photography, it employs infrared, ground-penetrating radar wave lengths and thermographs. Some archaeologists consider metal detectors an effective tool in archaeological surveying. Regional survey in under-water archaeology uses remote sensing devices such as manometer, side scan sonar or sub-button sonar. Remote sensing devices help to find out elevation and location of potential archeological sites, etc.

Ground Survey

Modern archaeological project often begins with regional survey. Regional survey



Under water Archaeology in India

India has 7,516 km long coastline, 1197 islands and 155,889 sq. km of territorial waters and 2,013,410 sq. km exclusive economic zone. The vast water area of the country is rich in underwater cultural heritage. The importance of underwater archaeology was realized as early as in the VI five-year plan. Beginning of underwater archaeology in India can be traced back to 1981. Off shore explorations in the country have generated a lot of popularity to this discipline. Establishment of the Underwater Archaeology Wing (UAW) in the Archaeological Survey of India (ASI) in 2001 marked a major step towards the development of the subject. Since its inception the UAW is actively engaged in conducting underwater archaeological studies in the Arabian Sea and Bay of Bengal.

The UAW is engaged in – Documentation of underwater sites and ancient shipwrecks, training of professional archaeologists, young researchers and students, conduct of seminars to discuss various aspects and to bring awareness and protection of underwater cultural heritage

Source: Archaeological Survey of India site

is an attempt to locate previously unknown sites in a region. Survey was not widely practiced by earlier archaeologists. They were mainly interested in discovering the locations of monumental sites and excavating the visible features.

The simplest survey technique is surface survey. It involves combing an area in foot or with mechanical devices to search for artifacts visible on surface. We cannot unearth sites or features buried under earth or overgrown with vegetation.

Computer Aided Mapping

An archaeologist has to acquire map-making skill. Exploration and excavation with the help of maps is integral part of archaeological research. For map-making, earlier archaeologists used materials like compass, tap to measure, ruler and pencil.

Under water Archaeology

Underwater archaeology is practiced underwater. It is a lesser developed branch due to the difficulties of accessing and working underwater sites. The branch was initially emerged from the skills and tools developed by shipwreck salvagers. This branch of archaeology studies past human life and cultures under the sea, estuaries and rivers. Researches in underwater and terrestrial sites are complementary because both consider economic, geographic, social, political and many other factors related to human life. A multi-disciplinary approach, incorporating specialists from various disciplines including pre-history, historical archaeology, maritime archaeology, anthropology are resorted in under water archaeology. India has realized the importance of its long coaster area, and established a separate wing for under water archaeology in the Archaeological Survey of India.



Check your progress

Fill in the blanks

1. survey is conducted to study the features in total from a top-down (bird's eye) view.
2. Underwater archaeology is practiced

Let us sum up

- ◆ Archaeological anthropology is that branch of anthropology which deals with past cultures. The word Archaeology is derived from two Greek words- "arkhaios" meaning ancient and "logos" meaning study. Archaeological anthropology deals with pre-history.

Pre-historic cultures did not make use of writing. Pre-historic period constitute over 99% of the human history and form the base for the study of archaeological anthropology.

- ◆ The study of formation of earth and an understanding of the time scale over which humans developed in pre-historic period is very much important in archaeology. The whole history of earth can be organized chronologically which is known as geological time scale. The largest sub division of geological time is recognized as Eras. Each era includes a number of periods. Periods are again subdivided into epochs. Archaeozoic, Palaeozoic, Mesozoic and Cenozoic are the four eras. The smaller sub-divisions of eras are called Periods. There are four such periods. They are Primary, Secondary, Tertiary and Quaternary periods. The sub divisions of the period are labeled as Epochs.
- ◆ The last era called Cenozoic is classified into two major periods -Tertiary and Quaternary. The tertiary period comprises of five epochs namely Paleocene, Eocene, Oligocene, Miocene and Pliocene. The tertiary period is named as 'Age of Mammals'. The Quaternary period of Cenozoic era is divided into two epochs - Pleistocene and Holocene. The early forms of modern humans like Homo erectus, Neanderthals, and Cro-Magnon evolved during this epoch. Humans are, therefore, considered as Pleistocene animal and Pleistocene epoch is regarded as epoch of humans.
- ◆ Tool, artifact, assemblage, industry, site, tradition and culture are the important concepts in Archaeological Anthropology. A tool is an object especially designed and thoughtfully made by humans for a particular purpose. An artifact is an object that may or may not be modified through the working of humans, but bears use mark. A site in archaeology refers to a specific space where tools and artifacts have been found. Assemblage is a collection of pre-historic artifacts in one region. Any set of artifacts fashioned or used by a single human group of pre-historic days is called an industry. If a particular group of tools are found continuously through time, it may be called as a tool tradition. In archaeology, culture means the tradition of a broad period. Culture complex refers to a group of traditions under a single culture in a cluster of sites in a geographical area.
- ◆ The entire period of pre-history is divided into three ages- Stone Age, Bronze Age and Iron Age. Dawn of Stone Age is known as Eolithic. On the basis of technology, stone tools can be classified into three types. They are: core tools, flake tools and blade tools. Core tools are of two types - one is single edged core tool and the other is bi-facial core tools. Core tools are mainly found in lower Palaeolithic period. The hand-axe tradition contained the core tool cultures. In the case of core tool, the

nodule becomes the tool, while the flakes are considered as waste products. Blade tools are very well made flakes.

- ◆ For the preparation of a stone tool, different tool making technology is resorted. Direct percussion method or block-on-block method, indirect percussion method, controlled percussion method and Grinding and Polishing method were the important methods. The stone tool making tradition of stone ages can be divided into four. They are chopper-chopping tradition, hand-axe tradition, flake tradition and blade tradition. The characteristic tools of the Chopper chopping-tool industry were the chopper. The hand axe tradition is further sub divided into three cultures namely Pre-Chellian culture, Chellian or Abbevillian culture and Acheulian culture. The flake tool tradition is a major tool tradition of the middle Paleolithic period. It is divided into Clactonian of the lower palaeolithic period and Levalloisian and Mousterian in middle Palaeolithic period. The blade tool tradition of Upper Palaeolithic comprises of four cultures namely, Perigordian, Aurignacian, Solutrian and Magdalenian cultures.
- ◆ The entire culture of Homo-erectus is termed as lower paleolithic. Core tools and flake tools were widely used during this period. The core tool cultures have been transformed into flake tool cultures during Mesolithic period. Pre-historic humans made great cultural progress during upper palaeolithic period. More specialised blade tools and bone tools were made during this period. Microliths were the characteristic tools of Mesolithic age. Humans became food producers in the Neolithic period.
- ◆ India has a strong and rich pre-history. Soan Culture, Madras culture and Bhimbedka are some of the examples. The megalithic monuments found in different parts of India are another instance of our rich cultural heritage.
- ◆ There are two approaches of establishing the chronology - relative dating and absolute dating or chronometric dating. Stratigraphy, fluorine analysis, seriation and pollen analysis are some of the relative dating methods. Dendrochronology, Radio-Carbon method, Potassium-Argon method and Thermoluminescence method are some of the absolute dating methods. Aerial Survey (Remote sensing), Ground Survey with modern equipments, Computer Aided Mapping and Under Water Archaeology are the modern trends in archaeological excavation.

The learner demonstrate the ability to

1. Identify the meaning and scope of Archaeological Anthropology, distinguish it from archaeology and appreciate its relationship with other fields of study and other sciences.
2. Outline the different elements in the formation of earth and emergence of life on earth through geological ages.
3. Identify the terms and concepts related to archaeology and distinguish each from one another.
4. Identify the three age system and locate the specific tool and technology of respective stone ages.
5. Identify the culture and life forms corresponding to different stone ages and distinguish Megalithic period from other periods.
6. Demarcate the relative chronology of artifacts and differentiate between relative and absolute methods of dating.
7. Identify the latest developments in archaeological exploration.

Evaluation items

1. Find the odd item and justify.
 - a) Pre Chellean, Dolmen, Abbevillian, Acheulian
 - b) Microliths, Flakes, Hand axes, Stone Leveller
 - c) Carbon 14 method, Stratigraphy, Pollen Analysis, Fluorine analysis
 - d) Chellean, Clactonian, Acheulian, Pleistocene.
 - e) Chopper, hand axe, blades, flakes
2. Find the pair.
 - a) Human past: History Pre-history:
 - b) Absolute dating: Carbon 14 Relative dating:
3. Classify the following archaeological materials into Lower Paleolithic, Middle Paleolithic, Upper Paleolithic, Mesolithic, Neolithic and Megalithic periods. (Materials: Mousterian flake tool, Aurignacian blade and points, pottery, umbrella stone, microliths, Acheulian hand axe.)
4. Neolithic period is considered as one of the significant stages in the cultural evolution of humans. Point out and explain five important features of the Neolithic period.

5. Fill in the blanks from the options given below and give suitable examples
- a) The simplest unit of a culture in anthropology is
Example.....
- b) The simplest unit of a culture in archaeological anthropology is
Example..... (Options. Industry, trait, artifact, complex, assemblage, Hand axe, festival, cave art, piano)
6. Arrange the following archaeological materials according to the stages of development.
(Materials: Mousterian flake tool, Aurignacian blades and points, Pottery, Umbrella stone, Microliths, Acheulian hand axe)

<i>Archaeological stages</i>	<i>Materials</i>
1. Megalithic	
2. Neolithic	
3. Mesolithic	
4. Upper Palaeolithic	
5. Middle Palaeolithic	
6. Lower Palaeolithic	

7. Arrange the following from the simple to complex sequence.
(Assemblage, culture, artifact, industry)
8. Identify the term used to denote a place of pre-historic evidence.
Options: (Assemblage, Industry, Site, Culture, Glacier)
9. Arrange the following in a table under Upper Palaeolithic, Middle Palaeolithic, and Lower Palaeolithic periods.
- | | |
|-----------------------------|-------------------------|
| a) Acheulian tool tradition | b) Mousterian tool |
| c) Emergence of art. | d) Post Acheulian tool. |
| e) Bow and Arrow | f) Flake tools. |
| g) Homo erectus | h) Neanderthals. |



BASICS OF LINGUISTIC ANTHROPOLOGY

UNIT

5

CONTENTS

- I. **Meaning and scope of Linguistic Anthropology**
 - Linguistic Anthropology and Linguistics
 - Language and Culture
- II. **Human Communication**
 - Key features of Linguistic Communication
 - Signs, Symbols and Language
 - Language and Physiological modifications
- III. **Structural Linguistics**
 - Properties of Language
- IV. **Historical Linguistics**
 - Theories of Origin of Language
- V. **Language Acquisition**
- VI. **Non Verbal Communication**
 - Kinesics
 - Proxemics
 - Chronemics
 - Haptics
- VII. **Para Language**
- VIII. **Language Loss and Revival**



Fig 5.1 Helen Keller and Anne Sullivan

“We walked down the path to the well-house, attracted by the fragrance of the honeysuckle with which it was covered. Someone was drawing water and my teacher placed my hand under the spout. As the cool stream gushed over one hand she spelled into the other the word water, first slowly, then rapidly. I stood still, my whole attention fixed upon the motions of her fingers. Suddenly I felt a misty consciousness as of something forgotten - a thrill of returning thought; and somehow the mystery of language was revealed to me. I knew then that “w-a-t-e-r” meant the wonderful cool something that was flowing over my hand. That living word awakened my soul, gave it light, hope, joy, set it free! As

we returned to the house, every object which I touched seemed to quiver with life. That was because I saw everything with the strange new sight that had come to me”.

- ◆ This is an account of Helen Keller, an American Political activist, who was the first deaf and blind person to earn a BA Degree. She became blind and deaf, after a fever at an early stage of her life. Here, she explains how language reflected thought.

V T Bhattathirippad, famous social reformer, writer and actor in Kerala narrates a similar situation in his autobiography *Kanneerum Kinavum*. He learned to read and write Malayalam language very late. He learned Malayalam alphabets with the assistance of a girl. One day he got a piece of paper which was used to cover jaggery. He somehow read a sentence in that newspaper. It was the first Malayalam sentence he ever read. He refers it as a very thrilling experience.

The above instances clearly indicate the importance of language.

- ◆ Have you ever experienced any such *mysterious power* of language? Did you find any limitations to language? Share it in your group.

We all, in our infancy, had made different kinds of sounds to denote various objects around us. It was the early way of our communication. Later, after acquiring language our communication became more specific and accurate. Since human being is a social animal, interaction among the members of society is important for a collective living. So in society, it is important for us to express ourselves and to listen to others.

- ◆ How do we share our ideas and emotions with others?
- ◆ Do animals communicate like us?
- ◆ What makes human communication distinctive?
- ◆ How did linguistic communication originate?

These are some of the interesting points we shall discuss in this unit ‘Linguistic anthropology’. The study of culture which forms an important area of anthropology would be incomplete without understanding the different dimensions of language, because language is an indispensable part of culture.

I. Meaning and scope of Linguistic Anthropology

The term **linguistic anthropology** and its variant **anthropological linguistics** are currently understood in a variety of ways. Linguistic Anthropology is a branch of anthropology that deals with the study of language in relationship to biological as well as cultural aspects of human being. It examines the structure of language, its use, origin, development and classification in relation to specific cultures. Linguistic anthropologists study language as an integral aspect of social life as it is the primary medium of communication and social interaction without which the major social institutions (the family, the law, the polity and the economy) cannot function in any society. Language is also an important medium of socialization.

Linguistic Anthropology

*Linguistic anthropology focuses on how people use language in particular culture. Linguistic anthropologists often work with people who have unwritten (purely spoken, or oral) languages or with languages that very few people speak. Linguistic anthropological work may involve developing a way to write a formerly unwritten language... Some linguistic anthropologists specialise in reconstructing dead languages (languages no longer in use) and their connections to living languages, a study known as **historical linguistics**.*

Linguistic Anthropology and Linguistics

In terms of methodology, linguistic anthropologists combine ethnographic techniques of long-term participant observation through fieldwork with the use of audio and video recording technology. Using this method, linguistic anthropologists are able to examine how language and other systems of human communication are related to culture. Linguistic anthropology also analyses how language and other communicative systems reflect power relations, ideology, class, gender and ethnic identity. As Dell Hathway Hymes, an eminent American linguistic anthropologist, observed, linguistic anthropology is “*the study of speech and language within the context of anthropology*” (1963: 277). To sum up, linguistic anthropology is considered as *the study of language as a cultural resource and speaking as a cultural practice*.

On the other hand, **Linguistics** studies the origin, development and classification of language. Linguists quite often focus on written languages and are interested in describing different languages and grouping them into different language families and subfamilies to understand the similarities and differences in different languages. Till 19th century, the focus of this study was classical languages and this branch of knowledge was known as **Philology**.

Even though Linguistics and Linguistic anthropology share many aspects in common, Linguistic anthropology differs in many other respects. Linguistic anthropology studies languages with an anthropological perspective for which it uses distinctive anthropological methodology. It examines the origin, development and classification of languages **in relation to different aspect of culture**. But Linguistics studies languages as language 'per se' and as a medium of communication. It studies the origin, development and classification of language in abstract terms **without considering culture**. Moreover, Linguistics gives least importance to anthropological methods.



Check your progress

- Complete the blank area by identifying the distinctive features of Linguistics and Linguistic Anthropology

Linguistics	Linguistic Anthropology
Studies the origin, development and classification of language	.....
.....	Combines ethnographic techniques for the study of language
.....

- Examine how linguistic anthropology differs from other branches of anthropology.

As communication through language is the central theme of Linguistic Anthropology, it is important for us to know more about language.

- Did you ever think of a world without language?

Let us form into different groups and enact a role play on the theme 'The World Without Language'



In such a world, we shall find that human life would not be as we live today. It is also evident that language is not merely a medium of communication but the most significant factor for development and transmission of culture. In other words language is a vehicle of culture.

Language is a system of symbols with standard meanings. It is the most flexible and powerful intellectual tool developed by humans. Language allows its speakers to express what is being done in everyday life. In order to conduct ethnography (description of culture), anthropologists need to interact with the people who are the subject of study. To make that interaction meaningful, knowledge of the native's language becomes important. So the description of cultures and thereby the outcome of cultural anthropology itself is possible only with the reality of language. Language is related to culture in different ways. Let us examine this relationship in detail.



Malinowski, a polish born British Anthropolgist, used the term ethno-linguistics in his early writings: "...there is an urgent need for an ethno-linguistic theory, a theory for the guidance of linguistic research to be done among natives and in connection with ethnographic study" (1920: 69).

Language and Culture

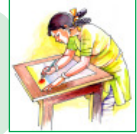
The structure and content of language to a great extent are influenced by culture. We can say that linguistic diversity is the result of cultural diversity. According to Overton Brent Berlin, a famous American Anthropologist, the increase in the number of words indicates the cultural complexity. Language reflects cultural situations. The socialisation process of a child is also influenced by language. The status of people, their living condition, their environment and the way of subsistence can be understood through languages. The study of the relationship between language and culture, and how they mutually influence each other is examined under the sub-discipline **Ethno-linguistics**. It examines how a language reflects the traditional natural environment. Ethno-linguists, in their interaction with the group under study, learn to understand the prevailing social cultural situation. Relationship between Culture and language can be well understood through the examination of the following areas

a. Language Influences Human Thought: It is important to note that language, to some extent, shapes the way people view and think about the world. Culture is directly related to human thought. Some Linguists even say that language actually determines thought. It also shapes behaviour and culture. The concept related to this outlook is termed as **Linguistic Determinism**. This is associated with the research of anthropologists, Edward Sapir (American Linguist and student of Franz Boas) and his student and American linguist Benjamin Whorf. Based on their research, they proposed **Sapir - Whorf hypothesis**, in which they proposed how language determines human thought. For example if a language has no word to denote 'snow' as used in English, then a person brought up in that culture

cannot think of snow as it is implied in English. Thus, Linguistic determinism proposes that language, to some extent, determines the way we think about the world around. As the thought pattern changes, the cultural situation of that society also changes accordingly.

b. Language indicates Social Roles and Statuses: In your local language, there may be different words to denote 'death' of a person. The use of these terms may vary according to caste, gender, age and social status.

Let us find different local terms to denote marriage, house etc. used among different communities, classes and castes and prepare a dictionary/report of linguistic variations.



- ◆ Have you noticed any difference in the use of language among different groups depending on caste, gender and class?

Likewise persons in different religious sects use different terms. It is important to remember that languages are spoken by members of different societies. All societies have their own unique cultures. So Individuals in different societies use language based on social categories such as gender, age, class, caste, and ethnicity. **Socio-linguistics** studies the relationship between language and society. It examines how social categories influence the use of speech. Thus, it is concerned with the ethnography of speaking. It examines cultural and sub-cultural patterns of speech variation in different social contexts.

Another area of interest of Socio Linguistics is the **honorific forms** of language. These are used to express differences in social levels among speakers. It is common in societies that maintain social inequality and hierarchy. In the feudal society of Kerala, Provincial rulers, *Janmis*, *Naduvzhi* etc. were greeted by different terms. The terms used as prefix is one of its three forms. In India, people are generally greeted by using a prefix 'sri' with the name of the person. Sometimes the greeting



In Japan, males and females use different words for same concepts. To denote water a male uses the word *mizu* whereas a female uses the term *ohiya*. Females used to add the polite prefix 'o' in conversation. (Female says *ohasi* for chopsticks, while males use *hasi* for it).

In a study of a New England town John Fischer noted that in formal interviews, children are likely to pronounce the ending in words such as singing and fishing, but in informal conversation they said 'singin' and 'fishin'. Moreover, he noted that the phenomenon also appeared to be related to social class. Children from higher status families were less likely to drop the ending than were the children from lower status families.

(Source: Ember and Ember 2003 p-264)

can be in the form of using a suffix like the use of 'Ji' as we use *Gandhiji*, *Indiraji*, etc. Replacement of names with the terms like *Bhaji*, *Guru* etc. are the third type.

Generally the judges in courts are honorably addressed as 'Your honour'. But if the judges have a higher title, the position will be respectfully addressed by using the term 'Your Lordship'. A king/queen or emperor/empress is addressed as *His/Her Majesty*. But the ruler below the rank of a king/queen is addressed as *His/Her Highness*. All the above illustrations clearly show the relationship between social role and linguistic usage.

Socio linguistics also studies about *dialects*. Dialects are the varying forms of a language in different regions, occupations or social classes. In other words, it is the linguistic difference in pronunciation, vocabulary or sentences that may differ within a single language. For example Malayalam language, spoken in Kerala has different dialects. You will find it interesting to identify the variations in your language. We should realise that, technically all dialects are languages.

Let us prepare a chart or a dictionary of honorific forms and dialects in mother tongue.



Dialects in Kerala

On the basis of regional considerations, Kerala has been divided into three dialects, viz. the southern, the middle and the northern. The southern dialect which is spoken in Neyyattinkara taluk and the southern portions of Trivandrum district is noted for its Tamil influence. The northern dialect prevalent in northern part of Kannur shows traces of Kannada influence. The middle dialect prevalent in all other parts of Kerala contains a large admixture of Sanskrit words. At the same time, the language has borrowed words through the ages from non- Indian languages like Arabic, Persian, Portuguese, Dutch and English. This has invested Malayalam with a composite character of its own which distinguishes it from other languages and literature in the country

(Source: A. Sreedharamenon. - Cultural heritage of Kerala .p 187)

c. Culture Influences Basic Vocabulary of Language: All languages have many different ways to express colour variations. Most often, certain basic words are used to denote this. In English, words representing some basic colours are white, black, red, green, blue, yellow, brown pink, purple and grey. They are the basic colour words. A basic color word consists of a single morph. It may not denote the variant of a particular colour. These terms are generally the first named terms when people are asked for names of

colours. Moreover many individual speakers of the language have to agree on the central meaning of the word. The number of basic words for colours varies from society to society (language to language). Berlin and Kay (Basic colour terms 1969) suggest that the number of basic colour words increases with cultural complexity. More complex societies may require a large number of basic colour words because they have more decorated objects that can be effectively distinguished by colour.

All languages have a core vocabulary. It is influenced by culture and environment. For example Eskimos can distinguish different types of snows and winds. So among them there are different terms to denote these 'snows' and 'winds'. Hence, we can infer that the basic vocabulary is influenced by culture and environment. The more complex a society is, the larger the total vocabulary of its language.

d. Language helps to share Cultural Symbols: One of the features of culture is its nature of shared practice. To ensure this sharing in society, we require the medium of language. We learn the beliefs and practices of our culture through language.

e. Language is a medium of Acculturation and Enculturation: Language helps us to learn various aspects of our culture. We learn to behave and involve in social interaction by sharing the common rules and norms of our culture. Language unites people together and helps to formulate common sense in a given society. We require the medium, language to assimilate the traits of other cultures.

f. Language is a vehicle of Culture: As pointed out earlier, language, in short, fulfills the function of a carrier of culture. It is through the medium of language that parents and elders transmit their way of life to their children and individuals of next generation. It carries culture from one generation to another and from one culture to another. Thus the processes of cultural evolution, diffusion etc. are facilitated by language.



Language is the vehicle of culture



Check your progress

1. Analyse the relationship between Language and Culture.
2. Find the pair
 - a. Relationship between Society and Culture: Sociolinguistics, Relation between language and thought:

3. *Analyze how Sapir-Whorf Hypothesis examines the relation between Language and Thought.*
4. *Find how your mother tongue reflects the culture of the land.*

II. Human Communication

As observed earlier, language (spoken and written) is our primary means of communication. We know that animals also communicate in different ways. Most anthropologists agree that non-human primates share some abilities with humans to communicate through sounds and movements. But it is not possible for them to develop our linguistic ability.

You might have identified some special features of animal communication. Your observation will prove that human communication is distinctive in many respects. Let us examine some of them.



Non-humans cannot combine their sound units to communicate new meanings. In contrast in human language the same sounds can be combined and re combined to form different meanings. As an illustration the sounds usually represented by the English letters *p*, *t*, *c*, and *a* have no meanings on -their own. But they can be used to form meaningful words like *pat*, *tap*, *cat*, *apt*, *act*, *tact*, *pact* and so on. The Hawaiian language, with only 13 sound units (phonemes) has almost 3000 words consisting of different combinations of 3 sounds and more than 5 million words formed by combination of 6 sounds. Phonemes that may have no meanings can be combined and re combined to form as many meaningful units as people want. Primates and other animals do not have this ability.

(Source:-Anthropology a global perspective by Raymond Scupin and Christopher R. Decruse P.277)

Let us observe how other animals communicate among themselves and prepare an album or presentation on the difference between human and non-human communication by collecting related pictures and write ups. ICT

Key features of linguistic communication

1. Productivity

Human languages are basically flexible and creative. Even small children can create sentences never heard before. We can express different thoughts, meanings and experiences

in different ways. On the other hand, the sounds of animal communication have little variations and are least susceptible to modification.

Human languages have the ability to communicate many messages effectively. To communicate about a dangerous situation, a gibbon can make a particular sound. But to express that the situation is more dangerous, the only option for it is to repeat the same sound several times in greater volume. But the capacity of human language for productivity makes it more efficient.



Fig 5.2 Linguist teaches a chimpanzee (Source: Cultural Anthropology by Barbara D Miller)

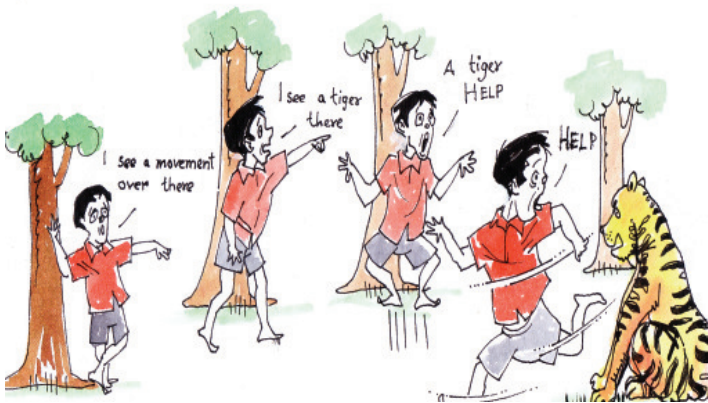


Fig. 5.3 Change of use of language as the situation changes

We can say that

“I see a movement over there”

“I see a tiger there”

‘A tiger- help!’

“Help,” etc. as the situation changes.

2. Displacement

Field studies and laboratory experiments have proved that meaning of a sound of a non-human animal is closely related to specific type of stimulus. Thus, a growl or scream of

a chimpanzee will not happen without a threat. Similarly, parrots can learn to imitate variety of words. But they cannot substitute or displace one word for another. The capacity for displacement helps us to communicate with one another using highly abstract concepts. A chimpanzee will not be able to communicate that “a tiger is coming tonight” or “a tiger attacked yesterday”. Instead, it can only express about anything experienced at the present time. But humans can communicate about a situation happened in the past and that are likely to occur in future. This ability of human language is called *displacement*. Among humans, the languages use displaced domains including reference to people and events that might have never existed at all in the past or would never exist in future.

3. Arbitrariness

Words are not required to have any connection with the objects or abstract symbols they represent. In English, we say *one, two, three...* to refer to the numbers. Whereas, in Hindi, we use *ek, do, teen ...* to denote them. So there is no inherently ‘correct’ words to denote the numbers. Thus, meanings are assigned to different words arbitrarily.

We have found that in language, we assigns symbols or meanings to objects and activities to convey messages. A consensus on the meaning of the signs and symbols used in language is a pre-requisite for effective communication. Thus, the study of language requires the examination of signs and symbols.

Signs, Symbols and Language

Communication involves three factors, a communicator, message and receiver. Communication happens only when the communicator and receiver reaches on a common understanding on the message conveyed. These messages are symbolic expressions. We assign certain common meanings to these symbols. Language is a system of communication. It uses sounds and/or gestures. They are put together according to certain rules. Such commonly approved regulations give meanings to these sounds and gestures. Thus, these sounds and gestures are the *symbols* used in language. For example

Signs and Symbols

Symbols are arbitrary units of meaning. But signs are directly related to concrete physical activities or items. Many non-human animals can learn signs. For example, a dog can associate the ringing of a bell with drinking water. But symbols are not inherently related to any concrete item or physical activity. A symbol’s meaning is not always visible. For example the three colours in our national flag symbolically express different values.

the word ‘crying’ is a symbol. It is a combination of sounds to which we assign the meaning of an action. Whenever we want to communicate this action, we use this combination of sounds. The alphabets or scripts are the signs in language. These signs are the manifestations of sounds. Punctuations and other signs used in language also help us to get the meaning of the symbols correctly.

Philosophers have long recognised that there are different kinds of signs. Immanuel Kant, in his book *Anthropology from a pragmatic point of view* (1798), distinguished **arbitrary** and **natural** signs. Letters representing linguistic sounds would be an example of arbitrary sounds. There is no necessary relationship between the shape of a particular letter and the quality of the sound or sounds it stands for. The same sound is represented by different letters in another language. A letter represents a sound within a language community. That sound is assigned by convention by a community. So it is an arbitrary sign. On the other hand, when the smoke alerts us about fire, the sign is not established by convention, but by the knowledge of a recurrent natural phenomenon. There is a cause and effect relationship between the sign (smoke) and the phenomenon it stands for (fire). Based on the belief that “if smoke, then fire,” a person seeing smoke can infer that it might come from a nearby fire. These signs are natural signs. But linguistic signs are arbitrary.

As we discussed earlier, linguistic communication is unique for human beings. Various physiological modifications through evolution have helped us to master this achievement. Let us examine the unique physiological characteristics that helped us to speak.



Broca’s area and Wernicke’s area

*The process of identifying the parts of the brain that are involved in language began in 1861. **Paul Broca**, a French neurosurgeon and anthropologist examined the brain of a recently dead patient having an unusual disorder. He had been able to understand spoken language and did not have any disability with mouth or tongue. But he could neither speak a complete sentence nor express his thoughts in writing. The only articulate sound he could make was the syllable “tan”, which had come to be used as his name. When Broca autopsied Tan’s brain, he found a sizable wound in the left inferior frontal cortex. Subsequently, Broca studied eight other patients, all of whom had similar language deficits along with lesions in their left frontal hemisphere. This led him to make his famous statement that “we speak with the left hemisphere” It helped him to identify, for the first time, the existence of a “language center” in the posterior portion of the frontal lobe of this hemisphere. It is now known as **Broca’s***

area. This was in fact the first area of the brain to be associated with a specific function—in this case, language

Ten years later, Carl Wernicke, a German neurologist, discovered another part of the brain, this one involved in understanding language, in the posterior portion of the left temporal lobe. People who had a lesion at the location could speak, but their speech was often incoherent and made no sense. Wernicke's observations have been confirmed many times since then. Neuroscientists now agree that running around the lateral sulcus (also known as the fissure of Sylvius) in the left hemisphere of the brain, there is a sort of neural loop that is involved both in understanding and in producing spoken language. At the frontal end of this loop lies Broca's area, which is usually associated with the production of language, or language outputs. At the other end (more specifically, in the superior posterior temporal lobe), lies Wernicke's area, which is associated

Language and Physiological Modifications

In a recent discovery, a so-called language gene (FOXP2) is identified in humans. This gene in humans is different from other primates. It helps to make fine movements of the mouth and larynx necessary for spoken language. Some scientists disagree with the idea of single language gene. According to them language ability is the result of successive evolutionary developments.

While mentioning about human evolution, it is discussed that the evolution of hominids was accompanied by increase in brain size. Modification of cerebral cortex is one of the changes occurred over time. This part is related to memory and symbolic and cultural capacities. Human brain is divided into two hemispheres, left and right. The left hemisphere controls specialized functions related to linguistic abilities. This area of brain is known as **Broca's area**. It is associated with the production of sound or pronunciation and with grammatical abilities. **Wernicke's area** in the left hemisphere is also related to linguistic abilities. It is associated with the ability to understand the meaning of words and sentences or the semantics of language. This

centre of the brain is important for listening and reading.

No animal other than human has the anatomical features, suitable for speech production. Human vocal organs form an irregular tube connecting the lungs, wind pipe and larynx. Larynx is the voice box containing the vocal cords. Another vocal organ is the Pharynx. It is the part of the vocal tract between the back of the tongue and the larynx. It extends into the nasal cavity.

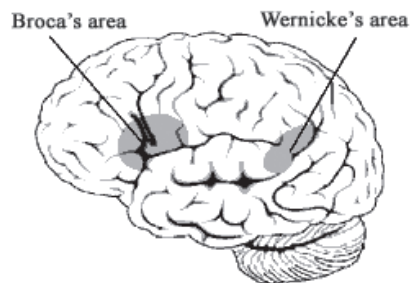


Fig. 5.4 Broca's area and Wernicke's area

The larynx serves to hold air in the lungs and to control its release. These vocal organs work in connection with the tongue, lips and nose to produce speech. The nasal cavity, lips and tongue can regulate or stop the flow of air at any point. It helps us to make vowel and consonant sounds.

In the case of vocal organs, the major difference between chimpanzees and modern humans is the lower position of the larynx and consequent lengthening of the upper vocal tract in humans. This change is said to have occurred through evolution. It has enabled humans to speak languages.



We are lucky to have evolved brain and modified vocal organs, or else we would not be able to speak and use language.

Of course, these biological modifications helped us to speak. But a commonly assigned meaning to particular sound and sound patterns were also indispensable for linguistic communication. Here, we shall go through the properties of language so as to get a clear picture of linguistic communication.

III. Structural Linguistics

How can an anthropologist make sense of a language that has not been analysed yet? There are hundreds of such undocumented languages in the world. **Descriptive Linguistics** or Structural Linguistics studies about such languages and analyses their features. In this task, it is important to differentiate a language from another based on its rules and properties. It can be done either by distinguishing the sounds used in them or by analysing the symbols used to express a particular sound.

Properties of Language

We have mentioned that various animals use sounds (phone) that indicate different meanings. But in human language, specific sound does not have any meaning. Rather it is the co-ordination of different sounds that makes a meaningful word or sentence.

1. Phonemes

Every human language has between 12 to 60 sound (phone) units. These sound units are called *Phonemes*. The term is derived from the Greek word 'phone' means sound. Thus, the sound pattern of a language is one of its features. Phoneme is a unit of sound that distinguishes meaning in a particular language. 'English' has 26 letters but more than 40 significant sounds, the multiple combinations of which can change the meaning of a word. For example in English, the difference between 'bit' and 'pit' is distinguished by the sound difference or phonemic difference between /b/ and /p/, and thereby brings out a

change in the meaning. The study of sound pattern in language is done under a branch of study called **Phonetics/Phonology**. It is the systematic identification and description of the distinctive sounds of a language.

2. Morpheme

Usually, the phonemes are combined with other phonemes to form a meaningful set of sounds. Often, these meaningful set of sounds make up what we call words. Words may be composed of a number of smaller meaningful units. This combination of meaningful sounds is called *Morpheme*. Thus, it is the arrangement of phonemes that makes a morpheme. It is **Morphology** that studies about the morphemes in a language. People do not usually pause between words when they speak. If we did not know our language, a sentence would seem like a continuous stream of sounds. We separate one word from another only when we write it. A word is only an arbitrary sequence of sounds that has a meaning. We would not ‘hear’ words as separate units, if do not know the particular language.

Just as phoneme may have one or more phones (sounds), one or more morphs (smallest unit of language with a meaning) with the same meaning may make up a morpheme. For example the prefix ‘in’ as in ‘*indefinite*’ and the prefix ‘un’ in ‘*unclear*’ are morphs that belong to the morpheme meaning ‘not’. Although some words are single morphemes, many words are built on a combination of morphemes. For example ‘cow’ is a word with a single morpheme but the word ‘cows’ contains two meaningful units. A root – *cow* and a suffix ‘s’ pronounced ‘z’ meaning more than one.

3. Syntax

As language is an open system, we can make meaningful sounds that we heard earlier. But in every language there are certain rules for making phrases and sentences. These rules are termed syntax. These rules determine whether a subject is to be before or after a verb or an object follows a verb etc. We generally learn these rules from schools. But children know many of them before going to school.

4. Semantics

Semantics is the study of the meanings of symbols, words, phrases and sentences of a language. Linguistic anthropologists focus on the meaning of language as it is related to beliefs and patterns of thoughts in different societies. Separate area has evolved to study about meanings of concepts and terms, like kinship terms and other cultural phenomena. This special field is known as **Ethno-Semantics**. Ethno-semantics is very much related to, if not similar to Cognitive Anthropology.



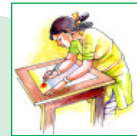
Check your progress

1. Find the pair
 - a. Study of Morphemes in language = Morphology, Study of meaning of symbols, words etc. =
 - b. Meaningfull set of sounds = Morpheme, Rules in language =
2. Explain the features of language that make it distinctive from the communication style of other animals.
3. Analyse the physical modifications in humans that helped us to speak.
4. Examine properties of language and analyse how they works in different languages.

We found that descriptive linguistics focuses on all features of a particular language. But we should note that languages in general have undergone various changes. For a comprehensive outlook of language, knowledge of the changes in languages, difference between earlier and later forms of the same language etc. are also important. We shall familiarise this area of study here.

IV. Historical Linguistics

Let us collect old newspapers and journals to examine the uniqueness of language use of that time. Differentiate the linguistic usage from past and present and prepare a chart or report.



English	Sanskrit	Latin	Greek	German	Old English
Father	Pitar	Paters	Patir	Vater	Faeder
Mother	Matar	Mater	Mitir	Mutter	Moder
Brother	Bhathra	Frater	Frater	Bruder	Brodor
Three	Traya	Tres	Treis	Drei	Brie
Red	Rudhira	Ruber	Erithros	Rot	Read
Foot	Pada	Pedis	Podos	Fuss	Fot

*Table-1 Comparative chart of words in Indo- European languages.
(Source: Raymond Scupin & Christopher. R De Cruse- Anthropology a global perspective- 2008 P- 315)*

It would be interesting to find out the changes that have occurred in the usages, wordings, layout and many other linguistic factors over time. The linguistic features may

sometimes help to analyse the changing social situation. Historical Linguistics is concerned with the study of this area. **Historical linguistics is the study of origin and changes of language over time and the historical relationship among different languages.**

Historical Linguists can reconstruct many features of past languages by studying contemporary daughter languages. These are descended from the same parent language. These languages have been changing separately for hundreds or thousands of years. The original language is known as **proto language**. The languages that have been derived from the same proto language are included in a **language family**. Linguistic families are formed, based on the phonological and morphological features (sound and words) of different languages.

The field of historical linguistics started as early as 1786. During this time, Sir William Jones identified certain similarities between different languages of the world. He suggested that there are linguistic similarities among Sanskrit, Greek, Latin, German, and English. It indicates a common ancestral origin of all these languages. It was considered that all these languages are part of one single family, the Indo-European. They even share some words and grammar. For example, the English word 'three', is *trayas* in Sanskrit, *tres* in Latin, *tries* in Greek and *drei* in German. Thus, scholars generally agree that the Indo European languages derive from one language spoken about 5000 to 6000 years ago. This ancestral form of Indo European language is called Proto-Indo European ((PIE). The languages that are included in the proto-Indo- European language family is given in the chart.

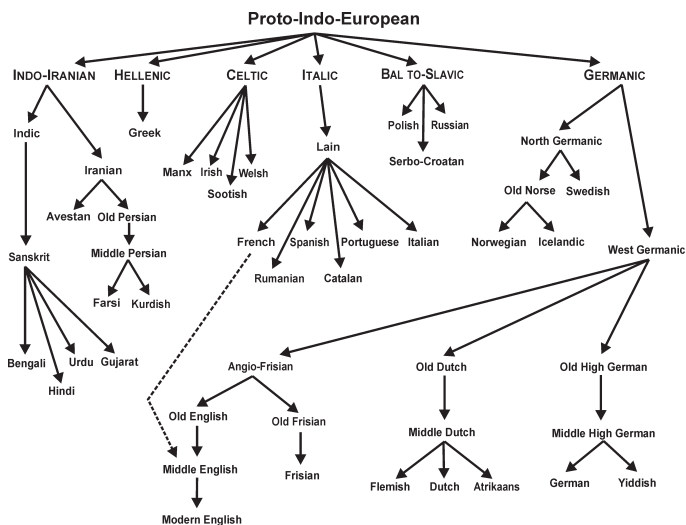


Chart 5.1 Proto-Indo- European language family (Source - <http://andromeda.ratgers.edu/njlynch/language.html>)

Theories of Origin of Language

There are different beliefs and theories regarding the origin of language. Linguists earlier found it difficult to arrive at a conclusion about the origin of language due to the absence of adequate evidences. But today, we have more evidences including genetic data. As per the archaeological records, the archaic humans like Neanderthal, had the neural development and the anatomical features necessary for linguistic communication. But there is difference of opinion about the use of language by Neanderthals.

It is assumed that gestural communication (Communication through gestures) started initially. It later on changed to spoken languages. It was important to spare our hands to use tools for survival. So, in earlier times instead of hand gestures, humans began to use sound for communication. Along with sparing their hands, it enabled humans to talk in the dark. They were also able to communicate about past incidents.

But it was not known, from when humans started using language. Possibly it was evolved with the Homo sapiens in the Stone Age. Following are some of the theories related to the speculative origin of language.

1. *The Bow Wow theory*: It is said that speech is the imitation of barking of dogs and other animals.
2. *The Pooh- Pooh theory*: Speech is derived from the automatic emission of painful feelings.
3. *The Ding Dong theory*: Speech is developed gradually by the harmonisation of sound and sense.
4. *The Yo-he-ho theory*: Sound was produced by regulating the breath as a result of strong muscular action of mouth.
5. *Gestural theory*: Humans used their tongue in the same rhythm with gesture and posture. It gradually helped to develop language.
6. *The Tarara-boom-de-ye theory*: Speech is the result of expression of joy. When earlier humans got big games in hunting, made different sounds of joy. It gradually became the basis of speech.



John Locke proposed that human mind at birth is like a blank slate (*tabula rasa*). The infants learn language through habit formation. B F Skinner developed this hypothesis further. He proposed that infants learn language through conditioned response. Rene Descartes proposed a contrasting view. According to him innate ideas or structures in the human mind provide the basis for language learning. Later on, it was identified that human have the ability to acquire any language.

Human infants are born with the ability to speak. But they are not pre-programmed to speak a particular language after like English or Malayalam. We learn our culture through the process of enculturation. Similarly, we learn the phonemes and morphemes of a particular language after being exposed to that. Different scholars have proposed different ideas regarding acquisition of language.

V. Language Acquisition

There are different views regarding the acquisition of language. One of the widely accepted propositions was put forth by an American linguist **Noam Chomsky**. Noam Chomsky examines how people acquire grammar. Most people actually cannot state the rules of language. But they use these rules to form understandable sentences. According to Chomsky, all children acquire these complex rules readily. They do not feel any difficulty in producing meaningful statements even though they did not learn the grammar rules. Thus, Chomsky proposes that humans are born with a brain *pre-wired* that enable language acquisition. Chomsky calls this pre-wiring as *Universal Grammar*. The universal grammar serves like a model. The universal grammar of human mind helps the child to acquire any language and to produce sentences never heard before.

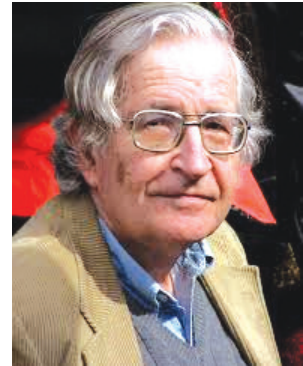


Fig. 5.5 Noam Chomsky

Anthropologists had earlier assumed that languages could vary in different areas. Chomsky also opines that there is a critical period for the acquisition of language. It is the period for the acquisition of language between birth and the starting of puberty. During this time language acquisition must happen. If children are not acquainted with language, during this period, they may never be able to acquire it. Or they may be able to learn language only in its rudimentary form.



Don't worry about learning a foreign language. Our brain is designed in a way to learn any language.



Noam Chomsky is an American Linguist and philosopher. He was born on December 7, 1928. His theory of transformational generative grammar changed the cognitive and linguistic science. The basis of Chomsky's linguistic theory is that the principles underlying the structure of language are biologically determined in the human mind. So it is transmitted genetically. He argues that all humans share the same underlying linguistic structure.

Chomsky believes that the human brain contains genetically programmed blue prints or modules for language learning. It enables children to learn language as part of his/her growth. Human languages appear in greatest diversity but Chomsky opines that they are more alike than different. In a hypothetical situation, a Martian linguist visiting earth, will consider that all humans speak different dialects of human language.



Check your progress

1. Match the columns A, B and C properly

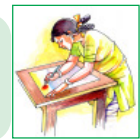
A	B	C
Universal Grammar	Proto Language	Historical Linguistics
Language Families	Gestural communication to spoken language	Pre -wiring of brain
Origin and changes of language	Noam Chomsky	Daughter language

2. Trace the historical development of language.
3. List the different theories regarding the origin of language.
4. Analyse the process of language acquisition.

VI. Non-verbal Communication

Apart from linguistic communication, we also use our body parts for conveying messages. Facial expressions, gestures, body movements etc. are involved in another type of communication termed non-verbal communication.

Now let us select an instance of social interaction and enact it in the class in the form of a mime drama. Find the advantages and limitations of this kind of communication and prepare a report.



Non-verbal communication is the sending and receiving of messages in a variety of ways without using verbal codes or word messages. It involves communication through gestures and touch, body language or posture, facial expressions, eye contact etc. The non-verbal communication differs in different societies. Important areas included in this type of communication are the following.

1. Kinesics It involves the study of body languages. Through different body movements we can send different Signals. The study of kinesics is concerned with body motion and gestures used in non-verbal communication. Different types of body movements are given below.

a) Facial expressions: Researchers estimate that humans use more than 250,000 facial expressions. Many of these expressions have different meanings in different situations. A smile is generally considered as an expression of happiness or friendliness. But in certain contexts it will be an insult.

b) Gestures: We can point at things in different ways. It can be by using finger, eyes, chin or head. In some societies shaking head up and down means ‘yes’ and side to side means ‘no’. But in some other cultures the situation is quite opposite. Thus, gesture refers to the deliberate movement of any particular body part as part of an expression.

c) Posture: Posture indicates how an individual stands in a particular situation. In different social and personal situations our posture will be different. The posture of an individual expresses his/her confidence level, involvement, energy level and many other aspects in communication. The stance sometimes also indicates the social position, role, status and cultural distinctions. In some cultures, for example, someone walking with their shoulders hunched over, neck bent or looking down is considered as submissive character.



Fig. 5.6 Non-verbal communications



Fig. 5.7 Facial expressions

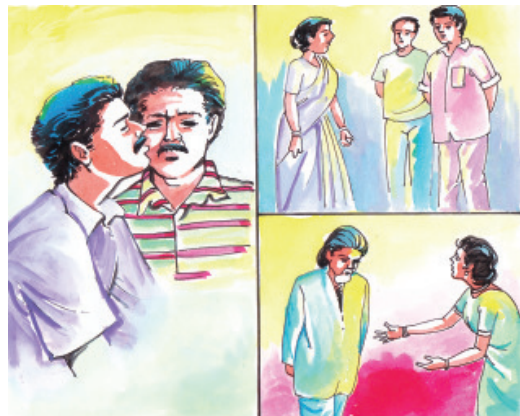


Figure- 5.8 Difference of use of space

d) Bowing: Bowing is considered as one of the important forms of non-verbal communication. In Japan, bowing is gesture of greeting while being introduced. This is a sign of respect. In some cultures, bowing with eyes down shows trust.

2. Proxemics: It is the study of how people in different societies perceive and use space while communicating. Generally we stand closer only to our intimate relatives and friends. Spacing varies according to culture, gender, social setting and individual preference.

3. Chronemics is the study of the use of time in non-verbal communication. Across cultures, time perception plays a significant role in the non-verbal communication process. It includes punctuality, willingness to wait etc. The use of time can affect lifestyles, daily agendas, speed of speech, movements and how long people are willing to listen. Time can also be used as an indicator of status. For example, in most companies, the boss can interrupt a meeting in the middle of its proceedings. But an average worker would have to make an appointment to see the boss. The way different cultures perceive time can influence communication as well.

4. Haptics is any form of non-verbal communication involving touch. Haptic customs differ greatly throughout the world. In certain countries, people greet each other with one kiss on the cheek, but in some other countries two kisses on the cheek is the way of greeting. Shaking hands along with verbal greeting is the most common way of greeting. Hugging is another type of haptic. We can find differences in Haptics according to culture, sex, age, class, caste and religion.

Some times to get the attention of others, instead of calling them, we make some sounds. Use of sounds, not in the form of language, also helps us to communicate. Let us examine this type of communication in detail.

VII. Para-Language

Para language involves the communication based on the modulation and variation of sound. Here sound is not used as a property of language. There are no signs to these sounds, as used in language. Thus, para - language involves vocalisations like giggling, groaning, gasps, yawns, sighing etc. Para-language considers 'how one said' rather than 'what is said'.

The use of sound in para- language can be of two types. First one is related to voice quality. It operates as the



Fig. 5.9 Yawn and Gasp

background characteristics of a speaker's voice. These involve pitch range, lip control, rhythm control, glottis control, tempo etc. Slurred speech of an intoxicant is an instance how voice changes in certain situations. The use of words rapidly, with increasing pitch indicates that the speaker is genuinely excited about the matter. The second instance is Vocalisation. Rather than background characteristics, these are actual identifiable noises. The sounds of crying, yelling, whispering and yawning are the examples of vocalisation.



Gasp is the sudden and sharp inhalation of air through the mouth. It may indicate emotion of surprise, shock or disgust. Sigh, yawn, moan etc. also indicate a particular emotional and physiological state. A **sigh** is deep and especially audible, exhalation of air out of the mouth or nose. It communicates positive emotions such as relief particularly in response to some negative situation.

Let us find out other types of paralinguistic usages in different cultures and prepare a report



We can realise that many of the cultural practices of earlier times have changed very much. Some of them have completely disappeared. Did you notice such a change in languages? Did you find any change in your mother tongue? There are campaigns to save Malayalam. Most often this change was due to the over importance given to other languages and subsequent disregard to the mother tongue. But there has also been a cry for a global language in the globalised world.

As students of anthropology, we are concerned with the task of identifying the disappearing languages, because any change in language, in turn, affects the related culture as well. We are expected to develop a positive attitude to document and if possible take efforts to preserve them as well. Franz Boas, the pioneering American anthropologist advocated for documentation of languages and cultural traditions that seemed on the verge of extinction. This enterprise is activated under **Salvage Anthropology**. An insight into the vanishing languages may help you in this regard. Let us examine it in detail.

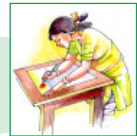
VIII. Language Loss and Revival

There are more than 5000 languages distributed throughout the world. But a large number of these languages disappeared over time. Perhaps the most powerful force for linguistic change is the domination of one society over another. Five hundred years of European colonisation was one such instance. In many cases, foreign political control has resulted in linguistic erosion or a complete disappearance of a language.

The extinction of each language results in the irrecoverable loss of unique cultural, historical, and ecological knowledge. Each language is a unique expression of the human experience of the world. Thus, the knowledge of any single language may be the key to answering fundamental questions of the future. Every time a language dies, we have less evidence for understanding patterns in the structure and function of human language, human prehistory, and the maintenance of the world's diverse ecosystems. Above all, speakers of these languages may experience the loss of their language as a loss of their original ethnic and cultural identity (Bernard 1992, Hale 1998).

It is estimated that over the last 500 years, about 3500 languages have become extinct. In Western Europe, hundreds of languages disappeared due to the expansion of agricultural empires. Rulers of these empires imposed their language on conquered people. In the course of the expansion of Roman Empire many tribal languages disappeared. They were replaced by Latin. When Columbus discovered America, there existed more than 2000 languages among different Native American people. But most of these local languages disappeared due to the Spanish and British invasion of this area. Different factors like warfare, epidemics or forced assimilation may have been the cause for it. Anthropologists predict that the number of languages spoken today will be reduced to half by the year 2100.

Let us form in to groups and document the languages spoken by ethnic minority groups in the locality.



Children born in ethnic minority groups are no longer using their ancestral language at schools or workplaces. In complex societies, there is the tendency to learn and practice a single commonly shared language. Flourishing of information technology, popularisation of internet and short messages in cell phones promote global spread of one common language, English. It helps people from different ethnic background to communicate. But there is the risk of disappearance of other languages too. Today, internet content exists only in limited number of languages.

Internet really is a powerful tool for maintaining and enhancing disappearing languages. UNESCO has started some positive steps to ensure linguistic and cultural diversity. Promotion of multilingualism on the internet is one among them. It helped to bridge the digital divide. UNESCO's Constitution includes the maintenance and perpetuation of language diversity as a basic principle:

....to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for human rights and fundamental freedoms which are affirmed for the peoples of the world without distinction of race, sex, language, religion, by the Charter of the United Nations (UNESCO Constitution Article 1.)

Source: Language validity and Endangerment- Document submitted to the International Expert Meeting on UNESCO Programme Safeguarding of Endangered Languages Paris, 10–12 March 2003)

Linguistic anthropologists advocate bilingualism. Along with using the common language, natives are to be encouraged to use their own language. To keep a language alive, there should be writers in that language. Native speakers should be encouraged to write in their own language. Such texts can be produced by reconfiguring the computer key boards to produce special characters for sounds.



It is our duty to protect every language from extinction and to revive the lost languages because any language is a social and cultural asset.

We all share the responsibility of ensuring that no language disappears and that all languages are maintained and perpetuated for the future generations. The reason why we must fortify the diversity of language is, indeed, captured by a Navajo elder:

*If you don't breathe, there is no air.
If you don't walk, there is no earth.
If you don't speak, there is no world.*

(Paraphrased by Yamamoto from a Navajo elder's words, PBS-TV Millennium Series Tribal Wisdom and the Modern World, hosted by David Maybury-Lewis aired on May 24, 1992)



Check your progress

1. Distinguish paralanguage from language

2. Identify different nonverbal cues of communication and examine the changes according to the cultural differences.
3. Prepare a note listing out your arguments for the need to revive the endangered languages.

Let us sum-up

- ◆ Linguistic anthropology is the study of language as part of social life. It considers language, as a cultural resource and speaking as a cultural practice. Linguistic anthropologists employ the methods and techniques used in anthropology. The scope of linguistic anthropology includes the structure of language, its properties, the origin and evolution of language and language families.
- ◆ The core vocabulary of language is directly related to the culture of the concerned group. It is very much evident that language to some extent determines the way of people's thinking and their world view. This concept of linguistic determinism is associated to the research of Edward Sapir and Benjamin Whorf. Their proposition is named as Sapir Whorf hypothesis. Language also is related to the social roles and status. People using a particular language may use it differently according to the social statuses, gender and class. Language also acts as the medium for sharing cultural symbols and transmitting culture from generation to generation. The processes of enculturation, acculturation, and cultural diffusion are also influenced by language.
- ◆ One of the features of human communication is the ability of productivity. Human beings, different from other animals can make necessary changes in communication style according to the situation. They can also displace the words to a different time and situation. We can speak about the events of past, present and future while animals can communicate only about the present.
- ◆ The symbols used in linguistic communication do not have any universal meaning. But meaning is assigned to each symbol by particular societies. Different biological modifications helped us to use language. The changes occurred in human brain and the vocal organs enabled us to speak.
- ◆ Structural linguistics deals with the properties of language like phoneme, morpheme, syntax etc. Another area is Historical linguistics that examines the historical evolution of language and how it varies from one another. Historical linguists classify all languages into different language families on the basis of their lineage.

- ◆ Linguistic anthropology also examines how we acquire language. Noam Chomsky, an American linguist proposed his idea of universal grammar. According to him, the humans are born with brain pre-wired to acquire language.
- ◆ The important nonverbal means of communication are body language, facial expressions, gestures eye contact etc. Vocalizations like giggling, groaning, gasps, yawn etc. come under the category of para-language.
- ◆ It is the need of the hour to document all the living languages and to find the root of the lost languages to revive them. Thus a student of anthropology with knowledge in linguistic aspects will be able to perceive human way of life and culture with a new outlook.

The learner demonstrate the ability to

- ◆ Compare the features of Linguistic anthropology with that of Linguistics and evaluate the relationship between language and culture?
- ◆ Analyse the language acquisition capacity of humans, evaluate the contribution of Noam Chomsky and analyse the structure of language.
- ◆ Identify the development of language, judge changes in language over time and analyse the structure of language?
- ◆ Realise the need to protect the endangered language and to revive the lost one?
- ◆ Identify the increasing scope of nonverbal communication and para- linguistics and delineate the role of non-verbal communication in contemporary situation?
- ◆ Judge the physiological modifications that helped human to speak and to analyse the distinctiveness of human communication.

Evaluation Items

1. Find the odd item
 - a) Bengali, Urdu, English, Hindi
 - b) Kinesics, Gasps, Haptics, Proxemics
2. Find the pair and prepare a note on it
 - a. Study of the mutual influence between language and culture :Ethno linguistics
Study of the relationship between language and society :

- b. Ability to modify the language according to the situation : Productivity
 Ability to use language in different situations :
- c. Smoke : Natural sign
 Letters in alphabet :
- d. Sound unit in language : Phoneme
 Meaningful set of sounds :
- e. Study of meaning of symbols, words etc. in language : Semantics
 Rules related to the combining of morphemes :

3. Write short notes on the following

- a. “Study of culture without studying the language of the group is futile”. Assess the comment and explain your response.
- b. Examine how Linguistics differs from Linguistic anthropology in its scope and methodology
- c. Analyse the different physiological modifications in humans that enable us to speak.
- d. ‘Language is an important determining factor of human thought’. Identify the scholars related to this concept and examine their propositions.
- e. Analyse how the dialects of a language reflect cultural variations based on your field level observations.
- f. Examine the scope and importance of historical linguistics
- g. Identify the scholar related to the concept of ‘Universal Generative Grammar’ and examine the core elements of this concept.

4. Prepare an essay on the following

- a. Prepare a seminar paper on the relevance of study of Linguistic anthropology, highlighting its scope, methodology and applications in reviving a language.



MARRIAGE FAMILY AND KINSHIP

CONTENTS

I Marriage

- Definitions of Marriage
- Forms of Marriage
- Functions of Marriage
- Origin and Evolution of Marriage
- Universality of Marriage
- Universal Definition of Marriage
- Rules of Marriage
- Ways of Acquiring Spouse
- Marriage Payments

II Family

- Definitions of Family
- Forms of Family
- Functions of Family
- Universality of Family
- Universal Definition of Family

III Descent

- Rules of Authority
- Kin Groups

IV Kinship

- Types of Kinship
- Kinship Symbols and Abbreviation
- Rules of Residence
- Degrees of Kinship
- Kinship Terminology
- Kinship Behaviour

Introduction

Cultural anthropology is concerned with different social institutions like economic organisation, political organisation, religious organisation and family. Among these, family is the smallest and basic social unit. Family involves different relationships among its members. It can be either based on marriage or blood relationship. For the formation of a social unit, like family, marriage forms the base element.

Among the Bhil (a tribal group of Rajasthan), during the holy festival, young men and women dance round a pole or a tree, to the top of which a coconut and a piece of jaggery are tied. The women make an inner ring of dancers and men make the outer ring. The trial of strength begins when a young man from outer circle breaks into the inner circle of women dancers and climbs the pole or tree to eat the jaggery and break open the coconut. The women dancers may resist the young man's efforts by pulling him down, by striking him with broom sticks, by tearing at his clothes and hair.

If the young man overcomes the resistance of the women dancers, and succeeds in reaching the top of the pole or tree to eat the jaggery and break open the coconut, then he has the right to select any one of the women dancers as his mate and take her away immediately.

The above illustration is an example of the way of acquiring a mate among the Bhils of Rajasthan. Similar other ways of choosing bride is prevalent among different communities of the Indian states. In Kerala alone in the past there were different customs followed among different castes and communities. You might have heard about different types of marriages such as 'veli' system (Marriage between the eldest Brahmin man and a Brahmin woman) among the Namboodhiris (Brahmins) of Kerala. Nair-Namboothiri 'sambandam' (Marriage between a Brahmin man and a Nair woman), 'thalikettukalyanam' (a ceremonial marriage once prevailed among the Nairs of Kerala, in which maternal uncle ties a sacred thread with locket (thali) to the niece), and 'pandavacharam' (Marriage of a woman with two or more brothers, prevailed among certain caste groups of Kerala), that existed earlier. The concepts and beliefs about marriage across cultures are varied. Arranged marriage that is typical of India is remote in Europe where love is the basis of marriage. Similarly, the rule of settling down after marriage also varies across societies, communities and regions. For example, among the Muslims of Kerala, the couple settles down with either the parents of the bride in some region or with groom's family in some other areas. Rigidity in the various aspects of marriage, such as upholding 'cultural purity', among certain cultural groups has led to violence-killing of one's own kin for violation of marriage norms. Many such honour-killing incidents have been reported from different parts of India for violation of certain marriage rules like caste endogamy, village exogamy etc.

Among religious groups, marriage outside the caste or clan (gotra) is still considered as sin or taboo. It often results either in outcasting the members involved or in killing them.



Honour Killing: All in the name of Marriage

In a case of honor killing, a 17-year-old girl was allegedly murdered by her two brothers for falling in love with a Dalit boy. The two brothers poured acid into the mouth of their sister Gomathy and hanged her at their house in Seevalaperi village. They have been arrested on a complaint from the Village Administrative Officer, police said. They said the duo confessed to have killed their sister. According to police, Gomathy had fallen in love with Murugan of Tiruvengadapuram, who was working in a fish processing unit. A few days ago, she had gone to his house and stayed with his family there. Her brothers Murugan and Sudalaimuthu, who were angry by her conduct, went to Thiruvengadapuram and persuaded her to come back home and later killed her, police said.

Press Trust of India | 14-Sep 2013

In many situations, may results in riot and communal unrest. All these show that marriage is not a simple process but involves complex procedures like mate selection, rules and regulation and residence pattern. However, marriage as an institution exists in all societies in one form or other. So it is a cultural universal. It will be interesting to know the following:

- ◆ How did marriage evolve?
- ◆ Why should one marry?
- ◆ How many partners one should have?
- ◆ What are the rules of mate selection?

I Marriage

Generally, marriage as institution regulates sexual relationship among humans. It gives cultural sanction and social approval to the union between males and females.

It is an established fact that every human society; from the most simple to the most complex, has the institution of marriage. However, cross-cultural variation exists regarding its form and nature. The various definitions of marriage reveal these variations. Hence, in order to have a comprehensive understanding of marriage, we have to look into the various definitions of marriage.



Patrilocal Residence

In the mountains of the Hindu Kush Himalayan region the male domination in the society is prevalent. The main pattern of living is Patrilocal Residence. Once couples are married, the women are forced to live with the husband and the rest of his family. Marriages are generally arranged by the parents.

Definitions of Marriage

- ◆ "A universal institution that involves residential, cohabitation, economic co-operation and formation of nuclear family" - G.P. Murdock (An American anthropologist)
- ◆ "A relationship between a woman and one or more other persons, which provides that a child born to the woman under circumstances not prohibited by the rules of relationship is accorded full birth status, rights common to normal members of his society for social stratum" - Kathleen Gough, British anthropologist.
- ◆ "As a relation of one or more men to one or more women which is recognized by custom or law and involves certain rights and duties both in the case of parties entering the union and in the case of children born of it" - Westermarck, Finnish anthropologist.

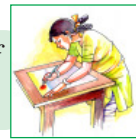
- ◆ "Marriage is a union between a man and a woman, such that children born to the woman are recognized as legitimate offspring of both the parents" (Notes and Queries in Anthropology; 1951).

A close examination of the above definitions will yield some of the features of marriage.

Features of Marriage:

- ◆ Marriage is a universal institution.
- ◆ It satisfies biological and psychological needs.
- ◆ It ensures economic co-operation.
- ◆ It establishes co-operation in the daily life of family.
- ◆
- ◆

Analyse these definitions and try to list out the other features of marriage and formulate a definition to it.



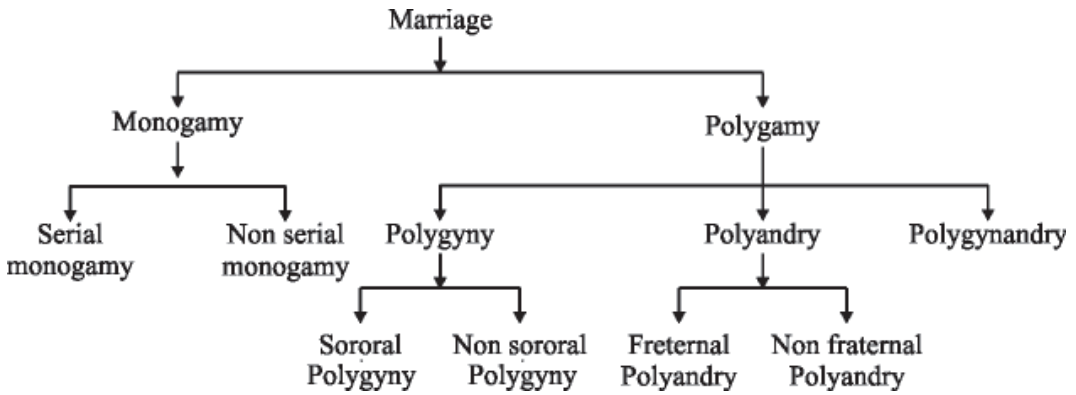
Marriage varies even within a country, culture, caste and within the same group spread over different geographical regions of the world. Naturally different societies have different forms of marriage according to their beliefs and other cultural practices.

Mono (Single)	+ gamy (Marriage)	= Monogamy
Poly (Multiple)	+ gamy (Marriage)	= Polygamy

Forms of Marriage

Generally there are two forms of marriage, namely, monogamy and polygamy which are commonly seen all over the world. Here, the form of marriage depends upon the number of spouses involved in the marriage. Different forms and sub-forms of marriage are given in the following chart.

Let us go through each of the sub-forms in detail.



Monogamy: Monogamy is a form of marriage in which an individual has a single spouse at a given time. It has two sub-forms, serial monogamy and non-serial monogamy.

- (a) **Serial monogamy** is a sub-form of monogamy in which individual has several spouses in succession. For instance the Semangs of Malay forest in Malaysia, limit themselves to one wife. In case of divorce or death of a wife Semang marries again and again and leads a monogamous life.
- (b) **Non-serial monogamy** is a sub-form of monogamy in which an individual has the same single spouse life-long.

Polygamy: Polygamy is a form of marriage in which an individual has multiple spouses at any time. Polygamy has three sub-forms: polygyny, polyandry and polygynandry.

- (a) **Polygyny** is the sub-form of polygamy in which male has multiple wives at any time. Naga, Baiga and Gond are some of the tribes who practice polygyny. Polygyny exists in two types: sorroral polygyny and non-sorroral polygyny.

Sorroral polygyny is a form of polygyny in which the multiple wives of a male are sisters. Sorroral polygyny was practiced by the tribes of Andaman Islands, the Kanikkar, and Urali tribes of Kerala.



Fig. 6.1 Polygyny

Non-sororal polygyny is another form of polygyny in which the multiple wives of male are not sisters.

- (b) **Polyandry:** Polyandry is the sub-form of polygamy in which a woman has multiple husbands at any given time. Shortage of women was explained as one of the reasons for the practice of polyandry. Polyandry appeared in two sub-forms: fraternal polyandry (adelphic polyandry) and non-fraternal polyandry (non adelphic polyandry).

Fraternal polyandry is a form of polyandry in which multiple husbands of a woman are brothers



Why polygyny?

Among the Siwai, a society in the South Pacific, status is achieved through feast giving. Pork is the main dish at these feasts. Hence, the Siwai associate pig-raising with prestige. In Siwai society women raise the food needed to raise pigs. So men prefer to have many wives. Thus, although having many wives does not in itself confer status among the Siwai, the increase in pig herds that may result from polygyny is a source of prestige for the owner.

(Adapted from Ember and Ember, Anthropology, p 355)



Melvyn Goldstein studied Tibetans who followed fraternal polyandry. They live in New Corner of Nepal, at a height of 12000 ft above sea level. Cultivable land is scarce, Most families have less than one acre. They practice fraternal polyandry in order to prevent division of family's farm and animals. Instead of dividing up their land among themselves and each taking a wife, brothers preserve the family farm by sharing a wife. Thus, practice of polyandry minimises the number of mouths to feed and therefore maximizes the standard of living of the polyandrous family.

(Ember and Ember, Anthropology, p 357)

Non-fraternal polyandry is a variety of polyandry in which the husbands are not brothers. Toda tribes of Nilgiri hills and Ghasas in Uttar Pradesh once practiced both fraternal and non fraternal polyandry

Polygynandry: Polygynandry is a sub-form of polygamy in which a man has multiple wives and a woman has multiple husbands at any given time. It shows co-existence of polygamy and polyandry. These different forms of marriage may be because of poverty, prestige, power, limited resources etc.

Other Forms of Marriage

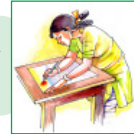
There are other forms of marriage like group marriage and fictive marriage.

Group marriage is also known as co-marriage. This is a form of marriage in which several men and women have an husbands and wives. A variant

of this form of marriage has been referred to by some scholars as polygynandry. Eskimos in northern Alaska is an example for this form of marriage.

Fictive marriage is a form of marriage in which marriage is conducted in a proxy manner to the symbols of someone not physically present. '*Ghost marriage*' among the Nuer of South Africa is an example of fictive marriage. In this form of marriage, a woman marries the brother of a dead man. The dead man's brother becomes the proxy, and marries the woman on his behalf. The children born out of that union will be considered as the legitimate offspring of the dead man's spirit

Prepare a presentation on diversity of marriage and present it in the class.



Check your progress

- Trace the origin and evolution of marriage
- Complete the following
Group marriage: Eskimos, Fictive marriage:
- Distinguish between
 - ◆ polygyny and polyandry
 - ◆ sorroral and non sorroral polygyny
 - ◆ fraternal and non fraternal polyandry
 - ◆ serial and non- serial monogamy
- Single spouse : Monogamy Multiple spouse :

Read the beliefs of *Chukchi* and *Eskimos* given in the box. Like this situation, there are many culture-specific beliefs about the marital relationship between man and woman in patrilineal, patriarchal societies.

Why should one marry? It has to fulfill certain functions. What are the functions fulfilled through marriage?

Let us examine.

Functions of marriage

Some of the major functions of marriage are given below:

- ◆ Biological function
- ◆ Economic function
- ◆ Social function

Biological functions

Like other species, human beings must mate in order to reproduce themselves. Sex is one of the basic needs of human individual. Through the bond of marriage, mating, reproduction and child rearing is regulated. It also ensures psychological satisfaction of having children. It is through reproduction that human species are replicated. This requires a stable union between male and female. Thus marriage serves a biological function.

Economic functions

Marriage provides proper environment for economic co-operation. It is not possible for human being to organize livelihood single-handedly. Marriage is one way to solve the problem. The institution of marriage solves the problem of work-load among the members of the family. Marriage, thus, facilitates division of labour between members. This institution of marriage performs economic function in the form of bringing economic co-operation between man and woman.

Social functions

Marriage is always to acquire new kins. Through marriage one adds not only a spouse but most of the relatives of spouse to one's own kin group. Institution of marriage formulates person to person relation and linking of one's kin group to another kin group. Thus, it helps to widen the web of social relationships.

Is marriage meant to satisfy the biological needs along? If yes, any male cannot marry any female. However, it is not possible because, there are certain rules and regulation in selecting mates prescribed by the society.



Chukchi of Siberia say a man needs a woman to dress the meat and skins of the game he kills, to cook food and to make clothing, and therefore a man and a woman are united. The Eskimo(Inuit) man from Baffinland, a Canadian island in Arctic Ocean marry because, women have to do rowing of the large boats while men have to steer the boats.



Source: M .Sooryanarayana – Fig. 6.2 Chukchi
'An Introduction to Social Anthropology' Page.44

Dependence regarding procreation and child rearing can be observed among human as well as non-human organisms also. How is this dependency addressed? Among some animals, females after child birth, can simultaneously feed themselves and their babies without the assistance of a male partner. They do not have stable mating. Animal species that have no feeding problem, after birth, need not have permanent mating. Their babies like calves immediately after birth are able to travel along with their mothers or like baboons and kangaroos, the mothers can carry these babies as they move on.

Contrary to this, the female hornbills after child birth, cannot feed themselves nor their babies. So they require a mate to look after the mother and baby in some occasions. Hence, stable mating is an adaptation. The male hornbill collects food and watches the nest. Read more in the trivia.

- ◆ How does the permanent mating relationship among the horn bills become helpful to them?
- ◆ Can you site instances of similar types of long lasting emotional bond among other animals?

Among the human beings, especially in the early stages of human evolution, the females had the problem of food collection after delivery. In food collecting societies, the mother could not engage in hard work like gathering and hunting along with their infants. In such situations, she requires stable and continuous assistance from a mate. Thus stable mating becomes important for such a collective living. This stable mating situation led to the establishment of the institution of marriage among the humans from the early period. Thus, marriage, as an institution, has undergone changes and evolved to the present form through various stages of its development. The food problems after delivery had forced the humans into a



The Malabar Grey Hornbills are not capable of making their own nest to lay eggs. So, they find trees with large cavities for laying eggs during the breeding seasons. This species preferred such nests in large trees as an adaptation to protect their eggs and offspring from predators. This species is monogamous, which means they have only one life mate. The same nest is used by the pair year after year. The female hornbill locks up herself within the cavity by sealing its entrance with the cement made from her droppings. She then lays three or four eggs and begins a complete moult of her flight feathers. The entrance to the nest retains a narrow hole through which the female receives food and remove excreta from the nest. The male brings all the food needed for the female and for the young ones. He looks after them like a responsible husband and father. Male knocks the tree as a signal of his arrival with food. The food items are being passed to the female through the hole. In case the female and the offspring or eggs are destroyed by the predators, the male hornbill will not take any food and he starves to death. If anything happens to the male hornbill, the female hornbill will die in the lock up (nest). The 'emotional bond' between male and female hornbill is like that of husband and wife.



Fig. 6.3 Hornbill

relatively stable male-female bond, which materialized, in the course of time, into the institution of marriage.

Origin and Evolution of Marriage

Disagreement exists among anthropologists regarding the origin and evolution of marriage as an institution, among the humans. Let us examine the following questions.

Do all societies have marriage?

Did early humans have marriage?

When did marriage originate?

Marriage in some form or other exists in all human societies. Most anthropologists agree that the institution of marriage gradually evolved from one form to another in successive stages. The earliest form of marriage was the promiscuous relationship between male and female. It gradually evolved through different stages to reach the current stage of monogamy. However, it may be noted that the stages of evolutions of marriage proposed by some scholars are not based on any evidences, but are mere historical speculation. L.H Morgan an American anthropologist suggests the following sequence in the evolution of marriage.

Sexual promiscuity → Group marriage → Polygamy → Monogamy

Sexual Promiscuity: According to Morgan, in the early period of human life there was no formal institution of marriage. But there was no restriction among the members in the society regarding sexual relationship. It is believed that there might have existed an unregulated animal-like sexual anarchy. Since there was no restriction upon sexual relationship, the status and role of father was not relevant in the family.

Group marriage: Group marriage was the next stage in the evolution of marriage. In certain cases all the brothers of a family married all the sisters of another family. This is an instance of group marriage. However, there was restriction upon sex relationship with persons of other group. Group marriage was followed by polygamy in which one could have multiple spouses at a time. Monogamy is the latest stage of the evolution of marriage where an individual has single spouse at a given time.

In short, men and women used to live together in the past and maintained sex relation with one another. The men in course of time became the protectors and food gatherers, while women's job remained confined to giving birth and rearing of children. Later, due to intra-group conflict, the unit with a pair of adult men and women came into being. The

bond was strengthened by the custom and regulations, thus letting marriage to become institutionalised in human society.

We can safely conclude that marriage is culture-specific. Purpose of marriage varies from society to society and the institution of marriage is found in all societies. Thus marriage is an universal institution.

Universality of Marriage

The institution of marriage exists in almost all societies though the customs related to it remains varied. However, how does one marry? Whom does one marry? How can a person marry at a time? Answer to these varies from society to society. The religious communities, castes and tribes in India, present a complex society of rules and customs of marriage. The pictures (figure 6.1) shown demonstrate some of these peculiarities.

Prepare an album on cross-cultural variations of marriage ceremonies by collecting pictures, illustrations, reports etc. from one's own culture.

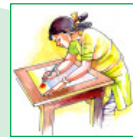


Figure 6.4 Marriage ceremonies in different communities Source : Google images

Universal Definition of Marriage

After knowing that marriage is a universal institution, can you find a universal definition for marriage? Let us analyse the definitions of marriage given by Murdock,

Seligman and Kathleen Gough. Do you think these definitions are applicable to all societies? There are evidences of societies like that of traditional Nairs of Kerala, who practice *sambandam* type marriage. Among them husbands and wives used to live separately. They do not have economic co-operation and do not form the basis of nuclear family. The marriage among Nairs is peculiar that, it hardly fits in to these definitions which are supposed to be universal.



Check your progress

Complete the following

1. Namboothiri : Veli
Nair :
2. Define marriage? Is it possible to give a universal definition?
3. Do you consider marriage as a universal institution? Explain its universality?
4. Mention any six features of marriage.



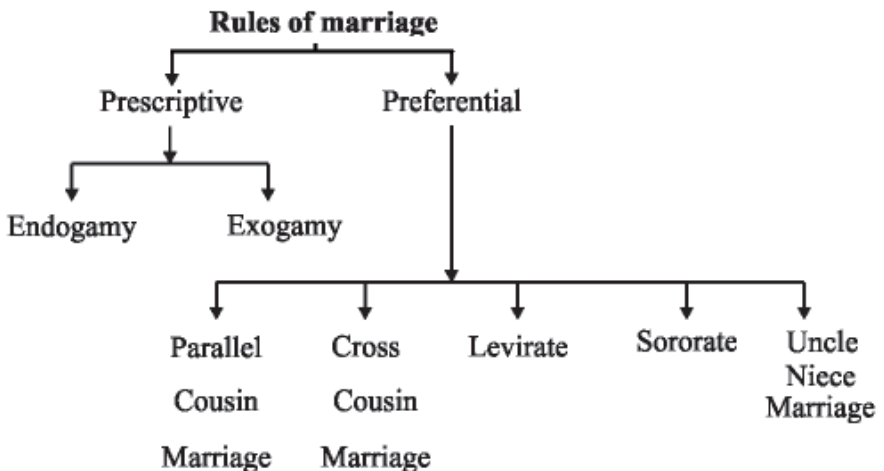
Oh!! Marriage is universal

Is it possible to arrive at a universal definition of marriage?



Rules of marriage

The rules of marriage can be categorised into prescriptive and preferential. This can be expressed in a chart:



(a) **Prescriptive rules** guide whom a person can marry. It refers to the do's and don'ts of marriage. It can be in the form of Exogamy and Endogamy

Endogamy: It is the rule, which compels the members of a group to marry within the caste, tribe, and religion. All the tribes and caste groups are endogamous. This means a man with a particular tribal identity marries a woman from his own tribal group.

Reasons behind practicing endogamy are:

- ◆ People prefer their own group as the group shows more or less similar physical characteristics.
- ◆ Concepts of high and low rank between groups
- ◆ Differences in religion lead to differences in norms and values.

Exogamy: It is the general rule of marriage which insists on a person to marry outside his or her kin or a territory. A family, clan and lineage are some of the exogamous groups and village exogamy is the rule in the North Indian population. There are definite reasons for practising exogamy:

- ◆ Kin group members are considered as blood relatives. Therefore marriage within the group members is considered as marriage among brothers and sisters.
- ◆ Attraction gets lost due to close relationship in a small group.

(b) **Preferential rules:** Under preferential rule of marriage, a person is expected to prefer certain categories of relatives over other categories of relatives, for marriage. Parallel cousin marriage, cross cousin marriage, uncle-niece (Elder Sister's daughter) marriage, levirate and sororate are the best examples of preferential marriages.

Cross cousin marriage is the marriage which occurs between the cousins whose parents are



An extreme example of endogamy is India's caste system, which was formally abolished in 1949. Castes are stratified groups in which membership is ascribed at birth and lifelong. Indian caste is grouped into five categories or Varna. Each is ranked relative to the other four, and these categories extend throughout India. Each Varna includes large number of sub castes (jati) each of which includes people within a region who may intermarry. Occupational specialisation often sets off one caste from another. A community may include caste of agricultural workers, merchants, artisans, priest and sweepers. The untouchable varna includes sub caste whose ancestry, ritual status and occupational status are considered so impure that higher caste people consider even casual contact with untouchables to be defiling. The beliefs that inter-caste sexual unions leads to ritual impurity for the higher caste partner has been important in maintaining endogamy.

Source : Conrad Philip Kottak, p- 407

brothers and sisters. A person's cross cousins include his father's sister's children (paternal cross cousins) on the one side, and his mother's brother's children (maternal cross cousin) on the other side.

Parallel Cousin marriage refers to the marriage between the children of the sibling of the same sex. This includes marriage between children of brothers, and between children of sisters.

Sorrorate is a custom by which a man is obliged to marry the sister of his deceased wife. The term Sorrorate originates from the Latin word *sorror* means sister

Levirate is a custom by which a woman is obliged to marry the brother of her deceased husband. If the widow remarries her husband's younger brother, it is called junior levirate. If the widow remarries her husband's elder brother, it is called senior levirate. The term Levirate originates from latin word *Levir* means brother.

Uncle-niece (Elder Sister's daughter) marriage is a custom by which the girl marries her maternal uncle (mother's brother).

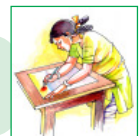
In traditional India there were certain other rules regarding marriage, as follows:

Hypergamy (*Anuloma*) is a situation whereby an upper social group man is permitted to marry a lower social group woman. In this system, man does not lose his caste/ social status or ritual purity. The elements of hypergamy are manifested in a different form at present.

Hypogamy (*Pratiloma*) is a situation where a higher social group woman marries a lower social group man. In this system, woman loses her original caste/ social status and is held as ritually impure. So it was restricted by the then prevailing social rule.

Incest taboo is the most universally prohibited sexual relationship among close kins. It prohibits mating between father-daughter, mother-son, and brother-sister. Prohibition of sex relations between such primary kins is called incest taboo. In traditional societies, violation of incest taboo leads to punishment from nature. Any violation of incest taboo is treated as an offense and severe punishment is given to the offender.

Examine the rules of marriage in our society and prepare a chart/report on it.





Check your progress

1. Distinguish between
 - (a) Endogamy and Exogamy
 - (b) Levirate and Sororate
 - (c) Hypergamy and Hypogamy
 - (d) Parallel cousin and cross cousin marriage
2. Mention any two reasons behind practicing endogamy and exogamy
3. Examine the functions fulfilled through marriage?
4. Find out the different forms of marriage in your area and examine the group who practice this marriage. Prepare a discussion note and present in the class.

In India, marriages are generally arranged either by consultation with the elders or with the approval of the society. Social sanction was necessary for marriage. Those who violate the norms or rules would be penalised. The way of mate selection is different in different societies. Moreover it has undergone great many changes over the years. Let us go through different ways of acquiring spouse that prevail in different societies.

Ways of Acquiring Spouse

Acquiring mate refers to the manner in which a spouse is selected. It is the procedure or method of finding or obtaining a wife or husband. Is the way of spouse selection uniform in all societies? Have you noticed any difference? Let us discuss this topic. In some societies people are free to choose their partners but in some other, individuals are restricted from selecting partners by themselves. Marriages are arranged by their parents and kinsmen. Consideration regarding age and personal qualities sometimes influence spouse selection. Different ways of spouse selection that prevailed are the following.

- ◆ Acquiring spouse by negotiation
- ◆ Acquiring spouse by exchange
- ◆ Acquiring spouse by trial
- ◆ Acquiring spouse by elopement
- ◆ Acquiring spouse by probation
- ◆ Acquiring spouse by intrusion

- ◆ Acquiring spouse by capture
- ◆ Acquiring spouse by service

Acquiring spouse by negotiation: It is seen among all types of societies. This can be seen in simple as well as in complex societies. Negotiation involves long procedures depending upon customs; either the girl's parents or boy's parents put forward the proposals. This practice is wide spread among the Purum Kukis of Asam, Mundas, Hos and the Baigas.

Acquiring spouse by exchange: This is similar to spouse selection by negotiation in which marriage payment is substituted by exchange of women who are either sisters or female relatives of grooms. In Melanesia and Australia a man's sister is offered to his wife's brother.

Acquiring spouse by Trial: Here, the boy has to prove his qualities of courage and bravery for choosing a mate of his choice. Story of the Rama - Sita swayamvara is a good example for this type of marriage`. Here Rama breaks the bow 'thrayambaka' for acquiring Sita. Such practice is now widespread among the Bhils of Central India.

Acquiring spouse by elopement: It is a more or less prevalent way of selecting spouse by which individuals disobey the elders and choose their own spouse. Elopement usually involves running off, then waiting for days or months or even years, hoping that the marriage will be approved. This type of marriage is popular among the Oraons.

Acquiring spouse by probation: This is the marriage where bride groom is allowed to stay in the bride's house, a few days before the marriage. It involves consent of girl's parents besides the consent of girl herself. Otherwise they separate and for the second situation the boy has to compensate the girl's parents with cash payment. Such way of acquiring spouse is found in Kuki community.

Acquiring spouse by Intrusion: Here, a girl forces a boy to accept her as his spouse. When a girl is fond of a boy who does not want her to marry, she herself intrudes in his house and begins to stay there without the permission of his family members. The girl has to face harsh treatment, is often beaten, turned out and refused food, but she refuses to



Among the Kukis of Manipur, if a boy is fond of a girl, the girl's parents permit the boy to live with the girl in their house for several weeks so that they get an opportunity to understand each other. If the boy and the girl understand each other's temperament, and if the parents of the girls find it suitable, they decide to give their daughter in marriage to the boy. If they find it unsuitable, they separate and the boy pays cash as compensation to the girl's parents. Thus, mate selection by probation helps to understand the spouse before marriage.

abandon her intension, and finally she is accepted as the legal wife of the boy. This is observed among the tribes like Birhor and Ho.

Acquiring spouse by capture: Here, the boy carries away the girl by force and marries her. It is of two forms *Physical capture* and *Ceremonial capture*. In physical capture a boy adopts a procedure whereby he carries away the girl by force and marries her. In ceremonial capture, a boy adopts a procedure whereby he surprises the girl by marking her forehead with a symbol of marriage. Ceremonial Capture takes place among the Kharias and Birhors. Mock capture is also practiced in Africa, Melanesia and China.

Acquiring spouse by service: In acquiring mate by service a boy who is interested in marrying a girl but is incapable of giving bride price, is willing to serve her parents in their economic activities, like agriculture or cattle rearing for a particular period, either before or after marriage. It is also an arranged marriage. In this, the parents of boy and girl negotiate with each other regarding the nature and duration of service the boy had to extend, to supplement the bride price. Such a practice is popular among Aimols, Puram and Chiru Kukis of Manipur, among the Eskimos and Ainus of Japan.

Prepare a presentation showing different ways of mate selection and present it in the class



Read the extract of domestic violence act given in the box. This act forbids the practice of dowry system or any such economic transactions related to marriage. You can find different types of economic transactions between the families of the bride and of the groom, in many cultures. Its form and types may vary from time to time and from society to society. In recent years, such economic transactions between the families of the bride and of the groom often results in domestic violence. Let us go through the details of the economic aspects of marriage.



The protection of women from domestic violence act 2005

This act was passed by the parliament in august 2005 and brought into force from October 26, 2006. This act primarily was meant to provide protection to wife from domestic violence at the hands of the husband or his relatives. Domestic violence includes abuse whether physical, sexual, verbal, emotional, or economic. Dowry demand from the women or from her family also comes under this.

Marriage Payments

Marriage payments take place before, after or during the time of marriage. These payments are in the form of dowry or bride price.



Marriage is the basis of family.
Could we say dowry system curtails the function of both family and marriage?

Dowry: Dowry is the compulsory payment from bride's family to the groom or to the groom's family. Dowry includes goods or money or both. Expensive ornaments, clothing, and other useful materials are often offered to the groom or groom's family by bride's family. It indicates the special position of bridegroom in the society. In India, the custom of dowry system in some form or other is prevalent, though it is legally prohibited. Often there has been bride burning or dowry deaths caused by this system.

Bride Wealth

The custom of making payments to the bride's parents by the groom/ family is common in most societies. This custom is called as 'bride wealth' which was earlier referred to as 'bride price'.

- ◆ The Oraons of Chotanagpur take cloths for bride and her relatives.
- ◆ Nuer of South Africa take cattle.
- ◆ Nagas take baskets of paddy.

The bride wealth symbolises the prestige of woman in a society.

Activity

Conduct a discussion on 'Marriage Payments and its Social and Economic Impact' and prepare a report.



Divorce and Dissolution of marriage

Marriage is always characterized by the fulfillment of certain functions. Failure of any one of the partners, to fulfill the responsibility towards the other partner or other kins group may sometimes result in the dissolution of marriage. Families are dissolved by divorce between marriage partners. The Divorce process may vary from culture to culture. The recent trends reveal that the rate of divorce is increasing in modern societies. As a social issue we have to look into the causes and the after-effects of divorce.

Conduct a survey in the locality to find out the gravity of the problem of divorce. Based on the data collected, a report can be prepared and presented in the form of a seminar.



Now you know that marriage is a union, between a male and a female sanctioned by the society. It is an institution seen in all societies. It varies in its forms, rules and in marriage payments. Many anthropologists have defined marriage but it is impossible to arrive at a universal definition which is fit to all societies. Marriage leads to the formation of family.



Check your progress

1. Distinguish between dowry and 'bride wealth'.
2. List out the different ways of acquiring spouse prevalent in your society.

As a social institution, marriage forms the basis for social grouping. Functions of marriage are fulfilled through the formation of family. It unites people from different places and sections of society. The relationship thus formed gives birth to the social group i.e., family.

II Family

Read the instance of Israel Kibbutz system given in the box. The Kibbutz is a social group in Israel. Members in the group share an emotional attachment with co-operative and collaborative living. But they are not formed based on kin relationship. In our society, a group which is based on the basis of kin relationship is called family. Do you think Israel Kibbutz is a family? What differentiate Israeli Kibbutz from family? What are the differences between a family in your area and that of Kibbutz? To answer these questions let us examine the meaning and definition of a family.

A family is the basic social unit of human society. The nature and the structure of the family vary from society to society. Basically a family is a social and economic unit consisting of parents and their children. Members of the family have certain rights, norms and obligations. The interpersonal relationship within the family makes the family an enduring social unit. Family members usually live in a single household. It provides a learning environment for children. Thus, a family is a universal institution that exists in all societies while it varies in its forms and types.

Definition of Family

Like marriage, family also has been defined by many anthropologists. Let us go through different definitions.

- ◆ "A family is a social group characterized by common residence, economic co-operation and reproduction. It includes both sexes, at least two of whom maintain a socially approved sexual relationship, and one or more children, own or adopted" - George Peter Murdock, An American anthropologist. (1957, World ethnographic sample).
- ◆ "A family in general is a group based on marriage and marriage contract, including recognition of the rights and duties of parenthood, common residence for husband wife and children and reciprocal economic obligation between husband and wife" - William Newton Stephens, an American anthropologist.
- ◆ "Family is a group based on marital relations, rights and duties of parenthood, common habitation, and reciprocal relations between parent and children" - Robert H Lowie, an American anthropologist.

List out the features of a family evident from the above definitions.



- ◆ Common habitation
- ◆ Emotional relationship
- ◆
- ◆

Israel Kibbutz system



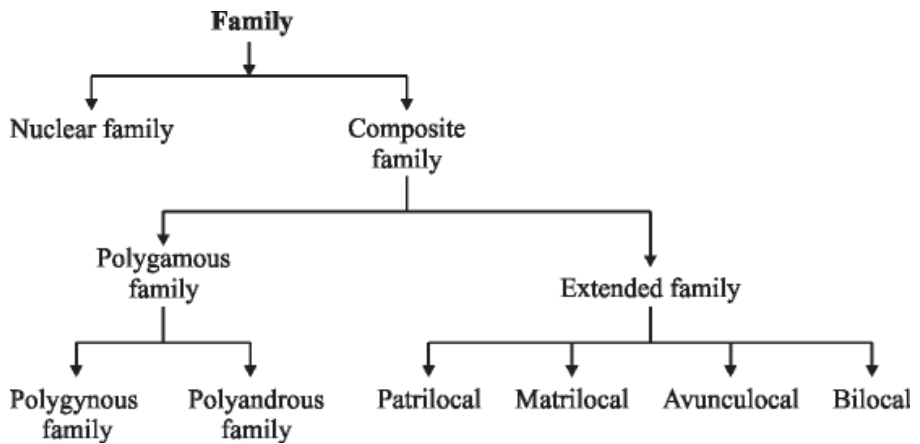
Israel Kibbutz is a collective engaged in joint farming. It is a small society of people who live together according to socialist principle of equality. Each member of the Kibbutz is treated as equal. They work together for the good of all. A small percentage of Israeli population lives in Kibbutz. A study revealed that out of 3,000 marriages only 14 of them were between children from the same group of Kibbutz. Of those 14, none has been reared together during the first six years of life. However Anthropologists have criticised the validity of this effect that childhood proximity cannot, in itself, produce sexual avoidance, without existence of social norms. That means, social norms play an important role in family maker. Children were encultured in gender equality, communal way of life and other process of socialization. Formal education was also provided in Kibbutz. The Kibbutz wanted to give women the opportunity to continue their work in the agricultural sector and industrial sector. As such communal education is the first step towards woman's liberation. They created the communal Children's Houses where the children would spend most of their time, learning, playing and sleeping. Parents spent 3 to 4 hours a day in the afternoon with their children after work and before dinner. In the children's houses, trained nurses and teachers were the care-givers.

The family is not simply a collection of individuals. It is formed by the individuals who are biologically, economically and socially interrelated

- ♦ What differentiates Israel kibutz from the characteristics of family?
- ♦ Do you find any parent-child relationship among kibbutz?

We know that families vary in their size, structure and composition. Take a look at the following classification of family.

Forms of Family



Broadly, there are two types of families namely, **Nuclear family** and **Composite family**.

Nuclear family: Nuclear family is also known as **Monogamous family**. This is formed as a result of monogamous marriages, marriage between one man and one woman. Thus, nuclear family consists of a married man and woman with their offspring. In some, cases additional persons may reside with them. Nuclear family is known by different names - Elementary family, Basic family, Conjugal family and Primary family.

Composite family: Composite family is an aggregation of two or more nuclear families. It can be through marriages as well as through parent-child relationship. Composite family is of two types, Polygamous and Extended family.



Fig. 6.5 Nuclear family

- (a) **Polygamous family** consists of two or more nuclear families formed through plural marriages namely, Polygyny and Polyandry. Thus, they form Polygynous family and Polyandrous family respectively.
- (i) Polygynous family is formed by the marriage of a man with more than one women. The man lives with all his wives and children. Eg: Andamanese, Kanikkar.
 - (ii) Polyandrous family is a kind of polygamous family formed by the marriage of a woman with more than one man. She lives together with all her husbands and children. E.g.: The Todas of Nilgiri hills.

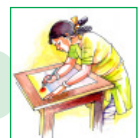


Fig. 6.6 Toda woman and her husbands
Source: en.wiki.org

- (b) **Extended family** consists of two or more nuclear families formed by parent-child relationship. Depending on the residence after marriage, the extended family is divided into patrilocal family, matrilocal family, avunculocal family and bilocal family.
- (i) Patrilocal family consists of two or more nuclear families formed as a result of father-son relationship. It consists of parents, their sons, sons' wives and their children.
 - (ii) Matrilocal family consists of two or more nuclear families formed as a result of mother- daughter relationship. It consists of the parents, their daughters, daughters' husbands and children.
 - (iii) Bilocal extended family consists of two or more nuclear family formed through patrilocal and matrilocal families.
 - (iv) Avunculocal family consists of two or more nuclear families formed through the relationship of maternal uncle and sister's son.

There is difference of opinion regarding the merits and demerits of joint and nuclear families. Debate on this point.

Conduct a debate on the topic 'Joint family versus Nuclear family'



With the passage of time, family has undergone changes gaining and losing various shapes and characteristics. The present stage of economic and cultural development has posted some new challenges to the institution of family. Most of the traditional joint families have changed over to small nuclear family. Even though, the structure of family has undergone changes, there are not many changes in the functions of family. In spite of the changes in structure, family as an institution continues to exist all over the world.

As a family requires residential cohabitation, there are certain rules regarding the residence after marriage. Couples most often live along with the parents of the groom. But the type of residence differs from culture to culture. Let us examine them.



Check your progress

1. Analyse different families and find out the different forms and residential types of family in your area
2. Distinguish between,
 - ◆ Nuclear and composite family
 - ◆ Polygamous and extended family
 - ◆ Polygynous and polyandrous family
 - ◆ Patrilocal and matrilocal family
 - ◆ Avunculocal and amitalocal residence

You know that the basic unit of society is family. If it is so, it originates with varieties of functions. Let us now discuss about the functions of family.

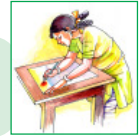
Functions of Family

Like marriage family has also distinct functions, which can be categorized as the following

- ◆ Economic functions
- ◆ Biological functions
- ◆ Psychological functions
- ◆ Educational functions

Economic functions: The family has certain economic functions to perform. It takes care of the primary needs such as food, shelter and clothing of the individuals. Distinct division of labour can also be seen among the family members. In most human societies, the men undertake outside the domestic sphere while women tend to perform routine works such as caring the child, domestic chores, etc. what is your opinion about the sex-based division of labour? Are there anything called masculine and feminine works? What are its implications? Is it universal? Does it have any sanctity? What is your experience from your observation of the contemporary society?

Conduct a debate on the topic 'Sex Based Division of Labour and Gender Justice'.



Biological functions: Procreation of children is the primary biological function of a family. Family serves as a biological unit by providing a common dwelling place for a man and a woman where the biological needs are satisfied.

Psychological functions: Family provides security to its members. It protects and cares aged and sick persons in the family. It gives emotional support to the individuals. Junior members get their elders as guides or advisors in the major events of their life.

Educational functions: It is the family which takes care of the child. The period of upbringing varies from society to society. A child begins to learn the customs and traditions of the society gradually from childhood. In the family, the parents and other elders teach the child all the norms and values of their society. So, family plays an important role in socialising and educating the child. The educative function of family is vital in the modern times as many of the anti-social activities are increasing generally.



Among Muthuvan tribe of Idukki district there were separate dormitories for unmarried boys and girls.

Children both at the age of 9 or 10 become the member of dormitory, and start sleeping in the respective dormitories at night. Till they get married they start to live there. Boys' dormitory is known as *chavady* and girls' dormitory is called *thinna veedu*. Among Muthuvans, the dormitory plays an important role in transmitting their customs and traditions. Traditions passed from older people to adult and from adults to children. The dormitory system exist as a kind of school where the Muthuvan youths of either sex learn how to perform their conjugal and social duties as also the lore of the clan. These dormitories are chiefly meant for imparting social education to Muthuvan children.

Adapted from L.P.Vidarthi (1978) - 'The Rise of Anthropology in India' – Social Science Orientation Vol 1, p 297.

Collect information through internet and books about the impact of mass media and issues of child abuse, attitude towards the differently abled children etc. to prepare a seminar on the topic 'Role of family in the changing Globalised world'.



Check your progress

1. Examine the functions of family
 - ◆ Do you think all families are uniform in nature?
 - ◆ Do you find any difference in the structure of your family and that of your neighbour?
 - ◆ Do all families have the same size?

Universality of Family

Like marriage, family is also a cultural universal. The concept of family exists in all societies in the world. All societies have parent-child social groups, but the form and size of family varies from society to society. Moreover, there exist different types of families even within societies. Families vary in structure. The nature of a family is both permanent and temporary. Family is permanent as an institution but in its organizational aspect it is transitory. The institution of family never dies out, even if there are changes in it.

As cited earlier, different scholars have given different definitions of family. Do you think all these definitions are applicable to all the family grouping among different human populations? Let us examine it.

Universal Definitions of Family

You know that family is universal in the sense that it can be seen in all societies and in all cultures. If family is universal, which definition could be considered as universal and applicable to all societies? Let us recollect the definitions.

Can we consider Murdock's definition as universal or the definitions of Stephens? These definitions give importance to marriage, common residence, reproduction and reciprocal relations between parents and children. Do you think these are the only criteria for a group to be regarded as family? Only a few families fulfill the above criteria. For example among the traditional Nairs of Kerala practicing *Sambandam* relationship, common residence and economic co-operation are absent and are not compulsory to form a family.

Thus it is evident that a universal definition applicable to the families of all the societies is not possible. So, scholars have given different definitions according to the cultural situations and social practices.

Formulate a new definition of family covering all its features.



Check your progress

1. Define family. Is it possible to make a universal definition for family?
2. Mention any six features of family.
3. Do you think family is a universal institution? Explain its universality?

The institution of family is not of recent origin. We know that social grouping in the earlier stage of cultural development was based on kin relationship. As collective living was indispensable for human to satisfy their basic needs, they formed such groups with simple division of labour. But today we can see that family is more complex and diversified in its form.

Different family members may share a common ancestry. They can trace relationship from a remote common ancestor. Such a sentiment helps them to form a larger group comprising of different families. Let us examine such larger grouping with kin relations and how they share the 'we' feeling among them.

III Descent

A descent group is a permanent social unit whose members consider they have ancestors in common. Its members believe, they share and descend from those common ancestors. This group persists even though its members changes by birth and death. Membership of descent is determined by birth and is lifelong. Descent groups frequently are exogamous.

The rules which affiliate each person to a particular and definable set of kin are called rules of descent. Such rules vary from society to society. Let us go through each rule in detail.

Patrilineal descent: When the Descent is traced solely through the male line, it is called Patrilineal descent.

Matrilineal descent: When the descent is traced solely through the female line, it is called matrilineal descent.

Ambilineal descent: In some societies individuals are free to show their genealogical link either through men or women. Some people are connected to mother in one generation, and to father in another generation. In this descent, members have freedom to opt their membership.

Bilineal or Double descent: In double descent, descent is traced from both the father's patrilineal group and the mother's matrilineal group at the same time. In this system, descent is matrilineal for some purposes and patrilineal for other.

Rules of Authority

Different families are controlled by different personalities. In most societies in the world it is the elder male member who occupies this power. He controls and regulates the member as per the common will. So he is considered as the authority of that family. On the basis of authority in the family, it can be classified into **patriarchal and matriarchal**.

Patriarchal family: In this system, authority is vested on the paternal side. The father or husband controls the activities of the family.

Matriarchal family: In this system, authority is vested in the hands of mother or wife, and the status, name and inheritance are transmitted through the female line. Supreme authority rests with the senior women.

We have already seen that family is an example of a kin group. But there are some other larger groups formed based on kin relationship. Members of these groups are related either according to marital ties or as per blood relationship. The following are some of the kin groups other than family.



Double descent: Among Yako of Eastern Nigeria, property is divided into both Patrilineal possessions and Matrilineal possessions. The Patrilineage owns perpetual productive resources such as land, whereas matrilineage owns consumable property such as livestock. The legally weaker matrilineal line is somewhat more important in religious matters than patrilineal line. Through double descent, a Yako might inherit grazing land from the father's patrilineal group and certain ritual privileges from mother's matrilineal group.

Anthropology Haviland, 2000, p 607

Kin Groups

A kin group refers to a group of kins. The simplest kin group is family

Lineage: Lineage is a descent group and it is made up of different families. A lineage generally includes ancestors of five to six generations. Here, members may or may not share a common residence. A lineage is an exogamous unit. Ancestor of a lineage is never a mythological or legendary figure and his relationship with the members is clearly established. Eg: patrilineage, matrilineage, *tarawad*.

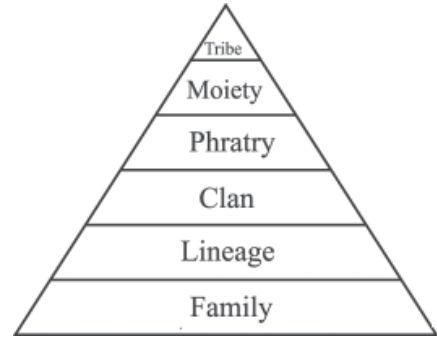


Fig. 6.7 Kin group pyramid

Clan: When the new members are born into the lineage, its membership becomes too large to support lineage resources. It splits into smaller lineages under a single clan. A clan is a unilineal kin group larger than a lineage. Here the members are supposed to be descendent from a common ancestor but the genealogical links are not specified. The members cannot demonstrate their actual lineage relationship through a genealogical table. Descent is traced to a mythical ancestor. It may be a human, plant, animal or an inanimate object. Clans are exogamous in nature i.e., marriage partners always come from two different clans. A particular animal or plant associated with the name of a clan is called a *totem*

Phratry: Two or more clans, make a phratry. It is therefore a unilineal descent group larger than a clan. Members of phratry are not able to demonstrate their genealogical links with the common ancestor, though they strongly believe in a common ancestor. A phratry may or may not be exogamous. Phratry is derived from the Greek word *phrater* means *brother*.

Moiety: It is the largest unilineal kin group, which resulted from the splitting of a society into two halves on the basis of descent. Like Clans and Phratry, the members of each moiety believe in a common ancestor but cannot specify the exact link. *Moieties* are generally exogamous.

Tribe: Tribe is a unilineal endogamous descent group. It consists of several bands/ lineage/ clans. The members of a tribe claim descent from a common ancestor.



Check your progress

1. On the basis of authority family can be classified into and
2. is the largest unilineal descent groups
3. Universal descent group made up of different families is.....
4. Unilineal descent group larger than a clan is.....
5. Match the column A and B properly.

A	B
Patrilineal descent	Tracing from both father's and mother's descent group at the same time
Matrilineal descent	Tracing from fathers descent in one generation and Mother's descent in another generation
Ambilineal	Tracing from fathers kin group
Double descent	Tracing from mothers kin group

As we observed earlier, family is the basic social group. But it differs from other groups in many respects. The most important feature of family is the intensive emotional attachment among the members. It is due to the type of relationship that they have. All the members of the family are related either through blood or through marriage. Thus the study of family as a social institution will be complete only after examining the type of relationship among its members. Let us examine it.

IV Kinship

Family is a group consisting of close relatives and these relatives are known as kins. Kinship is the relationship between persons by blood or marriage. It is a method of reckoning relationship. In a society, a normal adult individual belongs to two different nuclear families. The family in which one was born and reared is known as the *family of orientation* and the family in which one establishes marriage relation is known as the *family of procreation*.

"In all societies, people are bound together in groups by various kinds of bonds. The most universal and the most basic of these bonds, that which is based on reproduction and inherent human drive, is called kinship" - D.N. Majumdar, an Indian anthropologist

In a family, the relationship between husband and wife is not like that of father/mother and children. Husband and wife are related by marriage, but father/mother and children are related through blood ties. Thus family involves two basic types of relationships.

Types of Kinship

Kinship or kin relationships are usually classified into two broad categories - Consanguineal relationships and Affinal relationships.

Consanguineal relationship : If the kin is related by blood, it is called consanguineal relationship. Parent-children relationship as well as relationship between siblings, that is, children of same parents, comes under Consanguineal relationship. An adopted child is treated as biologically produced offspring. So such child is Consanguineal kin.

Affinal relationship : When kins are related by marriage it is called affinal relationship. The relatives formed through marital relationship are called Affinal kins. Relationship between husband and wife and their relatives come under affinal kinship. To reckon the kin relationship we use different symbols and abbreviations in anthropology as follows:

Kinship Symbols and Abbreviation

These symbols are standardised and used universally by anthropologists all over the world. When these symbols are represented in a chart form it is called genealogical chart. Ego is the person through which kinship ties are drawn.

Symbols and Abbreviations		Relationship	Abbreviations
△ man	△ dead	Mother	M
○ woman	≠ divorce	Father	F
= marriage	▲ Ego	Sister	Z
— connecting sibling	∧ twins	Brother	B
□ unspecified sex		Daughter	D
		Son	S
		Wife	W
		Husband	H
		Mother's Brother's Daughter	MBD
		Father's Sister's Husband	FZH
		Elder	e
		Younger	y

Let us examine a genealogical chart of a nuclear family.

- The figure 6.8 indicates how the members of nuclear family are related with each other. Raju married Veena and they have a son named Vinu and a daughter Mini

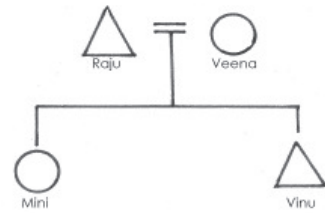


Fig. 6.8 Nuclear family

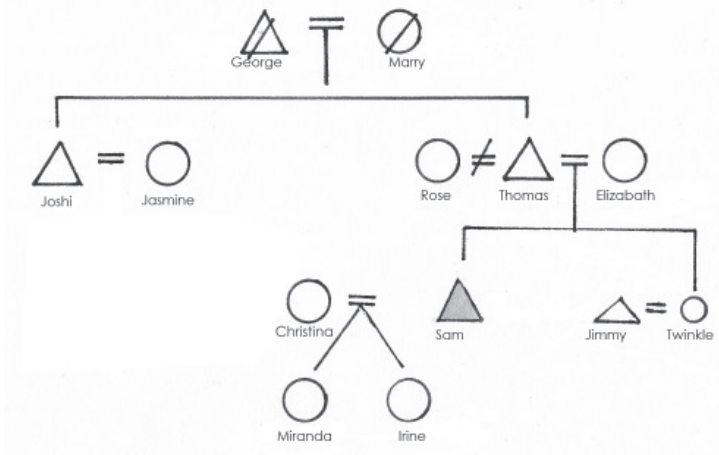


Fig. 6.9 Joint family

- Figure 6.9 depicts a joint family. Here the relationship is traced from 'ego' Sam. He married Christina. They have twin daughters named Irine and Miranda. Sam's father Thomas married Elizabeth after divorcing his first wife Rose. Twinkle is Sam's sister who married Jimmy. Thomas' father Joseph and mother Marry are not alive. Like kinship symbols, anthropologists use some standardized abbreviations to denote kin relations. Here 'ego' is the reference point, from which kinship ties are traced. Find the usually used abbreviations in the box.

Rules of Residence

Residence is the place where the newly married couple lives. After marriage the newly married couples resides in a house. It can be on bride's side as well as on groom's side. Family types can be identified on the basis of the residence. The residence can be of different types such as,

- ◆ Patrilocal/ Virilocal residence
- ◆ Matrilocal/Uxorilocal residence
- ◆ Bilocal residence
- ◆ Neolocal residence
- ◆ Avunculocal residence
- ◆ Amitalocal residence
- ◆ Matri-patrilocal residence

In patrilocal residence, wife resides at her husband's house after the marriage. This is also known as virilocal residence. But in matrilocal residence, the husband resides in wife's house after marriage. This is also known as uxoriocal residence. Bilocal residence gives freedom to the newly married couple to decide where they need to live, whether with husband's kin or with wife's kin. In some other cases, the couple does not live with their close kin on either side. Instead, they make a separate house of their own. This type of residence is called neo-local residence. In avunculocal residence the newly married couple goes to live with wife's uncle (mother's brother). When the couple after marriage lives with husband's father's sister; it is termed as amitalocal residence. In certain society, at first, husband resides with wife in her house. After sometime, usually after the birth of the first child, he returns to his own paternal home with wife. This type of residence is called matri-patrilocal residence.



Check your progress

1. Match the column A and B

A	B
Matrilocal	couple resides in wife's uncle's house
Avunculocal	couple resides at her husband's house
Patrilocal	couple resides with husband's father's sister
Bilocal	couple has freedom to reside with wife and husband kin
Amitalocal	couple resides with his wife's house

2. Illustrate the following by using kinship symbols:
 - a) Monogamy
 - b) Polygyny
 - c) Polyandry
 - d) Sororate
 - e) Levirate
 - f) Cross-cousin marriage
 - g) Uncle Niece marriage
 - h) Parallel cousin marriage
3. Prepare the genealogical chart of your family covering at least three generations and identify the types of marriage and family.
4. Define kinship
5. Distinguish between Consanguineal and affinal kinship

In figure 6.8, given in the previous page, the relationship of family members is direct and close. But in figure 6.9, the relationship between Sam and George is not much close and direct. Hence, in any family we can observe different levels of relationship as mentioned below.

Degrees of Kinship

The degree of kinship refers to the extent to which one is directly or indirectly related to another by means of blood or marriage. Degrees of kinship can be identified as primary kin, secondary kin and tertiary kin.

Primary kin: If a person is directly related to ego then s/he is ego's primary kin. Let us examine figure 6.10. 'A' is the 'ego' in the diagram. 'B' and 'C' are his primary kins. 'B' is the Primary affinal kin and 'C' is his primary Consanguineal kin. Thus, one's father is one's primary Consanguineal kin and one's wife is one's Primary affinal kin.

Secondary kin: Any kin related to ego through ego's primary kin is his/her secondary kin. Here 'E' and 'D' are secondary kins. 'E' is the secondary consanguineal kin and 'D' is the secondary affinal kin.

Tertiary kin: Any kin related to ego through ego's secondary kin is his/her tertiary kin. 'G' and 'F' are the tertiary kins. 'G' is the tertiary Consanguineal kin and 'F' is the tertiary affinal kin.

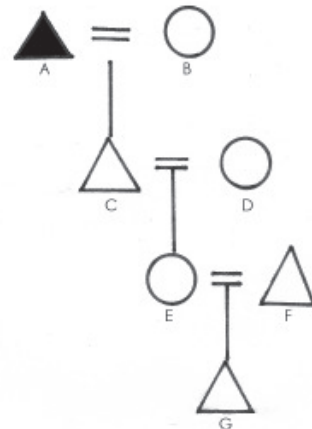


Fig. 6.10 Degrees of Kinship

Draw a genealogical chart of our own family indicating primary secondary and tertiary kins.



- ◆ Do we all address kins in the same manner?
- ◆ Is there any variation in addressing the kin?

We can find that different terms are used to denote different relatives in a family as shown below.

Kinship Terminology

Let us go through different terms used to address kin. Kinship terms are the label, name or designation applied to relatives. It can be classified into three different types.

1. Classification by mode of use
2. Classification by linguistic structure
3. Classification by range of application

Classification by mode of use

According to mode of use, kinship terms are classified into terms of address and terms of reference.

Term of address is used, to call someone directly. Example *Atta* in Telugu; *Amma* in Tamil/Malayalam

Term of reference is how you address someone when talking about them. It is used to designate a relative in speaking about the person to a third person. For Example, in traditional Kerala society, some women used to refer to their husbands in third person as '*the father of the children*' instead of using '*husband*'. In Telugu, father's sister is referred to as '*Menatta*' but addressed as '*Atta*'.

Classification by linguistic structure

As per linguistic structure, kinship terms are classified as Elementary, Derivative and Descriptive types.

Elementary term consists of an irreducible word. For example '*father*' or '*mother*'.

Derivative term is a compound form of elementary term and a lexicon. It is similar to the English words such as grandfather, sister-in-law, stepson, etc. In the term '*grandfather*', 'father' is an elementary term and 'grand' is a lexicon without a particular kinship meaning. But when '*grand*' and '*father*' is combined, it gives a meaning.

Descriptive term is like Swedish word '*farbror*' (father's brother) which combines two or more elementary terms to denote a specific relative. '*Ammamma*' and '*Achchachan*' in Malayalam are some of the examples of descriptive terms.

Classification by range of application

According to the range of application, kinship terms are classified into Denotative and Classificatory term.

A denotative term denotes only one category of kins. For example in English, *father, mother, husband* and *wife* are denotative terms as they denote a single relationship.

A classificatory term is one that applies to two or more kinship categories. *Grandfather, cousin, uncle* and *aunt* are used to refer to more than one category of relatives. The term *cousin* is used to denote several relations like *father's sister's children, mother's brother's children, etc.*

Relationship within the family may vary from person to person according to the role and status they have in the particular family. Some relative tries to share lighter moments with each other, while they keep distance with some others. You can observe such kinship behaviour in your family setting as well.

Kinship Behaviour

Kinship behaviour towards a particular relative is not same in all societies. Most of the behaviour is culture-bound and therefore vary from society to society. Let us go through different types of such behaviour.

Avoidance: In many societies all over the world individual related to one another observe a kind of distance towards daughter-in-law, mother in law, father-in law, younger brother's wife, etc. For instance a man maintain avoidance relationship with his daughter-in-law according to traditional norms. In the same manner a woman tries to avoid the presence of her son-in-law. Such relationship exists between a person and his younger brother's wife.

Joking relation: It is just opposite to avoidance relationship. Extreme degree of familiarity is expressed through joking relationship between certain kin relations. Those who are in such relationship indulge in teasing each other by different kind of jokes. Generally joking relationship exists between a man and his wife's younger sisters, between a woman and her husband's younger brothers, between cross cousins, between grandparents and grand children etc.

Avunculate: In some matrilineal societies, maternal uncle assumes many of the duties of the father. His nephew and niece remain under his authority. They inherit maternal uncle's property. *Trobriand Islanders of Melanesia* exhibit such kind of behaviour.

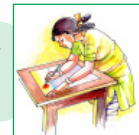
Amitate: This usage is similar to avunculate and found among patrilineal people. Here, father's sister gets great respect and prime importance. She is more than a mother to her nephew and exerts her authority on him in many events of life. *Polynesian Tonga* exhibits this kinship behaviour.

Couvade: This is a peculiar practice whereby the husband is required to imitate the process of pregnancy and all the behaviour that is enjoined upon his wife for the sake of the child's welfare. The husband leads an inactive life and imitates the taboos which the wife is supposed to follow in connection with child's birth. Tribal communities like the *Todas, Uralis* and *Nayadis* used to practice this custom.

Tecknonymy: In many rural societies of India, it is quite common as a part of orthodoxy or of some convention to call or to refer to one's husband as the father of her child. This usage is called *Tecknonymy*. *Khasis of Meghalaya* practice this.

Activity

Examine different kinds of kinship behaviours observed in our family and prepare a report and present it in the class



Check your progress

1. Identify the kinship terms used in your family and categorise them under mode of use and range of application.
2. A particular kinship behaviour in which husband leads an inactive life during the period of wife's pregnancy is.....

3. A particular kinship behaviour in which one calls her husband as 'father of her child' is.....
4. Distinguish between
 - ◆ Amitate and avunculate
 - ◆ Joking and avoidance relationship

Let Us Sum up

- ◆ Marriage is socially approved sexual and economic union usually between a man and a woman. Marriage varies greatly in its form and rules it may involve an elaborate ceremony and varies among and within societies
- ◆ Different forms and sub-forms of marriage are Monogamy, Polyandry and Polygyny. Economic element of marriage includes bride wealth and dowry. In bride wealth the groom or his family gives money or goods to the bride's family. Dowry is the payment of goods or money by the bride's family to the groom's family.
- ◆ Rules of marriage tells people whom they can marry and whom they cannot. The rules of exogamy, require marriage outside one's own kin group or community while rules of endogamy required a man to marry within one's group. Some societies prohibit cross cousin and parallel cousin marriages while others permits or allow such marriage.
- ◆ Family exists in all societies but vary in its form and structure. There are different forms and sub-forms of family like nuclear family, composite family polygamous family, polygynous family and polyandrous family.
- ◆ Family has several functions like economic, educational, social, biological etc. There are different types of residence like patrilocal residence, matrilocal residence, bi-local residence, avunculocal residence, amitalocal and neolocal residence.
- ◆ Kinship is the relationship between persons by blood and marriage. There are two types of kin group affinal (through marriage) and consanguinal (through blood). The rules which affiliate each person to a particular and definable set of kin are called rules of descent. They are patrilineal descent, matrilineal descent, ambilineal descent and double descent. There are several kin groups. A kin group refers to a group of kins. These kin groups are family, lineage, clan, phatry and moiety.

Evaluation items

1. Find the odd item and justify your answer
 - (a) Tribe, religion, phratry, moiety, lineage
 - (b) Polygamy, polygyny, endogamy, polyandry
 - (c) Endogamy, incest taboo, monogamy, exogamy
 - (d) Father, uncle, mother, daughter
 - (e) Uncle, niece, father, nephew, aunt
2. Draw the genealogical chart of your family and your neighbouring family and identify the family type, lineage and descent type
3. By analysing a marriage you have recently participated, find out the following:
 - ♦ Ways of mate choice and marital residence.
 - ♦ Rules of marriage
4. Do you think that the institution of marriage and family are universal? Explain.
5. What is the difference between polygyny and polyandry? Support your answer with an example.
6. Write the kinship symbols for the following

a) marriage	b) descent
c) dead male	d) two sisters
7. Prepare a flow chart showing different forms of marriage. Select any two types and prepare a brief note.
8. The following are different types of family. Draw suitable diagrams for each category using kinship symbols and explain,

a) Polygynous family	b) Nuclear family
c) Polyandrous family	
9. Prepare a genealogical chart of a family covering three generations and identify the following by giving numbers
 - (a) primary, secondary and tertiary kins, cross-cousins, parallel-cousins, MBH and FZH of the ego

10. Differentiate between affinal and consanguinal relations.
11. Examine the social significance of exogamy?
12. The news paper cutting shows that Keralities are adopting new ways of acquiring spouse. Traditional spouse selection are also prevailing. List out and explain 3 ways of acquiring spouse prevailing in your area
13. Arrange the following relation into Consanguineal and affinal kin
(uncle, wife's brother, father-in-law, wife, husband, son, daughter, father's sister, nephew, mother-in-law, sister, wife's brother)

The learner demonstrate the ability to

- ◆ Identify the universal nature of marriage.
- ◆ Compare the forms, rules and mode of spouse selection among pre literate societies and modern societies.
- ◆ Evaluate the functions of family and to identify its universal nature.
- ◆ Distinguish the different types of families and identify the changing family structure in the contemporary society.
- ◆ Identify the types of kinship, classify kinship terminologies and draw the genealogical chart of your own family.
- ◆ Identify the different forms of kinship behaviour and the rules of descent and authority.

POLITICAL ORGANISATION

UNIT

7

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II Types of Political System

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- Peaceful and Violent Means

Introduction

Yanomami is a tribal group that live in two nation-states, Venezuela and Brazil. They are horticulturists, hunters and gatherers. The only leadership position among the Yanomami is that of a village head. His authority is very limited. If a head man wants something done, he must lead by example and persuasion. For example, if he wants to clean up a place in preparation for a feast, he must start sweeping it himself, hoping that his co villagers will relieve him. He lacks the right to issue orders. He will be called on as a mediator when conflict arises within the village. If a disputant is not satisfied, the head man can do nothing. He is only first among equals. When a group is dissatisfied with a village head man, its members can leave and find a new village. (Source: Conrad Philip Kottak, Anthropology: The exploration of Human Diversity, 2002).

The above description of Yanomami village head man shows that societies with no formal politicians or political offices can

also have politics. Politics is the domain of politicians- whether it is formal or informal. Their endeavours are referred to as 'leadership' or 'public service'. Leaders take decisions and try to implement them. Anthropologists are interested in such political organisations as well as modern political systems with a global and comparative perspective.

We have seen the role of social institutions like family, marriage and kinship for a collective and cooperative social life of humans. Political organisation is one of such institutions for maintaining order in society.

- What do you think is an important requirement for a peaceful social life which ensures social security?
- Can you live properly if you are always in the threat of attack from others?

Naturally people have to regulate their behaviour and action to ensure social order. Consequently it results in making laws, executing it and its adjudication. Although not all societies have a formal legal code, judiciary and law enforcement mechanisms, all societies do have some means of social control. This is a basic requirement for a peaceful social life. This ensures social security. This behaviour became an institutionalised form to make the political organisation.

Today we have well developed state systems, legal code and law enforcement for settlement of disputes to ensure the welfare of the citizens. It has not been developed all of a sudden but through a gradual process.

Let us discuss different types of political system, its evolutionary development, social control mechanisms and the means for dispute settlement in different cultures.

Imagine a situation where there is no office of the Principal in your school? Likewise what will happen if there is no leadership or social control mechanisms existing in a society? It will definitely lead to anarchy and disorder. Hence, every society consists of a system of rules and regulations, which control the behaviour of the people. Such political systems are necessary for the smooth functioning of any institution. To understand this, we have to look into the meaning and scope of political organisations from anthropological point of view.

I. Meaning and scope of Political Organisation

In a simple society the family, band or tribe as the case may be, exerts control over the members. But in modern society social control comes from both written and unwritten laws. This is exercised through coercive or peaceful means. The laws are passed by the state or its organs which have legitimate power and authority to control the people.

Political organisation refers to the way by which a society maintains social order internally and regulates its affairs with neighbouring groups. It is the means a society uses to maintain social order and reduce social disorder. Power distributed and established in every society is used to co-ordinate and regulate behaviour of its members. Political organisation deals with the way power is distributed and established in society.

Political Anthropology

Political anthropology deals with political affairs of all types of societies, whether it is preliterate or modern. The major focus areas of it include political administration, law, government and the rules of punishment. Some other areas it studies are justice, sanction, crime, court and trial.

Political anthropology is the cross-cultural study of political systems, of formal and informal political institutions.

Under the banner political anthropology anthropologists analyse political organisation of a given community. The principles of political science help anthropologists to study the political organisation of societies. Both subjects have many principles in common to share for understanding the political behaviour of human population. Since anthropological approach is global and comparative it would help political scientists to understand the historical development and evolution of political organisations, power, authority and

Anthropologists and Political scientists are interested in the study of political systems and organisations.



legal systems in different cultures. To

But the anthropological interest is global and comparative.

maintain social order, some individuals or agencies are to be selected with the power and authority to regulate others.



You have already studied the nature meaning and scope of political science in your political science classes. Now Let us examine the differences between political science and political anthropology and present it in the form of a chart.



Who is takes decisions in:

- ◆ Your homes?
- ◆ Your school?
- ◆ Your peer group?
- ◆ ?
- ◆ ?

Why are such persons able to take decisions? They may have some particular qualities or powers.

Why are such persons obeyed? They may have the authority to function like that. Let us examine the distinction between power and authority.

Power and Authority

The most significant requirement of political organisation is legitimate power. Political institutions enjoy monopoly of political power. Power is related to the capacity of punishing and creating fear. State punishes law breakers. Community also punishes its members, if they go wrong. *When one uses her/ his influence over another person irrespective of her/his will, it is called power. When a person uses her/his influence over another, who willingly accepts it we call it authority.*

According to C Wright Mills, authority means the right to take decision and the capacity to influence the behaviour of others, according to their wishes or even against the wishes of the persons concerned.

Can you point out examples of power and authority from your surroundings?

Authority may be classified into traditional authority, charismatic authority and legal authority. A tribal chief or a king is obeyed by the people under them. He is accepted because it has been a **traditional authority**. A person with extra ordinary qualities is often obeyed by the people who have faith in him. That denotes **charismatic authority**. Legal authority is formal and law defines its privileges. Hence the power is not in the person but in the positions s/he holds. When s/he loses that position the power is also lost.

Authority is closely associated with politics. In administration decision making is very important. The decision is also taken in the family in relation to bringing up of children,

building a house, farming or education. Some members of the family control these decisions. The power of grandfather, father, mother and elder brother is the illustration of social authority.

The village or community head, the tribal chief, the king and the elected president have the right to take decisions. They can influence the decision of other people associated with government. In modern times this power resides in the state and the government. They receive this power through force, authority and law. The force of the state or the power is also expressed in the form of the police and military. Only the state has the legal rights to award punishment.

Did socio economic development have any impact on the development of political system?

Are there differences between the political systems existing among the hunters, gatherers and agricultural societies?

Definitely socio economic institutions and the development of political systems are closely related. The simple societies with hunting, food collecting and farming were organized through the family, lineage and kinship. These organisations had heads, chiefs, bigman or leaders. They are controlled by folkways and customs. In agrarian societies the size of the communities grew with the expansion of territories. Later monarchy developed in place of heads and chiefs. Big empires arose across the world as a result of surplus production in agriculture, expansion of commerce and development of transport. The form of political power and the system of control was feudal or monarchic in those societies. Development of industrial social system resulted in the stratification of societies and the emergence of ideologies of freedom, equality and individualism. These ideologies were responsible for the development of the democratic political system and later resulted in the formation of the state.

In many societies, political activities were organised by the small communities (band or village). The authority structure in such societies did not involve any centralisation. There was no political authority whose jurisdiction included more than one community. In other societies political activities were traditionally organised sometimes on behalf of a multi local group, but there was no permanent authority at the top. Still in other societies political activities were often traditionally organised on behalf of multifocal territorial groups, and there was a centralised or supreme political authority at the top. In the modern world, however, every society has been incorporated into some larger, centralised political system.

Find out examples of traditional authority, charismatic authority and legal authority. You can also collect images of persons belonging to traditional, charismatic and legal authorities from web and make presentation.

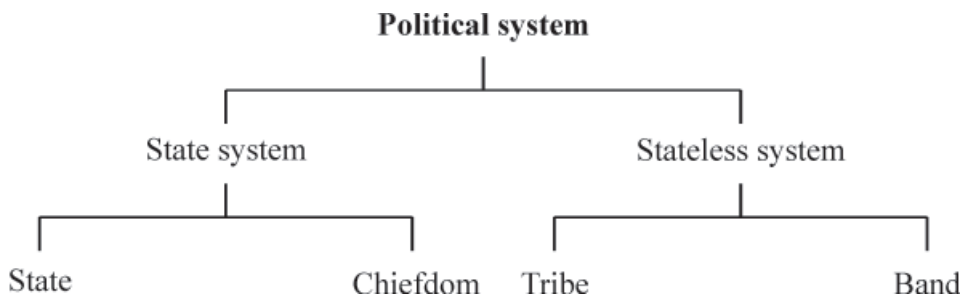


Check your progress

1. Fill in suitably
 - a) When one uses her/ his influence over another person irrespective of her/his will, it is called
 - b) When a person uses her/his influence over another, who willingly accept it we call it.....
2. Identify the types of authority
 - (a) A tribal chief or king is obeyed by the members of the community
 - (b) A person with extra-ordinary qualities is obeyed by the people
 - (c) A person is obeyed and respected as per law

II. Types of Political Systems

A political system refers to how a society maintains social order and reduces social disorder. Anthropologists try to evaluate the political systems of pre-literate societies in terms of two categories namely society with state organisation and society without state organisation. That means there are state societies and stateless societies. The stateless societies are also called acephalous societies.



State and Stateless political systems

State political system: - A state is an autonomous political unit that encompasses many communities within its territory. It has a centralised government with the power to collect taxes, engage men for work or war and decree and enforce laws. The state discharges its function through Government. The state has a complex centralised political structure that includes a wide range of permanent institution like legislative, executive, judiciary etc. In states the government tries to maintain a monopoly by the use of physical force such as police force and army. The modern nation-states and chiefdoms are the examples of state systems.

Stateless political system: Stateless political system is not an organised one. Here laws are not written, and are based on oral transmission of tradition and customs. It has the sense of collective responsibilities rather than individual's rights and privileges. The mode of punishment is deterrent which may be awarded not only to an individual but to any kinsmen of the accused. Evidences are based not only on the presence of witness but on the mode of oath and ordeals. Magic and religion have an important role in all walks of life in stateless political systems. The band and tribal political organisations can be taken as examples of stateless political systems.

Egalitarian and Non-Egalitarian societies

We believe in modern democracy and claim that society must function on the basis of equality. However, our sense of equality is not even closer to the hunter-gatherer societies. They maintained an egalitarian political system, where there was equality in all walks of life. The materials, including food and wealth were shared among all. There was neither any supreme leader to impose authority nor any coercive decision taken. These types of societies are also termed as “acephalous”, means “society without a head”. Most of the hunting gathering societies and simple horticulturists are egalitarian societies and thereby acephalous.

In non-egalitarian societies, there are leaders to control the members of the society.



Stateless society: The Nuer

A classic example of stateless society is Nuer of southern Sudan studied by Evan-Pritchard (1940). They are a nomadic people who mainly depend on cattle. Although they live in small local communities, every individual has ties with other people scattered over an enormous territory. Each Nuer has obligations and commitments towards his/her patrilineal kin; but is also tied to other groups. Several Nuer lineages together form a sub clan, and several sub clans form a clan. The Nuer groups thus form a unity in their territory. The total Nuer group thus is a stateless society.

Source: Doshi S L and Jain P C
(2002); p 337

This type of society is termed as ‘cephalous society’. All societies except tribe and band are termed as non-egalitarian societies. Surplus storage and private property created a new social system termed as non-egalitarian society. Subsistence economy created egalitarian society whereas, extra production paved way for enough time to engage in full time political activities. Separate leadership is another important criterion for non-egalitarian societies.

Centralised and decentralised political systems

Centralisation is the process where the authority and power of an organisation is in few hands. All the important decisions and actions at the lower level are subject to the approval of top management. Advantages of centralisation include an organisation’s ability to keep a tight grip on all aspects of the business.

Decentralisation is a systemic delegation of authority at all levels of management and organisation. An advantage of decentralisation is that there tends to be faster decision making. Decentralisation is intended to reach the fruits of development to the grass root level of population by way of planning and implementations. That means, local resources are effectively utilised and actual beneficiaries can be identified. It also means that lower level managers have the opportunity to gain valuable experience and develop more because there is more room to grow.



Fig 7.1 Grama sabha

In India, as per 73rd amendment of Indian constitution, Panchayatiraj system was implemented. In Kerala political power has been decentralised through ‘janakeeyasuthranam’ (peoples’ planning). Grama sabha plays an important role in decision making that reaches the grass root level.

- Visit the grama sabha in your locality and record the proceedings over there and write a report on the gramasabha meeting. The compositions of participants, procedure of meetings, issues discussed and decisions taken have to be reported.
- Conduat a debate on the topic Decentralisation versus Centralisation



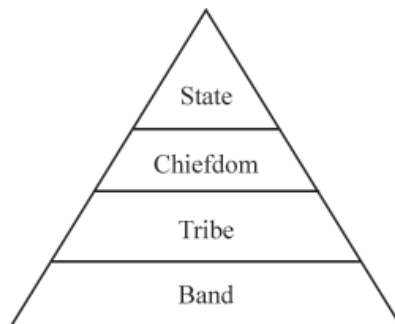
Check your progress

1. Authority of power in few hands : Centralisation,
Authority of power at all levels :
2. Distinguish between
 - (a) State and stateless political system
 - (b) Egalitarian and non-egalitarian society

III. Development of political system

It is believed that the earliest form of government evolved from within the family. Political organisation was formed when a leader appeared to command the people and the common people also desired to be protected to resist attacks of the hostile groups. The temporary leadership and organisation became permanent and more diversified according to the circumstances. A political unit is usually classified on the basis of its size, composition and other social characteristics. It starts from a small scale local autonomy, to reach a large scale regional unification of a number of societies such as band, tribe, chiefdom and state.

The anthropologist Elman Service (1962) listed four types or levels of political organizations: **band, tribe, chiefdom** and **state**.



Let us examine the origin and development of different level of political systems.

Band

Some societies were composed of fairly small and usually nomadic group of people. Each of this group is conventionally called a band and is politically autonomous. In band organisation the local group or community is the largest group which acts as a political unit. Bands are typically small groups, having a population of more or less 100 people. Each small band occupies a large territory, so population density is low. Band size often varies by season. The band breaks up or is grouped according to the food resources available at a given environment, time and place. For e.g. food collector had band organisations and the Bands are smaller in the winter, when food resources are not much available and hard to find. Foraging bands are egalitarian in terms of power and authority. They lack formal law, but they do have methods of social control and dispute settlement. The bands are larger in summer when there is sufficient food to feed a larger group. A.R Radcliffe Brown, a British anthropologist reported that the band members among the Andamanese ranged from ten to three hundred persons.

Though there were also shamans (part-time religious experts), they have been conferred with little position in society. Political decision making within the band is generally informal. Each band may have its informal headman. He may be the most proficient hunter or a person most accomplished in rituals. There may be one person with all these qualities or several persons, who have gained status through the community's recognition of skill, good sense, and humanity. Leadership stems not from power but from admired personal qualities.

Tribe

A tribe is a more complex form of political organisation than the band. It is a political group that comprises several bands or lineage groups, each with similar language and life style and occupies a distinct territory. These groups may be connected through a clan structure in which most of the people claim descent from a common ancestor. Informal leadership is the characteristics of tribal organisation. In those tribal societies where kinship provides the basic framework of social organisation, elders of the kin groups influence, a particular age-set for leadership. In contrast to band societies, the societies with tribal organisations are generally food producers. Cultivation and animal husbandry are generally more productive than hunting and gathering. The population density of tribal societies is generally higher and the way of life is higher than in hunter gathering bands. Headman or

tribal chief is the leader of the tribal organisation. The qualification for this position are, being hardworking and generous, excellent hunter, farmer and possessing good personal skills.

Big man

Another system of political leadership found among some horticultural group is the big man. The big man is the head within a village but with several supporters from other villages. He persuades people to organise feasts. In many areas of Melanesian island and other places such men are called big man. They owe their status to their individual personalities rather than to their inherited wealth of position.



Chieftom

Chieftom is the intermediate political unit between tribe and state. It is a larger unit than tribe. A Chieftom has some formal structure that integrates more than one community into a political unit. The formal structure could consist of a council with or without a chief, but most commonly there is a person-the chief-who has higher rank or authority than others. Most societies at the chieftom level of organisation contain more than one multi community political unit or chieftom, each headed by a district chief and higher level chiefs. Compared to tribal societies, societies with chieftoms are more densely populated and their communities are more permanent and have greater economic productivity.

The chieftom should have a council headed by chief, whose position is hereditary and is generally permanent. Chieftoms are ranked societies and the chief and his family exert greater prestige. The chief may redistribute goods, plan and direct the use of public labour, supervise religious ceremonies and direct military activities on behalf of the chieftom. In most chieftom the chief did not have the power to compel people to obey them. People would act in accordance with the chief's wishes because the chief was respected and often had religious authority.

Among the North American Indians two kinds of chiefs are found - the war chief and the peace chief. War chief is the head of military that function only in warfare, whereas the peace chiefs are the civil governors to supervise the internal tribal relations.

State

A state is an autonomous political unit, including many communities within its territory. It has a centralised government with the sovereign power to collect taxes, draft men for work or war, and enforce laws. States then have a complex centralised political structure

that includes wide range of permanent institutions with legislature, executive and judicial functions and a large bureaucracy. In states, the government tries to maintain monopoly in the use of physical force. This monopoly can be seen in the development of formal and specialised instruments of social control such as a police force military service, army etc. A society has state organisation when it is composed of one or more political units that are states.

A state may include more than one society. It is the result of conquest or colonial control and imposes a centralised government over a territory with in different societies and culture. State societies are generally supported by intensive agriculture.

Type of organization	Mode of subsistence	Community size	Social differentiation	Major forms of distribution
Band	Food collecting	Small	Egalitarian	Reciprocity
Tribe	Extensive Agriculture Herding	Small	Egalitarian	Reciprocity
Chiefdom	Extensive/ Intensive/Herding/ Agriculture	Large communities	Ranked	Reciprocity and Redistribution
State	Intensive Agriculture	Cities and Town	Caste and Class	Market Exchange

Table. 7.1 features of different political organisation



Check your progress

1. Prepare a pyramid showing different types of political system
2. How do the political roles of village head and bigman differ?
3. List out the major similarities and differences between chiefdom and state.
4. Identify the features of following a) Band b) Tribe ,c) Chiefdom d) State.

IV. Social Control Mechanisms

We often come across accounts of violence and aggression in mass media. Thomas Hobbes argued that humans were innately violent. In contrast to this J J Rousseau argued that pre-literate societies were peaceful. Anthropologists examined violence; aggression

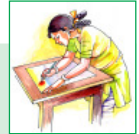


Are the humans
innately
aggressive?

and warfare cross culturally and proposed that cultural factors are more important in determining aggression.

One of the main functions of political organisation is to maintain social order. Different mechanisms exist in every society to maintain such order. Let us go through such mechanisms that are used for settlement of disputes to prevent violence and aggression in literate societies.

Discuss the following points in your groups in the light of settlement of a dispute happened in your locality.



- *Can problems and disputes be solved peacefully?*
- *What steps can be taken to reduce violence and create a peaceful world?*
- *How can education for peace help us in this regard?*

Social control - Formal and Informal

Social control is the process which helps to maintain proper social order. Social control refers to social and political mechanisms that regulate individual and group behaviour. It is an important function of political organisation. In the case of pre-literate societies, the law is unwritten, which has been sanctioned through local customs and traditions. These laws are transmitted orally from generation to generation. Thus primitive law is backed by customs and traditions. There are two basic forms of social control namely formal means of control and informal means of control.

Government in state societies considers the issue of aggression, violence and many other law and order problems through enactment of laws, adjudication through courts and implementation of rules through government offices, police and military. These are the formal means of social control mechanisms. Formal means of social control includes external sanctions enforced by government to prevent the establishment of chaos in society.

Apart from these, social norms and values exist in societies play an important role in maintaining social order. In pre-literate societies customary laws, moral values and social sanctions function as informal means of social control. These social norms and values are transmitted through generations through the process of socialisation. Hence informal means

of social control includes internalised norms and values. Thus social control means any control, either formal or informal that is exerted by a group.

Identify the social control mechanisms and classify formal and informal means of social control in your society.



Social Sanction

Sanction is a social force which approves or disapproves a mode of behaviour. Measures for social sanctions are suggestion, persuasion and encouragement. In the society some activities of the members may demand approval and some disapproval. For instance, violation of marriage rules may invite disapproval by the members of the society. Negative sanction is violating social rules leading to punishments and positive sanctions rewarding socially approved behaviour. Reward (positive sanction) and punishment (negative sanction) regulate the behaviour in social situations.

Sanctions, also serve to integrate a society. In societies without formal legal institutions, such as court of law, sanctions are often imposed directly. This may include ridiculing, dueling, injuring, seizing of property or killing the offender or a member of the respective group. Among the Eskimos, for example, the appropriate punishment for a man who steals another man's wife is to be ridiculed in a nasty song made up by the injured man.

Positive sanction

Positive sanction signifies the appreciation of certain kinds of behaviour. An individual following the social norm is respected. His social position also promoted. Some believe that ancestors and other spiritual beings are pleased by good conduct. Positive sanctions are pleasant things and we can do it or try to make people conform and behave in a routine, predictable, fashion. Giving communal feast can be considered as positive sanction. In the primitive law positive sanctions are based on commonly approved customs and traditions which have integrative factors to bind together the clan men or the villagers or members of the tribal society.

Negative sanction

There are vast numbers of negative sanctions that we can use in our society ranging from not talking to people if they annoy us, through beating them up to putting them in prison. The ultimate negative sanction perhaps is to kill someone. Negative sanction is concerned with the destructive and disintegrating factors prevailing in the society.

For example if someone breaks the incest taboo or clan exogamy or dishonors the totemic belief the council of elders tries to stop these activities, by giving punishment.

Formal sanction

A formal sanction is referred to as a clearly defined reward or punishment with specific people authorised to deliver it. It can also refer to as social norms enforced through the laws of the criminal justice system. It encourages people to comply with legislation. e.g. statutes, rules, laws enforced by Governmental agencies through things like fines or imprisonment.

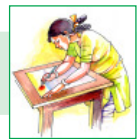
Informal sanction

Social values present in individuals are the products of informal social control, exercised implicitly by a society through particular customs, norms and mores. Individuals internalise the values of their society through socialisation and enculturation. Traditional society relies mostly on informal social control embedded in its customary culture to socialise its members.

Informal sanctions include shame, ridicule, sarcasm and disapproval which cause an individual to stray towards the social norms of the society. In extreme cases sanctions may include social discrimination and exclusion. Informal control usually has more effect on individuals because the social values become internalised, thus becoming an aspect of the individual's personality.

Internal control is a form of social control that we impose on ourselves. For example: you may not choose to wear casual wears while going to a formal function. It is not because there is a rule against wearing it but you have internalised the norm of dressing in a formal situation.

Collect information regarding positive and negative sanction that is seen in your locality and present in the class



Check your progress

1. Differentiate formal and informal sanctions. Give examples.
2. Differentiate Formal and Informal means of social control.
3. Examine how positive and negative sanction help to regulate the behaviour of people.

V. Customary Law

Law is a part of society and functionally related to the structure of that society. It is a rule of conduct essential for the society. The imposition is done by the authority and accepted by all the members of the society. The primitive law was, by and large, based on customs and practices of a given society. Majumdar and Madan are of the opinion that 'primitive law consists of a set of principles which permit the use of force to maintain political and social organisation within a territory. Primitive law is based on clans and phatry organisation. In primitive law punishment is awarded in the form of fine compensation, communal feast etc. Breach of law is taken as to affect not only an individual but the whole tribal society.

Sources of Customary Law

Different social control mechanisms exist in societies for the smooth functioning of it. These mechanisms exert control over its members, so that, social order is maintained. The sources of such customary law are found in the customs, social organisations, public opinion, religion and social panchayaths.

Customs: Like civilized societies, the pre-literate societies also have laws of one kind or the other to regulate their individual and social life. There are many sources of these laws. Among the pre-literate societies, Social custom is an important source. In the struggle for human existence some of the human behaviour is found to be harmful while others are useful. Harmful behaviours are mal-adaptive for social existence and treated as anti-social. One has to give up harmful behaviours and has to adopt useful ones. These social customs are regarded as compulsory because the person who disobeys them is neglected or punished by society. The system of punishment on breach of custom is gradually evolved; gradually the customs became a social law. In this way most of the laws in simple as well as modern societies have their source in custom. Social customs are handed over from one generation to another.

Social organisation: Generally there is social organisation in every simple society. In most of the social organisation, the chieftain or the leader holds the highest position and keeps a control over the society members. Sufficient powers are given to this chieftain or a leader, although they are not allowed to do anything against the interest of the tribe as a whole. In most of the cases, the order of chieftain is law and every man and woman has to obey it.

Public opinion: Public opinion in a simple society is very important. Public opinion has an important role in awarding punishment to an individual. In this way the public opinion controls the actions of men and women in the form of law.

Religion: Religion is also part of life in a simple society. It provides a code of behaviour, violation of which is considered as punishable or against social order. The compliance of rules and regulations connected with religion is as compulsory as that of law and generally none dares to disobey them.

Social Panchayath: In simple societies there exist social panchayats, which keep control over the individuals of the society and settle the mutual disputes. The decision of panchayat is regarded as law and an accused is punished for disobeying it. This punishment is mostly in the shape of a feast to be given to an entire village and as long as the accused does not give the feast he is neglected by the people of his clan.

Nature of customary Law

Like any other social institution law is a part of society. It is a rule of conduct essential for the stability of the society. The imposition is done by an authority and accepted by all members of the community. In simple societies the force of public opinion or a decision arrived at by democratic procedures are impelled on the accused. The community or council act as the court. Such customs are still in vogue in many communities in different parts of Indian villages.

The customary law shows the following characteristics.

- ◆ It is based on kinship as most of the members of simple societies are related by blood and generally kinship rules are followed as law.
- ◆ It is related to ethics and public opinion
- ◆ It does not differentiate crime from torts. Crime is an act forbidden by the state in modern law; tort is only an act the personal welfare of individual. In modern law, crime is a punishable offence whereas tort is not.
- ◆ It is backed by positive and negative sanctions.
- ◆ It depends on customs, as law and customs are interdependent.
- ◆ Maintaining social justice is a collective responsibility. Everybody is a police man in simple societies.
- ◆ Crime is determined on the basis of oath and ordeal.
- ◆ Criminal intent or motive is examined.

On examination of the above nature of customary law, there are some similarities and differences between primitive law and modern law. To understand the modern law in a comprehensive way, one has to look into the customary laws.

Primitive law and Modern law

Kinship bonds are highly emphasized in primitive laws. Both the internal and external problems are dealt with the kin groups. Clan elders possess the right to punish the offenders and settle the disputes. Modern law is entirely different from this. Primitive law coincides with ethical principles and rooted in public opinion. In simple societies, public opinions powerfully influence the life of the people.

Though modern law has its root in customary law it has undergone many changes in terms of enactment of laws, implementation and maintaining social justice. Examine the following table to find out the differences between primitive law and modern law. You have to complete the table after collecting information from a legal practitioner.

Primitive law	Modern law
Customary law	Written law
Single council for adjudication	Different council like district court, high court, civil court and criminal court.
Trial in the form of oath and ordeal	Trial using physical examination and cross questioning of witness
All members are responsible for implementation of law	Special officers like police are responsible for implementation of law.
Justice is based on public opinion and decision of council	Based on constitution and law
Punishment in the form of fine, compensation, communal feast, punishment etc.	Punishment in the form of fine, compensation, imprisonment, capital out casting, exile.....
In primitive law it is not the individual but the whole family is punished	Only the culprit is punished
.....

- Find out how far the root of our modern law is based in the customary law. After examining the above table, you can interview a legal practitioner/advocate in your locality to collect details on: how to file a case, jurisdiction of courts, trial, evidence and punishment. Discuss your findings in groups and present it in your class.
- Let us have a debate on: Should Capital Punishment be Banned? Is it Against Human Rights?



Why do we have a law, whether customary law or modern law? It is mainly for the maintenance of social order. Anthropologists are of the opinion that humans are not innately violent. The social disorder emerged as a result of cultural evolution. Cross cultural ethnographic evidences show that modern stratified societies are more prone to violence than tribal societies. A comparison of horticulturist tribes and hunter gatherer bands revealed that tribal societies are more prone to violence than hunter-gatherer bands. However, disputes in one form or other occur in all cultures, all of which have inner cultural mechanisms to sort out such problems. Dispute settlement mechanisms have undergone changes during the course of cultural evolution. Let us examine the dispute settlement in pre-literate societies.

VI. Dispute settlement in the pre-literate societies

There is great deal of variation among societies regarding settlement of disputes. Justice is established after a series of procedures starting from evidence collection to awarding punishment. Establishment of guilt is always important for the administration of the justice. In Indian villages we can see locally assembled, nattukoottams and urukoottams functions on the basis of customary laws prevailing in societies. These social assemblies settle disputes or award punishments after public trial.

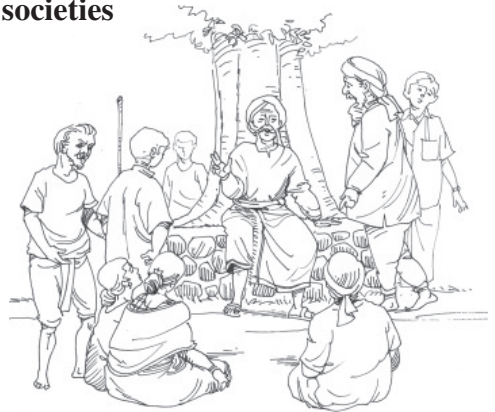


Fig. 7.2 Nattukoottam

In simplest societies, judges are the people themselves. A judge may be an elderly kinsman, where council of elders is called into being and they constitute the judges. The authorized persons get together to hear a case and pass the judgment. In most of the cases accused denies the particular charge against him. Until and unless his innocence is proved, he does not get mercy. Therefore judgment essentially comprises of two parts - evidence and punishment.

Evidence

The process by which the innocence or guilt of a person is established is called evidence in the simple societies, and no judge or prosecutor is found who is expert in cross examination. Therefore to get the accurate facts people have to rely on super natural support. However, the two main ways of setting the evidence are oath and ordeal

Oath is a promise in the name of God not to tell a lie. It is said that, if the facts furnished by a person is proved false, the person will be punished by the God. This is a technique of compelling one to confess his own guilt voluntarily .Usually a sinner does not conceal his guilt for the fear of supernatural wrath.

Among the Oroans and Mundas of Chotanagpur an individual before producing his evidence is asked to take an oath sitting on a tiger's skin or tiger's jaw. The guilty person never dares to tell a lie for fear of being killed by a tiger. Similarly, in modern law also witness had to take an oath before giving evidence.

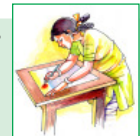
Ordeal is a process of determining the guilt or innocence by submitting the accused to a dangerous or painful test under supernatural control. Among the pre-literates such tests are usually done with fire, charcoal and water. For example, among the Oraons a piece of burning charcoal is placed on the palm of two men who are suspected of theft. If one of them is enable to bear the hot charcoal on his palm, he is considered as innocent whereas the other is guilty.

Even now media reports are pouring in on the 'third degree methods' adopted by law enforcing authorities for establishing crime.

Is this a blatant violation of human rights?

Is it due to lack of awareness of law of the land?

What can we do? - discuss it in your groups and present it in your class.



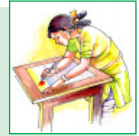
Pre-literate as well as modern societies make sure that the guilty is punished. For punishment also, a variety of methods are adopted in different societies.

Punishment

Most of the tribal people believe that crime is a violation of divine system or rules. Hence, it is believed that the criminal is evil who should be given suitable punishment, so that s/he may become free from evil. Besides retribution another basis of punishment is

compensation of loss. Punishment in the form of fine is usually based on this principle. Principle of collective responsibilities is another important feature of simple society. According to this principle punishment is not necessarily awarded to individual who has committed the crime but his family, clan and local group may also be punished. For example punishment of death is for murder but this punishment may not be awarded to him who has murdered. In his place some other members of his family group or clan may be killed, since the group is collectively responsible for the criminal act of each other.

Have you noticed the 'morality policing' resorted by certain anti-social elements in some areas? How do you view these phenomena? Discuss it in your group and present in your class.



Trial

In general, one finds some rudimentary form of trial before the award of punishment. Both the petitioner and the defendant present their cases before the chief and the council of elders who carefully hear them and sometimes cross question them.

In some societies different types of physical injuries are inflicted as punishment. The criminal is publically insulted by blackening his face and carrying him through the entire village seated on a donkey. Among the American tribes-an unfaithful wife is given the punishment of death by being drowned in the water. Among some tribes of Uganda, there is a provision of jail, but if the crime is very serious, criminal is fixed to a pole till he dies.

Among the Oraons clan where exogamy exists, the member must choose his mate from other clans. In the case of violation of these rules the man is brought before the village council for trial. Outcasting is a usual punishment.

Weir guild (Compensation): Like the civilised societies most of the simple societies have provision for compensation for the loss due to crime. The fine may be charged in cash or in kind or in both, depending upon the seriousness of the crime and the capacity of the culprit to pay it. Among some of the native Americans compensation is sought by destroying some valuable possession of the criminals. Among Samoan tribe a criminal has to give some valuable presents as compensation. In some other tribes, compensation is in the form of a feast to the whole village.

What will you do if there are differences of opinion between your friends?

How are disputes in your locality settled?

Are all cases of differences settled with the intervention of police or courts?

What are the mechanisms prevailing in your locality to settle disputes?

The answers to these questions will naturally lead us to conclude that there are different types of dispute settling mechanisms in every society. In pre-literate societies there were specific mechanisms for these purposes, both peaceful and violent.

Peaceful and Violent Means of settlement of disputes

We have already seen that humans are not innately violent. Violence is seen as an acquired behaviour. In simple societies they have their own dispute settling mechanisms through which majority of the disputes are peacefully settled. The advent of over production, market, private property, colonialism and globalisation intensified violence, warfare and aggression.

Peaceful means of settlements

Modern industrialised states have formal institution and offices such as police, court and penal system to deal with minor disputes and more serious conflicts that may arise in societies. All these institutions generally operate according to the codified laws. Many societies lack such specialised offices and institutions to deal with conflicts. They have peaceful regularised ways of handling at least certain disputes. These include avoidance, community action, negotiation and mediation, apology, oath ordeal and adjudication.

Avoidance

In this, violence can often be avoided, If the parties to a dispute voluntarily avoid each other or are separated until emotion cooled down. Foragers particularly like to use this technique. People may move to other bands or move their dwelling to opposite ends of the camp. Shifting horticulturist may also split out when conflict get too intense.

Do we also practice avoidance in our daily life as a means of settling disputes?



Community action

Collective action is common in simpler societies that lack powerful authoritarian leaders. Many Inuit societies frequently resolve disputes through community action. Family

is regarded as autonomous in most matters. They believe that spirits can determine much of a person's fate. Consequently people carry out their daily task within a complex system of taboos.

Negotiation and Mediation

In many conflicts, the parties to a dispute may come to a settlement themselves by negotiation. Sometimes an outside or third party is used to settle the disputes. Among the Nuer of East Africa, a pastoral and horticultural people, disputes within the community is settled with the help of an informal mediator called the leopard-skin chief. The man is not a political chief, but a mediator. His position is hereditary. Minor disputes like cattle stealing rarely come to the notice of the leopard-skin chief. Those will be settled then and there by the parties involved in their own private way. Major crimes like murder will be dealt with the leopard-skin chief himself and the culpritS are punished. He will be allowed to stay with the chief to protect him from the victim's family. In the mean time chief will negotiate and mediate with the relatives of the victim and settle the dispute in way of compensation to avoid feud.

Apology

The desire to restore a harmonising relationship may also explain ceremonial apologies. An apology is based on difference. The guilty party asks for forgiveness. Among the Fijians of the south pacific, there is a strong ethic of harmony and mutual assistance, particularly within a village. When a person offends some one of higher status, the offended person and the other villagers begin to avoid, and gossip about the offender. If the offender is sensitive to village opinion, s/he will perform a ceremony of apology called soro, means surrender. In the ceremony the offender keeps her/his head bowed and remains silent, while an intermediary speaks, presents a token gift, and asks the offended persons for forgiveness. The apology is rarely rejected.

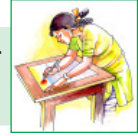
Oath and Ordeal

An Oath is the act of calling upon a deity to bear witness to the truth of what one says. An ordeal is a means used to determine guilt or innocence by submitting the accused to dangerous or painful tests believed to be under supernatural control.

Adjudication

Adjudication is when a third party acts as judge and takes a decision that the disputing parties have to accept. Judgment may be regarded by one person, a panel of judges, a young, or a political agent. Our own society relies heavily on codified law and courts to resolve disputes peacefully.

Write a case history of a local dispute settlement that happened in your area, including the entire process up to its resolution.



Violent means of settlement

People are likely to resort to violence when regular, effective alternative means of resolving a conflict are not available or satisfactory. Some societies consider violence between individuals to be appropriate under circumstances. When violence occurs between political entities such as communities, districts or nation we call it warfare.

Individual violence

Violent behaviour itself is often used to try to control behaviour. In some societies a person trespasses a property considers it for justification of a crime.

Feuding

Feuding is a state of recurring hostility between families or groups of kin. It usually motivated by a desire to avenge an offence against a member of their group. The killing of any member of the offenders group is considered appropriate revenge because the kin group as a whole is regarded as responsible.

Raid

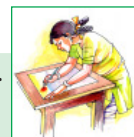
Raiding is a short term use of force, that is planned and organised to realise a limited objective. This objective is usually the acquisition of goods, animals or other forms of wealth belonging to other, often neighboring community.

Raiding is especially prevalent in pastoral societies in which cattle horses camels or other animals are prized and individuals on herd can be augmented by theft. Raides are often organised by temporary leaders or coordinators. Raiding may also be organised for the purpose of capturing people and sometimes people are taken for money. The capture of women to be wives is fairly common.

Large scale confrontations or warfare

Large scale confrontation involves a large number of persons and planning by both sides of strategies of attack and defense. Large scale warfare is usually practiced among

societies with intensive agriculture or industrialisation. These societies' possess a technology sufficiently advanced to support specialized army, military leaders, strategists and so on.



- *Are conflict and warfare among countries are on the increase or decrease?*
 - *How can we solve our problems?*
 - *Can disputes be settled peacefully? Or will violence be always with us?*
- Discuss on the above in groups and come out with specific suggestions for a violent free peaceful world order.*

Let us Sum up

- Political organisation refers to the way by which a society maintains social order internally and regulates its affairs with neighbouring groups. It is the means a society uses to maintain social order and reduce social disorder. Political anthropology is the cross-cultural study of political systems, of formal and informal political institutions. It deals with political affairs of all types of societies, whether it is primitive or modern.
- Different types of political systems include state political system and stateless political system. In states government tries to maintain a monopoly by the use of physical force such as police and military. In stateless political system laws are not written. They are based on oral transmission of tradition and customs.
- In simple pre-literate societies, family, band and tribe regulate the behaviour of the people. Societies with a band type of political organisation are composed on fairly small, usually nomadic type.
- Societies with tribal organisation are similar to those with band organisation. But they are food producers and have higher population density.
- Chiefdom organisation defers from tribal organisation in having formal authority structures that integrate multi community political units.
- Political organisation in tribe and band are generally known as stateless.
- States are generally characterised by class stratification, intensive agriculture, high population density, high degree of economic and other specialisation.
- In state political system, laws are enacted implemented and justice is maintained through specialised agencies like courts, police, government offices etc. In stateless

political system customary laws, moral values are given more importance.

- Customary law in the form of positive and negative sanction is used to regulate the behaviour of the people. Sanction is the social force which approves or disapproves a mode of behaviours. Even in modern complex state societies we can see peaceful means of dispute settlement mechanisms like, avoidance, negotiation; mediations etc. where the local leaders play an important role. In simple societies crime is identified through oath and ordeal, where as in modern societies judgment is based on trial and evidence.
- People are likely to resort to violence when regular, effective or alternative means solving a conflict are not available. Violence can occur between individuals within communities and between communities. Violence that occurs between political entities are referred as warfare.

The learned demonstrate the ability to

- ◆ Distinguish political anthropology from political science, identify the meaning and definition of political of political organisation and differentiate the concepts of power and authority.
- ◆ Identify the types of political system and differentiate between state and stateless, egalitarian and non-egalitarian, centralised and decentralised political system.
- ◆ Identify the development of political system from the level of band and state.
- ◆ Evaluate how far social controls mechanisms exist in simple societies facilitate social order.
- ◆ Compare primitive law and modern law.
- ◆ Identify and appreciate the dispute settlement mechanisms in pre-literate societies.

Evaluation Items

1. By taking an example of local dispute settlement mechanism in your area identify;
 - (a) The problem
 - (b) Persons involved
 - (c) Decisions taken
2. Dispute settlement mechanisms are found in both state and stateless societies. List four types of such mechanisms you know.

3. Fill in the blanks using the options given below

Indicators	State system	Stateless system
(a) Nature of law
(b) Evidence
(c) Punishment
(d) Kinship

(Awarded to the accused, only customary law, based on perpetuation of magic and religion, cross examination of witness, written law, awarded to the accused and kinsman, based on scientific and logical explanation, oath and ordeal)

4. Classify and explain the political systems given below into state system and stateless system.

(Chiefdom, tribe, state, band)

5. Complete the following chart

Type of organization	Mode of subsistence	Community size	Social differentiation	Major forms of distribution
Band	.....	Small	.....	Reciprocity
Tribe	.....	Small	Egalitarian	.....
.....	Extensive/ Intensive/ Hearing/ Agriculture	Large communities	.....	Reciprocity and Redistribution
State	.....	Cities and Town	Caste and class	.....

6. What are customary laws? Do any such laws prevail in our society? Illustrate with examples.

7. Do the introduction of Panchayati Raj system helped all people to participate in decision making? Explain with the example of a grama sabha meeting in your area.

ECONOMIC ORGANISATION

UNIT

8

CONTENTS

I. Economic Organisation

- Meaning and Definitions
- Economics and Economic Anthropology

II. Pre-literate Early Economy

- Production
- Consumption
- Distribution
 - (a) Reciprocity
 - (b) Re distribution
 - (c) Market

III. Stages of Economic Development

- Hunting and Gathering
- Pastoralism
- Shifting Cultivation
- Agriculture
- Industrial Economy

Introduction

Every day, the media report news about poverty and famine around the globe. Starvation death is reported from various parts of the world including India. At the other end, the news on increased food production and destruction of rotten food grains are also reported. Millions of people still live below poverty line, while a small minority lead a luxurious life.

- ◆ Why does this disparity exist?
- ◆ Why do millions die out of starvation even in affluence?

It may be due to the inequitable distribution of resources or lack of resources or lack of control over resources. India enhanced its food production through Green Revolution and milk production through White Revolution.

- ◆ Have these revolutions produced a desirable impact?

India has opened the domestic market to the global economy since the 1990s.

- ◆ In the changing circumstances, has the condition of the poor improved in any way?

Humans have developed an organised system to enhance production with limited resources and regulate distribution and consumption of goods and services. This organisation of economic activities functions as a regulating mechanism among humans. Every known society has a sort of organisation of economic life.

In the previous chapters, you have familiarised yourself with different cultural universals

such as family, marriage, kinship and political organisation. All these social institutions have been created by humans to satisfy their needs. But what do you think about the most important need that ensures human survival? There is no doubt; it is food, shelter and clothing. How do we satisfy these needs? For that, human beings have to work together. So, the collective activity in search of food and other basic requirements are very much important for human survival. Human beings all over the world engage in one or another kind of such activities termed as economic activity. In all societies, economic activities are arranged in a particular way: How to collect food, which technology is to be resorted to producing food, how the economic resources could be shared among its members, or how surplus items could be distributed. When the economic activities are channelised into an institutionalised form, we call it economic organisation. Economic organisation as a cultural institution regulates these activities in all societies.

You know that the institution of marriage, family, political organisation, etc. are related with economic organisation. For instance, marriage as an institution has an economic function to perform by way of division of labour, economic co-operation between members and so on. Similarly, all other institutions are related to economic activity. This shows that all aspects of our cultural life are directly related to economic activity. So, it is the backbone of our social life.

I. Economic Organisation

The economic organisation of a hunting gathering society is different from that of an



Fig. 8.1 Affluence and Poverty

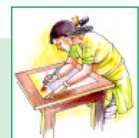
agricultural society. But all societies in this world have economic organisations, irrespective of whether it is a tribal, peasant or urban. But we know that our economic life has undergone drastic changes over time. As students of anthropology, it is important for us to know more about our economic life from its beginning to the contemporary times. Hence, in this unit, we shall discuss economic organisation, including its scope, evolutionary stages, modes of production and distribution in different societies.

Meaning and Definitions

We have to satisfy at least the basic needs for our survival. Food is one of the most important basic requirements of human being. We either collect it from our surroundings or produce it manually. But when we humans lead a social life, we need to satisfy the requirements of all the individuals in the society. For this, the resources have to be used in an equitable manner, the products be distributed among all the individuals, and the whole process be organized for a social cause. Thus economic organisation is essential to ensure production/collection, distribution and consumption in an equitable way. Otherwise it will result in poverty and famine. To get a vivid picture of economic organisation, let us examine some of the definitions given by different anthropologists.

- ◆ *"Economic organisation may be defined as the human behaviour by which goods are produced, allocated, distributed, used and consumed"* - Hoebel and Weaver
- ◆ *"Economic organisation is a type of social action. It involves the combination of various kinds of human service with one another and with goods such a way that they serve the given ends"* - Raymond Firth: 1952
- ◆ *"Economic organisation consists of the ordering an organisation of human relation and human efforts in order to procure as many of the necessities of day to day life as possible, with expenditure of minimum effort. It is attempted to secure the maximum satisfaction possible through adapting limited means to unlimited ends in an organised manner"* - Majumdar and Madan: 1956

Let us list out the characteristics of economic organisation noticed in these definitions and prepare a unique definition.



- ◆ Involves human behaviour

- ◆ Deals with production, distribution and consumption of goods and services.
- ◆
- ◆

Every type of economic organisation makes use of economic resources (including land), human cooperation (in terms of division of labour), technology, (tools and knowledge), and capital (goods and ideas used to produce other goods) according to specific rules or rights and obligations. But different societies use them in different ways. In simple economies, this organisation is done by the elders of the society by considering the norms and values present in that society. The welfare of the people is the main target here. But in complex modern societies, the capitalists or entrepreneurs play a major role. Their main motive would be profit or self gain.

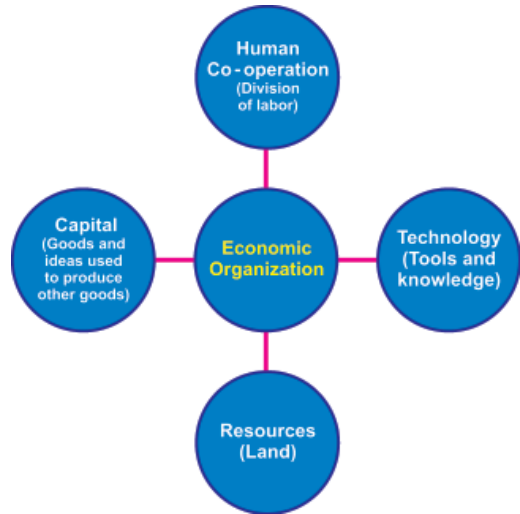


Fig. 8.2 Components of economic organisation



Check your progress

1. Examine the relevance of economic organisation in social living.
2. What are the components of economic organisation?

You might have studied about economic organisations in economics. Naturally you will doubt its relevance in anthropology. Anthropology as we discussed earlier is a holistic science that examines all aspect of human life. Economic activity is very important among them. But anthropology analyses economic life in a different perspective. Let us examine how economic anthropology and economics differ in their treatment.

Economics and Economic Anthropology

Some instances of economic activities in different parts of Kerala are given below:

1. 'Panappayattu' or Kurikalyanam, a system practised in North Malabar, to collect a considerable amount of money when the members are in dire need of it.
2. Financial help or gift given by friends and relatives on the occasion of marriage, house warming ceremony etc.

3. Financial contribution by the members of society for conducting religious festivals.
 - ◆ Whether these activities involve only financial transaction?
 - ◆ Is there any underlying social implication to this?
 - ◆ Whether these types of interactions are studied in Economics?

In the above cases, in addition to the economic transaction, there are certain social and cultural elements as well. Giving gifts and contributions encourage social and emotional attachment among the members. It also becomes the part of our cultural life. These aspects are not examined in economics.

Thus economic anthropology analyses economic activity as part of the cultural life of the society. It also deals with economic transactions from the very beginning of human society in its holistic and evolutionary perspective. But Economics is a social science that deals with the production, distribution, and consumption of wealth of contemporary society. Economic anthropology attempts to explain the human economic behaviour in the widest historic, geographic and cultural scope. Its origin as a sub-field of anthropology begins with British anthropologist, Bronislaw Kasper Malinowski.



Fig. 8.3 B K Malinowski

Economic anthropology initially dealt with pre-literate and peasant societies, though industrial society has also become its concern today. On the other hand, the scope of economics revolves around the economic activities of more complex and technologically advanced societies alone. Economic Anthropology not only deals with the inner dynamics of pre-literate and peasant societies but also explores the involvement of these societies in national or world economies. Economic Anthropology often attempts to explain the success or failure of pre-literate societies in wider economy. No pre-literate society is now isolated from the wider economic system. In the globalised world, multi-national products are distributed even among the remote pre-industrial societies. Instances of utilisation of local ethnic resources and knowledge by multinational companies are frequent now. Economic systems in the present world have surpassed the space and time. So the scope of economic anthropology has widened in many respects.



Check your progress

1. Distinguish economics from economic anthropology
2. Define economic anthropology?

The study of pre-literate and early economic systems is one of the important areas of economic anthropology. Such studies will help us to understand the origin, development and evolution of economic organisation including modern economic systems. Can you answer these questions? How did the early human find their food? What type of technology did they use? How did they distribute the resources among the group? To answer these questions, we have to analyse the economic life of the pre-literate communities in detail.

II. Pre-literate Early Economy

Pre-literate Economy was based on the principle of acquisition and consumption. There was no production, only collection and consumption existed. A low degree of technical knowledge and lack of specialisation characterised this economy. People invented simple techniques to utilise the resources. They were fully adapted with the seasonal food supply and the limitations in transport and communication, and inadequacy of storage facility. The earlier economic activities mainly depended on nature. Economic activities were very simple. Division of labour was based on age and sex. The concept of personal property was totally unknown or was at its initial stage.

The economic organisation of the earlier food producing economy was different from the above mentioned food collecting simple economies. Simple economies deal only with the collection and consumption of resources. They were originally affluent societies, with the availability of adequate food supply. Hence, complex distribution system did not prevail at that time. In order to understand the economic systems of the earlier simple societies three different factors - production, consumption and distribution - are to be analysed.

Production

The economic organisations of early food producing societies were of subsistence type. They followed the production-consumption economy. Food was produced only for their consumption. For them, production means the process of obtaining goods from the surroundings such as land, water, plants, animals and minerals.

Food supply was related to the locally available resources and the capacity of the people to utilise them. Consumer goods were produced only to serve the immediate needs. The family and the kin groups were the owners of production. They were self-sufficient in their economic needs. Therefore the system of commerce did not develop in these societies.

Production is the concrete set of activities concerning creation of goods and services. Technology (Physical tools and Cultural knowledge) is an important ingredient in production

In the early economy, family was the unit of production. All the members of the family, whether husband and wife, parents or children, together formed the production unit. The allocation of labour and the decision on food-quests were taken at the family level. They usually produced what they actually needed. But later on, when extra-production was started, new mechanisms were developed to distribute the excess production among other members.

Even though the family was self-sufficient, they had the cooperation of the individuals of other households as well. They used locally-made tools. Their children, particularly the boys used to go out in the jungle with their cattle-herd for grazing, while the girls used to accompany their mother and sisters to help in digging out the roots or the collection of fire-wood. The elder persons and the youth formed the axis of domestic production. They used to engage in preparing the fields, sowing, harvesting or in forest operations like collection of minor forest produce, fishing and hunting. So, in simple societies, food production also included collection of resources available in the surroundings. Thus, the family in the early economy played a significant role and was functioning as an autonomous unit.

Consumption

Consumption is the direct utilisation of goods and services by consumers. Consumption in simple economy reveals the nature of democratic system at the family level. The forest products like the roots and fruits and the hunted games were jointly shared by the clan members or villagers together. However, the main hunters or the chief used to get more shares. Generally, a democratic pattern of consumption could be recognised in the early economy. Further, the production and consumption were more or less balanced. They did not aspire for profit in production. They utilised locally made simple tools and implements for the exploitation of nature.

Distribution

Exchange of goods and services within a local group or between different local groups is known as distribution. The figure 8.4 shows how a tribal community shares the meat they collected through hunting. After hunting a game, the members of the tribal group pool the meat into different shares and distribute each share among the members. Among hunters and gatherers, usually the big man or the leader would take initiative for such distribution. The hunted meat is equally shared among the members of the society. Similar distribution mechanisms were found among the village societies or rural societies also. In simple economies, equitable distribution is the norm in the society.

Food sharing and distribution of excess production are usually found among egalitarian societies (Societies in which members have more or less equal status). Among the village communities in Kerala, we can see similar types of distribution mechanisms during harvest seasons. Harvested crops are distributed among friends and relatives. Similarly goods and services would be exchanged between the members. In modern complex societies, public distribution centres, such as 'maveli stores', 'neethi stores' and 'triveni stores' are meant to ensure a fair kind of distribution of essential commodities. The system of distribution found among pre-industrial or simple societies is entirely different from that of the modern economic system.



Fig. 8.4 Tribal Distribution systems

Source: Conrad Phillip Kottak, 2002,363

Thus, we understand that the system of distribution prevails in all types of societies. The American economic anthropologists Karl Polanyi and Paul Bohannan distinguish three different modes of distribution or exchange. They are reciprocity, redistribution and market exchange.

(a) **Reciprocity:** Reciprocity is a type of exchange of goods and services without the use of money. These exchanges take place between the units of the same kind, such as individuals, households, kinship groups, or local groups. It is the mutual give and take among persons or among groups of the same status. It can be divided into three types, generalised, balanced and negative.

(i) **Generalised Reciprocity:** Generalised reciprocity is gifts without any immediate return or conscious thought of expecting any return. Parents seldom meet the wants of their children expecting a reciprocal behaviour from them. Most of the communities



Among hunters in Australia when an animal is killed, the meat is divided among the hunter's families and other relatives. Each person in the camp gets a share. The size of the share depends on the nature of the person's kinship ties to the hunters. Typically, if the animal is a kangaroo, the left hind leg goes to the brother of the hunter the tail to his father's brothers son, the loins and the fat to his father in law, the ribs to his mother in law, the forelegs to his father's younger sister, the head to his wife and the entrails and the blood to the hunter.

Source: Haviland. Introduction to anthropology(2000) page 395

of hunters and gatherers show generalised reciprocity. Generalised reciprocity occurs among close kins. The participants will not consider generalised reciprocity in economic terms. For example, among the Hopi Indians, in the case of crop failure or failure of hunting and gathering, the food and other necessities are supplied by the neighbouring families as gifts.

- (ii) **Balanced Reciprocity:** It is an exchange of goods between two parties, either immediately or in a short time. It is more concerned with the distribution of goods rather than developing personal relation. One has a direct obligation to reciprocate promptly in equal value. Only then, the social relation will continue. Giving gifts on birthdays and on other similar occasions is an example to this. It may be in the form of barter, silent trade and ceremonial exchange.

Barter: The direct exchange of goods for goods is called barter. In barter each party seeks to get the best possible deal. Both may negotiate until a relative balance has been found, and each feels satisfied at having achieved the better of the deal. Relative value is calculated, and despite an outward show of indifference, sharp trading is generally the rule, when compared to the more balanced nature of exchanges within a group. For example, balanced reciprocity or barter existed in India among the Kotas of Nilgiri hills and three neighbouring people. The Kota, the musicians and blacksmiths of the region, used to provide their neighbouring tribes like Toda, with tools and with music for ceremonial occasions. In exchange, the Toda, offered ghee and buffalo for funerals. For grain, the Kota traded with Badaga farmers.

Silent trade: Silent trade or dumb barter has been noted in some African societies. It is a specialised form of barter in which no verbal communication takes place. The Semang and Sakai tribes of Malay forest though consider each other as enemies exchange their forest products. They never see the other party during transaction. The Semang place their goods in a customary location and leave. When the Sakai find the offering, they replace it with whatever they wish to exchange. Later, Semangs come back to pick up the goods before retiring to jungles.

Ceremonial Exchange: Trade may also take place in the form of ceremonies as in the case of Kula exchange among the Trobriand islanders. It is a type of balanced reciprocity.

Kula Ring of Trobriand Islanders: Kula ring is a complex trading device based on the system of barter. In this system the Melanesian communities specialised in producing different goods and artefacts and exchange their products. Trobriand Islands lie at the eastern coast of New Guinea, and are separated from sea from each other. Some of these islands are

small and rocky, and are therefore unable to produce enough food for own inhabitants. But these communities are technologically specialised in crafts, pottery making, canoe building, and stone-shell cutting. Some other islands produce yam, taro and pig. Hence, all Trobriand communities have developed a scheme by which all of them can get a similar chance to exchange their goods. In this system, two types of ritual objects move constantly from one island to the other within a close circuit of a ring. Long necklace (soulava) made of red shell, travels in a clockwise direction, whereas bracelet of white shells (mwali) travels in anti-clockwise direction. The possession of one or more of these ornaments allows a man to organise an expedition to the home of one of his trading partners on another island.

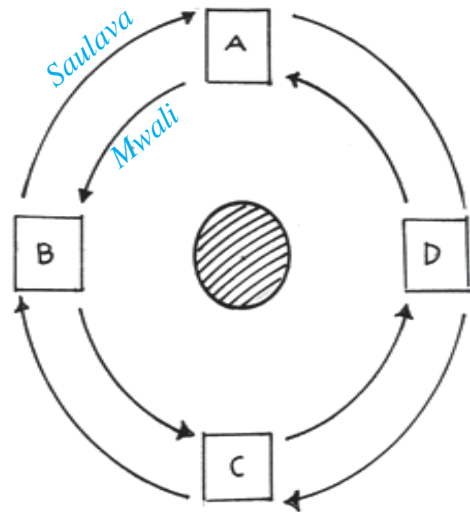


Fig. 8.5 Diagrammatic representation of trading in KulaRing. A, B, C and D represents different islands

The high point of an expedition is the ceremonial giving of valued kula ornaments. Each member of the expedition receives a shell ornament from his trading partner and then remains on the island for two or three days as the guest of that person. During the visit, the trading of the necessary items also takes place.

(iii) Negative Reciprocity: It is a form of exchange in which one tries to get something, out of nothing, or for a lesser value than it commands. It is mostly practised among strangers or enemies. The parties involved have opposing interests and are not closely related. An extreme form of negative reciprocity is to acquire something by force.

Let us Collect examples of generalised, balanced and negative reciprocities from your surroundings and discuss it in groups and present a report.



Check your progress

1. Distinguish generalised reciprocity from barter system?

2. Identify and explain the flow of goods in kula exchange?

(b) **Redistribution:** On certain occasions, the goods are collected by a central agency. It is then distributed to others who are in need of it. Is there any such system of exchange prevalent in your locality? Many of us do not produce the required food grains. How do we get food materials? We can purchase them from shops. Rationing system in India ensures food supply to all the people irrespective of their economic diversity. For this purpose, Food Corporation of India (FCI) collects food grains from different parts of our nation. Then, through a network of exchange system, it redistributes the same to different parts of the state. Such systems were prevailing in the simple economy as well. Let us examine it in detail.



Palliyaramuttam of the Kurichian of Wayanad

Palliyaramuttam, of Kurichyans of Wayanad is one of the known joint family systems in the world. They are the settled agricultural tribe of Wayanad. They had communal ownership of the land. Acres of land were owned communally. The resources obtained from this land were pooled together and redistributed among the members of the family.

Redistribution is the collection of goods or labour by a particular person or an institution in a particular place for the purpose of subsequent distribution. It is an important mechanism in which a centralised control, usually of a political nature is essential. The goods and the services of the society flow towards a centralised point and get redistributed by that central agency.

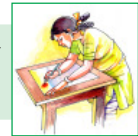
Redistribution may be classified into Administrative-based and Potlatch-based Redistribution. Redistribution may be voluntary on the part of the members of the society or it may be involuntary in that the administrative centre uses agents to force the members to contribute goods and services to the authorities.

- (i) **Administrative based redistribution:** In modern governmental systems taxes are collected from all people, either in the form of income tax, sales tax, exercise tax etc. and redistributed for the common use. In administrative based redistribution, the movement of goods and services takes place towards an administrative centre and reallocated for the common good by the authorities.
- (ii) **Potlatch based Redistribution:** In potlatch a chief or a host accumulates materials for redistribution among its members. Potlatch ceremony among the North-west coast Kwakiutl Indians of America is also a form of redistribution. It involves ritual display of wealth and distribution of goods among the guests for the purpose of confirming and increasing the hosts' privileges and prestige. There are different types

of potlatches such as funeral potlatch and house-building potlatch. In funeral potlatch, when a chief dies, the heir inherits the house of the deceased chief. To validate his claim to the house of the chief, the heir apparent gives a funeral potlatch. For this potlatch, he invites the members of the opposite moiety, and entertains them with a feast. The guests carve and erect a totem pole to the dead chief. Then, the heir distributes the property to the guests. Here the accumulation of wealth does not take place. Occurrence of potlatches is not uncommon in modern societies. During the time of marriages some parents exhibit their power and prestige through the process of potlatches. They redistribute the huge amount of wealth they accumulated to the public in the form of grand feast and entertainment programmes which they do not expect to be reciprocated.

Activity

Let us prepare a chart/report on the modern potlatches by collecting details from locality.



Check your progress

1. Identify the difference between Reciprocity and Redistribution?
2. Analyse the difference between administrative redistribution and potlatch based redistribution?

Watch the figure 8.6 and find out the system of exchange prevalent there. Here, even though milk products are redistributed to different people, it involves money transaction. This type of exchange is typical of the societies that are at the transitional stage between re-distribution and modern market. In modern society, most of the goods and services are exchanged for money. In this way, supply of goods and demands of individuals are met together. It is the market system of exchange.



Fig. 8.6 Milk Society : Redistribution or modern market.?

(c) Market

This is also known as money exchange or commercial exchange. In food gathering economy, there exists no market, because whatever is produced is distributed only to meet their daily needs. In simple food producing economies also, there was no regular market because they produced only to meet their subsistence needs. However, the system of market originates when the food producing economies change from subsistence to surplus production. Here, producers regularly produce goods and market them. It is a more developed form of distributing mechanism. Market exchange is associated with money. It is a medium of exchange for buying and selling of goods and services. Market in the simple economy is not similar to that of modern economy. Modern market involves monetary transactions, competition and monopoly. But in simple economy, importance is given to social and cultural functions rather than monetary transactions.

- ◆ Did you notice any difference between regular market and festival or seasonal market?
- ◆ Apart from economic transactions what are the other social relevance of such festival markets?

No doubt we may get different kinds of goods from the modern market. But the festival or seasonal market was a place of social gathering. Through such gatherings, people reinforce their relationships. Actually such markets are the places of cultural interaction. These market systems in the pre-literate society can be of different types that include temporary market, peripheral market, and permanent market.

(i) **Temporary market:** In some societies temporary shelters are arranged for transaction of goods and services. Here they exchanged goods and bought necessary things. It is also known as weekly market. After the arrival of the permanent market, these types of markets have almost disappeared except in some of tribal and rural areas, where such markets still exist.

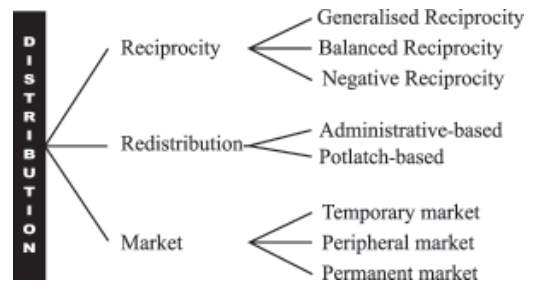
(ii) **Peripheral markets:** As there was no surplus production in subsistence economy, usually the produce may not enter into the market. But on rare occasions, some produce may enter the market. Such a situation is called peripheral market. It is the place where people make gossip, renew friendship and see relatives. Peripheral market is called peripheral because they account for only a small part of society's produce.



Fig. 8.7 Temporary market

- (iii) **Permanent market** is a place where the systems of exchange of goods and services are carried out using money. In permanent market, money facilitates trade. It is purely a commercial exchange. It is not directed for simple use but for profit gains. The items are brought to the market and sold with an eye to maximise profit in permanent market. We can exchange goods and services through permanent market at any time, which is absent in the case of temporary or seasonal market. Here a person has to wait for the market day to sell the goods and purchase the needed items. The value of goods and services are determined by the laws of supply and demand. Bargaining is a characteristic feature of a permanent market. In this, the consumer directly influences the production pattern. Today bank cheques, credit card and debit card are fully accepted for electronic money transfer.

As we familiarised ourselves with different types of distribution system in pre-literate societies, it will be easy to prepare a chart of distribution for obtaining a clear picture of it.



Let us prepare a digital presentation showing the different types of distribution systems prevalent in simple societies.



We have gone through the unique specialities of simple pre literates societies, particularly in its production, consumption and distribution systems. Now let us examine the features of the simple economy.

Features of simple economy

- ◆ Small scale economy
- ◆ No wide-use of currency,
- ◆ Absence of regular market
- ◆ Community basis,
- ◆ Absence of specialists,
- ◆ Absence of profit motives and the notion of property

- ◆ Relative stability and backwardness,
- ◆
- ◆etc.

Let us complete the list by adding some more features to get a clear picture about the simple pre literate economy.

In brief, in a simple economy, the mode of production is traditional, indigenous and related to culture. Their society and culture constitute an economic unit. So, sometimes they are workers, producers, entrepreneurs as well as consumers. The distribution is linked to barter and mutual exchange. They work hard to get their livelihood to meet the basic needs of life, such as food, shelter etc.



Check your progress

1. Examine the features of early simple economy?
2. Prepare a chart showing the different types of distribution?

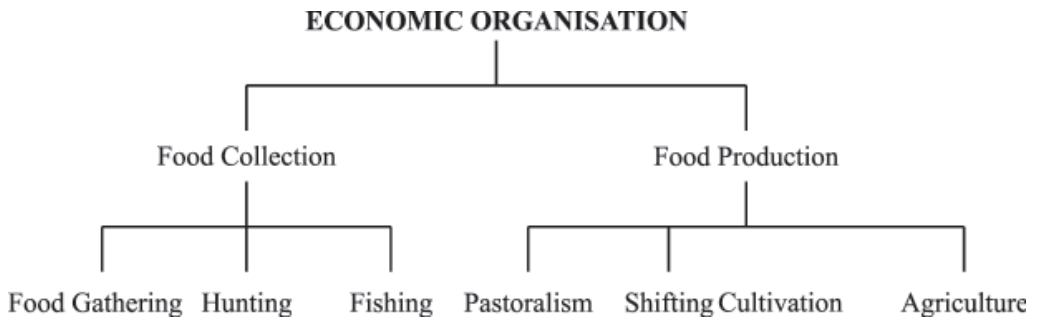
Social cultural anthropology, as we learned earlier, deals with the origin, evolution and variation of different social cultural institutions. Economic organisation is one of them. We have already discussed about the pre-literate economic systems. But the modern economic system as we know is very much different from the earlier types. The changes are the result of cultural evolution, passed through different stages in economic activities. In the following section we examine the important stages of economy.

Let us examine the economic activities of some of the tribal communities of Kerala. Some communities depend solely on food collection for their livelihood. For example, the Cholanaickan of Nilambur are food gatherers who depends solely on the Minor Forest Produce (MFP). Some other tribes like the Mullukurumbas and Kurichyans of Wayanad are engaged in food production agriculture. The tribes like the Kurumbas of Attappady are engaged in the primeval agricultural practice like shifting cultivation. There are some other tribal communities of India, like the Todas of Nilgiris, and the Gujjars of Kashmir engaged in cattle rearing. There are some other tribes who are considered as agricultural labourers, tribal artisans and industrial labourers.

A closer analysis of these occupations of tribal India reveals that different tribal groups are in different stages of their economic development. Anthropologists believe that

the people have passed through different stages of economy and livelihood, through a process of transition from food collection to food production. Let us examine these different stages of economic development in detail.

III Stages of Economic Development



Tribal economies are by and large subsistence economies. There are food collectors and food producers. Food collection includes food gathering, hunting and fishing. Animal husbandry (pastoralism), primeval agriculture (shifting cultivation) and settled agriculture are food producing subsistence activities

Subsistence economy may be classified into food collection and food production economy. Food collection economy is divided into food gathering, hunting and fishing economy. Food gatherers and hunters are taken together and are known as foragers.

Hunting and Gathering (Foraging)

Hunting and food gathering are the oldest mode of subsistence. Many contemporary primitive groups still subsist on them. Food gathering economy is based on the subsistence technology of gathering edible fruits and vegetables, tubers and hunting of wild animals. They are known as hunters and gatherers, hunters, collectors and foragers. The living examples of such people include the Cholanaickans of Kereala, Andamanese, Onge, Jarawas, Semang and Eskimos.



Fig. 8.8 Bushmen engaged in hunting

Food gatherers form about 0.004% of world population and live in marginal areas namely frozen Arctic tundra, deserts and dense tropical forests. In India, they are found mainly in south India and in Andaman islands. They include the Yanadi, the Chenchu, the Onge, and the Jarawa. In Kerala, the Cholanaickans, Kaders, and Kattunaickans are engaged in foraging.

Foraging: Foraging means searching for and collecting food that is available in nature (fruits, vegetables, nuts, animals, fish) either by gathering, fishing or hunting. It is the oldest economic system having existed since the appearance of Homo sapiens.

Food gatherers used to collect forest products like, fruits, roots, nuts, seeds, tubers shells and honey. They invented hooked poles for pulling down the cones. Digging stick was used for digging up the soil to get edible roots and tubers. The little creatures like beetles, caterpillars, grasshoppers and lizards were also gathered for food. Honey is another important collection of food item.

In hunting and gathering society, the men specialise in hunting, while the women are specialised in food collection. For the purpose of hunting, they use bow and arrow and spears. Some of the hunting weapons include axe, sword, knife and harpoons different traps are also used by them for catching birds and animals.

Characteristics of Hunting and Gathering Economy

- ◆ **Simple technology:** The tools and instruments used for collecting the plants and for killing the animals are often few. Digging stick and collection basket are used for collecting food from the forest. The bows and arrows, spears and boomerang are used for hunting. In almost all hunting societies, hunting is done with the help of traps and death pits. The commonest methods of hunting are beat and chase.
- ◆ **Nomadism:** Food gathering economy is characterised by nomadism and semi-nomadism because of activities in search of food and water in different parts of the forest, desert and tundra.
- ◆ **Lowest population density:** It is also characterised by low population density.

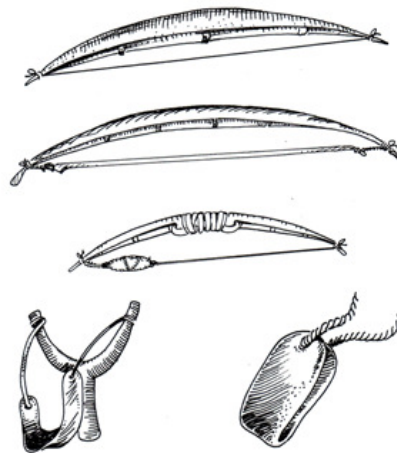


Fig. 8.9 Throwing devices used for hunting

In most cases, the total population of the entire tribe does not exceed a few thousands.

- ◆ **Small size and self-sufficient:** The local group is a small size and self sufficient economic unit. It is invariably a small nomadic band or some semi-nomadic settlement in which 25 to 30 individuals are clustered.
- ◆ **Division of labour:** The division of labour in this economy is based on sex. In many societies men engaged in hunting and women often go in groups to do most of the gathering, which means involves digging for roots and tubers with digging sticks.
- ◆ **Absence of surplus and trade:** Food gathering economy has no surplus. They rarely have any surplus left with them after satisfying their needs, which they could use for barter, exchange or trade.



Fig. 8.10 Fishing traps

Fishing

Fishing is a type of hunting. Both these subsistence activities might have started more or less simultaneously. But due to environmental constraints, some resorted to fishing while others engaged in hunting or collecting food from the land. Another reason pointed out is that when the land resources became scarce, the people might have directed their attention towards fishing. Catching with bare hands is the earliest form of catching fish. As this was not satisfactory for them, they thought of other devices and started using different types of traps and nets for fishing.

Collect the details of indigenous fishing techniques and knowledge that exist among the contemporary fisher folks. Compare it with primeval and modern fishing techniques and prepare an article and present it.



Check your progress

1. Identify the features of hunting gathering economy?
2. Differentiate food gathering economy and hunting fishing economy.

It is evident that food gathering economy solely depends on the resources available

in the surroundings. It is quite natural that when the population increases, the demand for available resources increases as the sources themselves are limited. So human being started looking for other resources. It eventually led to the production of new items. It required more energy, technological improvement, more complex organisation and relationship.

Now we shall familiarise the other stages of evolution of the economic system. In these stages the humans acquired greater control over certain natural processes by learning domestication of plants and animals. Food collection was replaced by food production as a predominant mode of subsistence. Food production may be classified into pastoralism, shifting cultivation and agriculture.

Pastoralism

Pastoralism is a transitional phase between food collection and food production. It is a subsistence technology by the domestication of animals. It is a type of ecological adaptation found in the areas which is not suitable for hunting-fishing or agricultural activity. As a result, the inhabitants adapt livestock breeding and lead a nomadic life. But most of these people are bound to maintain a barter relationship with neighbouring sedentary agricultural group.

In the arid and semi-arid zones of Asia and Africa, different communities are found engaged in caring and herding of animals. They domesticated some animals which could rapidly breed. The pastoralists not only eat the meat of the animal, but utilise the animal products as well.



Todas form a classic example for pastoralism from in India. They reside in the Nilgiri hills of Tamil Nadu. They know neither hunting nor agriculture and rear only buffaloes. From the milk of buffaloes, various products such as ghee, cheese, butter, curd, etc. are made. These products are partially consumed by themselves. The rest is sold or exchanged with neighbouring communities. In exchange of milk products, Todas procure different things necessary for daily life. Each family is engaged in caring huge number of buffaloes. The males take the animals to the field regularly in the morning, and the women do household work like caring of their children, fetching drinking water, collecting fuels from the forest and so on. The processing of milk, such as boiling, churning, curdling is exclusively done by the males.

Source :Indrani Basu Roy – Anthropology: The Study of Man (2003), p 627



Fig. 8.11 Buffalo complex of Toda

Pastoralists keep a good relationship with agricultural group as they live in adjacent areas. They exchanged their products with that of neighbouring agriculturalists. Pastoralists move their herds in search of new grazing land and water. The Toda of Nilgiris, Gujjar of Kashmir, Nandiwala of Maharashtra were traditional pastoralists of India. The Nuer of Africa and the Tschembago of New Guinea are some of the classical examples of pastoral communities in the world.

The nature of pastoralism differs from group to group. Some of them show advanced pastoralism. Others show primary dependence on this occupation. The herding animals are different in different regions, depending on the nature of requirements and herding habitation. The examples of the herding animals include cattle, sheep, goats, donkeys, horses, yaks and buffaloes.

Features of Pastoral Economy

- ◆ **Small population:** the pastoral groups are small in size and move from one place to another in search of food resources of the domesticated animals.
- ◆ **Domestication of animals:** the area where the rainfall is not suitable for agriculture, domestication of animals is the only occupation for survival. The pastoralists necessarily depend upon domestication of animals for their livelihood. The Todas rear buffaloes; the Gujjar rear sheeps; the Tschembago rear pigs.
- ◆ **Semi nomadism:** pastoral people move from one place to another in search of food for their domesticated animals. They are seasonally nomadic, moving with their herds over large territory searching for better grazing land.
- ◆ **Transhumance:** it is one of the variants of pastoralism. In this, a part of the population moves seasonally with the herds, while the other part remains in home.



Check your progress

1. Differentiate pastoral economy from hunting gathering economy?
2. Identify the features of pastoral economy?

When human population further increased, they forced to change their subsistence pattern. The knowledge domain of humans also progressed which paved the way to produce food rather than collecting it from the environment. Thus human developed the early type of cultivation.

Shifting Cultivation

Shifting cultivation is an earliest form of agriculture, in which, the area of cultivation

is shifted from one place to another due to the loss of fertility of the land. It is an important adaptation strategy of human society to adjust with the environmental changes. It is a type of horticulture. Horticulture and agriculture are two types of cultivation, and one is different from the other. Horticulture does not make intensive use of machinery and tools. They use simple tools such as hoes and digging sticks. In shifting cultivation also the fields are cultivated extensively with simple tools, without the use of plough, manure, and techniques of irrigation. Shifting cultivation is practised especially in tropical and sub-tropical zones. A plot of land is cultivated for three or four consecutive years and thereafter cultivation shifts to some other plots. The old one is left vacant for a fairly long period of up to 10 to 12 years, so that the soil can regain its fertility. This period is known as fallow period.



Fig. 8.12 Shifting cultivation

In shifting cultivation, a group of people select a particular plot for agriculture. At first, they cut the bushes, plants and clear the plot. Then dry them and burn them to ashes. After rain, they till the soil with digging stick or hoe. Seeds of different crops are thrown at the onset of monsoon, which become ready to be harvested with the advent of winter. In tribal India, about 11% of the population practise this cultivation. They produce rice, millet, coconut, sugar cane, plantains and vegetables.

Shifting cultivation is generally known as 'slash and burn' cultivation. It is also known as swidden agriculture. In different regions of India, it has different names such as Jhum, Dahia, Podu, and Bewar. Shifting cultivation known by different names in different places/communities as follows.

- ◆ Gonds - Dahia
- ◆ Baiga - Bewar
- ◆ Khonds -Podu
- ◆ Nagas and Kukkis - Jhum
- ◆ In Kerala it is known as Punam

Some of the features of shifting cultivation are given below. You can complete it with your understanding of shifting cultivation.

- ◆ Natural form of cultivation
- ◆ Rotation of the field
- ◆ Use of fire for cleaning the land
- ◆
- ◆



Check your progress

1. Identify the features of shifting cultivation?
2. What are the similarities and difference between pastoralism and shifting cultivation?

Shifting cultivation, as we know, did not yield sufficient food resources. The rapid growth of population naturally forced the people to look for other options. Moreover, the nomadic life was difficult for a group with large population. Likewise, they had to settle in a particular place to protect their crops. All these factors eventually resulted in a new system of economic life, namely, agriculture.



Fig. 8.13 Plough cultivation

Agriculture

Intensive and permanent way of cultivation is a revolution in the human history. Villages were developed after settled cultivation. Cultivation with plough and usage of fertilisers and irrigation flourished agriculture in river valleys. They produced crops like barley, wheat, maize, paddy, etc. They stored the seed for next season. The technical instruments gradually improved with the improved process of cultivation. The discovery of plough can be linked with the domestication of large animals which are required to draw the plough. Continuous furrows or channels on land could be created by this implement. This made sowing of seeds easier.

Two types of plough are generally used in different parts of the world. They are:

- a) The simple curved plough found in India.

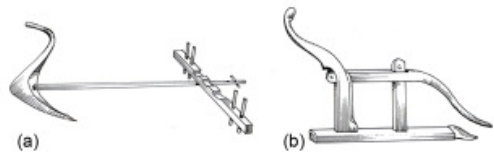


Fig. 8.14 (a) Indian plough, (b) Quadrilateral plough

b) The quadrilateral plough found in China, Malay, and other parts of Southeast Asia.

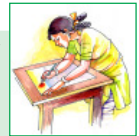
The operation of agriculture is not limited to the use of plough. A series of specialised implements are involved in it. After tilling of the soil, a leveller is required for levelling the field. It is usually a flat rectangular wooden plank, which is yoked to a pair of animals. At the time of dragging, the ploughman stands on it for putting enough pressure in smashing the clods. This is followed by sowing. The farmer sows the seeds by hand. Manuring and irrigation are done in time. Sickles are used for harvesting.

Features of agriculture

- ◆ Settled life
- ◆ Highest population density
- ◆ Permanent rural and urban settlement
- ◆ Complex economic resources
- ◆ Complex technology
- ◆ Division of labour on the basis of age and sex
- ◆ Land ownership
- ◆ Full time political leadership

Some of the tribal communities in India who practise agriculture include the Baiga, the Bhil, the Bhuiya, the Lepcha, the Oraons, the Santhal, and the Kurichians. People of the remote places of Western Europe, Korea, Japan, Central Asia, and South Arabia are also known for plough cultivation.

Let us collect the tools and implements used earlier for agriculture and related economic activities for school museum and conduct an exhibition of the same.



Recent Development in Agriculture

Intensive agriculture changed a lot after mechanisation and commercialisation. There is a worldwide trend to produce more and more for market. Animal labour is replaced by tractors, tillers and other machineries. Hybridised seeds are widely used. Agri-business has been opened, and farms are operated by multinational companies. Globalisation offers international trade and marketing. Ultimately, the modern industrialised societies are becoming a 'market foraging' societies.

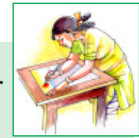
Plantation Agriculture: Plantation agriculture involves concentrated ownership of land, with the means of production in the hands of one family or corporation, the use of hired labour, and mono-crop production. The plantation system exhibits some of the most deplorable working conditions. The plantation mode of production is still prominent in some of the former colonies in Europe. In Sri Lanka, Plantation sector is the largest contributor to its Gross National Product (GNP). It is said that the new generation of Kerala are turning their face away from agriculture. Many contemporary agriculturalists shifted their attention to cash crops. We have to depend on neighbouring state for food items. If this situation continues what will be the future of Kerala? Discuss.



Fig. 8.15 Mechanised harvesting

Activity

Let us conduct a debate on the topic 'cash crop culture a bane or boon'



Industrial Agriculture: Industrial agriculture production is based on large scale use of machinery, fertilisers, and most modern techniques of farming. The human and animal labour is hardly used. This is done mainly by corporate and the products are solely intended for market. Often the food crops are also cultivated for industrial purposes and it is even utilised for converting it into fuels. Agricultural capitalists are owners of such companies, completely relying on hired labour.

Subsistence activity	Also Known as	Features
Foraging	Hunting-gathering	Mobility, Use of natural resources
Pastoralism	Herding	Nomadism and Transhumance
Shifting Cultivation	Slash-burn, swidden, dry farming	Rotation of field under cultivation
Agriculture	Intensive farming	Settled life
Industrialism	Industrial production	Factory production, Capitalism socialistic pattern of production

Collectivised Agriculture: Collectivised agriculture is a form of industrialised agriculture that involves non-private control of land, technology, and goods produced. A variety of collective agricultural arrangements have been used in places such as Russia, and Eastern Europe, China, Tanzania, Ethiopia, and Nicaragua. Agricultural activities are done communally and the products are intended for the common good. It is also known as collective farming.

Industrial Economy

Modern economy is called industrial economy. It was a product of industrial revolution in the middle of eighteenth century in England. Earlier, agricultural revolution had taken place, which resulted in increased production, huge surplus and profits. This led to industrial revolution. Industrial revolution refers to the replacement of manual power by mechanical power in the production process. Production was increased not only in quantity but also in quality and variety. Industrial activities before industrial revolution were carried out at the family level. Families joined hands to pool their resources to run a factory. More funds were required to produce raw materials, tools and technologies and capital goods.

Consequently several institutions came up to play an important role in production and distribution system. This includes financing agencies, marketing agencies, and transportation and communication system. Ultimately it became more complex, skill-oriented and capital-intensive.

Features of Industrial Economy

- ◆ Advanced technology of production
- ◆ Surplus production and production for market
- ◆ Division of labour based on education, skill and specialisation
- ◆ Market-based exchange and wide use of currency
- ◆ International marketing through import and export
- ◆ Presence of private property and profit motive
- ◆ Advanced transport and communication system
- ◆ Presence of banking and e-commerce

Modern technology and man-made conditions have changed not only the system and quality of production but also production relationship. Modern industrial system has given birth to companies, corporations, share markets, multinational companies, banks

and the union of industrialists and workers. Developed technology has influenced not only the economy but also culture and personality. The system of production has created dehumanisation. Machine has been given more importance than human beings. The worker is alienated from one's natural environment, the goods produced and the relationship connected with these. In the process of establishing this adjustment, human behaviour has also become mechanical. A universal machine culture has risen in which people have similar personality, similar means of recreation, similar clothes, and almost similar food stuff.



Fig. 8.16 Stock Market

The concept of property in modern economy includes land, house, household articles, vehicles, machines, and jewellery. The capitalist economy has undergone vast changes. The present day corporations have a large number of share holders, whose capital runs the corporation. But most of them remain ignorant about the working of companies, their system of production, and the system of management.

Division of labour in industrial system is based on merit, skill, training, education and the individual aptitude. Industrialisation, training, and skill have gradually changed occupation into profession. It includes doctors, engineer, nurse, and teacher and so on. The dynamic and competitive nature of the modern professions has changed the structure of the family to become nuclear.

There has been a considerable change in the system of exchange in the modern economy. Development of technology and huge production transform the exchange into commercial one. Currency acts as a medium of exchange here. It has a standard value. International and inland trade is regulated by currency. The market occupies a very important place in the modern industrial system. The existence of market depends on the existence of more than one seller of commodities. Labour, goods for consumption and professional services are available from the new market.

Thus, industrial economy has given birth to the economic system based on technology and energy. This system is characterised by large production, big organisation, highly developed technology, cities and currency.



Check your progress

1. Differentiate industrial agriculture from traditional agriculture.
2. Examine the features of industrial economy

Let us Sum up

- ◆ Economic organisation is a design of human action by which goods are produced, distributed and consumed. Every type of economic organisation makes use of economic resources namely resources, human co-operation, technology, and capital. Economic anthropology is a sub field of social-cultural anthropology which deals with the study of human behaviour connected with the economic organisation. Early economy based on subsistence type, they followed production consumption and distribution economics.
- ◆ In early economy family was the unit of production. All the members of the family were engaged in the production process. The implements and tools were usually indigenously made. The consumption in early economy revealed the nature of democratic system at the family level. The distribution mechanisms are reciprocity, redistribution and market.
- ◆ Reciprocity is giving and taking without the use of money. They are three forms - generalised reciprocity, balanced reciprocity and negative reciprocity. Generalised reciprocity is gift giving without any immediate return. In balanced reciprocity or barter, individuals exchange goods for goods immediately. Negative reciprocity is a form of exchange in which the given tries to get something out of nothing.
- ◆ Redistribution is the accumulation of goods or labor in a central point for the purpose of subsequent distribution. It may be classified into administrative based redistribution and potlatch based redistribution.
- ◆ Market or commercial exchange is based on the principle of supply and demand. It occurs when food collecting economy becomes so efficient that it supplies food beyond the subsistence. Here producers produced food for market and exchanged with use of money. Market societies are money dominated price and wages were regulated and affected by the forces of supply and demand.
- ◆ The stages of economic development are broadly divided into Food collection and food production economies. Food collection or foraging may be of different types like, gathering, hunting and fishing. It is the oldest economic system; in which human being depend on wild plants and animals for getting food. Recent foragers depended

most on fishing, followed by gathering and hunting.

- ◆ Food production economy may be classified into pastoralism, shifting cultivation and settled agriculture. Pastoralism is a process of domestication of animals. It is generally found in low rain fall areas. Pastoralists tend to be nomadic, to have small communities consisting of related families to depend on trade for finding their needs. Shifting cultivation is another important stage of economic development of human societies. Here they farm with relatively simple tools and cultivation shift from place to place for the lack of the fertility of the land. Intensive agriculture is characterized by techniques such as fertilisation and irrigation. They support large population density, and sedentary life with complex political organisation. Agriculture economy changed a lot after the arrival of industrialisation.
- ◆ Industrial agriculture, Collectivised agriculture, Corporate farming are the recent trends in agriculture. Food based agriculture diminished and replaced with cash crop cultivation.
- ◆ Industrial economy is based on technology and energy. It is characterised by large production, big organisations, highly developed technology, cities and currency. Market is important in industrial economy. Developed technology influenced human culture and personality; here machine is more important than human. Human loses his natural human qualities and become mechanical.

The learner demonstrate the ability to

- ◆ Identify the meaning and definition of economic organisation and distinguish economics from economic anthropology?
- ◆ Evaluate the features of early economic systems and identify it, in terms of production consumption and distribution?
- ◆ Appreciate the different stages of economic development and classify in its sequential order?

Evaluation Items

1. Define economic organisation.
2. Distinguish between economics and economic anthropology.
3. Identify the system of exchange that Malinowski studied among the Trobriand islanders.
4. Arrange the following in a chart and differentiate between each of them with suitable

examples (redistribution, negative, market, distribution, reciprocity, general, balanced).

5. Arrange the below given things in a sequential order and explain any one item. (agriculture, foraging, pastoralism, shifting cultivation)
6. Early economy is characterised by simple technology, absence of specialist etc. List out other features of early economy.
7. In the case of crop failure Hopi Indians supply food and other items to the neighboring families without conscious thought of return. Identify the reciprocity mentioned here. List out and explain other kinds of reciprocity.
8. Kula exchange seen among Trobriand islanders belongs to reciprocity.
9. Potlatch ceremony seen among the north-west Indians is a kind of distribution.
 - ◆ Identify the type of distribution
 - ◆ give examples of potlatches in your locality
10. Prepare a seminar paper on the topic 'Different Stages of Economic Development from Food Gathering to Modern Industrial Economy'.
11. Draw a pyramid showing the different stages of economic development
12. Find the pair

(a) Nagas	: Jhum	Gonds	:
(b) Food gathering	: Cholanaikan	Agriculture	:
(c) Shifting cultivation	: Kurumbas	Pastorals	:
13. Examine the changes occurred in agriculture after industrialisation
14. List out the features of pastoral society. Examine how pastoral societies differ from agricultural society
15. Kula is an important example of ceremonial exchange practiced by Melanesian society. How does this system of exchange operate in that society? What is its significance in their social set up?
16. Evolutionary stages of economic development indicate cultural evolution. Do you agree with this statement? Explain.



RELIGIOUS ORGANISATION

UNIT 9

CONTENTS

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Introduction

Aztec, a tribal group in Central Mexico, had believed in human sacrifice. According to their belief their God is to be worshiped by giving offering of human blood and heart. After the sacrifice Aztec used to eat heart and drink blood of the sacrificed human. Most of the victims are prisoners of war or slaves. Other than slaves sometimes young men, women and even children were captured as victims. They were held lying over a stone called altar. The priest slit open the chest and pulled out the heart which seemed to be still beating. This was then burned offering to god. Body was rolled



Fig 9.1 Aztec human sacrifice

down to the other side of sacred place. The skull would be put on a display rack. It was reported that display racks contain more than one lakh of skulls. (Source: Marvin Harris – ‘Cannibals and Kings: The origins of culture’ 1997: P 106)

We have come across similar instances of human sacrifice in media. Human sacrifices are still happening in one form or other. These practices are associated with certain beliefs. Animal sacrifices are still widely practiced as part of religious beliefs.

Did you notice these kinds of sacrifices in your society? Share your ideas.

These types of beliefs and behaviour related with supernatural powers are found universally. Cross-cultural studies revealed that beliefs in supernatural powers and forces existed since the beginning of human culture. In some occasions, people tried to influence the supernatural forces, through magical practices, but in some other occasions, they worshiped these supernatural forces. These provided them some sort of psychological gratification. Such beliefs of the pre-literate humans were codified in institutionalised form. It became the earliest form of religion.

Religion can maintain social control, social solidarity and promote change. It also helps people to adapt with the changing conditions. Religious beliefs and practices have undergone changes and modifications through different periods. Contemporary religious trends include both rising secularism and reappearance of religious fundamentalism. In this chapter we are looking into the various aspects of religious organisation including its origin and evolution.

I. Meaning and Definition of Religion

The word, religion has been derived from the root word *religio*, which means 'to bind together' and religion actually does it. It has played the most profound influence over human thought since the ancient past. Anthropology looks at religion from historical and evolutionary perspective, going into its origin and development. It also looks at religion from the functional perspective, exploring its contemporary practices and manifestations.

Archaeologists have discovered evidence of religious beliefs and practices associated with archaic Homo sapiens, or Neanderthals, that date back to 60,000 years ago. Religion is a cultural universal, although specific beliefs and practices vary significantly from one society to another. For example, some religions are based on the worshiping of an all-knowing, all-powerful supreme being, whereas others have many deities. There are some other religions without deities at all. All religions have an underlying belief. That is, the proper performance of religious practices or observances would result in specific benefits: health, long life, children, material well being, success in hunting, rain, good crops, victory in war etc.



Fig 9.2. Different religious ceremonies. Photo courtesy: [http:// wikimedia.org](http://wikimedia.org)

In studying the anthropology of religion, anthropologists are not concerned with the ‘truth’ or ‘falsity’ of any particular religion. The major questions posed by anthropologists are: how do religious beliefs become established within a society? And how do religious beliefs affect, relate to and reflect the socio-cultural condition of a group of people? To have a comprehensive understanding about this, it is important to examine the meaning and definition of religion.

There is no single definition of religion that could have universal application.

- ◆ British anthropologist E B Tylor has given the minimal definition of religion as “a belief in spiritual beings” (Tylor, Primitive Culture 1871: Vol 2).

‘There is room in the world for all religions – those who believe in rocks, those who believe in trees, those who believe in clouds’ -Sidney Harris; 1984

This definition is criticised in two ways. First, it does not include the ritual aspects of religion. Second, it does not say whose beliefs in spiritual beings are referred to: an individual’s private beliefs, the beliefs of a particular small community or the beliefs of the worldwide system.

- ◆ According to the French sociologist Emile Durkhiem, “a religion is a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden – beliefs and practices which unite into one single moral community called a church, all those who adhere to them”.

He emphasises on three aspects of religion: social context, the sacred aspect and moral basis. Religion expresses beliefs of a society about the universe. It consists only of sacred phenomena, as it is concerned with extra-ordinary supernatural world. Religion has a moral basis, because it imposes a moral pressure upon people and directs people to do right things only.

- ◆ F C Wallace defines religion as “the beliefs and practices concerned with supernatural beings, powers and forces”

The definition of religion by F C Wallace serves as an improvement over Tylor’s definition. It is clear that religious belief in one kind or other exists all over the world.

- ◆ But do you think all religious beliefs are similar in nature?
- ◆ What are the common factors visible in all the religions that you know?

Most of them recognise a supreme supernatural power. Find some other common features and complete the following list of features of religion.

- ◆ Religion provides an explanation of the ultimate problems of life, such as death and evil.
- ◆ Religion helps people to cope with major events and crises such as diseases and death.
- ◆ Religion provides a moral code
- ◆
- ◆
- ◆

You have already studied about culture traits and complexes. All the cultures are the combinations of different cultural traits. Religion as a culture complex also has different elements of its own as listed below:

II. Elements of Religion

(a) Beliefs: The earlier social anthropologists defined religion in terms of beliefs only. Tylor viewed that there cannot be any religion without belief. It cannot be empirically proved and it is a matter of understanding. These are of several types. It may be in the form of animistic beliefs, animatistic beliefs, naturalistic beliefs, totemic beliefs or theistic beliefs.

(b) Rituals: Durkhiem has described ritual as an important element of religion. Ritual is a practice of religion or the action part of religion. Conceptually, ritual is different from beliefs. Beliefs are ideas or thoughts and rituals are their implementation.

Rituals convey information about the participants and their tradition. It is repeated year after year and generation after generation. It translates messages, values and sentiments into action. Life cycle rituals are one of the important areas in this regard.

Life Cycle Rituals: Life cycle rituals, or rites of passage, mark a change in status from one life stage to another of an individual. They mark the passing of one phase of life and entry into another. For e.g. birth, puberty, initiation, marriage, and death. They are known in English by its French equivalent Rites-de-passage. Arnold Van Gannep first brought this concept into attention. He distinguished the Rites-de-passage into three types:

- (i) Rites of separation
- (ii) Rites of transition
- (iii) Rites of incorporation

Rites of separation are practiced while one separates from the group or community. Such rites are performed when one dies. These rites become part of the funeral ceremonies. Rites of transition are conducted when one changes from one's social role to another. It includes rites related to pregnancy, betrothal or initiation.

Puberty rites are also included in this category. It is performed at the first signs of menstruation. Among the Kurichians of Kannur and Wayanad in Kerala, as in the case of most other tribes, a seclusion hut is built where women live during their period of menstruation. Rites of incorporation are observed when one is incorporated into a new group or community. Marriage ceremonies come under this type.

Apart from the above listed rites, some societies practice another kind of ritual, namely, rites of intensification.

Rites of Intensification: These rites mark the occasion of crisis in the life of the group. The nature of crisis may be lack of rain that threatens agriculture, sudden attack of an enemy group, onset of an epidemic, or some other elements that disturb everyone. Mass ceremonies are performed to overcome the imminent threat that the group is facing. This also unites the people for collective action.



Among the Australian aborigines, an initiation rite is chalked out for the boys, which is quite painstaking.

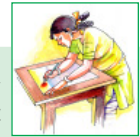
A boy has to bear immense physical torture until he is frightened or scratched. His front teeth may even be knocked out. At the end, a ceremony is organised, after which the boyhood passes away. The boy is recognised as a man and he is then allowed to marry.

Indrany Basu Roy (2005):
'Anthropology - The study of Man'

An individual's death is regarded as a crisis in the life of an individual. It is considered as a crisis for the entire group, particularly if the group is very small. Funerary ceremonies are then performed as rites of intensification.

Rites of intensification need not always be limited to crisis situations alone. In certain communities, when the seasons change, human activities also change accordingly. They take the form of annual ceremonies. These are particularly seen among horticultural and agricultural groups, first during planting and then during harvesting.

(c) Symbols and Myths: Each religion has its own symbols and myths. For instance, church, temple, mosque, flag, specific kind of dress are symbols of various religious cults. Similarly there are mythological stories related to each religion. Myths consist of a people's assumed knowledge about the universe and natural and supernatural world. The tribes who believe in animism have their own totems which are symbolised by animals, plants, trees etc. The origin of the clans is also illustrated by mythological stories.



1. *Collect details about different types of life cycle rituals practiced in your community. Examine its cultural relevance and prepare a report on it.*
2. *Have you noticed rites of intensification practiced in your society? Gather information on the same and present it in your class.*



Check your progress

1. Critically evaluate the shortcomings of Tylor's definition on religion?
2. Practical or the action part of religion is
3. Give a brief note on different elements of religion?
4. Find any two instances of how rites of transition are observed.
5. The rituals that mark change in the status of an individual from one life stage to another is called (rites of passage / rites of intensification)
6. Write a brief note on the importance of rites of intensification as a special occasion to a group.

III. Religious Specialists

Along with the progress of culture, religious beliefs also became more complex. In course of their developments, individuals having the ability to interact with the supernatural power were selected as practitioners. They began to be revered by all the community members. Today every religion recognises such religious specialists.

Religious practices are performed by religious specialists who intermediate between humans and supernatural beings. Two types of religious specialists exist: shaman and priestess/priest.

Shaman: The word shaman is from the Tungus of Siberia. A shaman is a religious specialist who devotes part of his time to serve as an intermediary between supernatural and individual. He often works alone, since he applies his ability as an individual rather than a representative of a group. He learns to be a shaman from an elder shaman. He may gain his abilities from direct contact with supernatural beings. Shamans are employed to determine the cause of an illness and to cure it. This type of person is also known as medicine man and witch doctor. Both male and female shamans are found. People do not distinguish between the illness of natural origin and those of supernatural origin. Hence, shamans frequently serve as medicine men for all types of illness. They may also specialise in weather control, locating game animals and so forth.

Priestess/Priest: The priestess/priest is a full time religious specialist who works as a representative of the group. She/he is normally supported by the community and devotes all of her/his time to serving as an intermediary for the group. They are trained religious practitioners under a religious organisation for years. In larger societies with elaborate cultures, the priest/priestess serves as an interpreter for the gods. Sometimes the priestess/priest attempts to persuade supernatural beings to help. Prayers, offerings and sacrifices are the means which she/he uses. Priests are found most commonly in larger societies. In small scale cultures, priestly functions are performed by a shaman, a headman or a family head.

As we discussed earlier anthropology examines religion in historical and cross cultural dimensions. Historical analysis of religion throws light to the origin and evolution of such



Fig.9.3 Shaman from equatorial Amazonian forest
(source: [http:// wikibooks.org](http://wikibooks.org))

beliefs. We know that all human institutions are the product of their thought. Early humans as savage philosophers tried to examine the forces behind many natural phenomena. They assigned supernatural power to them and began to worship such power. Let us examine how religious beliefs originated from supernatural beliefs and evolved to the modern type of religion.

IV. Origin of Religion

You have learnt that human burials had been reported about 60000 years ago. Along with human burials many other things like food materials, tools, dress materials, pet animals. were also buried. What inferences of early religious beliefs of human beings would you get from the following points?

- ◆ Why did they bury the dead? (earlier the dead bodies were discarded)
- ◆ Why did they keep food, dress, tools, pet animals etc. with burials?

Ancient humans might have thought that death was not the end of life. They might have believed in rebirth. Any insult towards dead person, they feared, would be the cause for revenge from that person. Naturally, they began to fear and worship the dead person. It consequently gave birth to the earliest form of religious beliefs.

The religious life of any people is manifested in outward form, in beliefs and in rituals. Mere beliefs do not constitute religion; it is the rites and rituals which make religion a living force. The shape of supernatural power varies from society to society. Some religions believe that the supernatural power is abstract and can only be experienced. Some others argue that the supernatural power has a definite shape and a dimension, which can be represented in the form of an idol. On the basis of such notions anthropologists have formed the following explanations about religion.

Animism: E B Tylor asserted that the foundation of all religions is animism. In Latin *anima* means soul, and thus animism is belief in soul. It is the belief that not only living creatures but also inanimate objects have life. These supernatural forces are referred to as spirits, ghosts, or Gods. They are believed to behave as people do. They are conscious, they have will, and they feel the same emotions as human beings. Such spirits may reside in plants, water, air, stones or in animals.

An important type of animism is ancestral worship which is found among most of the tribes. The Santhals worship the ancestors as family and village deities. In western India, the Bhils believe in the survival of the dead and the soul continues to exist as a spirit. Again

they have numerous nature spirits – spirits of hills, streams, forests and punitive and malevolent spirits. In Kerala, the Malayarayans consider the ancestral spirits as symbol of deities. They believe that the dead ancestor, in the form of deity, will protect their family.

E B Tylor in his book ‘Primitive Culture’ (1871) shows the evolution of religion from animism through polytheism to monotheism.

Animism → Polytheism → Monotheism

Animatism: For R R Marett animatism was the most rudimentary form of religion. According to him animatism refers to belief in some impersonal power behind every material objects besides living beings. This impersonal power influences human and can also be controlled under certain conditions. Marett considered animatism to have existed even earlier to animism. It was only later in human evolution that people added souls and other spiritual beings to their theologies.

Manaism: According to animatistic beliefs, there is an impersonal mysterious power. Melanesians and Polynesians call it *mana*. The power of *mana* can dwell in persons, places, animal, plants, and sometimes in inanimate objects.

They explain the success of individuals in their society by their possession of quantities of *mana*. Individual can acquire *mana* in different ways. It is believed to be the key to success. Objects containing *mana* can change people’s fortune. A woman may place a rock in her garden and find the yields improved dramatically. The explanation is believed to be *mana*, the sacred force contained in the rock.

Though both the Melanesians and the Polynesians believe in *Mana*, they differ in the understanding and operational elements of *mana*. The Melanesians believe that *mana* is acquired while the Polynesians believe that *mana* is inherited. The Melanesians believe that *mana* is the key to success, while Polynesians believe that though *mana* is the key to success, it can also be dangerous. The belief of Polynesians in *mana* is comparable to that



Fig. 9.4 A Polynesian carving: spirits are said to be able to manifest themselves in any object. (Source: <http://commons.wikimedia.org>)

of electricity in that it can flow from one person or thing to another. The rulers and members of royal families have greater quantities of *mana* than ordinary people. Contact with royal family members is dangerous to commoners. They believe that the *mana* of the king flows out of his person everywhere he walks; it can infect the ground, making it dangerous for ordinary people to walk in his footsteps. *Mana* is related to the notion of taboo. Because of the *mana* residing, the contact between royal family and commoners is considered taboo.

The beliefs in *mana* exist in a slightly different form among the tribes of North America, Africa and in other parts of the world.

Bongaism: *Mana* is supernatural power that exists as a quality of objects. Such religious beliefs have been found among the Munda, the Ho, and other tribes of Chota Nagpur.

They use the term *bonga* to designate this power and quality. The impersonal *bonga* use the medium of dreams to foretell about bad things. Differences between individual, differences of power, prestige etc., are due to quality of *bonga* power possessed by a person.

Naturalism: Max Muller emphasized that the earliest form of religion must have been the naturalism or worship of nature. Thus, the primitive man was inspired by the natural phenomena and without understanding it, he sought to explain it. An attitude of love and reverence towards object of nature was born as a result, and they started worshipping rivers, mountains, trees and other natural objects. According to this theory, the early man was surprised with natural phenomena such as sun rising and setting, thunder sending rain, trees bearing flowers and fruits, seasons changing and occurrence of day and night. The Garo tribe of Assam worship sun and moon. The Munda people worships sun god.

Max Muller stresses the evolution of religion from naturalism through polytheism and to the current stage of monotheism



Fig. 9.5. 'Belief in mana'

(a supernatural force or power, which people may manipulate for their own ends – are widespread. *Mana* can reside in people, animals, plants, and objects, such as skull held here by a member of the headhunting Iban tribe of Malaysia)

-Source: Kottak:2002- p.490

Naturalism → Polytheism → Monotheism

Totemism: *Totem* is an important characteristic of tribal religion. The *totem* is considered to be the originator of a particular clan. The killing and eating of which is a taboo for the people associated with the *totem*. It is worshipped and respected everywhere. Marriage cannot be contracted among the male and female of the same *totem*, because they are thought to be having blood relationship.

Australian aborigines live in small bands. Each band has a totem such as an animal, plant or some geographical element. Each band is associated with a totem and believes that its ancestors have descended from that totem. They neither kill nor eat the *totem*. Emile Durkhiem argues that since the Australian aborigines are most 'primitive', their belief in *totem* (*totemism*) must be the most elementary form of religion. He further argues that when people worship their *totem*, a sacred emblem that symbolises their social identity, they are actually worshipping society. Totemism thus reflects the emblem of the collective representation of their social mind.



Figure 9.6 Victoria's, World's Tallest Totem Pole

Source: (<http://wikibooks.org>)

Ancestor worship: The philosopher Herbert Spencer traced the origin of religion in the reverence to ancestors. Ancestor worship combined with beliefs in ghosts and fairies is believed to be caused by dream experience. According to him, the ghosts of ancestors were transformed into gods. It is believed that soul of ancestors protect the members of family or tribe.

Anthropological studies of religion have yielded a few more concepts such as sacred and profane taboo etc.

V. Concept of Sacred and Profane

Durkhiem in his famous book *Elementary Form of Religious Life* (1912) used two important concepts, viz, 'sacred' and 'profane', which are still used and debated all over the world in the study of 'primitive' religion. Durkheim considered these two concepts as central to the understanding of religion.

The word 'sacred' has been derived from the French word '*sacres*' which means pure with religious sanctity. Supernatural beings and forces are considered to be holy and thus they are treated as sacred. Durkheim was of opinion that in religion, there is only sacred belief; belief which refers to God and the deities who are actually symbolic of society itself. He was also of the opinion that the sacred encompasses not only the good but also of the evil and impure. The impurely sacred, for Durkheim, was necessary in order to represent the inevitable negative facets of social reality. For him, both the pure and the impure constituted two inextricably linked modalities of sacredness. This is to be kept separate from the profane realm of everyday reality. He proposed that every society has its sacred beliefs, symbols and rituals which are opposed to the ordinary or profane events.

The word 'profane' means mundane and hence related to worldly affairs. Durkheim suggested that the religions represent the sacred while the magic or the pseudo-science is part of the profane. Everything that is not sacred is profane. Thus, the profane beliefs and practices are not sacred and hence do not form part of religion.

VI. Taboo

Taboo or *Tabu* is a Polynesian term. It means prohibited. Thus, taboo is a prohibition that prevents many activities. Disobedience to a taboo is not considered a crime but a sin. Therefore, the society or the state may not punish the violator, but it pricks one's conscience. The power of taboo is more than that of law. The people do not so much fear law, but taboo. Behind law, is the power of the state. But behind a taboo is the sanction of religion. Therefore, taboos are more strictly observed. Its non-observance is supposed to annoy God.

As part of religious beliefs, people observe many rituals and ceremonies. Most often these rituals are very much painstaking. Why do people strictly adhere to these practices even when it brings harm to them? No doubt, they believe, it will bring great benefit in return. Religion actually has to accomplish many functions on par with the wishes of devotees.

VII. Functions of Religion

Both from individual and social point of view religion performs a lot of functions. It promotes the major social virtues like truth,



According to Malinowski religion is not what religions are, but what they do in society. Raymond Firth had written religious system "as means for handling the fundamental problems of social organisation..... for reducing uncertainty and anxiety, for increasing coherence in human relationships, for assigning meaning to human endeavour, for providing justification for moral obligations" (Firth, 1967: p 250)

honesty, non-violence, service, love, discipline etc. A follower of the religions internalises these virtues and becomes disciplined citizen of the society. Some of the major functions of religion are as follows:

Religion Explains: Religion has an explanatory function. Religion provides explanation to individual and group life. People all over the world wonder how this universe originated, why people die and suffer from diseases, and so on. All the societies give explanation to these phenomena according to their own religious beliefs. It satisfies people from unusual and unfortunate events.

Religion Validates: Religion has validating functions. Religious beliefs and practices are important in all cultures. It validates peoples' customs, beliefs and values. It validates why people should or should not do a particular act or why a person should or should not believe in a particular aspect.

Religion gives Psychological Comfort: It also provides psychological function by reducing fears and anxieties in a crisis. Religion offers emotional comfort, particularly when people face a crisis. Such crisis can be seen in life in the situations like, conception, birth, puberty, marriage and death. It provides a sense of security in life by sharing the beliefs, attitudes, values and sacred symbols of a group.

Religion Integrates: One of the major functions of religion is social integration. It binds together the members of a society when they believe in the same thing and participate in the same religious rituals. It is true that common belief, common sentiment, common worship and participation in common rituals are the factors which strengthen unity and solidarity. However competition between different religious groups is an exception to this situation.

Religion Maintains Social Control: Every religion stresses a moral code and conduct to all of its members. Through the concepts of right, wrong, good and evil, religion controls social life. Right actions of the individuals, result the approval of supernatural power and thereby approval from the society. Likewise wrong actions cause revenge or punishment through supernatural agencies. As an informal means, it regulates social life in a more meaningful way. Organisations like temples, mosques, church and gurudwaras also control the behavior of the individuals at different levels.



Check your progress

1. Part time religious specialist is known as
2. Differentiate between a shaman and priestess/ priest.
3. Differentiate the Polynesian and Melanesian concept of Manaism.

4. Find out the equivalent term of manism in Indian context.
5. “Taboos are more strictly observed than laws”. Justify this statement?

VIII. Magic

Do you think all the beliefs related to supernatural power are associated with religion? People sometime believe in the power of evil spirit. They think that such supernatural elements can be propitiated to bring harm to their enemies. This kind of beliefs related to supernatural power is not considered as religious beliefs. Anthropologists consider them under the category of magic.

Generally among common people, there is confusion regarding magic. Most often they consider magic as some kind of tricks like vanishing of a person locked inside a box. It is performed by professional magicians to entertain the spectators. But in anthropology the term ‘magic’ is perceived in an entirely different sense. It is performed by traditional magical performers to control the invisible supernatural power for the accomplishment of some purposes like, harming an enemy, getting good harvest, protecting oneself from disease etc.

Meaning and Definition of Magic

- ◆ Sir James George Frazer, a leading British anthropologist is one of the first to define magic. According to him magic is the technique designed to achieve specific goals by manipulating the supernatural.
 - Frazer emphasised that magic is a technique, which involves certain skills for controlling the supernatural i.e., it includes certain actions that can compel the supernatural to achieve specific goal. These goals may be to ensure good crops, fertility of domestic animals, bring rain, cure illness in humans, or to harm crops, create famine, or to create illness and death in human. Magic is meant for either good or bad purposes.
- ◆ Bronislaw Kasper Malinowski, offered yet another definition of magic. According to him, magic consists of the superstitious acts and belief through which individuals try to control nature when their technology and rational techniques are insufficient.
 - For him, magic comes into existence when people try to reduce their anxiety in uncertainty.
 - Both Frazer and Malinowski argued that magic is primitive science because it comes into existence when the rational techniques are insufficient to control natural phenomena

Malinowski had witnessed magical practices among the ‘Trobriand islanders’ and he describes it in his book ‘*Argonauts of Western Pacific*’ 1922 (see the box below).



Magical Practices of Trobriand Islanders

The Trobriand Islanders have knowledge concerning their environment. They grow a variety of crops. They skillfully adjust their agricultural activities to the varying local situations. They build canoes and undertake long voyages for trade and fishing. Yanu gardens made with the best of care may be blasted by one or another phenomenon such as a storm and a heavy rain. Sudden storms may drive a canoe far off course or even capsize it. In such situations the Trobriand Islanders know that their knowledge about nature is limited and that there are factors beyond their control. Neither their considerable knowledge of the crops can protect their crops from the dangers of unexpected storms and winds nor their commendable navigation abilities, can save them from the dangers of unexpected winds and other natural calamities. Therefore in all such helpless situations the Trobriand Islanders take recourse to magical acts.

- Malinowski, *Argonauts of Western Pacific*- 1922

Different anthropologists view magic in different ways. Some of the propositions regarding Magic are as follows.

- ◆ “It is a strategy that people use to control supernatural power”
- ◆ “It is an attempt to manipulate the forces of nature to derive certain desired results”
- ◆ “It is the use of rituals to direct and control supernatural forces”
- ◆ “It is the control of supernatural forces by means of compulsive formulae”
- ◆ “It is an attempt to mechanistically control supernatural forces”

Majority of definitions of magic emphasise that magic is belief and practice meant for controlling the supernatural forces. Did you notice any such magical practices in your locality?

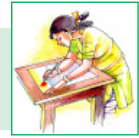
In Kerala, magical practices were adopted to prevent some type of diseases;



Fig. 9.7 Trobriand Islanders prepare the long canoe to set sail. Magic is often associated with uncertainty, such as sailing in unpredictable waters. (Source: Kottak: 2002- p.492)

effigies (*Nokkukuthi*) were erected to prevent evil eyes and evil tongue. More over, there are other types of magical preventive practices and measures like tying of ‘magical thread’ (*manthra charadu*), ‘magical amulet’ (*Urukku*) etc. Apart from these, certain food, sugar, chilli, lemon, turmeric, water etc. are also used with magical spells for curing diseases.

Collect details about the magical practices of your locality. Examine its cultural implications and prepare a report.



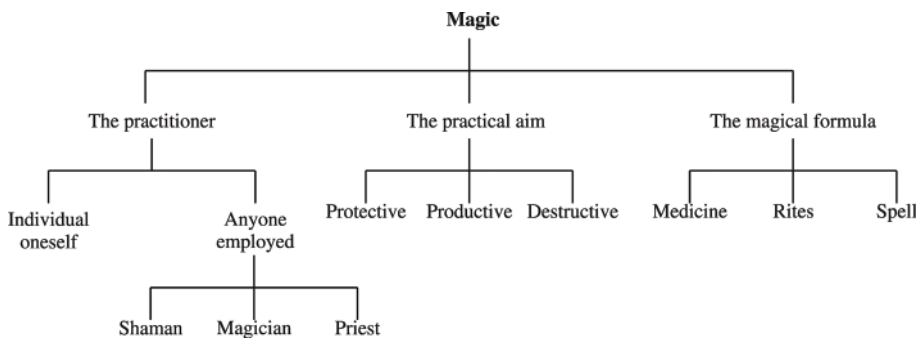
Controlling supernatural power requires different formulas and practices. Performance of this is done by expert specialists to achieve desired results. Thus, as in the case of religion, magic also includes different elements for the fulfillment of its function.

Elements of Magic

According to Raymond Firth (1958: 125-128), magic involves three elements:

- (i) The practitioner
- (ii) The practical aim
- (iii) The magical formula

The following chart shows the three elements and the sub-elements of magic:



The Practitioner: Raymond Firth says that the practitioner of magic may be an individual oneself or a specialist such as a shaman, a magician or a priest.

The Practical aim: The practical aim covers a wide range of objectives. They may be protective in nature such as protecting from the attack of animals, to protect crops, to cure

from illness etc. Amulets, '*manthra charadu*' etc. are some of the protective magical instruments. The objective of magic may be productive such as successful hunting, abundant crops, ample rain and love making. '*Sreechakram*', '*sudarsana chakram*' and '*santhana gopala yanthram*'. are some of the instruments of productive magic. Still other objectives may be destructive because they include the desire to harm one's enemy, loss of others crops and harm to others' cattle. '*Koodothram*' practiced in Kerala is an example of destructive magic.

The Magical Formula: According to Raymond Firth there are three aspects of magical formula: the things used which are known as the instruments or medicines, the things done which are known as rites, and the things spoken which are called spells.

- ◆ The things used or medicines are of several types. The medicines which are used for magic is difficult to prepare or obtain. It is said to be prepared from the contact with supernatural being.
- ◆ The things done or the rites performed are either simple or complex. Magic may involve one rite or a series of rites.
- ◆ The things spoken or spells consist of the verbal aspects of magic. It may be a series of words and phrases, or simply an overt expression of the practitioner's desires. Malinowski says that spell is couched in a specific language. It is secretive, and hence, the ordinary persons cannot understand the spells.
- Have you been part of, or witness to, any magical ceremonies?
- Or have you heard of any magical practices?
- If so, have you understood the purpose behind that magic?



Thachcholi Othenan and Magical Amulet

In Northern Ballad, there is a belief that the mythical legend Thachcholi Othenan escaped from even bullets because he always wore the magical amulet. One of the stories about him is as follows: Othenan was famous for his heroism and courage. He was a warrior born in Thachcholi Manikkoth tharavad, near Vadakara, Kozhikode. He along with his close friend Kandacheri Chaappan used to go for fight. While going for 'Ponnyam fight' Thachcholi Othenan remembered that his magical amulet was left with one of his wives Kunhitheyi/Kunhumatha. Hence he sent Chaappan to collect the amulet. But Kunhitheyi, with her evil intention was not ready to give it back. He continued his journey without amulet for Ponnyam fight. On the way at Chundengapoil, Mayankutty hiding on the way, shot Thachcholi Othenan with his gun. Othenan succumbed to that gun shot. It is believed that the enemy could kill him because he did not wear his magical amulet.

The purpose of the magic can be of different. It is practiced in various ways. Hence according to the objective of magic, it can be classified into different forms.

Forms of magic

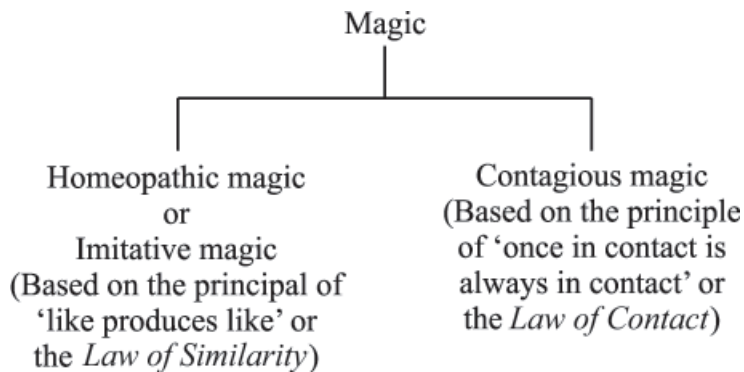
Anthropologists have attempted to classify magic into different forms, based on its different manifestations, practices and purpose. Significant among such classifications were that of James Frazer and Raymond Firth.

James Frazer's Classification of magic

Sir James Frazer classified different magical practices into two forms on the basis of the laws or principles associated with those practices. He found that magical formulae are based on two principles:

- (i) Like produces like or an effect resembles its cause, this is based on the principle of *Law of Similarity*
- (ii) Once in contact always in contact, is based on the '*Law of Contact*', the basic principle of this type of magic.

In Frazer's terms, the magic associated with the law of similarity is **homeopathic magic or imitative magic**. The magic that is associated with law of contact is contagious magic.

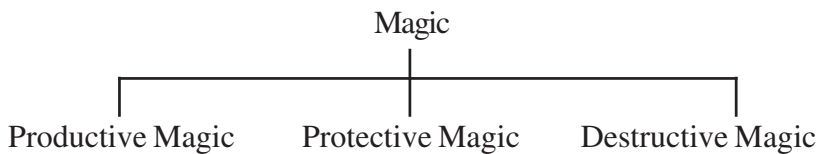


Homeopathic magic is the most familiar form of magic. For example, a magician injures or destroys an enemy by injuring or destroying an image of the person concerned. The belief is that, just as the image suffers, so does the person involved, and that when it perishes, the person would also die.

Contagious magic is the magical sympathy which is supposed to exist between an individual and any severed portion of this person, such as the hair or the nails. Whoever gets the possession of human hair or nails may work on one's will, from any distance, upon the person concerned.

Firth's Classification of Magic

As mentioned earlier, under practical aim as one of the elements of Magic, Raymond Firth classified different magical practices into three forms.



These are based on the aims, the ends or the functions they serve. **Productive** magic do good to the individual, group or community. It includes magic of hunting, magic of fertility, magic of rain making, magic of successful or abundant harvesting, magic of successful fishing etc. Some other forms of magic protect the individuals, group or community. They are called protective magic. **Protective** magic is used to guard property, attain safety in travel, to counter sickness, to protect crops and cattle. All such protective magic is socially approved. **Destructive** magic includes magic to destroy others' property, to produce sickness, to bring death, to create failure of crops and to inflict any other harm or destruction done to plants, individuals, group or the whole community.

Other Classifications of Magic

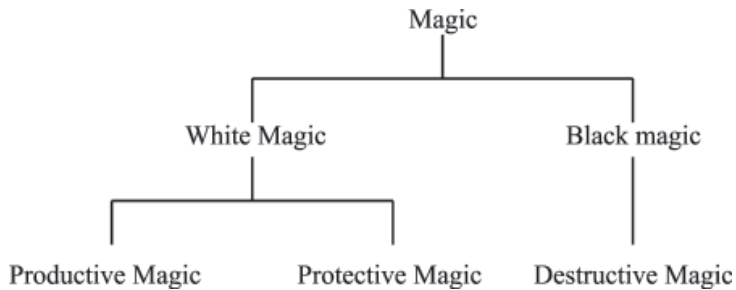
Most anthropologists classify different magical practices into two distinct forms, namely **Black magic** and **White magic**. This classification is made on the basis of the ends to be achieved. The use of magic to deliberately harm or destroy another person, group, community, cattle, crops, property or personal achievements is known as **black magic**. It is malicious and anti-social. The use of magic to do good to another person, group, community, cattle, crops, property or personal achievements is known as **white magic**. It is beneficial to the individual and society. It has social approval. Black magic is used for destructive purpose while white magic is used for productive and protective purpose.



Homeopathic magic

The Oraons of Chota Nagpur believe that thunder, with its rumbling noise, is the direct cause of rain. Therefore, when they want rain, they go to hill top, sacrifice a hen or a pig, and they start rolling stones and rocks down the hill. They expect rain following the rumbling noises created by their action.

Different forms of magic can be summarised in the following diagram:



Some anthropologists have classified magic into sorcery and witchcraft. They treat both sorcery and witchcraft as destructive magic.

Sorcery: It includes several hostile magical practices. The person who performs sorcery is known as sorcerer. The sorcerer may recite a spell, stick thorns into an image of the victim or breath on feathers. Sorcery is acquired. Sorcerer learns special technology to produce supernatural effects. Since the sorcerer knows how to invoke the supernatural to cause illness, injury and death, they are feared by the public.

Witchcraft: Witchcraft is an inborn and often an unconscious capacity to work evil. The person who performs witchcraft is known as witch. Witches are humans with supernatural powers. They are born with such powers. Like sorcery, witchcraft is an attempt to harm others through supernatural means. Witchcraft is a quality of an individual. Sorcery is acquired, but witchcraft is inherited. Witches are distinguished from sorcerers on the basis of power and its origin.

We have been familiarised with two distinct concepts, religion and magic. Both of them are the result of human thought. But in modern times, human thought in a systematic



The Ganda of Uganda believes in witches who also dance naked and who feast on corpses. The Dinka of Sudan believes that witches have tails. The Amba of Africa believes that witches hang by their feet from trees and eat salt when they are thirsty.



Fig. 9.8 Shona Witch – N'anga, Zimbabwe
Source: (<http://wikibooks.org>)

way has given birth to science. Even though all the three concepts involve human thought, its effect in society is different. It would be interesting to know the similarities and differences of these three concepts.



Check your progress

1. Fill in the blanks from the options given.
 - a) is a person with inborn capacity to do evil. (Priest, Shaman, Witch, Sorcerer)
 - b) Most anthropologists classify different magical practices into two distinct forms, namely and (black magic, protective magic, white magic, productive magic)
2. Write a brief note black magic and white magic.

IX. Magic, Religion and Science

In comparison to magic and religion, science is the latest stage of development in the sphere of human thought and action. Science is applied to investigate both natural and social worlds. Scientific knowledge are applied and verified by systematic and logical reasoning. Testability and verifiability is the core of scientific method. Both science and magic are guided by logical reason, the former related with natural world and the later with supernatural world. That is why Tylor called magic as 'pseudo science' or 'bastard sister of science'. The comparative analysis of science, magic and religion are presented below.

Similarities between Religion and Magic

- ◆ Religion is concerned with non-empirical aspects. It cannot be experimentally justified. Magic is also concerned with non-empirical aspects. It is beyond logic and experimentation. It cannot be proved through experiment.
- ◆ Both Religion and magic are concerned with supernatural aspects.
- ◆ Religion and magic involves many kinds of taboos and observances.
- ◆ Religion symbolises with ordinary objects and considers them having religious powers. Likewise magic manipulates with ordinary objects and considers them with magical powers.
- ◆ The functions of religion and magic reduce emotional stresses.

Similarities between Magic and Science

The early and later anthropologists like Tylor, Frazer, Malinowski and others delineated fundamental similarities between magic and science.

- ◆ Science is based on the principle that certain causes are result of certain effects. Magic is also based on cause and effect relations or causations.
- ◆ Both science and magic are governed by a body of principles, specifying how one has to proceed to get the desired results.
- ◆ Science and magic are oriented towards desired goals.

Differences between Religion and Magic

Religion and magic are the two basic techniques of dealing with supernatural. Religion seeks spiritual rapport or is subordinate to animistic beings. Magic is a technique which gains control over supernatural powers. Some of the differences between religion and magic are given below:

Religion	Magic
• Religion is public and communal.	• Magic is confined to an individual.
• Religion is characterised by diversified nature.	• Magic is everywhere uniform in its principles.
• Religion is public and it has congregational aspects.	• Magic is always secret in nature.
• In religion, priest commands respect in the society.	• The magician is very much feared in the society.
• Religion is commonly used for good purposes. It is considered as benevolent.	• Magic is most commonly used for good and bad purposes. it is considered malevolent and harmful for the society.
• Religion is submissive in nature before supernatural.	• Magic controls supernatural forces to one's own favour.

Differences between Religion and Science

Religion	Science
<ul style="list-style-type: none"> Religion is a closed system of belief. 	Science is an open system of thought.
<ul style="list-style-type: none"> Its beliefs are sacred. 	The domain of science is profane
<ul style="list-style-type: none"> They are not to be questioned; therefore they are not open to empirical testing. 	The scientific facts undergo constant questioning and are subjected to empirical testing.

Differences between Science and Magic

Both science and magic depend upon mechanistic procedures. However, while the former deals with natural world, the latter deals with supernatural. Some of the differences between Science and Magic are given below:

Science	Magic
<ul style="list-style-type: none"> Science is guided by reason and corrected by observation. 	Magic is not guided by reasoning. It is considered as 'pseudo science' 'primitive science' or 'bastard sister of science' (Tylor).
<ul style="list-style-type: none"> Science is born of experiences. 	Magic is based on tradition.
<ul style="list-style-type: none"> Science is open to all, for common good of the society. 	Magic aims for both good and bad purposes.
<ul style="list-style-type: none"> Science can be experimentally justified. 	Magic cannot be experimentally justified.
<ul style="list-style-type: none"> Science is based on experiments and reason. 	Magic is based on belief and emotion.
<ul style="list-style-type: none"> Science is based on the conceptions of natural forces. 	Magic is based on supernatural forces. It springs from idea of certain mystic, and impersonal power.



Check your progress

1. Give any three differences between 'Magic' and 'Religion'.
2. Tylor says "magic is primitive science". Try to find out similarities between science and magic

Let us sum up

- ◆ Religion, a cultural universal, consists of belief and behaviours concerned with supernatural beings, powers and forces. Archaeologists have discovered evidence of religious beliefs and practices associated with archaic Homo sapiens, or Neanderthals, that date back to 60,000 years.
- ◆ E.B.Tylor has defined religion as “belief in spiritual being” in 1871. There is no single definition of religion that could have universal application.
- ◆ The religious specialists like shaman and priestess/priest play a vital role to serve as intermediary between supernatural and individuals.
- ◆ Various elements of religion constitute beliefs, rituals, symbols and myths. These beliefs may be animistic, animatistic, naturalistic, totemic or theistic beliefs. Rituals are the action part of religion. Every religion has symbols and myths of their own to represent beliefs and rituals.
- ◆ Anthropological studies have revealed many aspects of religion. Various views regarding the origin of religion exist. Tylor considered animism – the belief in spirits or souls – to be the earliest and most basic form. Later it developed through polytheism to monotheism. According to R R Marett, belief in some impersonal power behind every material objects i.e. animatism is the primary stage of religion. The term Manaism is used especially by Melanesians and Polynesians. In central and north India, the term bongaism is used among some tribal communities.
- ◆ Max Muller emphasises worship of nature as the primitive form of religion. He stresses the evolution of religion from Naturalism through Polytheism and to the current stage of Monotheism.
- ◆ Religion has many functions. It plays a vital role in social integration, social control, providing psychological comfort to individual and group life, explaining the problems of life, etc... That is why religion manifests in different forms in different societies.
- ◆ While religion is the belief in supernatural beings, Magic consists of superstitious acts and beliefs through which individuals try to control supernatural. Different types of magic include white magic or black magic. According to their purposes white magic may be productive or protective while black magic may be destructive. Magical activities may be in the form of sorcery or witchcraft.
- ◆ In comparison to magic and religion, science is the latest stage of development in the sphere of human thought and action. Both science and magic are guided by logical reason, the former related with natural world and the latter with supernatural world. Tylor called magic as ‘pseudo science’ or ‘bastard sister of science’.

The learner demonstrate the ability to

- ◆ Identify the meaning and definition of religion, compare different theories of origin of religion and evaluate different context of its origin.
- ◆ Report the rituals and ceremonies related to magico-religious performances.
- ◆ Compare natural and supernatural beliefs and evaluate their relevance.

Evaluation items

1. How do anthropologists define religion and what are the problems of universal definition of religion?
2. Have you ever gone through a rite of passage? If so, what was it? Have you undergone more than one rite? Single out one of the rites of passage that you have gone through and describe it in terms of Van Gennep's stages of separation, transition and incorporation.
3. One of the major functions of religion is social integration. But in modern societies we can see certain instances of social disruption and conflict due to competition among various religious groups. Try to find out the causes of such problems and suggest how to lead a peaceful life by using religion.
4. Who are shamans? How are they similar to or different from the priests/priestesses?
5. According to E B Tylor 'Animism' was the primary stage of religion.
 - (a) Give a brief note on Animism.
 - (b) Write names of other important stages of religious development.
6. A sportsman keeps a special object in his pocket, and he gets the advantage of it in all of his games. Relate this statement with any of the belief systems you have studied in 'religious organisation' and give a description of it.
7. Give a detailed account of the religious ceremony you have participated in your locality, covering its beliefs, rituals, myths and symbols.
8. What are the ways in which religion establishes and maintain social control?
9. Are religion and science necessarily opposed? What is your own experience with these two worlds?

FOLKLORISTIC ANTHROPOLOGY

UNIT 10

CONTENTS

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Introduction

Naranathu Branthan, a mythical lunatic, who was one among the twelve progenies of a Parayi from a brahmin. He was the most popular among the 12 children of Parayi (Parayipetta Panthirukulam), and a man with unusual talents. At the same time he was a social revolutionary who fought against the social evils and blind beliefs that prevailed during the period. Those who



Fig.10.1.Naranathu Branthan- an artistic picturisation

were unable to understand his revolutionary view points, called him mad. Many fabulous stories are in circulation with Naranathu Branthan. One among it says his hobby was to roll a boulder to the top of the hill and push it down from the top.

What message does this story convey?

Was it to teach the people that it was very difficult to gain, but very easy to lose?

Do the stories like these have any influence on the cultural life of people?

There are several similar stories, songs, proverbs, sayings and beliefs in every society. These are our cultural remnants which definitely influenced the social and cultural life of people. Similar myths, legends and stories are found in all cultures which enculturate a population informally. In fact these traditions make each culture distinct from the other. These were orally transmitted from generation to generation, but now they are documented and recorded with an attempt to preserve it. The knowledge and beliefs once orally transmitted are popular under the title 'folklore'.

Almost all of us had heard about the word folklore in different contexts. Folklore brings to our minds the *theyyam*, *thira*, *ballads* and other forms of performing arts. But folkloristic anthropology as a discipline is much more than this perception. Earlier, folklore was considered as part of anthropological enquiries. Anthropologists, as part of their ethnographic studies had collected details of folk beliefs and customs of indigenous cultures. Thus folkloristic - the study of folklore - is an inseparable part of anthropological investigation. Later the subject was independently developed utilising the resources and methods from anthropology. Even though folklore as a discipline has emerged independently, it still remains as inseparable part of anthropology. The limitation of folklore has been reflected in its earlier notion that it deals with 'popular antiquities'. Earlier, scholars of folklore included only oral tradition under folklore, but now the other aspects of tradition has also been incorporated. In the present context, majority of the folk traditions have been recorded and folk performances been documented. Hence, contemporary folkloristic anthropology not only covers the literature orally transmitted but the other traditions as well.

However, what does the term folklore actually mean? An understanding of different definitions of folklore will help us get a comprehensive perception of the concept.

I. Meaning, Definition and Scope of Folklore

The word folklore originated from two words 'folk' and 'lore', which were used independently. The word folk is used to denote 'indigenous, traditional or related to

agriculture', and the word 'lore' means knowledge. The word 'folklore' was first used by William J Thoms in 1846. Earlier it was known as 'popular antiquities' and 'popular literature'. But later it was replaced by 'folklore'. According to W.J.Thoms, the manners, observances, superstitions, ballads, proverbs and so on of the olden times were included in folklore for fear of being extinct. The concept of folk and folklore have undergone various changes and modifications over these years.

Folklore consists of beliefs, customs, drama and dance, art, craft, painting and sculpture belong to the past which are handed over from generation to generation. With the development of modern society they are at the edge of extinction. **Folklore of every society consists of folk literature, folk beliefs and practices, folk games, folk art, and folk science & technology.**

Definition of Folklore-Old and New

Attempts have been made by anthropologists and folklorists to define folklore. First of all let us examine the earlier definition of folklore.

"Folk as a great proportion of the members of people that determines the group character and that tends to preserve its characteristics form of civilisation and customs, arts and crafts, legends and traditions, and superstitions from generation to generation"- Webster's dictionary

"Folklore includes the manners, customs, observances, superstitions, ballads, proverbs and so on of the olden times which were transmitted orally from generation to generation"- William Johns

Folklore is once regarded as the lore of the folk, where folk means the 'uneducated', 'pre-literate', 'uncivilized', 'primitive', or 'backward' people.

Folklore is also considered as the survivals of some old time culture, a thing of the past.

William Bascom, an anthropologist of the University of California believed that "verbal art" was a better phrase than folklore.

Folklore is a 'mirror of culture', but not a dynamic factor in it, a projection of basic personality, but not personality in action. (Amos: 1982)

Most of the early definitions of folklore stress on the importance of oral tradition, tradition of folk people, or 'uneducated' people. These definitions of folklore raise many questions in our mind.

- ◆ Does folk art and craft, which forms an important part of folk culture, come under folklore?
- ◆ Have the oral tradition of educated people and city dwellers been included under folklore?
- ◆ Do the oral traditions of past which are recorded and documented now come under the category of folklore?
- ◆ Do the beliefs, values, character and stories created by the modern people come under the category of folklore.?

Anthropologists try to consider folklore as a part of culture. As folklore is a cultural universal it is found in all cultures of the world. In every society, whether it is urban or rural, developed or undeveloped exists some traditions which are informally transmitted from one generation to the other. So scholars tried to redefine folklore in the modern context.

Modern Definitions of Folklore

Alan Dundes, the famous anthropologists and folklorist defined folklore on the basis of folk and lore. To him folk is any group of people who share at least more than one common characteristic. The common factor may be a common occupation, language or religion. All their common characteristics are considered as folklore. Hence a nation or a family also becomes a folk and its knowledge becomes the folklore.

'Folklore is the reflection of culture, both past and present'- Franz Boas, American Anthropologist

Folklore is the 'unwritten popular traditions of civilized countries'- William Wells Newell.

The beliefs, knowledge, values, morals, and traditions which are transmitted orally from generation to generation, are considered as folklore in early times. In non-literate societies the cultural base requires oral traditions for transmission of culture, where written tradition is absent. Along with that the oral tradition of literate people can also be included under folklore. For instance, how to brush the teeth, how to sow the seed, how to plough the field, how to manure it, how to pray, beliefs associated with supernatural, traditional way of preserving food, indigenous knowledge associated with disease of literate societies which are transmitted orally from generation to generation can also be included in folklore.

Controversy also exists on whether some elements of folklore which are written can be included under folklore. For example, poem in palm leaf, proverbs, riddles, folktales and folksongs, chilapathikaram, kathasarithsagara, panchthanthra and epics like Ramayana

and Mahabharata have appeared in text books. In actual practice, we cannot say that they are not folklore only because they are written. Most of them have originated and transmitted orally. The folksongs presented through radio, television are composed and written by modern artists, but characteristically differ little from those preserved by oral tradition. Hence they are also included under folklore.

Likewise the word 'orally' also cannot be accepted fully. The folk dances, art, craft and folk painting, sculptures are neither oral nor products of written cultural tradition exclusively. One has to learn and acquire the know-how of these elements of folklore through imitation observance and in some cases rigorous training. Thus we can say that folklore is not merely 'literature transmitted orally' but also includes cultural elements like arts, crafts, beliefs and customs.

There was also a belief that folklore was developed in 'primitive', 'savage', 'barbarian', 'illiterate' societies and that it disappeared when the society became 'civilised'. But according to Dundes, there is urban folklore also. To him any group can be a folk with its own sets of traditions (tales, songs proverbs, games, slang etc.) A campus community, a military group, an office each is a folk and has a folklore. In modern times new folklores emerged in urban areas and diffused into rural areas. For example, new heroes like spider man, batman, superman, phantom, mandrake, etc have emerged in urban cultures. New heroes were being created and they substituted the traditional heroes.

We have examined the different perceptions underlying in the definitions of folklore. Is there any universally accepted definition which accommodates elements of old and new folklore?

Examine the features of folklore underlying in the definitions and prepare a chart.

Make a definition of your own incorporating all the features of old and new folk -lore.



Check your progress

Fill in suitably

- A group of people who share at least more than one common characteristic is called.....
- Folklore is found in all cultures of the world. Hence it is a cultural

Folklore plays an important role in the cultural life of people. Anthropology which studies the culture of people cannot ignore the importance of folklore in shaping the culture. Anthropologists from the very beginning started to study folklore as a part of culture even before folklore as a separate discipline was formed.

Folklore and Anthropology

Anthropologists consider Folklore as a part of culture. Study of culture will be incomplete without the knowledge of folk traditions. The knowledge, beliefs and values of a society play an important role in determining other aspects like marriage, family and economic organisation. Folklore is the pulse of the culture. Anthropologists try to understand these pulses by going deep in to the culture. Hence it is the duty of any anthropologist to describe the folklore of a given society while documenting, preserving, and popularising the culture.

Differences of opinion exist among anthropologists and folklorists regarding the scope of both disciplines. Earlier anthropologists like James Frazer, E.B Tylor and Franz Boas were the pioneers in folklore studies. William R Bascom a leading folklorist and anthropologist stated that, folklore belongs to the branch of cultural anthropology. When an anthropologist goes to the field and records the culture of a particular people, such cultural studies will be incomplete if they do not record the folktales, legends, myths, riddles, proverbs, and other forms of folklores of the people under study. However, the modern folklorists hold the view that folklore has emerged as an independent discipline.

Folklore has now developed into an independent discipline. However no discipline is an island, hence inter-disciplinary approach is necessary for the development of any discipline. The structural analysis of myth and totems, devised by anthropologists are still widely utilised by folklorists. It shows that, though there are differences existing among anthropologists and folklorists, it only exists in terms of objectives and approaches, not in terms of the study area and content.

Franz Boas, the American anthropologist utilised folkloric tradition to understand the origin and development of primitive groups. He collected folk myths, legends, tales, riddles, art, magic, song dance, traditions, customs and ceremonies of American tribes to understand their culture. He founded The Institute of American Folklore Society in 1888. He became the editor of 'Journal of American Folklore' in 1908.

S.C.Roy, the father of Indian ethnography, considered folklore as "pre-history of human mind". He emphasised the importance of collecting and preserving folk traditions

because they are the treasures of our past, handed down from generation to generation. L.P.Vidyarthi considers folklore as a subfield of anthropology. According to him folklore is the traditional heritage continuing generation after generation. He edited the book 'Folklore researches in India' and he became the editor of the journal 'folklore'

Anthropologists who were part of British administration in India contributed much towards Indian folklore. Verrier Elwin came to India before independence was attracted by the tribal life of central and north eastern region. He later became the adviser to Jawaharlal Nehru in tribal affairs, Folk studies of Elwin include *The Baiga* (1939), *Folktales of Mahakoshal* (1947), *Folk songs of Chattisgarh* (1947) and *Tribal myths of Orissa* (1954). A.R.Radcliffe Brown's *The Andaman Islanders* is the output of the analysis of Andamanese myth, legend, folktale, customs, rituals and practices.

These scholars utilised folklore as a part of their ethnographic studies. Later on a separate branch of study developed to deal with folklore itself.

Concept of Folk and Lore

Earlier folklore was defined as the 'lore' of the 'folk'. 'Folk' stands for indigenous, traditional, related to agriculture, uneducated, pre-literate, uncivilised, primitive, or backward people. The word 'lore' means knowledge. Thus folklore was then limited to the tradition of uneducated or preliterate societies.

Modern concept of folk is different. In the words of Alan Dundes folk may be a small unit like a family or large unit like a nation, different religions, and geographical areas, cultural, regional or ethnic groups. Thus in India, we have Indian folklore, comprising folklore of different states such as Kerala folklore, folklore of different castes, occupations, ethnic groups and 'when a new group emerges a new folklore is created'. A person can be a member of many folk groups, like caste groups, religious groups, Indian folk groups, Kerala folk groups etc. Thus in modern concept, folklore includes the tradition of modern, literate, civilised and urban societies as well as the tradition of pre-literate, uneducated and rural societies.

Folkloristics

Study of folklore is known as Folkloristics. Folklorist is a person who studies folklore. Folklore as a discipline began in the 19th century. It has been studied from different viewpoints. Earlier folklore was studied as part of ethnographic research. Thus folklore became an indispensable part of anthropological research and ethnographic accounts.

Anthropologists consider folklore as product or part of culture. They view folklore as 'people's autobiographical description'.

There is a confusion regarding folklore and folkloristics. Alan Dundes tried to solve this issue by proposing a solution. According to Dundes the term folklore is used to denote 'lore of the folk' which represents materials and facts. Folkloristics is used to denote 'lore about the folk' means the study of materials and facts. However, it has to be noted that the scope of folklore covers folkloristics. In that sense folklore is a general term with wider meaning and folkloristics is particular term with limited meaning.

The life and culture of society can be seen in the folklore of a society. To identify the native life one has to understand the different elements of folklore like folk literature, folk beliefs and practices, folk games, folk art, folk science and technology etc.

II. Folk literature

Folk literature consists of folk songs, folktales, myths, legends, proverbs, riddles, ballads, blessings, curses, simile and metaphors, nicknames, history of place names (Stalapuranas), oaths, greetings and fables. Some of them are passed to the next generation orally and some others are preserved in script.

Folk songs: It forms an important part of folk literature. Folk songs draw their themes from religion and mythology, agricultural operations like sowing and harvesting, incidents in social life like wedding, beauties of landscape and even heroic activities etc. These songs reflect joys, sorrows, hopes and aspirations of the common people. In Kerala, the songs related to the origin of theyyam, thira, kalamezhuthu, moral songs, vanchippattu, villadichanpattu, vadakkan pattu, thekkan pattu, mailanchi pattu, vattakkali pattu, oppana pattu and margamkali pattu come under this category.

The famous folk song which deals with the golden age of the legendary king Mahabali is famous in Kerala. This folk song is sung on the occasion of Onam.

Maveli nadu vanidum kalam.....

The labour classes have also their own songs to ease their works like

Pitiyeda mone - Eyyilassa Othupidichal- Eyyilassa.....

Folk tales: Folktales are the stories depicting courage, bravery, moral values, good manners and reverence to supernatural are transmitted through generations. It consists of fairy tales, animal tales, magical stories, humorous tales and moral stories. Folktale functions

as an informal way of enculturating generations especially among the rural folk. The folktales popular in Kerala include 'parayipetta panthirukulam', tales of Kayamkulam Kochchunni, Viruthan Sanku, stories related to the origin of theyyam, thira, and stalapuranas. 'Aitheehyamala' by Kottarathil Sankunni is a treasure house of folk tales in Kerala.

Myth: Standard dictionary of folklore defines myth as a 'story' presented as actually happened earlier, explaining the nature and supernatural, tradition of people, their gods, heroes and religious beliefs. They usually provide a justification for religious beliefs and practices. These are conveyed in the form of stories from elders to new generation. Myths represent fundamental beliefs and values of the culture. In pre-literate or simple societies myths are real part of their social cultural environment. They reflect the interest of the group and lead the new generation to imitate the examples represented in it. Several myths exist in India regarding the origin of different castes.

Legends: Legends are stories narrated in such a way as if it actually happened. Commonly legends consist of pseudo historical narrations about the heroism of leaders and establishment of customs. They are the mixture of realism and supernaturalism. They may or may not be truth but are used to entertain, inspire, or convey values to next generation.

Legends cannot be attributed to any author. They are usually explained as if they were from real life. Heroism of their ancestors or gods is conveyed through this. Long legends in rhythmic prose or poetry are known as epics.

Proverbs: Proverbs are traditionally existing morals or advices 'in brief statements'. They originated from the live experience of early people. They are transmitted from generation to generation orally. Proverbs will be meaningful only when they are used in suitable situations. Proverbs critically analyse the society and reveal the truth behind it and applicable in a particular context. For example 'mindapoocha kalamudakkum' (silent cat will break the pot), 'kakka kulichal kokkakumo' (crow will never become a crane even after continuous bath), rolling stone gathers no moss, pride goes before a fall...etc.

Riddles: Riddle is a statement, question or phrase having double meaning. Riddle is an important entertainment activity that caters intellectual development among children. 'adi paara, nadu vadi, meethe kuda' (Chena) is an example for riddle.

Anecdotes: Anecdote is a short and amusing or interesting account of a real incident. In anecdotes, the place and person involved is identifiable. Story of Kayamkulam Kochunni is one of its kinds.

Ballads: Ballads are narrative set to music songs in simple stanzas related to heroes of past emphasising their qualities. Vadakkan pattukal (Northern ballads), Thekkan paattukal

(southern ballad), *puthuram pattukal*, *thacholipatukal*, *iravikkuttipillaipattu* and *valiyathampi-kochuthanpi patukal* are famous ballads in Kerala.

Activity

Collect the folk songs, folk tales, myths, legends, proverbs, riddles, anecdotes and ballads of your area and prepare a magazine for the class



III Folk Beliefs and Practices

There are several peculiar beliefs, taboos, and superstitions prevalent among all classes of people and they have become a part of social behaviour. It includes the belief in omens, ayitham (untouchability), eettum mattum, rahukalam, vinayaka chaturthi, horoscope, muhoortham, (auspicious time), vasthuvhidhya, illness caused by the ghost, evil eye or black tongue. Omens include good and bad omens. Good omen consists of seeing cow, pot full of water, married women etc. and bad omen consists of fuel, snake, empty vessel, broom stick ...etc. In Malabar, it is believed that the loss of appetite and sudden illness in children are the result of evil eye. As a cure for this, mothers mix chillies, mustard and salt, wave it three times in front of the baby and throw it into the fire.



There are many folk beliefs and practices.

- Children are not allowed to play by looking at their shadows as it is believed to be an indication towards illness.
- Pregnant woman are not allowed to go outside after 7th month of pregnancy and in the first few days after child birth, due to the belief that they are easily amenable to be possessed by the evil spirit or ghost. If they are compelled to go outside they have to keep a piece of iron with them

Folk practices include day to day practices and occasional practices. Day to day practices include folk beliefs, customs, superstitions, rites and rituals, folk festivals, beliefs associated worship in temples, churches and mosques, offerings to god, prasadam, nercha, pradakshinam vekkai, tirtham etc. Occasional practices are performed mostly in times of crisis in life. Aattukaal pongala, elavoor thookkam, kaavadi etc. are some of the occasional practices related with folk beliefs.

IV. Folk Games

Folk games play an important role in entertainment and recreation of people in rural areas. It is treated as pastime activity both by children and elders. It directly or indirectly contributes towards co-operation among members, solving of problems, learning the values of culture and personality development.

Folk games include **day to day games** and **occasional games**

- (a) **Day to day games** include those traditional types of games in which the children are engaged. In Kerala some of the games are thalappanthukali, gottikali, kuttium kolum, kakkukali and valappottukali .
- (b) **Occasional games** are played on special occasions related to rituals or festivals. It may be folk sports, fighting competitions of animals and birds. . . etc. In Kerala such occasional games include vallamkali, poorakkali, thiruvathira, margamkali, oppana, pulikali, kozhipporu, kalapporu and aanayottam.

V. Folk Arts

Folk art is the manifestation of the creativity of people in the form of drawing, costumes and dances. Folk art includes performing and non performing arts.

Performing art include folk dances, folk dramas (they are also literature) rhyming and rope-jumping, folk caricature, folk gestures etc. Performing art in Kerala include, theyyam, padayani, kolam, aadi-vedan, koothu, koodiyattam, and thookkam.



Fig.10.3. Kalamezhuth (Sarpakkalam)

Non- performing art include folk paintings, sculptures, art, craft, making dolls or images of gods and goddesses, drawing on grounds or door steps using rice powder, body painting, and tattoo marking. In Kerala kalamezhuthu, kolam, mughatheuthu, making costumes of theyyam and kathakali, architectural work like mural paintings, wood carvings (especially in temples) making aranmula kannadi are some of the best examples of non-performing art.



Fig.10.2. Muchilottu Bhagavathi Theyyam, a performing art in Malabar areas of Kerala.

VI. Folk Science and Technology

Folk Science: Folk science means the traditional knowledge or the interpretations of the common people about the various things happening around them. Their knowledge regarding natural phenomenon, diseases and treatment (folk medicine), preservation of

fruits and vegetables, food recipe, concept of hot and cold food, agriculture, colouring of cloth, vastuvidhya(science of architecture), knowledge of stars and heavenly bodies come under folk science.

In Kerala knowledge regarding 'njattuvella', local knowledge of manuring plants, knowledge of season for sowing and harvesting, knowledge regarding the medicinal value of plants, treatment, method of fermentation are features of folk science.

Folk technology: Folk technology is the application of folk science. It includes folk architecture, technology of making houses (Nalukettu, Agraharams etc), fences, net for fishing, carts, palanquin, boat, (Bepoore uru, snake boat etc.) ornaments, smoking pipes, pottery, bags, weaving and cooking .

Prepare a seminar paper on the topic Folk lore of Kerala. (a) folk literature (b) folk art (c) folk games (d) folk beliefs and practices (e) folk science and technology are to be included in the seminar paper).



Collect details of folk arts from your locality and utilising web resources prepare a digital presentation.



Check your progress:

1. Find the odd item and justify your answer
 - (a) Bharathanatyam, Oppana, Odyssey, Kathakali
 - (b) Kalamezhuthu, Kolam, Theyyam, Mural painting
2. Say true or false
 - a) Theyyam is a performing art.
 - b) Long Legends in rhythmic prose, are known as epics.

We could see that folklore is a cultural universal. It exists in all societies whether it is civilized or uncivilized, illiterate or educated, rural or urban. Even the literate societies have their own traditional knowledge, beliefs and practices transmitted orally from generation to generation. The concept of folklore is undergoing changes. When a pre-literate society becomes literate, they cannot ignore their traditional knowledge and beliefs. Hence the concept of folklore also undergoes changes.

The knowledge of folklore is widely used in many contexts, without considering the importance of its rituals. For instance:

- ◆ Theyyam a ritual performance in kavu in Malabar area of Kerala is also utilised for advertisements, marketing and tourism purpose.
- ◆
- ◆

Collect similar instances from your surroundings and analyse the reason behind the use of such folk traditions. Discuss your analysis in your class.

Applications of the folk traditions for different purposes without its ritualistic aspects can be seen in different fields. Such applications are discussed in applied folklore.

VII Applied Folklore

Application of folklore in various situations to project and propagate different messages is known as applied folklore. The beliefs and values of a culture are important tools for influencing the mind of people. It is widely used in the fields of advertisement, marketing, tourism, education, health and so on.

In the era of globalisation and liberalisation the world market has provided wider perspectives for such ethnic traits. Now-a-days folk knowledge and beliefs are often utilised for popularisation and marketing of products.

The fanciful advertisements largely used in introducing and popularising the product, show the commercial application of folklore. The pictures or images such as that of 'theyyam', 'Mahabali' etc are utilised for advertisements of different products. The forms of theyyam and thira are used in the context of advertisement of the programmes of different trade unions and political parties. Folk medicines like Ayurveda, tribal medicine and art forms like theyyam, thira and kalari are used for promoting tourism. Villadichanpattu, a performing art, is widely used to propagate family planning. Folk literature printed in text forms are used for formal education. Application of folklore also extends to the promotion of harmony in the society.

See the following advertisement: "Purchase gold on Akshaya Thrithiya for prosperity". Collect similar advertisements utilising folk beliefs and discuss how they induce common people. Present discussions and reports in the class.



While interacting with the people of different cultures, their cultural peculiarities need to be understood. The beliefs, rituals, manners and food habits of different people are shaped by their tradition. So we have to understand the folklore of others. Sometimes the morals, customs, behavioural patterns of other cultures may be different or strange. The welcoming gestures, for instance, may vary cross culturally. The knowledge of this tradition will help us to be relativistic while interacting with other cultures.



Fig. 10. 4. Welcoming gestures from different cultures.

Folklore can be effectively utilized in problems related to medical practices. By incorporating the services of the traditional medicine practitioner, the role of the doctors are ensured and the traditions is upheld among the Navajo. The patients are more at ease and are more willing to believe that actual treatment is taking place. In such cases the doctors are utilise traditional folk beliefs and practices.

Most of the elements of folklore like folk art, folk games and folk songs. are now on the verge of extinction because all cultures are undergoing rapid changes. Along with that the values and morals imparted through them are also degenerating. For example, in the past, most of the agricultural activities were associated with 'agricultural songs', but now most of the people have turned their attention towards white collar jobs and even agriculture has become a mechanised activity and most of the songs associated with agriculture are now disappearing. Here lies the importance of documenting the elements of folklore, and preserving it for future generation.

Folklore Documentation and Archives

Documentation of folklore is important because folklore is undergoing fast changes. So the details of folklore must be documented to preserve it. Recording of the ideas,



Do we need to know each other's folklore?

We simply need to know each other's folklore, before we interact with each other's cultures. An American needs to know that an Arab man will probably stand much closer to another man while talking to him, than the American is used to. If the American interprets this is an aggressive gesture, or if the Arab interprets the American's distance as unwillingness to speak, it suggests that any delicate conversation between these two people will not take place properly.

beliefs, and practices, whether in print, digital or other ways is generally known as documentation. Thus preserved record is known as document. With the development of mass media and interest to preserve the traditional culture, majority of folklore are being recorded or documented. Most of the archives now contain the literature on folk people, their art and craft.

Major objectives of folklore archives are given below.

- ◆ To preserve and promote the folk tradition.
- ◆ Promote the welfare of folk artists.
- ◆ Popularise different folk forms.
- ◆ Make it available to local people to understand their cultural heritage.

Documented items must be kept in the archives according to catalogues and preserved accordingly. While documenting folklore, care must be taken to record all elements of folklore in its cultural context. Because folklore separated from culture will be meaningless. Documenting of theyyam performance will not help to satisfy the above objectives, if it is not recorded in cultural context.

It is also important to popularise folk forms. Different media are helping in this regard in popularising and disseminating folk forms are done mostly with the help of mass media.

Mass Media and Folklore

With an attempt to preserve and popularise folklore many elements of folklore are recorded in different media, vocal or visual, oral or written. Presentation in variety of these ways help to make it available for the general public. It can be in the form of published works, like books, diaries, newspapers magazines and research publications. Media like radio, television, cinema, exhibitions associated with schools and colleges also help to popularise folklore. Archives as centres of tourism will help to promote tourism as well as universalise folklore. However while doing all these care must be taken to avoid misinterpretation about folklore.



Kerala Folklore Academy

Kerala folklore academy established in 1995 located at Chirakkal of Kannur the northern district of Kerala. The welfare of folk artists is the prime concern of this academy. The academy also strives for reviving, preserving and promoting the rich folk art traditions of Kerala. The academy functions in traditionally built structure called *Nalukettu* and presently have a folk library and a folk museum and publication department

'Welcome to God's own country'

Kerala Tourism Department

Folklore and Tourism

The tourism economy has a direct connection with the territory, the place where culture and cultural diversity exists. The relation between culture, especially folklore events, and tourism has given birth in the last decade to a new trend that is cultural tourism. Folklore has been aptly utilised for the propagation of tourism.

Cultural tourism is a part of tourism industry that emphasises mainly the cultural attractions. Cultural attractions include traditional rituals, popular art, cultural performances, religious ceremonies and folklore events. Cultural tourists, out of curiosity, travel with an intension to find out cultural diversities.

Kerala is one of the famous tourist spots, because of its cultural diversity and uniqueness. The various cultural attractions in Kerala include Trissur Pooram, Poorakkali, Pulikali, Theyyam, Thira, Vallamkali, Kathakali, Kalari and indigenous medical treatment. Celebration of tourism week during Onam festival also attracts many tourists. These are some of the instances of using folklore to promote tourism.

Folklore has been aptly utilised in imparting informal education. The morals, values attitudes and behavioural pattern are transmitted through folklore. Most of the folk sayings reflect gender discrimination prevailing in society. Even though the society considers it as their tradition, they are unaware of the gender discrimination existing in the society.



Devakkooth is a unique theyyam performed by women at Thekkumbad in Mattul grama panchayath of Kannur district in Kerala. The myth behind the performance is that a group of six Devatas from heaven came to pluck flowers to Thekkumbad kulam premises and one among them lost her way and she could not go back with others. The residence built a small hut for her and made her to stay there for three days. All these days she prayed to Narada who came on the third day with new clothes and took Devata back to her abode. It is in memory of that day, the Devakooth is being performed by the people of Thekkumbad.. The whole song (thottam) sung by the Devata during Devakooth is about different varieties of flowers they saw into garden and how she lost her way. Narada enters the scene towards the end.



Fig. 10. 5 Devakkoothu-a theyyam performed by a female performer.

VIII Gender in Folklore

You can find out gender discrimination in folk sayings, folk performances and proverbs. For example:

- ◆ *puthanachi purappuram thookum* (The new lady at the in-laws' house tries hard to impress)
- ◆ *pennorumbettal* (Once a woman venture out)
- ◆ *minda poocha kalamudakkum* (Silent cat will break the pot)

Is there any such proverbs specific to men?

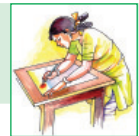
What does it indicate?

Does the society having these proverbs give adequate consideration for women? - Discuss it in your groups.

Women play an important role in the transmission of culture. They work along with men in upholding the traditions in the society and occupy a separate space in the oral tradition. Women studies in folklore are still a marginalised area in cultural studies. Anthropologists tried to perceive the cultural practices from the point of view of women also. Women being a marginalised section in the society have not been given top priority either in cultural study or in folkloristics.

A closer analysis of folk beliefs, rituals, practices, legends, proverbs and riddles would reveal how women were addressed and treated in the social walks of life. In many occasions, though the theme of folklore is related to women it is performed by males. For instance, in Malabar, many of the Bhagavathi theyyams like Muchilottu Bhagavathi, Thamburati, etc. are performed by male performers. The 'Devakkoothu' in Thekkumbad in Kannur district of Kerala is an exemption, in which a female performs the theyyam. Likewise while imparting informal education parents and elders instruct girls not to raise their voice, not to sleep after sunrise, have the food after giving to male members etc. No such restrictions are imposed on the males.

Find out instances of gender discrimination from your locality and present in your class.



Let us sum up

- ◆ Folklore is a cultural universal, i.e. it is found in all cultures of the world. Folkloristics - the study of folklore - is an inseparable part of anthropological investigation. Earlier

it was known as 'popular antiquities' and scholars of folklore included only oral tradition under folklore, but now the other kinds of tradition have also been incorporated.

- ◆ Anthropologists consider Folklore as a part of culture. Earlier folklore was defined as the 'lore' of the 'folk'. Hence, folklore was then limited to the tradition of 'uneducated' or pre-literate societies.
- ◆ Modern concept of folklore is different, which includes the tradition of modern, literate, civilised and urban societies as well as the tradition of pre-literate, 'uneducated' and rural societies.
- ◆ Folk literature consists of folk songs, folktales, myths, legends, proverbs, riddles, ballads, blessings, curses, simile and metaphors, nicknames, history of place names, oaths, greetings and fables.
- ◆ There are several peculiar folk beliefs, taboos, and superstitions are prevalent among all classes of people and they have become a part of social behaviour. Folk practices include day to day practices and occasional practices.
- ◆ Folk games play an important role in entertainment and recreation of people especially in rural areas. Folk games include day to day games and occasional games.
- ◆ Folk art is the manifestation of the creativity of people in the form of drawing, costumes and dances. Folk art includes performing and non performing arts.
- ◆ Folk science means the traditional knowledge or the interpretations of the common people about the various things happening around them. Folk technology is the application of folk science. Application of folklore in various situations to project and propagate different messages is known as applied folklore.
- ◆ Documentation of folklore is important because folklore is undergoing fast changes. So the details of folklore must be documented to preserve it.
- ◆ Though women play an important role in the transmission of culture, gender discrimination can also be seen in folklore.

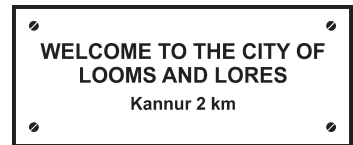
The learner demonstrate the ability to

- ◆ Differentiate folk performance and knowledge, from that of the modern and distinguish old and new folklore.
- ◆ Appreciate the relevance of folklore, the life and culture of natives and identify the folk culture of locality.

- ◆ Evaluate critically the possibility of folklore in practice (applied folklore) in the changing globalised world.

Evaluation items

- Find the odd item and justify
 - Mohiniyattam, theyyam, kathakali, kuchuppadi
 - Mappilappattu, vadakkanpattu, classical song, folk song
 - Folk dance, margamkali, oppana, mohiniyattam
 - Padayani, theyyam, kathakali, thira
- Folk beliefs and practices existing in Kerala indicate the lower status of women. Do you agree with this statement? Justify your answer with suitable examples.
- Do you agree with the performance of folk arts like theyyam in stages for the purpose of documenting it?
- Look at the sign board and how will you explain the importance of it to a tourist.
- Write a folk song and analyse its importance in the social cultural life of people.
- Give a description of the folk performance in your locality and explain how it is concerned with the beliefs and practices of local culture.



GLOSSARY

Abbevillian	: Relating to an early Lower Paleolithic culture of Europe characterized by bifacial stone hand axes.
Absolute dating	: A method of dating fossils in which the actual age is measured. Also known as chronometric dating.
Acculturation	: The exchange of cultural features that results when groups come into continuous first hand contact; the cultural patterns of both groups may be changed, but the groups remain distinct.
Acheulian	: A stone tool making tradition, most prevalent tools in the Acheulian tool kit is the hand axe, which is a bifacially flaked tool with a thinned sharp tip.
Adjudication	: The process by which third party acting as judge and makes a decision
Aerial Survey	: The various techniques of taking photographs of natural or cultural features from the air, using balloons, airplanes, satellites, and other sources, in order to study the features in their entirety from a top-down (bird's eye) view.
Allele	: One number of a pair of gene
Amphibians	: Cold-blooded animals that usually split their time between land and water
Analogy	: Similarities between organisms
Animism	: Belief in spirits or souls
Anthropoids	: One of the two sub orders of primates includes monkeys, apes and humans
Arboreal	: Adapted to live in trees
Archaeological anthropology	: The study of pre historic culture through remains left by ancient humans.
Archeozoic	: The first two-thirds of Earth's history are called the Precambrian (meaning "before the Cambrian". It is also known as the Archeozoic Era.
Artifact	: An object that may or may not be modified through the working of humans, but bears use mark.
Assemblage	: A collection of pre-historic artifacts in one region.
Association	: Association refers to a group of persons formed with a specific objective or a set of objectives.
Aurignacian	: A culture period of the upper Palaeolithic; probably beginning of upper palaeolithic art.
Australopithecus	: The extinct genus of Plio-Pleistocene hominid found in South East Asia
B.P	: Before Present; used in age determination instead of B.C. or B.C.E. "Present" is academically defined as the year 1950 (the year when this term was invented).
Balanced reciprocity	: Giving with the expectation of a straight forward immediate of limited time trade.

Band	: A small nomadic group that is politically autonomous
Bifacial tools	: Stone tools that have been worked on both sides and faces, meaning that flakes have been intentionally (not naturally) chipped off from both sides of the stone.
Bipedalism	: Locomotion in which an animal walks on its two hind legs
Blade tool	: A parallel-sided flake at least twice as long as it is wide
Bride price	: Payment given by groom's parents or relatives to bride's parents or relatives
Cambrian	: The first period of Paleozoic
Canines	: Cone shaped teeth behind the incisors
Carbon 14 dating	: An absolute dating method of an organic specimen by measuring the loss of radioactive isotope C ¹⁴ .
Carboniferous	: Fifth period of the Palaeozoic; the first reptiles appear during this period
Caterrhines	: The group of anthropoids with narrow noses and nostrils that face downward.
Cenozoic	: The present era; the era following Mesozoic.
Ceremonial exchange	: Exchange of goods during ceremonies
Chromosome	: Threadlike, gene carrying body consisting of 1 or 2 DNA molecules
Clan	: A set of kin whose members believe themselves to be descended from a common ancestor
Codified laws	: Formal principles for resolving disputes in heterogeneous and stratified societies
Community	: A group, small or large, whose members live together in such a way that they share the basic condition of common life.
Core tool	: Stone reduced by flake removal
Cranium	: Complete skull
Cretaceous	: Final (third) period of Mesozoic; dinosaurs become extinct; probable appearance of first primates
Cultural relativism	: The attitude that a culture should be judged by its own norms and values because the values and standards of cultures differ from one another.
Culture Complex	: A group of traditions under a single culture in a cluster of sites in a geographical area.
Culture complex	: When a large number of culture traits combined together to form a meaningful segment of culture it is called culture complex.
Culture lag	: It is the difference between the development or change in material culture and non material culture. Material culture always develops faster than non material culture.
Culture shock	: Problem of adjusting in a new cultural situation, strange beliefs, foods habits and unknown language. A feeling of being alienated in a new situation.

Culture trait	: Smallest functional unit of culture
Culture	: In archaeology, culture means the tradition of a broad period. It is the assemblage of industries made by the people of a same group. In anthropology the learned patterns of behavior and thought that help a group adapt to its surroundings.
Deculturation	: Process by which a culture loses its identity through culture contact.
Dendrochronology	: A type of absolute dating. The technique is based on the fact that trees add a ring of growth annually, and counting the rings gives the age of the tree.
Distribution	: Exchange of goods and services within local groups and between different local groups
DNA	: Deoxyribo Nucleic Acid
Dominant	: Allele of a gene pair that is always phenotypically expressed in the heterozygous form
Dryopithecus	: Genus of ape from the later Miocene found primarily in Europe
Egalitarian society	: Society in which all persons have equal access to economic resources, power and prestige
Ego	: Reckoning of kinship from the reference point or focal person
Emic	: The research strategy that focus on local explanation or native's view as significant.
Enculturation	: The social process by which culture is learned and transmitted from generation to generation.
Endogamy	: Marriage within the group
Eocene	: Second epoch of Cenozoic; possible appearance of anthropoids
Ethnocentrism	: Tendency to view one's own culture as best to judge other cultures.
Etic	: The research strategy that emphasis the outsiders' view or researcher's explanation, categories and criterion as more important than native's view.
Excavation	: The digging up and recording of archaeological sites, including uncovering and recording the provenience, context, and three-dimensional location of archaeological finds.
Exogamy	: Marriage outside the group
Fictive marriage	: Ghost marriage
Flake tool	: A piece of stone removed from a core for use as a tool.
Fluorine Analysis	: A relative dating method by measuring the amount of fluorine in a specimen
Fluting technique	: Removal of large flakes in order to thin projectile point base for hafting.
Folk literature	: Folk literature consists of folk songs, folktales, myths, legends, proverbs, riddles, ballads, blessing, cursing, similes and metaphors, nicknames, history of place names oaths, greetings, fables, etc

Folk songs	: Folk songs are the songs sung on the occasions of life cycles, religious festivals, agricultural operations, etc. They draw their themes from religion and mythology, agricultural operations like sowing and harvesting, incidents in social life like wedding and beauties of landscape etc:
Folklore	: Folklore includes the manners, customs, observances, superstitions, ballads, proverbs and so on of the olden time which are once transmitted orally from generation to generation.
Folktales	: Folktales are the stories depicting courage, bravery, moral values, good manners, reverence to supernatural etc sung on different occasions.
Food collection	: All forms of subsistence technology in which food getting is depended on naturally occurring resources – wild plants and animals
Food production	: The form of subsistence technology in which food getting is depended on cultivation and domestication of plants and animals
Foraging	: Searching for and collecting food that is available in nature
Gene	: Chemical unit of heredity
Generalised reciprocity	: Gift giving without any immediate or planned return.
Genetic drift	: The various random processes that affect gene frequencies in small relatively isolated population
Genotype	: The genetic makeup of a particular organism
Headman	: A person who holds a powerless, but symbolically unifying position in a society.
Heterodontism	: Different types of teeth
Heterozygous	: Possessing different genes
Hominid	: Popular form of Hominidae
Homozygous	: Possessing two identical genes
Hypergamy	: Marriage with a man of higher caste
Hypogamy	: Marriage with a man of lower caste
Incest taboo	: Forbidden sexual relations with close relatives
Incisors	: Front teeth used for cutting and nipping
Industry	: Any set of artifacts fashioned or used by a single human group of pre historic days.
Institution	: A standardised norm of behaviour existing in a society is called institution.
Interspecific	: Variation between two separate species
Intraspecific	: Variation within a species
Kula ring	: A ceremonial exchange of valued shell ornaments in the Trobriand island, in which white shell arm bands are traded around the islands in a counter clockwise direction and red shell necklaces are traded clockwise

Legends	: Legends are stories tolled as true and set in the post creation world. Commonly legends consist of pseudo historical narrations that explain the heroism of leaders, establishment of customs etc.
Levallois technique	: A tool-making technique in which a prepared core was used to manufacture flakes of predetermined size and shape. Characteristic of Middle Paleolithic and Mousterian technologies.
Levirate	: Custom by which a widow marries the brother of her deceased husband
Lineage	: A set of kin whose members trace descent from a common ancestor through known link
Magic	: The performance of certain rituals that are believed to compel supernatural powers to act in a particular way
Mana	: A supernatural, impersonal power that inhibits certain objects or people
Material culture	: Those aspects of culture which are visible are called material culture
Microlith	: Small, flaked stone tools, 1-4 cms in length.
Mousterian	: the name given to a European stone-tool industry characterized by flakes struck from prepared cores.
Monothiesm	: Belief that there is only one supreme god and all other supernatural beings are subordinate to, or manifestation of this supreme being.
Mutation	: An alternation in the gene material (DNA) the true creative factor of evolution
Myth	: Myth as a 'story' presented as actually happened earlier, explaining the nature and supernatural, tradition of people, their gods, heroes, religious believes... etc.
Neolithic	: the latter portion of the Stone Age, a time period when many areas were developing agriculture, especially the Middle East.
Nomadism	: Movement of people from one geographical area to other for searching food and shelter
Non material culture:	Knowledge, beliefs and values of a culture which are not visible.
Oldowan	: Name for the earliest stone tool industry, characterized by large tools with a sharp edge created by the removal, of a few.
Palaeolithic	: the early stage of the Stone Age, during humans relied on stone technology to sustain their scavenging, hunting and gathering lifestyle.
Paleontology	: Study of fossils
Pastoralism	: Process of domestication of animals
Patriarchal	: Father as the head of the family
Phenotype	: Observable characteristics of an individual as determined by the genotype

Phratry	: A unilineal descent group composed of number of related clans
Phylum	: A primary division of animal kingdom
Polyandry	: Plural marriage in which a man has more than one wife
Polygamy	: Any marriage with more than two spouses
Polygynandry	: Woman has multiple husbands and a man has multiple wives at a given time.
Polygyny	: A man has multiple wives at a given time
Polythiesm	: Belief in many gods, none of whom is believed to be supreme.
Potlatch	: A feast among Pacific Northwest native Americans at which great quantities of food and goods are given to the guests in order to gain prestige for the host.
Prehensibility	: Ability for grasping
Prescriptive	: Permitted
Priestess/Priest	: A full time religious specialist with very high status, who mediate between supernatural beings and common people.
Proscriptive	: Prohibited
Radio-Carbon method:	An absolute dating technique used to determine the age of organic materials less than 50,000 years old.
Raiding	: A short term use of force generally planned and organised to realise a limited objective
Ranked society	: The social group that have unequal access to status position and prestige
Reciprocity	: Giving and taking without the use of money
Redistribution	: The accumulation of goods by a particular person or in a particular place and their subsequent distribution
Relative dating	: A system of dating archaeological remains and strata in relation to each other. By using methods of typing or by assigning a sequence based on the Law of Superposition.
Religion	: Beliefs and rituals concerned with supernatural beings, powers and forces
Remote sensing	: Non-intrusive survey methods used to find archaeological sites; these may include aerial reconnaissance and geophysical techniques such as magnetometry, radar, resistivity, and conductivity.
Riddle	: Riddle is a statement, question or phrase having double meaning.
Rites of intensification:	The rites mark the occasion of crisis or transition of seasons in the life of a group.
Rites of passage	: Communally celebrated rituals that mark the transition of an individual from one status to another.
RNA	: Ribo Nucleic Acid
Samandham	: Marital relationship between a Namboodiri man and a Nair girl

Sexual promiscuity	: Free sex
Shaman	: A part time practitioner of magico-religious rites of divination and curing skilled in the technique of trance and possession.
Silent trade	: Exchange of goods without verbal communication
Site	: refers to a specific space where tools and artifacts have been found.
Society	: Organised life in groups is called society.
Sorrorate	: A custom by which a widower marries his sister of diseased wif.
Stratigraphy	: The study of the layers (strata) of sediments, soils, and material culture at an archaeological site (also used in geology for the study of geological layers).
Taboo	: A prohibition that if violated is believed to bring supernatural punishment
Taxon	: A population judged to be sufficiently distinct to be assigned to a separate category
Three Ages	: The entire period of prehistory is divided into three ages - Stone Age, Bronze Age, Iron Age: This classification is made on the basis of standardized tools made and used by the people.
Tool tradition	: If a particular group of tools are found continuously through time, it may be called as a tool tradition.
Tool	: An object especially designed and thoughtfully made by humans for a particular purpose.
Totem	: Plants, animals, phenomena, or objects symbolically associated with particular descent groups as identifying emblem.
Transculturation	: The process by which a culture two cultures exchange some cultural traits through culture contact.
Transhumance	: Seasonal migration of people for searching food and shelters
Under water Archaeology	: The study of archaeological sites and shipwrecks that lie beneath the surface of the water. This is a dangerous form of archaeology and is often conducted with the aid of mechanized tools that can be operated remotely.
Veli	: Marriage among Nambodiris
Warfare	: Violence between political entities such communities, districts or nations
Zygote	: A fertilized cell



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