

HIGHER SECONDARY COURSE
ANTHROPOLOGY

XI



Government of Kerala
Department of General Education

Prepared by

State Council of Educational Research and Training (SCERT) Kerala

2026

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.

Prepared by

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Designed by : SCERT

First Edition : 2026

Printed at : Centre for Advanced Printing and Training (C-apt),

Thiruvananthapuram-695013

©Department of General Education, Govt. of Kerala.

ISBN 978-93-47213-03-8

FOREWORD

Education at the Higher Secondary level plays a crucial role in shaping learners' perspectives, academic interests, and social awareness. The introduction of Anthropology as a discipline at the Higher Secondary stage marks an important step in broadening the intellectual horizons of learners and enabling them to understand humanity in all its biological, cultural, social, and linguistic dimensions.

The present First Year Higher Secondary Anthropology textbook has been revised and updated by incorporating recent anthropological findings, contemporary perspectives, and emerging areas of study. While learners may already be familiar with several themes such as human evolution, culture, society, and social institutions from earlier classes, this textbook systematically presents the basic concepts, highlighting the distinctive nature, interdisciplinary character, and contemporary relevance of the subject.

Anthropology, as a holistic science of humankind, enables learners to critically engage with issues related to diversity, social change, tradition, environment, and development. The textbook has been designed to nurture scientific temper, cultural sensitivity, and analytical thinking, while also encouraging learners to appreciate human unity amidst diversity. Care has been taken to present the content in a learner-friendly manner, supported by appropriate illustrations, activities, and contextual examples relevant to Kerala and the wider world.

The collective effort of a dedicated team of practicing teachers and experts has significantly contributed to the quality and relevance of the material. Their commitment ensures that the content remains pedagogically sound, conceptually accurate, and aligned with the curriculum framework of the State.

I am confident that this textbook will serve as a valuable resource for both learners and teachers and will inspire students to explore Anthropology as a meaningful and socially relevant discipline. I extend my sincere appreciation to all those who have contributed to the preparation of this textbook and hope that it will effectively support the teaching-learning process in our Higher Secondary classes.

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Some icons are used in this textbook for convenience



For additional
reading



Learning
Activity



Extended
Activities

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

-
1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
 2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Unity of the Nation" (w.e.f. 3.1.1977)

1

INTRODUCING ANTHROPOLOGY

Exploring Human Societies : The Inuits

The Inuit communities are Indigenous people inhabiting the Arctic regions of Canada, Alaska and Greenland - one of the coldest environments on Earth. Farming is impossible in this climate. Hence, the Inuit traditionally depend on hunting, fishing and gathering for subsistence. They primarily hunt seals, whales, fish and reindeer. To survive in the harsh Arctic conditions, the Inuit have developed unique technologies and cultural practices:



Fig 1.1 The Inuits

- **Housing:** They built igloos from snow during winter and used tents made of animal skins in summer
- **Clothing:** Their warm, layered clothes made from hair and animal skins provide excellent protection against the cold.
- **Transport:** They invented sleds pulled by dogs and light swift kayaks for travel on ice and water.

Their diet is very high in fat, especially from marine animals such as seal, whale, walrus and fish. This might sound unhealthy by modern standards. But the Inuit developed unique genetic and physiological mechanisms. These mechanisms made their high-fat diet beneficial for their survival.

Inuit culture is rich in stories, songs, carvings and spiritual beliefs that emphasise respect for nature and animals. Their language contains many words related to snow, ice and hunting, reflecting their close connection to the Arctic environment.

Today, while many Inuit lead modern lives, they continue to value their traditions, language and close relationship with the land and sea. Their way of life shows how human beings adapt creatively and resiliently to extreme environments.

You can find many such human societies living in different parts of the world.

- Why do people in different parts of the world live with differences in family, marriage, kinship and social organisations?
- How did humans with differences in physical features evolve?
- How did linguistic variations evolve among humans?
- How do religious rituals and practices integrate their social life?
- What history lies behind these traditions?



Fig 1.2 Human diversity

Anthropology connects all these questions and helps to answer them scientifically. Anthropology is the scientific study of human beings and examines who we are as a species, how we think and behave and how we have changed physically and culturally over time. It is a unique discipline that looks at the whole of humanity, across all places and periods of history. Anthropology, therefore, helps to understand people with empathy and scientific curiosity.

Humans show great diversity in their physical appearance, languages, cultural practices and ways of living. This variety is the true beauty of our social life. Human diversity makes societies rich and vibrant.



Identify examples of cultural diversity in your own locality (related to food, homes, clothes, festivals, etc.) and prepare a digital project report to present to the class.

Anthropology, as an academic discipline, recognises that such diversity is a natural and essential part of humanity. It encourages us to appreciate, respect and understand these differences instead of judging them. By studying people across different regions, time periods and cultures, Anthropology helps us see how all humans are connected, even when their lifestyles differ. In this unit, we will explore human diversity by understanding the meaning, nature and scope of Anthropology in detail.

Meaning, Nature and Scope of Anthropology

The term Anthropology has been derived from two Greek words, 'anthropos' and 'logos'. The word 'anthropos' means human and

'logos' means science or study. Thus, Anthropology is the science of humans. It seeks to understand who we are, how we live, how we evolved and why human cultures differ across the world. It provides a complete picture of humanity.

Let us examine how far this is evident from some of the popular definitions given by renowned anthropologists. From these definitions we will be able to understand the meaning, nature and scope of Anthropology.

- "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
- "Anthropology is the scientific study of the physical, social and cultural development and behaviour of human beings since their appearance on earth" - M Jacob and B T Stern
- The concise Oxford Dictionary defines Anthropology as the, "study of mankind especially of its societies and customs, study of structure and evolution of man as an animal."

Examine the definitions given above and identity the subject matter of Anthropology.



Anthropology studies humans and explains why people are similar in some ways and different in others. It asks questions like:

What makes us human?

Why do some groups tend to be tall while others are short?

Is human behaviour shaped more by biology or by society?

Why do people in different environments develop different physical traits?

Anthropologists are interested in every aspect of human life, especially the biological (physical), socio-cultural, linguistic and archaeological dimensions of human groups. With this background, we can now look at the unique nature that distinguishes Anthropology from other disciplines.



How the Jarawa Survived the 2004 Tsunami

When the 2004 tsunami struck the Andaman Islands, the Jarawa tribe survived with minimal loss of life, offering an important anthropological example of cultural resilience. Anthropologists documented that the Jarawa recognised early warning signs, unusual bird behaviour, strange sea smells, forest silence and retreating crabs, which they interpreted through traditional ecological knowledge and spiritual beliefs.

Acting on their elders' instructions, the community immediately moved to higher ground, carrying essential fire, food and medicinal plants. Their safe movement was guided by deep knowledge of forest ecology, routes, water sources and seasonal shelters, while strong social organisation ensured collective action and protection of vulnerable members.

Researchers concluded that the Jarawa's survival was not accidental but rather the result of a holistic cultural system. Ecological knowledge, kinship-based cooperation, leadership, subsistence practices and spiritual interpretations worked together as an adaptive strategy. This case highlights the anthropological significance of studying culture as an integrated whole, demonstrating how environmental awareness, social structure, economy and belief systems together shape human resilience in times of crisis.

(An abridged case study report of the Jarawa tribe from the Andaman Islands, Anthropological Survey of India, after the 2004 tsunami)



Nature of Anthropology

(i) Bio-Social Nature

Anthropology is bio-social in nature because it studies humans as both biological organisms and social beings. As a Biological Science, it examines how humans originated, and evolved as well as the ways people adapt to different environments. As a Social Science, Anthropology studies culture, traditions, beliefs, languages and family systems. This helps us understand human behaviour, values, customs and social relationships.

Biological differences, such as age, sex and physical abilities, influence social roles, responsibilities and expectations. Human physical needs like food, shelter, safety, reproduction and health form the foundation of many social practices and cultural traditions. For example, the basic need for nutrition leads to diverse food habits and cooking methods across various cultures. By combining both biological and

social perspectives, Anthropology shows how our biology influences our social and cultural life and how society and culture shape our biological life.

(ii) Integrative, Comparative Nature and Holistic Approach

Anthropology studies humans by combining information from genetics, evolution, culture, archaeology, language, and society. By integrating different kinds of data, Anthropology provides a more complete understanding of human life.

Anthropology compares different cultures, societies and human groups to understand the similarities and differences in their ways of life. By comparing similarities and differences like marriage customs, food habits, languages and physical traits, anthropologists try to understand what is unique to a group and what is common to all humans.

Another distinguishing feature of Anthropology is its holistic approach to the study of human beings. It looks at human beings in their totality. Hence, Anthropology considers biological aspects, social behaviour, culture, environment, history and language. Instead of studying these separately, Anthropology studies how all these factors connect with and influence one another. This helps us understand humans as a whole.

(iii) Anthropology is Field science

Another unique characteristic of Anthropology is its emphasis on field-based studies. Fieldwork is the backbone of anthropological study. It is the first-hand study of a community carried out in its natural settings. Anthropologists usually resort to participant observation methods to gather data from the field. Physical as well as 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. Since fieldwork is the heart and soul of Anthropology, it is rightly labelled as a field science. During fieldwork, anthropologists go to the field, stay with the people with whom they want to interact, learn their native language, observe the phenomena under study, and record them systematically. B. K. Malinowski, a famous



Fig 1.3
B.K. Malinowski



Fig 1.4 Anthropologist in the field

British anthropologist, is known as the father of modern fieldwork in Anthropology, as he introduced long-term participant observation as a scientific method for understanding cultures from within.

We have already seen that Anthropology is the scientific study of human beings in all their dimensions. Its major branches help us understand humans as both biological organisms and cultural beings. Thus, these branches provide a comprehensive, holistic view of humanity across time and space. Let us now examine the scope of four major branches of Anthropology in detail.

Major Branches of Anthropology

Anthropology, as we have learned, is the holistic study of human beings. To ensure a comprehensive and scientific understanding of humanity, Anthropology is classified into four major branches. Biological Anthropology, Social cultural Anthropology, Archaeological Anthropology and Linguistic Anthropology. Each branch focuses on a particular dimension of human life. But together they provide an integrated understanding of human evolution, culture, language and social organisation. We shall examine in detail the scope of the four major branches of Anthropology.

1. Biological Anthropology

Biological or physical Anthropology studies human evolution, genetics and biological differences to explain what makes us biologically human. It is primarily concerned with human as a biological organism. According to Hoebel, "Physical Anthropology is the study of the physical characteristics of the human race as such." The subject matter of Biological Anthropology includes the study of human origin, evolution, variation, genetics, and palaeontology. Traditional biological anthropologist concentrated their studies on human evolution, Primatology, human variation, and adaptation. Today, anthropological study of human evolution, variation, and relationships using molecular and genetic evidence contributes significantly to our understanding of human diversity. Knowledge of the following branches of Biological Anthropology will help us understand how the field addresses human evolution and variation.

Primatology: This is the scientific study of the primates. Although humans are primates, Primatology mainly focuses on non-human primates like apes, monkeys and prosimians. Primate

studies provide a scientific understanding of human evolution and the behaviour of our ancestors.

Human Palaeontology (Palaeoanthropology): Human Palaeontology or Palaeoanthropology is the study of the fossil remains of ancient humans and their ancestors. It helps us to understand human evolution.

Serology: Serology is the study of blood serum and its constituents. It helps researchers understand human biological variation, population relationships, inheritance patterns, and evolutionary connections by comparing blood types among different human groups.

Osteology: Osteology is the scientific study of bones. This field examines human skeletal remains to understand age, sex, stature, health, diseases, and past lifestyles.

Dermatoglyphics: It is the study and analysis of the ridge patterns, or configurations, of the skin of fingers, palms, toes and soles. In Biological Anthropology, it is used to understand genetic traits, human variation, and population relationships, as these patterns are unique to each individual and are influenced by heredity.

Forensic Anthropology: Forensic Anthropology deals with the analysis of skeletal remains for legal purposes. Forensic anthropologists use skeletal evidence to identify murder victims, missing persons, and individuals who have died in disasters. Through the analysis of DNA, hair with root, blood stains, semen traces, body fluids, skin cells, bone marrow cells, fingerprints, and skeletal remains, forensic anthropologists can help establish a person's identity. Using specialised techniques, they can also determine the age, sex and other morphological features of the victims.



Fig 1.5 Forensic Anthropologist at work

Human Genetics: Human genetics is the branch of Biological Anthropology that studies human heredity and variation. It explores how traits such as eye colour, blood groups, height and susceptibility to certain diseases are passed from one generation to the next. Human genetics also helps anthropologists to understand evolutionary relationships, population migration, and diversity among humans throughout the world.

Anthropometry: Anthropometry is the scientific measurement of the human body, including its size, proportions and composition. It involves measuring human stature, body proportions and the length and breadth of the head, among other dimensions.

2. Social Cultural Anthropology

Social Cultural Anthropology is the study of human culture and the patterns of human behaviour, thoughts and social interaction. It has been described as the “natural science of society”. This branch of Anthropology involves the comparative study of social systems and their functioning. It is concerned with the study of social institutions such as family, marriage, kinship, religious organisation, economic organisation, political organisation and the relations between such institutions. The main branches of Social Cultural Anthropology are given below:

Familial Anthropology: The family is the basic unit of society and therefore Social Cultural Anthropology includes the study of the family. It deals with the comparative study of families across different cultures and societies. It examines various types of families and their development over time. Since the family is based on marriage, this branch also includes the study of different forms of marriage.

Economic Anthropology: This branch studies the economic organisation of both primitive and modern human societies, as well as the different stages of economic evolution within them. It studies how humans organise their economic activities, such as production, distribution and consumption, in both traditional and modern societies. It also examines how economic systems have evolved over time.

Political Anthropology: Political Anthropology is a branch of Social Cultural Anthropology that studies political life in different societies, whether they are preliterate or modern. It examines how power, authority, leadership, law, and governance operate in both simple and complex societies. It is the cross-cultural study of political systems including formal and informal political institutions. This branch focuses on the nature, meaning and functioning of various political organisations and governmental systems found in human societies. It also, examines all types of political administration, laws, governments and systems of punishment.

3. Archaeological Anthropology

The term Archaeology is derived from two Greek words: 'arkhaios', meaning ancient and 'logos', meaning study. Archaeological Anthropology is the branch of Anthropology that studies human activity in the past, particularly the early stages of human culture and civilisation. It is closely associated with prehistory, as it mainly deals with periods for which no written records are available.

Archaeology aims to reconstruct past cultures to understand cultural change and human adaptation over time. Since written sources are absent for most of human history, archaeologists rely on material remains recovered through excavation. These include tools, pottery, dwellings, hearths, burials, enclosures and other artifacts, along with human, animal and plant remains. By analysing these materials and their context, Archaeological Anthropology provides insights into ancient culture.

Archaeological Anthropology includes several specialised areas such as:

Prehistoric Archaeology : It studies early human cultures prior to the development of writing.

Historical Archaeology : This branch examines societies that possess written records.

Environmental Archaeology : It explores the relationships between humans and their environment.

Ethnoarchaeology: This branch uses living cultures to interpret archaeological findings and to understand how past human behaviour is reflected in material remains.

Underwater Archaeology : This studies submerged sites, such as shipwrecks and coastal settlements.

Together, these areas broaden our understanding of the human past from multiple perspectives.

4. Linguistic Anthropology

Linguistic Anthropology is the branch of Anthropology that studies human language. It examines how language originated, how it develops and changes over time, and how it is used in society and culture. It looks at the structure of language and the ways in which language helps people communicate, express ideas, and transmit culture from

one generation to another. Human language is unique because it is highly complex, flexible, and symbolic, unlike the communication systems of other animals.

Linguistic anthropologists examine how people speak, and how languages are learned and used in everyday life. It also looks at how language reflects social relationships, beliefs and cultural values. This field also explores how language contributes to the continuity and change of culture over time. Major areas of study in Linguistic Anthropology include:

Historical Linguistics - Traces the origins and evolution of languages.

Descriptive Linguistics - Analyses the structure and grammar of languages.

Ethnolinguistics - Studies the relationship between language and culture.

Sociolinguistics - Examines how language varies according to social factors such as class, gender, and context. Together, these approaches help explain the close link between language, culture, and human society.



Fig 1.6 Branches of Anthropology



Complete the flowchart (Fig 1.6) given above and prepare an infographic showing the main branches of Anthropology and its sub branches using ICT.

The four major branches, Biological Anthropology, Social Cultural Anthropology, Archaeological Anthropology and Linguistic Anthropology - apply anthropological knowledge to understand human evolution, culture, society, language and the human past.

Together, they provide a comprehensive understanding of humanity across time and space. Anthropology also contributes to solving real-world problems. When anthropological knowledge is directly applied to address practical issues such as health, development, education, policy and social change, it constitutes the field of Applied Anthropology.

Applied Anthropology

Applied Anthropology refers to the practical use of anthropological knowledge to understand and solve real-world human problems.

The term “Applied Anthropology” was coined by D. G. Brinton, a British social anthropologist. This field applies anthropological perspectives, theories; methods and data to identify social issues assess their causes and suggest effective solutions.

Applied social cultural anthropologists work in diverse settings such as government agencies, NGOs, health services, education, development projects, industry and community organisations. They address social problems like racism, casteism, communalism, ethnocentrism, terrorism, poverty, displacement, public health issues and development challenges. By studying local cultures, beliefs and social structures, Applied Social Cultural Anthropology helps design culturally appropriate policies and programs. Such efforts help to reduce conflict, promote social harmony and support sustainable development. Thus, Applied Social Cultural Anthropology connects anthropological knowledge with practical solutions for the welfare of the people.

Applied biological anthropologists apply their knowledge to public health, nutrition, ergonomics, sports medicine, human adaptation, and forensic science. They study issues such as malnutrition, disease patterns, population health, the biological effects of environment and stress, as well as human responses to climate and occupational conditions. In disaster situations and legal contexts, Forensic anthropologists, as part of Applied Biological Anthropology, help



Ergonomics is the scientific study of the relationship between humans and their working environment. It aims to design tools, machines, furniture and workplaces in a way that suits human body structure and abilities. By applying anthropometric data and biological knowledge, ergonomics helps reduce fatigue, prevent injury and improve efficiency and comfort at work.

Designing school desks and chairs according to the height and body measurements of students, designing bus driver seats to reduce fatigue during long journeys are examples of ergonomics.

identify human remains and assist in the delivery of justice. Thus, Applied Biological Anthropology bridges biological knowledge and practical action to improve human health, safety and quality of life.

Applied Archaeological Anthropology applies archaeological methods to protect and manage cultural heritage. It includes Cultural Resource Management (CRM) for safeguarding sites affected by development, Museum Curation and Heritage Preservation for conserving and interpreting artifacts; Bio-Archaeology for studying human remains and Archaeogenetics for tracing ancient populations through DNA. These areas help preserve the past and support heritage management.

Applied Linguistic Anthropology uses language knowledge to address real-world issues, including improving education and communication, guiding language policy, preserving endangered languages, and creating dictionaries and language resources to support linguistic diversity and effective communication.



Complete the following table showing the applied areas of four branches of Anthropology.

Applied Areas of Anthropology	
Social-cultural Anthropology	Public Health, Education, Culture, Family Planning Programmes, Community Development Programmes, Labour Problems,
Biological Anthropology	
Archaeological Anthropology	
Linguistic Anthropology	

While Applied Anthropology uses anthropological knowledge to address practical problems in areas such as health, education, and development, some anthropologists felt that mere application was insufficient to resolve deep-rooted human issues. This led to the emergence of Action Anthropology.

Action Anthropology

Action Anthropology is an applied branch of Anthropology founded by Sol Tax, an American Anthropologist. It focuses on addressing human problems by actively involving anthropologists in the lives of the communities they study. Unlike traditional Anthropology, which mainly focuses on observation and documentation, Action Anthropology encourages direct participation to foster social change and enhance community well-being.

This field emerged in the 1950s, driven by growing concern for the welfare, rights and survival of indigenous and marginalised communities facing displacement, exploitation and cultural loss. Action anthropologists work collaboratively with communities; respecting local values and knowledge, and help people identify their own problems and solutions. The aim is not to impose external ideas but to support self-determination and empowerment. Action anthropologists accept a problem as their own and stick with it until the problem is adequately addressed.

Action Anthropology shows that Anthropology is not only about studying human societies but also about using knowledge to improve human life. By actively engaging with communities and addressing real social problems, Anthropology proves its practical value in the modern world. This applied and people-centred approach highlights the relevance of Anthropology in understanding human diversity, promoting social harmony, and responding to contemporary challenges.

Relevance of Anthropology

Anthropology is highly relevant in the contemporary world for the following reasons:

- It helps us understand human diversity, develop a broader, more open-minded outlook, and avoid ethnocentrism.
- By studying different cultures, traditions and social behaviours, people learn to think critically and question assumptions.
- Learning Anthropology enhances our communication skills and empathy.
- It prepares us to work effectively in a multicultural world.
- Anthropology connects classroom learning to real-life issues such as inequality, global health and cultural conflict, thereby

become responsible and socially aware global citizens.

- The discipline has always been concerned with people and their cultures, especially those living in remote or indigenous communities.
- The holistic approach of Anthropology ensures that it remains relevant to public policies and programmes aimed at improving human welfare.
- Studies on the physical structure and health status of the populations help in planning suitable strategies to address issues such as malnutrition and genetic disorders.
- Studying Anthropology helps to foster intellectual growth, personal development and professional advancement.

Anthropology has evolved significantly from its early, ancient foundations into a highly sophisticated, and interdisciplinary field in the digital age. The application of anthropological insights has become increasingly essential for understanding contemporary human challenges. At the same time, the discipline has expanded and diversified, giving rise to a range of specialised subfields that address the complex realities of modern societies. Let us now examine these specialised areas in Anthropology.

Areas of Specialisation in Anthropology

Anthropology has developed several specialised areas that focus on specific aspects of human life and contemporary issues. The specialised areas include Medical Anthropology, Ecological Anthropology, Development Anthropology, Urban Anthropology, Visual Anthropology and Anthropology of Artificial Intelligence. By combining insights from these fields, Anthropology remains dynamic and relevant to understanding human life in a rapidly changing world.

(i) Medical Anthropology

Medical Anthropology is an interdisciplinary field that studies how culture influences health, illness, disease and healing practices across populations. It explores how different cultures perceive, experience and respond to illness and health. This understanding is crucial for developing effective health programmes and policies.

(ii) Ecological Anthropology

Ernst Haeckel coined the term ecology. The term “ecology” is

derived from the Greek words 'oikos' and 'logos'. Oikos means house or habitat referring to environment and 'logos' means study. Thus, ecology literally means the scientific study of the organisms in relation to their environment. This includes the relationships of organisms with their inorganic and organic environments. Ecological Anthropology studies the relationship between humans and their environment, focusing on how culture is shaped by the environment.

(iii) Development Anthropology

Development Anthropology is a branch that focuses on understanding and improving social and economic development programmes. It examines how development projects like health campaigns, education initiatives, environmental conservation and poverty eradication efforts influence different communities. Development anthropologists identify the reasons why certain projects succeed or fail. By integrating local knowledge with development strategies, Development Anthropology seeks to create sustainable and people-centred interventions that genuinely enhance the quality of life in diverse communities.

(iv) Urban Anthropology

Urban Anthropology is the branch of Anthropology that studies cities, urban life, and the behaviour of people living in urban areas. It looks at migration, urbanisation, and the formation of different communities, such as slums, apartments, and migrant neighbourhoods. It also examines how urban planning, transport and government systems affect people's daily lives. The study of Urban Anthropology helps us understand how cultural diversity and social networks work in the fast-changing environments of modern cities.

(v) Visual Anthropology

The term Visual Anthropology was coined by Margaret Mead, an American anthropologist, in 1960s. Visual Anthropology is a subfield of Anthropology that studies and uses visual resources such as photographs, films, cameras, videos, and digital media to understand human cultures and societies. Along with Gregory Bateson, a British anthropologist, she used photography and film to document everyday human behaviour, showing that visual media can capture cultural patterns that words may miss. This laid the foundation for the development of Visual Anthropology. It explores how people represent their lives visually and how images can



Fig 1.7 - Margaret Mead

"The camera can be used as a scientific tool to record human behaviour." - Margaret Mead

communicate cultural meanings. Visual anthropologists also create documentaries and visual records to document traditions, rituals, social interactions and daily life. This branch helps us see culture in action and provides powerful tools for preserving and interpreting human experiences.

(vi) Anthropology and Artificial Intelligence

Anthropology and Artificial Intelligence (AI) examine how AI interconnects with human society from an anthropological perspective. AI will greatly influence all branches of Anthropology, especially Applied Anthropology. In Archaeology, it can improve artifact analysis, reconstruct ancient environments, and locate previously unknown sites. In Biological Anthropology, AI speeds up genetic data analysis and helps reconstruct early humans. Linguistic Anthropology can use AI to document, revive, and teach endangered languages. Cultural and applied anthropologists can use AI to detect hidden cultural patterns and emerging trends. AI-assisted ethnography helps collect and interpret both qualitative and quantitative data. AI also enhances cross-cultural communication through translation tools and aids in preserving cultural heritage by digitising manuscripts, artifacts and historical sites for future generations.



Prepare a digital presentation on any specialised area of Anthropology and present it in your class.

The evolution and development of Anthropology through the ages reveal a rich and unfolding history. From its gradual emergence in the works of early Greek thinkers to its systematic growth in the modern knowledge era, the discipline has travelled a long and meaningful journey. Let us now explore this intellectual voyage.

Historical Development of Anthropology

Anthropology is a relatively young discipline compared to many other fields of study. Numerous scholars and thinkers have attempted to trace its development. Among them, T. K. Penniman holds a prominent place. In his well-known book *Hundred Years of Anthropology* (1935), Penniman systematically outlines the growth of Anthropology throughout the world from its early formative period to the then-

emerging critical period, offering a comprehensive account of the discipline's intellectual journey.

World Anthropology through Different Stages

The history of World Anthropology reflects a long and gradual development in humankind's attempt to understand itself, its origin, cultures, societies and biological diversity. Over time, the discipline passed through several distinct stages, each marked by new discoveries, theoretical advances and methodological progress. Scholars from different parts of the world contributed to shaping Anthropology into a modern scientific field.

According to T K Penniman, the development of Anthropology may be divided into four major phases: the Formulatory Period, Convergent Period, Constructive Period and the Critical Period. Each phase reveals how human curiosity, exploration and scientific inquiry ultimately gave rise to Anthropology as we know it today.

1. Formulatory Period (Before 1835)

This phase, the longest in the history of Anthropology, extends from ancient Greek scholars to early modern exploration. During this time, scattered observations about human societies, customs and physical traits laid the foundation for later anthropological thought. Among the earliest contributors was Herodotus (484–425 BCE), often regarded as the first anthropologist and the father of Greek ethnography. Through extensive travels in Egypt and Western Asia, he collected valuable descriptions of foreign peoples, their customs, laws, marriage practices and physical features.

Building on Protogoras (490 - 420 BCE) idea that “man is the measure of all things”, Herodotus emphasised understanding cultures on their own terms - an early form of cultural relativism that later become a corner stone of the anthropological perspective. Socrates, Plato and Aristotle contributed social and philosophical ideas about the state, human behaviour, social order and biological classification. Aristotle classified animals by comparing their structure and function, an approach that later influenced Physical Anthropology.

The medieval and early modern periods expanded anthropological knowledge through the accounts of travellers and explorers. Marco

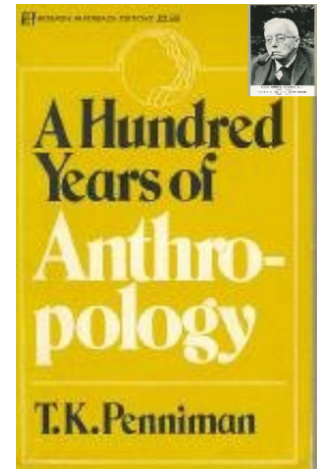


Fig 1.8 Cover Page of T K Penniman's Book

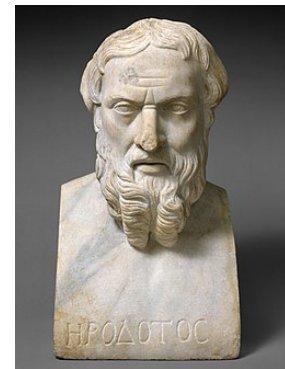


Fig 1.9 Herodotus

Polo, Vasco da Gama and Magellan provided firsthand information on diverse populations. Thinkers such as John Locke, Rousseau, Francis Bacon and Thomas Hobbes formulated ideas about society, government and the nature of humans.

Scientific advancements further strengthened the foundations of Anthropology. William Harvey's demonstration of blood circulation (1628), Leeuwenhoek's microscope, and Vesalius's comparative anatomy opened new avenues in biological study. Carl Linnaeus's '*Systema Naturae*' (1735) was especially significant, as it formally placed humans within zoological classification, stimulating interest in human variation. Immanuel Kant's book '*Anthropology from a Pragmatic point of view*' (1798) suggested the animal origins of humans and the continuity between humans and pre-human species.

Colonial encounters also contributed to early Anthropological knowledge. Christian missionaries and European administrators studied indigenous cultures for practical reasons.

2. Convergent Period (1835–1859)

The second stage witnessed diverse and sometimes conflicting theories about the biological and cultural origins of humans. Scholars from different countries offered multiple interpretations that gradually converged toward more scientific approaches. Key contributors included Karl Marx, Charles Lyell, and William Smith, whose ideas influenced thinking on culture, society, and geological time.

James Prichard's works '*The Natural History of Man*' and '*Physical History of Man*' were important attempts to classify human races based on physical traits such as colour, hair type and stature.

Archaeology also advanced significantly. Discoveries by Boucher de Perthes at Abbeville (1838, 1846), Dr. Rigollet at Saint Acheul (1854) and the Neanderthal remains found in Dusseldorf (1856) revolutionised our understanding of human antiquity. The period culminated with the publication of Charles Darwin's '*Origin of Species*' (1859), which

marked a turning point in the scientific study of humanity. Darwin's theory of natural selection provided a biological framework that linked Anthropology with Evolutionary Science and laid the foundations for modern Biological Anthropology.

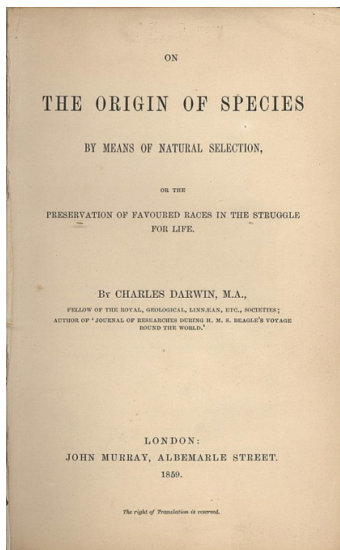


Fig 1.10 Title page of the book 'On the Origin of Species' first published in 1859

3. Constructive Period (1859–1900)

Following Darwin's work, Anthropology began to take shape as an independent scientific discipline. This period was marked by institutional growth, theoretical development and systematic research. Universities started formal Anthropology departments, such as Oxford (1884) and Cambridge (1900). Scholars, including E.B. Tylor, James Frazer, Henry Maine, J.F. McLennan, Adolf Bastian and Lewis Henry Morgan, produced major works on culture, kinship, religion and evolution. Their contributions helped establish Anthropology's major subfields: Ethnology, Prehistory, Social Anthropology and Physical Anthropology.

Internationally, Anthropology flourished in England, Germany, France and the United States. French sociologist Emile Durkheim influenced the development of Social Anthropology through his work on society, religion and social facts.

This period also saw the birth of important journals, such as the *Journal of American Folklore* and the *Journal of Anthropological Institute of Great Britain and Ireland*. British colonial administrators continued publishing ethnographic reports, helping to establish an anthropological tradition in India.

4. Critical Period (1900 Onwards)

T K Penniman referred to the 20th century as the 'critical period' because of its ground breaking contributions to anthropological theory and method. The anthropological journal *Man* formerly known as the *Journal of the Royal Anthropological Institute*, began publication in 1901. Institutions expanded further, including the first chair of Social Anthropology at the University of Liverpool (1908). Subsequently, several major schools of thought in Anthropology emerged.

Anthropology has been shaped by various schools of thought, each offering distinct perspectives. Functionalism, led by B. K. Malinowski, emphasises that cultural institutions exist to meet the basic needs of individuals. Structural Functionalism, associated with A. R. Radcliffe-Brown, views social institutions as working together to maintain social order and stability. The Culture and Personality School, developed by scholars like Ruth Benedict and Margaret Mead, highlights how culture shapes individual personality, values, and behaviour. Diffusionism, represented by thinkers such as A. L. Kroeber and Clark Wissler, explains how cultural traits spread from one region or society to another through

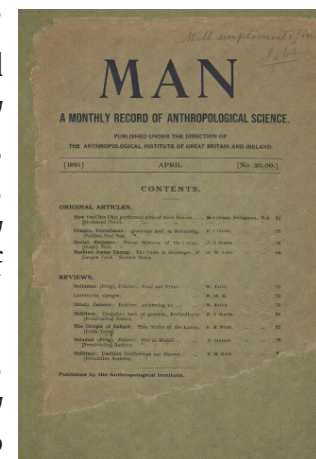


Fig 1.11 Cover page of the journal 'Man'

contact. Anthropology matured into a modern discipline during this period, integrating empirical fieldwork, scientific methods, and comparative studies. Theoretical and methodological refinements during the critical period shaped Anthropology's identity as a holistic and interdisciplinary field.



Prepare a seminar paper on 'origin and development of Anthropology in the world' and present it in the class.

Anthropology in India also has a rich history, marked by its evolution, growth, and development. The history of its journey, starting from the colonial period to the present era, is worth mentioning. This voyage represents a journey of liberation from the colonial yoke to the present day.

This transformation is typically mapped across four key phases, namely the Formative (1774–1919), Constructive (1920–1949), Analytical (1950–1990) and Evaluative (1990–present).

The Major landmarks in the development of Indian Anthropology Under each of the Phases:

1. Formative Phase (1774–1919): During this phase, Colonial Ethnography, focusing on classification, censuses, and understanding of “native” societies.

- 1774: Prof. D.N. Majumdar identified the establishment of the Asiatic Society of Bengal by William Jones as the starting point of Indian Anthropology
- 1863: Robert Bruce Foote discovered the first Palaeolithic tool (a hand-axe) at Pallavaram, Madras, marking the beginning of prehistoric studies in India.
- 1871: The first census of India, which categorised the Indian population by caste and tribe, was conducted at different times in different regions of the country.
- 1872: The Indian Antiquary, a journal founded by James Burgess, a British archaeologist was established.
- 1891: Sir Herbert Hope Risley, first published his report 'The Tribes and Castes of Bengal'.

- 1896: The British Administrator William Crooke published *The Tribes and Castes of the North-Western Provinces and Oudh*.
- 1905: The preliminary report of 'The People of India', a comprehensive ethnographic survey initiated by Sir H H Risley was published
- 1909: British Administrator Edgar Thurston published *The Castes and Tribes of Southern India*.
- 1912: Sarat Chandra Roy published *The Mundas and Their Country*, which is considered a landmark in Indian ethnography.
- 1916: British Administrator Robert Vane Russell published *The Tribes and Castes of the Central Provinces of India*.

2. Constructive Phase (1920–1949): Academic Foundations

- 1920 India's first Post-Graduate Department of Anthropology was opened at Calcutta University with L.K. Ananthakrishna Iyer as its first Head.
- 1921 'Man in India', a pioneering anthropological journal in India was published by S C Roy, covering topics like tribes, population studies, and linguistics.
- 1939: Verrier Elwin published 'The Baiga', a detailed ethnographic study of the Baiga tribe, an indigenous group in Central India.
- 1945: The Anthropological Survey of India (AnSI) was established with B S Guha as its first director.



Anthropological Survey of India is an Indian government organisation involved in anthropological studies and field data research, primarily engaged in Physical Anthropology and Cultural Anthropology while maintaining a strong focus on indigenous populations. It was founded in 1945 at Varanasi and shifted to the Indian Museum at Calcutta in 1948. It also attempts to document the cultures of other communities and religious groups.

The Ethnographic and Folk Culture Society (EFCS), was formed in Lucknow, by D.N. Majumdar.

- 1947: The journal 'The Eastern Anthropologist' was first published, by D.N. Majumdar under the EFCS

3. Analytical Period (1950–1990): This period focused on Village Studies, and theory building, medical anthropology and applied anthropology with an emphasis on national development, tribal welfare policies, development studies, and social reforms.

- 1952: M N Srinivas' introduced the concept of sanskritisation, in his book 'Religion and Society' among the Coorgs of South India.
- 1953: Kinship Organization in India by Irawati Karve first appeared, marking a notable advance in our understanding of the structure of Indian society.
- 1953: The premier Tribal Research Institute (TRI) established in Ranchi.
- 1982: The "Narmada Man" was discovered by Arun Sonakia
- 1985: The "People of India" project, was launched by the AnSI under K.S. Singh.

4. Evaluative & Digital Phase (1990–Present): This phase involves applied, critical, and interdisciplinary research, with a greater focus on globalisation, urban studies, climate change, forensic anthropology, public health, public policy, digital cultures and AI-Oriented Research

- 1990s: There was a transition towards Applied Anthropology focussing on modernisation and globalisation.
- 1992: The people of India (POI) project reports were published over a span of about 16 years, beginning in 1992 and continuing until 2008.
- 2001: The "Laterite Baby," a Middle Pleistocene hominin fossil, was discovered by Dr. P. Rajendran at Odai in the Villupuram district of Tamil Nadu.

Major Career Opportunities in Anthropology

Anthropology offers a wide range of careers by helping us understand humans, cultures, societies and biological variations. The following are the major career options in Anthropology:

Teaching & Research: Opportunities exist as teachers and researchers in various educational institutions and research organisations across the country and abroad.

Archaeology: Careers include excavation work, heritage management, museum curation, cultural resource management and conservation.

Government Sector:

- Civil services
- Tribal welfare departments
- Public health programmes
- Forensic laboratories

Health & Biological Fields: Anthropologists are involved in forensic science, human genetics, medical anthropology and epidemiology.

Corporate Sector: Anthropologists work as User Experience (UX) researchers, market analysts, HR specialists and CSR coordinators.

NGOs & Development Sector: Roles exist in rural development, gender studies, community welfare and social development projects.

International Organisations: Employment opportunities are available at the WHO, UNICEF, UNESCO and other global development agencies.

Creative Fields: Careers include journalism, documentary filmmaking, visual anthropology and social media research.

Institutions Employing Anthropologists in India

- Tribal Welfare Institutions / Organisations and the Anthropological Survey of India (AnSI).
- Interdisciplinary Institutes with strong funding and research programmes.

Recognised within major scientific bodies such as:

- Indian Science Congress Association
- Indian National Science Academy
- Council of Scientific and Industrial Research (CSIR)

Employment opportunities in premier institutes such as:

- Indian Institutes of Technology (IITs)
- Indian Institutes of Management (IIMs)
- Administrative Staff Colleges (Hyderabad, Udaipur, etc.)

State and National Research Institutes:

- Kerala Institute for Research, Training and Development Studies of Scheduled Castes and Scheduled Tribes (KIRTADS), Kozhikode
- Kerala Institute for Local Administration (KILA)
- Over 20 ICSSR-affiliated research institutes across India.



Create a digital presentation/poster on career opportunities in Anthropology.

**Extended Activities****1. Mini Fieldwork Observation**

Conduct a small field-based observation in your locality (such as a market, temple, village, urban neighbourhood, or workplace). Observe social interaction patterns and cultural practices, identify aspects of cultural diversity, and record your findings ethically. Prepare a brief field report explaining how Anthropology studies real-life social behaviour.

2. Anthropology Concept Mapping

Prepare a large digital concept map or mind map on Anthropology showing its meaning, scope, four major branches, sub branches, and its holistic, biosocial, field-based, integrative, and comparative nature of Anthropology. Visually connect all branches and concepts to demonstrate how Anthropology studies humans in an interconnected and comprehensive manner. Include brief notes or keywords under each section and prepare a digital presentation.

3. Visual Anthropology Documentation

Create a short documentary film (5–10 minutes) or a digital presentation documenting aspects of local culture, such as festivals, occupations, traditional dress, settlement patterns, food practices, and other cultural traditions. Collect visual material through photographs and video recordings (with prior permission) and include narration explaining their cultural significance.

2

BASICS OF SOCIAL CULTURAL ANTHROPOLOGY

Napoleon Chagnon and the Yanomami

In the 1960s, an American anthropologist named Napoleon Chagnon went to live among the Yanomami, an indigenous tribal group living in the Amazon rainforest on the border of Brazil and Venezuela. It was his first visit to a completely unfamiliar culture. When Chagnon arrived, the Yanomami people laughed loudly at his appearance. They touched his skin, pulled his hair, and pointed at his clothes. Chagnon felt deeply uncomfortable and offended. In his own culture, such behavior would be considered rude. Soon, Chagnon witnessed something even more shocking. During village disputes, the Yanomami men openly shouted, threatened one another, and even engaged in ritualised fighting. At first, Chagnon thought they were violent and disorderly. But as he stayed longer and learned their way of life, he began to understand that these actions followed strict cultural rules and helped maintain social balance within the community. Over time, Chagnon learned their language, customs, food habits, and social rules. He adapted to their daily routines and ways of thinking. Most importantly, Chagnon realised that judging the Yanomami his own cultural standards was misleading. Their practices made sense within their own social and environmental context.



*Fig 2.1
Napoleon Chagnon*



Fig 2.2 Yanomami Tribal men

This experience shows what culture means in real life and why it is central to Social and Cultural Anthropology. Culture shapes how people think, behave, communicate, and resolve conflicts. Chagnon's misunderstanding and later understanding of the Yanomami way of life reveal that human behaviour cannot be judged by the standards of a single culture. Social and Cultural Anthropology studies such cultural differences, helping us understand how societies function, adapt, and maintain social order within their own environmental and cultural contexts. Let us examine the basics of Social Cultural Anthropology starting from its meaning and scope.

Meaning and Scope of Social Cultural Anthropology

The branch of Anthropology that studies human society and culture is known as Social Cultural Anthropology. It focuses on how people live together, organise their social life and give meaning to their experiences. Based on its focus area, this subject is differently termed in different nations. It eventually gave rise to three important traditions in Social Cultural Anthropology as follows.

British Tradition

The term Social Anthropology is widely used in Great Britain and other Commonwealth countries. British social anthropologists made comparative studies of human behaviour through the analysis of different societies. British anthropologists emphasised the study of social structure and social relations. Since culture cannot exist without human society they believed that society was more important than culture. Therefore, they preferred to use the term Social Anthropology.

According to A. R. Radcliffe-Brown, British anthropologist, culture cannot exist independently and it exists only in society. Similarly, Claude Levi-Strauss, a French anthropologist, viewed human society in terms of social structure rather than culture. British anthropologists such as W. H. R. Rivers, Bronislaw Malinowski, E. E. 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, and political organisation.

American tradition

The term Cultural Anthropology is popular in the United States of America. American anthropologists believed that culture is the way of life of a society and considered culture to be the most important



Fig 2.3 Different Anthropological Tradition

aspect of human existence. According to them, it is culture that makes human societies distinct from one another. American cultural anthropologists such as Franz Boas, Ruth Benedict, and Margaret Mead emphasised the study of culture as the central aspect of human life. For American anthropologists, culture includes society; hence, they preferred the term Cultural Anthropology.

Indian tradition

Due to British influence in its early phase, Indian Anthropology was deeply concerned with social structure, social institutions, and community life. Indian scholars focused on the study of caste, kinship, family, village organisation, tribe–caste continuum, and social change. All these are core aspects of society.

As anthropological research in India progressed, scholars recognised that society and culture cannot be studied in isolation from each other. Social institutions such as caste or kinship were found to be inseparable from cultural beliefs, values, rituals, and symbols. This realisation led to an integrated approach. Consequently, the Indian tradition developed into a distinct social-cultural anthropological tradition. It proposed a holistic perspective that examines social relationships along with cultural practices, ideologies, and processes of change. Indian social-cultural anthropologists like G. S. Ghurye, M. N. Srinivas, and N. K. Bose emphasised the integrated study of both society and culture in understanding Indian society.

Visit your school library and identify anthropologists from British, American, and Indian traditions. Examine their major works/published books/ communities studied, and complete the following worksheet.



No	Tradition	Name of Anthropologists	Major Works/Books/Community studied
1	British / Social Anthropology		
2	American / Cultural Anthropology		
3	Indian / Social-Cultural Anthropology		

The concept of culture, being one of the core areas of social cultural anthropological study, is to be examined in detail for a clear understanding of the subject matter of this discipline. Let us examine it in detail.

Concept of Culture

Culture refers to the way of life of human society. It includes how people think, behave, believe and interact with each other. One of the earliest and most widely used definitions was given by the British anthropologist E. B. Tylor. According to him “Culture is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.”

According to another British anthropologist, Bronislaw Kasper Malinowski, “Culture comprises inherited artifacts, goods, technical processes, ideas, habits, and values”

From the definitions given by anthropologists such as E. B. Tylor and B. Malinowski, culture is not a single or simple element, but a complex and organised way of life. To understand culture more clearly, it is necessary to examine its main features or characteristics in detail.

Features of Culture

1. **Culture is learned:** Culture is not inherited biologically; it is learned through family, society and education. Human beings learn culture by observing, imitating, and interacting with others
Example: A child learns language, table manners and customs by watching parents and elders.
2. **Culture is shared:** Culture is shared by members of a society. It is not personal but is common to a group of people.

Example: People in a society celebrate festivals like Onam, Diwali, or Christmas together.

3. **Culture is complex:** Culture consists of many interrelated elements such as beliefs, customs, art, technology, and social institutions.

Example: A marriage ceremony integrates religion, family, kinship, economy, art, and social norms.

4. **Culture guides behaviour:** Culture provides rules and norms that guide how people should behave in society.

Example: Respecting elders, greeting teachers, and observing social manners are guided by culture.

5. **Culture is dynamic:** Culture is not static; it changes over time due to contact with other cultures, technology, and social change.

Example: Traditional hand written letters have largely been replaced by mobile phones and social media messaging.

6. **Culture is transmitted:** Culture is passed from one generation to another through communication, language, and social interaction.

Example: Folk songs, stories, and traditions are passed on by elders to younger generations.

7. **Culture satisfies human needs:** Culture helps people meet their biological, social, and psychological needs and function effectively in society.

Example: Food habits satisfy hunger, the family provides care and security, and religion offers emotional support.

Observe and record any cultural practices followed in your family or neighbourhood and relate them to the features of culture.



Aspects of Culture

Aspects of culture refer to the different sides or components of culture that help us understand how a society lives, thinks, and behaves. Since culture is complex, anthropologists divide it into aspects to study it more easily and systematically. In simple terms, the aspects of culture include:

Material culture: The visible aspects of culture is material culture. It includes houses, household articles, vehicles, dress, ornaments, roads, pens, books etc.

Non-material Culture: The invisible aspects of culture are called non-material culture. It includes customs, knowledge, religion, traditions, language, moral codes, rituals, greetings, and symbols which are part of the non-material aspect of culture.

In addition to the above listed aspects, culture includes the following elements as well.

- Behavioural aspects: It deals with how people behave. Eg- customs, food habits, rituals etc.
- Normative aspect: It includes the rules that people follow. Eg- norms, customs, and laws.
- Symbolic aspect: It is the communicative element of culture. Eg- language, and symbols.

We have seen that culture is the total lifestyle of a society. Since it involves many aspects of human life, different concepts are associated with it. Let us examine the important concepts of culture.

Concepts related to Culture

Culture Trait: Culture traits are the basic building blocks of culture. The smallest and indivisible unit of culture is called a culture trait. It is the smallest functional unit of culture. If it is divided further, it loses its meaning and function. Culture traits may be material or non-material.

Culture Complex: When many related culture traits come together, they form a culture complex. In other words, a culture complex is a meaningful combination of several culture traits that function together as a whole. A single culture trait becomes meaningless if it is separated

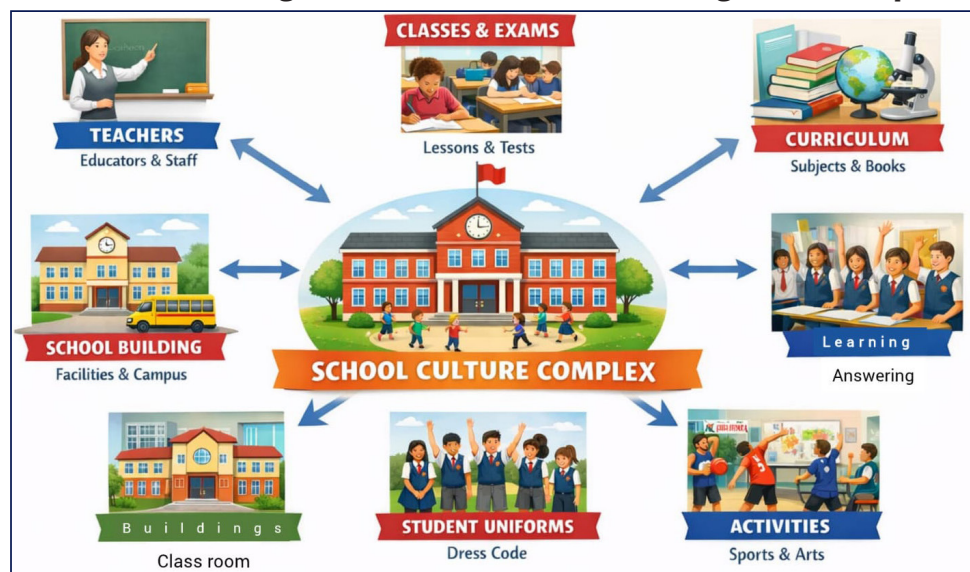


Fig 2.4 School as a culture complex

from the culture complex because culture traits function only when they are connected to other related traits.

For example, in the school culture complex, many culture traits work together like classrooms, teachers, students, textbooks, uniforms, examinations, rules, discipline, and evaluation. If we take one trait, such as a textbook, it has meaning only within the school system. A textbook alone does not represent education unless it relates to teaching, learning, classrooms, and examinations. On their own, they do not convey complete meaning or purpose. Institutions such as the family, religion, factory, and agriculture are other examples of culture complexes. In Indian society, the caste system and the joint family system are important examples of culture complexes.

By taking the Kitchen as a culture complex, list out all its culture traits.



“Do people in different families eat the same kind of food?”

Do you consider some foods good and others bad?

People often judge the food habits of others by considering their own to be better. This happens because they evaluate other cultures using their own cultural values. Such attitudes can create problems in a multicultural society. Anthropology addresses this issue by studying each culture on its own terms. These differences in viewpoints are explained through the concepts of ethnocentrism and cultural relativism.

Ethnocentrism: Ethnocentrism is the attitude of judging other cultures using the norms, values, and standards of one’s own culture.

It refers to evaluating other people’s ways of life from one’s own cultural viewpoint. People often believe that their own cultural practices are the correct or superior ones and may consider those who do not follow them as inferior. A person who judges other cultures only by the standards of his or her own culture is called ethnocentric person. Such a person believes that his or her own culture is the best. Considering one’s own food habits as “civilised” and other food habits as “strange” or “unclean” is an example of ethnocentrism.

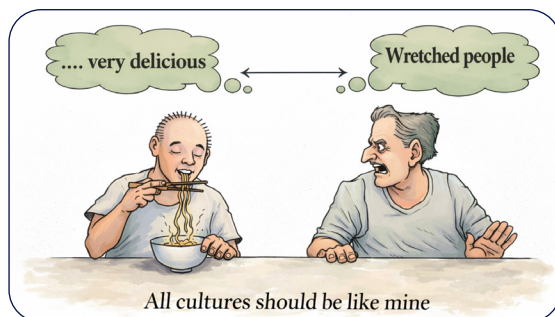


Fig 2.5 Ethnocentrism in eating practices

Cultural Relativism: Cultural relativism is the principle of understanding and evaluating a culture on its own terms, rather than judging it using the standards of other cultures. It emphasises that the beliefs, values, customs, and practices of a society should be studied within their specific social and cultural context. Cultural relativism promotes tolerance, respect for cultural diversity, and an objective understanding of different ways of life. In Anthropology, it helps researchers study societies without bias and appreciate the uniqueness of each culture. Cultural relativism encourages us to understand why people behave the way they do in their cultural setting, rather than labelling their practices as right or wrong. Thus, cultural relativism is the view that cultural traditions must be understood according to their own standards and values.

The attitude of relativism can be developed by learning other cultures, by making friendships, by sharing food, by reading books, by listening to music, and by appreciating the differences between cultures.

But to what extent can we follow relativism? Can we allow infanticide on the grounds of cultural relativism? Can untouchability be allowed? Cultural relativism can be accepted only if it does not violate human rights.

In some cultures, practices such as infanticide and untouchability are justified based on traditional beliefs and customs. However, there is no logical or scientific justification for these practices. As a result, people from other cultures view them differently. This shows that the perception of cultural practices differs between insiders and outsiders of a culture. Let us examine this further.

Emic and Etic Culture

The terms emic and etic were coined by the linguist Kenneth Pike. These terms are derived from the words “phonemic” and “phonetic” used in linguistics. The emic approach refers to how the members of a culture (insiders) understand and explain their own culture. It includes people’s beliefs, values, ideas, and explanations about why they behave in a particular way. In other words, it is the insider’s view of a culture. Emic means what people themselves believe and say about their culture.

The etic approach refers to how an outsider studies and interprets a culture using scientific and comparative methods. It is an external and objective view of culture and may not always match how local people understand their own practices. Thus, emic focuses on internal

meanings and realities, while etic focuses on observable behaviour and analysis from an outsider's perspective. For example, a researcher may study a ritual as a method of maintaining social cohesion in the community. Whereas, for a native, it is necessary to please his or her ancestors. Thus, it is evident that both emic and etic view of culture are indispensable for a comprehensive analysis of cultural practices.

Identify the emic and etic aspects of cultural practices from your own culture and discuss in class groups.



We have understood that culture is learned as a part of social life.

Observe the picture (Fig 2.6). What does it indicate?

Imitating the elderly is one of the ways of acquiring culture. Let us examine the process of the acquisition of culture by individuals in society.

Enculturation

Enculturation is the process through which an individual learns and adopts the culture of his or her own society. It includes learning values, beliefs, customs, language, traditions, and patterns of behaviour. Through enculturation, culture is passed from one generation to the next. This process begins at birth and continues throughout life. It takes place through agencies such as the family, school, peer groups, elders, media, and society. Through this process, individuals learn social roles such as those of parents, grandparents, and other relatives.



Fig 2.6 Enculturation

Sometimes a person learns other cultures willingly or unwillingly. For example, many people from other states work in Kerala and are compelled to learn Kerala culture in order to adapt to it.

Acculturation

Acculturation is the process by which individuals or groups learn and adopt cultural traits from another culture as a result of continuous and direct contact between different cultures. In this process, people may adopt new ideas, values, customs, etc. From an anthropological point of view, acculturation does not mean complete loss of one's

own culture. Instead, it involves cultural change and adaptation, where elements of one culture are borrowed and adjusted while many original cultural traits continue.

Acculturation usually occurs through migration, colonisation, trade, education, urbanisation, mass media, and globalisation. The changes may be voluntary or forced, and they may affect one or both cultural groups involved. Tribal communities adopting modern education, clothing, and food habits etc., through contact with other culture, is an example of acculturation.

While adopting elements of other cultures, there is a chance of losing of original cultural traits. The following is a concept related to this.

Deculturation

Deculturation refers to the process through which individuals or groups gradually lose or give up their original cultural traits due to continuous contact with another culture. It involves the weakening or disappearance of traditional customs, language, beliefs, values, and ways of life. Deculturation often occurs alongside acculturation, especially when one culture is dominant over another.

Many tribal communities have stopped using their indigenous languages and now speak dominant national or global languages, leading to language decline. During colonial rule, many local customs, education systems, and value systems were replaced by Western models, resulting in the loss of indigenous cultural practices.

Apart from the loss of cultural identity, sometimes there is an exchange of cultural traits between cultures.

Transculturation

Transculturation is the process of exchanging cultural traits among different cultures. It refers to the process in which two or more cultures come into contact and mutually exchange cultural traits, leading to the creation of new cultural forms. For instance, in music, fusion styles blend Indian classical music with Western jazz or pop. In food, cuisines like Indo-Chinese combine Indian spices with Chinese cooking techniques. These examples show how new cultural forms emerge through mutual cultural exchange.

Transculturation brings people into close contact with new cultures. When individuals face unfamiliar beliefs and practices during this process, they may feel confusion or discomfort.

Culture Shock

Culture shock is the feeling of confusion, surprise, anxiety, or discomfort experienced by a person when they encounter an unfamiliar cultural situation for the first time. It usually occurs when someone moves to a new place where language, food habits, social customs, values, and daily practices are unfamiliar. It may result in adjustment problem. Ethnocentric people are more exposed to culture shock. For example, when a person is compelled to live in another culture where fried insects is a regular food item, it may cause culture shock for that person.

Have you ever experienced culture shock? Describe a situation where you may experience culture shock and how overcome that situation?



We have seen that people often hesitate to alter their traditional beliefs and values even though the material part of religion continues unchanged for long.

Cultural Lag

The term cultural lag was introduced by American sociologist W. F. Ogburn. According to him, material culture changes and develops more rapidly, while non-material culture changes more slowly. As a result, the non-material aspects of culture often lag behind the material aspects. For example, in India the transport system has changed with the development of modern roads, fast vehicles, and metro systems; however, road discipline and civic sense have not developed at the same pace to meet the needs of the times.



Cultural Lag

With economic liberalisation and globalisation since the 1990s, material culture such as information technology, modern offices, night-shift work, multinational companies, and digital connectivity has developed very rapidly. Studies in urban sociology and anthropology (for example, research on BPO and IT workers in cities like Bengaluru and Gurugram) show that large numbers of educated women have entered salaried employment and professional careers. However, non-material culture including traditional gender norms, family expectations, and ideas about women's roles has not changed at the same pace. Many working women continue to face:

- Expectations to perform primary domestic responsibilities
- Social suspicion about night shifts and mobility
- Moral regulation by family and community
- Pressure to prioritise marriage and motherhood over careers

This mismatch between modern economic structures and traditional social values creates stress, role conflict, and social tension. Anthropologists and sociologists interpret this as cultural lag, where social attitudes and norms lag behind technological and economic change.



Find similar instances of cultural lag in different spheres of culture and prepare a write up on it.

Culture and society are closely related and cannot be understood separately. While culture refers to the shared beliefs, values, customs, and ways of life of people, society provides the framework within which culture develops and is practiced. Culture gives meaning to social relationships, institutions, and behaviour, and society acts as the carrier of culture. Without society, culture cannot exist, and without culture, society would have no direction or identity. Therefore, after understanding the concept of culture, it is essential to examine the concept of society to understand how human life is organised and sustained.

Concept of Society

Society refers to an organised group of individuals who live together in a defined area and share common relationships, institutions, values, norms, and culture. Members of a society interact with one another and are bound together by social relationships such as family, kinship, economic, political, and religious institutions.

“Society is a reality sui generis (a reality of its own), independent of individuals.”- Emile Durkheim

“Society is a web of social relationships.” - MacIver and Page

Society is not merely a collection of individuals; it is a system of social relationships that regulates human behaviour. Through society, individuals learn how to behave, cooperate, and fulfill their roles. Society provides structure to human life and ensures order, continuity, and stability.

In Anthropology, society is studied to understand how people organise themselves, maintain social relationships, and adapt to their environment. Since culture exists within society and society expresses itself through culture, both concepts are important in the study of human life. Society, as we know, differs from other human groupings. Examine the following characteristics of society and complete the list based on your understanding of society and culture.

- It has a definite territory
- It has a culture
- Members are recruited by means of reproduction
- Society is a permanent, integrated group
-
-

Society is made up of many individuals. These individuals come together for various purposes such as cooperation, mutual support, and shared activities. In the process, they form different social groups in which members interact regularly and develop common interests, values, and goals. Therefore, social groups are the basic units of society, and society can be understood as a network of interconnected social groups.

Social Group

A group means any collection of individuals who are brought into interaction with one another. According to E S Bogardus, an American sociologist, a social group consists of two or more persons who share common interests, stimulate one another, show common loyalty, and participate in similar activities. Green and Arnold, American sociologists, describe a group as an aggregate of individuals that persists over time and has common interests and activities.

Thus, a social group is characterised by interaction, shared interests, mutual awareness, and continuity.



Identify the characteristics of a social group by analysing the above definitions of social groups and discuss them in class.

Types of Groups



Fig 2.7 Different types of social groups

Social groups are broadly classified into primary groups and secondary groups. A primary group is small in size, with limited membership, such as a family or a small play group. In primary groups, relationships are close, personal, and direct, and cooperation among members is direct and spontaneous. These groups are based on informal structures and strong emotional bonds.

In contrast, a secondary group is large in size, with widespread membership, such as schools, offices, or political parties. Relationships in secondary groups are impersonal and indirect, cooperation is

indirect, and interactions are guided by formal rules and regulations. Thus, while primary groups emphasise intimacy and face-to-face interaction, secondary groups are organised around specific goals and formal structures.

In each group, members are connected by certain duties (role) and responsibilities according to their positions (status) in the group, which contribute to its smooth functioning.

Role and Status

Role refers to the manner in which a person in society is expected to perform. According to Landberg, a Swedish sociologist, a social role is “a pattern of behaviour expected of an individual in a certain group or situation.” Ogburn and Nimkoff, American sociologists, define a role as a set of socially expected and approved behaviour patterns consisting of duties and privileges associated with a particular position in a group.

Status refers to the position occupied by an individual in society. Status and role are closely related and are often described as two sides of the same coin. While status is the position itself, a role is the

expected behavior or duties associated with that position. In other words, a role is the functional aspect of a status. Social statuses are generally classified into two types:

1. Ascribed Status – This is a status that an individual occupies through birth. Examples include caste, gender, ethnicity, or royal lineage.
2. Achieved Status – This is a status that an individual attains through their own efforts, choices, or accomplishments. Examples include a doctor, a teacher, an athlete, or an elected official.

Prepare a chart showing ascribed and achieved statuses with examples.



We have understood that each society and culture is distinctive. Gaining knowledge of any one society requires detailed and careful study. Anthropologists examine different societies by taking into account their unique cultural and ethnic characteristics. At times, societies are analysed comparatively, focusing on similarities and differences between them, while in other cases, a particular society is selected for in-depth and detailed study. These diverse perspectives are explained below.

Ethnology

Ethnology is the comparative and analytical study of ethnic groups and cultures. In Britain, Social Anthropology was earlier referred to as ethnology. Ethnologists study cultures by comparing societies across different regions and historical periods. They often classify people based on their geographical distribution and cultural characteristics and generally adopt an etic (outsider's) point of view. Ethnology is considered more historical and comparative in nature and is different from ethnography. It does not usually involve direct fieldwork or primary data collection; instead, it relies on existing ethnographic studies and secondary sources. Ethnology is narrative, historical, and comparative, and it studies cultures of different times and places to identify similarities and differences.

Ethnography

Ethnography is a branch of Cultural Anthropology that focuses on the intensive study of a single, contemporary culture through fieldwork. It

involves close and prolonged contact with the people being studied. The ethnographic method is commonly known as participant observation, in which the researcher actively participates in the daily activities of the group while observing their behaviour, interactions, and social practices. Ethnography requires primary data collection and aims to understand culture. The detailed description produced from such fieldwork is also called an ethnography.



Extract of ethnographic field diary of Malinowski

“Another long day in the village. From early morning I watched the men preparing for fishing, mending their nets and discussing the signs of the weather. At first glance these activities appear mundane, yet it is precisely here that the real structure of their social life reveals itself. The rules governing cooperation, authority, and obligation are not stated explicitly, but are enacted through action and habits”.

“I find that only by sitting among them, listening to casual conversations, sharing their meals, and enduring the discomforts of climate and isolation, can one begin to understand the native’s outlook on life. When questioned directly, informants often give conventional answers, but when observed in daily practice, their behavior speaks more truthfully than formal explanations”.

“This afternoon I followed the preparations for a Kula expedition. The excitement was palpable. The exchange of shell valuables is not mere trade; it is embedded in a complex network of prestige, rivalry, friendship, and obligation. To miss the emotional undercurrents of these exchanges would be to misunderstand their entire economic system”

(Pedagogical extract from the book of *Argonauts of the Western Pacific* - Malinowsky B.[1922])



Prepare an infographic or chart differentiating ethnology and ethnography.



Extended Activities

1. Cultural Traits and culture complexes.

Observe daily life in your school. Examine how it works as a cultural complex and list out different cultural traits associated with it.

2. Reflections on Ethnocentrism

Observe a situation in your school, neighborhood, or community where people might judge others' customs or behaviour. Write a short note explaining how ethnocentrism is displayed.

3. Role and Status Analysis

Observe people in your family, school, or neighborhood and identify the different roles and statuses they hold. Prepare a report or paper showing how society organises these roles.

3

BASICS OF BIOLOGICAL ANTHROPOLOGY

'I still remember the moment clearly.'

I had been sitting quietly in the forest at Gombe, watching the chimpanzees go about their day when I noticed David Greybeard doing something extraordinary. He picked up a small twig, stripped off the leaves with deliberate care and pushed it into a termite mound. When he pulled it out, it was covered with termites, which he calmly ate. At that instant, I realized I was witnessing something no one believed possible- an ape making and using a tool. I knew immediately that this simple act would challenge the idea that tool use belonged only to humans. In that moment, the line we had drawn between ourselves and other animals suddenly felt much thinner.'

Goodall, J. (1971). In the Shadow of Man. Boston: Houghton Mifflin.



Fig 3.1 - Jane Goodall and Chimpanzee

You have learned in your lower classes that millions of years ago, humans, chimpanzees and other apes shared a common ancestor. Today, we know that chimpanzees can use simple tools, as shown by the famous British primatologist and anthropologist Jane Goodall. This shows that chimpanzees are similar to humans in many ways, such as intelligence and problem-solving skills. These similarities suggest that humans and chimpanzees share a common evolutionary past.

- How did small changes over millions of years give rise to modern humans?

- Does evolution occur in all living organisms, and if so, what forces drive the process of evolution?”
- How are humans biologically related to other primates such as chimpanzees and gorillas?
- How do fossils help us understand human evolution and ancestry?
- Why do humans show biological diversity, such as differences in skin colour and body features?
- How does the study of genes help in tracing human origins and relationships?

Let us now examine how Biological Anthropology provides scientific answers to many important questions, including those raised above and helps us understand how humans evolved over time.

You may remember that these areas were discussed as part of Biological Anthropology in the introductory unit. Biological Anthropology includes several important fields such as primatology, human genetics, human paleontology, forensic anthropology, and serology. Together, these branches help us understand human origin, evolution, and biological diversity.

Biological Anthropology, also known as Physical Anthropology, seeks to answer fundamental questions about human origin, heredity, variation, and evolution. Drawing on principles from Evolutionary Biology, it studies how humans have evolved, adapted, and diversified over long periods of time. This field compares past and present human populations to understand biological changes across generations.

Through the study of evolutionary theories, fossils, genetics, and patterns of variation, Biological Anthropology explains the biological basis of human life. To understand this biological basis more clearly, we must first familiarise ourselves with the basic concepts of Biological Anthropology.

Basic concepts in Biological Anthropology

To understand human evolution and biological diversity, it is important to learn the basic concepts of Biological Anthropology, such as evolution, heredity and variation. These concepts explain how humans have changed over time and why differences exist among human populations.

Evolution

The term evolution was first used by Herbert Spencer, a British philosopher, to describe the historical development of life. Biological evolution began with the origin of life, marked by the successful formation of protoplasm. From simple beginnings, life gradually became more complex, giving rise to diverse and advanced forms of organisms. Evolution is the biological process by which species change over time due to genetic variation and natural selection. It explains how all living organisms, including humans, have descended from common ancestors. Thus, evolution refers to changes in biological populations across successive generations through modifications in their genetic traits, which may eventually result in the formation of new species.

Heredity

Heredity is the tendency of children to resemble their parents. It refers to the passing of traits and features such as height, eye colour, or hair type from parents to their children. In simple terms, heredity refers to the way characteristics are transmitted from one generation to the next in living beings.

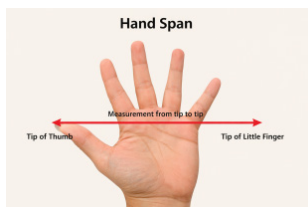


Fig 3.2 hand span measurement

Variation

The tendency of the offspring to differ from their parents and also among themselves is called variation. The study of human variation is another principal focus of Biological Anthropology. 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 a characteristics of all living organisms.



List traits such as height, eye colour, hair type, etc., in your family and compare similarities and differences. Also observe traits like height, hand span, or tongue-rolling ability among your classmates and record the differences.

From ancient times, philosophers and early scientists tried to explain the origin, diversity, and change of living organisms using observation and reasoning. Ancient Greek philosophers like Aristotle believed

that living beings were fixed and arranged on a scale from simple to complex, an idea known as the Scala Naturae (Natural Scale). Another early belief was special creation, which stated that all plants and animals were created separately by a divine power and remained unchanged. Some scholars also supported the idea of Fixity of Species, which held that species do not change over time. Though these early theories lacked scientific evidence, they contributed to the gradual development of more scientific theories of organic evolution.

Theories of Organic Evolution

It is a universally accepted fact that living organisms have undergone continuous changes in form and structure from the past to the present, and will continue to change in the future. This gradual transformation of organisms into new and distinct species has resulted in the vast diversification of life forms on Earth. Since evolution is a very slow and long-term process, it cannot be directly observed within a human lifetime. Evolutionary change generally proceeds from simple to complex forms and from homogeneity to heterogeneity.

Theories of organic evolution aim to explain how life on Earth originated, changed, and diversified over long periods of time. These theories describe the processes through which species arise, adapt to their environments, and undergo transformation across successive generations. A central idea common to all modern evolutionary theories is that all living organisms share a common ancestry and have evolved through gradual changes brought about by variation, heredity, and environmental pressures. Over time, many scientists have proposed different theories to explain the mechanism of evolution, based on observations, experiments, and scientific reasoning. Some of the important theories of organic evolution are discussed below.

Lamarckism (Theory of Inheritance of Acquired Character)

Jean Baptiste de Lamarck (1744–1829), a French biologist, recognised that all forms of life on Earth are the result of evolutionary change. He began his career as a botanist and

Variation and Variability



Variation is also seen within families. Even identical twins, are not exactly the same in every way. Each child is different. One child may resemble the father, while another may resemble the mother. This shows that variability exists in all living organisms.

Variation refers to the differences seen among individuals of the same species.

Variability refers to the ability or tendency of a species to show variation.



Fig 3.3
Jean Baptiste de Lamarck

later turned his attention to zoology. Lamarck proposed his theory of evolution in his famous book *Philosophie Zoologique* (1809). His evolutionary theory is popularly known as Lamarckism. Lamarck believed that the changes observed in organisms were mainly caused by environmental influences. According to him, when the environment changes, organisms are forced to adapt by modifying their body structures in order to survive. He explained this idea through two important laws, which are discussed below.

1. The law of use and disuse

According to Lamarck, the body of a living organism is continuously influenced by environmental conditions. To meet the needs of survival, certain organs are used more frequently, while others are used less. Organs that are repeatedly and actively used become stronger and more developed over time, whereas organs that are not regularly used gradually become weak and may even degenerate. Thus, Lamarck argued that continuous use leads to the development of organs, while constant disuse results in their reduction or disappearance.

2. Inheritance of acquired characters

Lamarck believed that evolution occurs as a result of organisms adapting to their environment. He proposed that the structural changes or modifications acquired by an organism during its lifetime

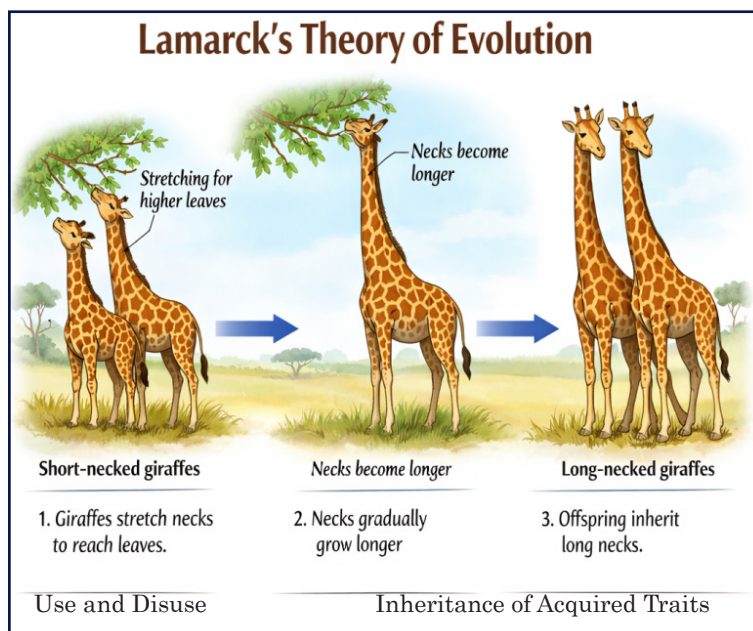


Fig. 3.4 According to Lamarck Giraffes developed long necks to reach leaves.

due to the use or disuse of organs are inherited by the next generation. According to this theory, the characters acquired in response to environmental conditions are automatically transmitted to the offspring and become a permanent part of heredity, leading to evolutionary change over successive generations. To support his theory, Lamarck cited several examples. The most famous example is that of the giraffe. He suggested that the ancestors of giraffes

had shorter necks and forelimbs and fed on grasses and shrubs. When food at ground level became scarce due to environmental changes, they were forced to stretch their necks and forelimbs to reach leaves on tall trees. Continuous stretching over many generations resulted in the long necks and elongated forelimbs of present-day giraffes.

Lamarck also explained that ducks lost their ability to fly because their wings became weak due to disuse. Similarly, birds that adapted to an aquatic mode of life gradually developed webbed feet to aid in swimming. Other examples cited by Lamarck include limblessness in snakes, blindness in moles, and loss of eyesight in certain cave-dwelling animals.

Criticism of Lamarckism

Lamarck's theory faced criticism from various scholars and was not widely accepted. One of the strongest criticisms came from the German biologist August Weismann. He rejected Lamarck's idea of the inheritance of acquired characters through his experiments on mice. Weismann repeatedly cut off the tails of mice for more than twenty-one successive generations. Despite this, the tailless mice continued to produce offspring with normal tails in every generation. From these observations, Weismann concluded that environmental influences may affect the body cells of an organism, but such changes do not affect the reproductive cells. Weismann argued that only changes occurring in the reproductive cells could be inherited.

He proposed that the body of an organism consists of two distinct components: germ plasm (Reproductive cells) and somatoplasm (Body cells). According to his theory, characteristics present in the germ plasm alone are transmitted to the next generation, while changes in somatoplasm are not inherited. This view provided strong evidence against Lamarckism and supported the modern understanding of heredity.

Darwinism (Theory of Natural Selection)

Charles Robert Darwin (1809–1882), a British biologist, was appointed as a young naturalist for a scientific voyage aboard H.M.S. Beagle. During this voyage, Darwin travelled around the world and visited several regions, including the Galapagos Islands and many areas along the coast of South America. Throughout

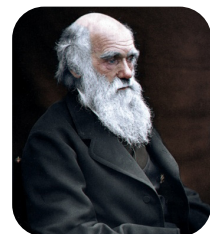


Fig 3.5 Charles Robert Darwin

the voyage, Darwin carefully observed and recorded the flora, fauna and geological features of the regions he visited. He collected a large number of living organisms and fossil specimens, which later played a crucial role in shaping his evolutionary ideas. While Darwin was developing his theory, another British naturalist, Alfred Russel Wallace, independently arrived at a similar explanation of evolution and communicated his ideas to Darwin in 1858. This led to the joint presentation of their views before the scientific community.

Charles Darwin formally presented his theory of evolution in his famous book *On the Origin of Species by Means of Natural Selection*, published in 1859. In this work, Darwin proposed that new species evolve from pre-existing species through a natural process. He explained the mechanism of evolution as natural selection, through which organisms possessing favorable variations survive and reproduce, leading to gradual evolutionary change. Darwin's theory of evolution is based on five fundamental principles, which are discussed below.

1. **Over-production:** All living organisms have the natural tendency to produce more offspring than are actually needed for survival. For example, a salmon lays millions of eggs in one breeding season; an oyster produces several million eggs; and a roundworm lays thousands of eggs in a short time. Even plants like the jackfruit produce a large number of seeds in a single fruit. On the other hand, animals like the elephant reproduce very slowly and give birth to only a few young ones in their lifetime. Although organisms produce a large number of offspring, the population size of a species usually remains nearly constant. This shows that not all individuals that are born survive.

2. **Struggle for Existence:** More individuals are produced than can survive, so there is a constant struggle for existence in nature. This struggle occurs due to limited resources such as food, shelter, space, and mates. According to Darwin, the struggle for existence occurs in three main forms:

- a. **Intra-species struggle:** This is the struggle among members of the same species for food, shelter and mates. Example: Tigers compete with each other for deer.
- b. **Inter-species struggle:** This is the struggle between members of different species for the same food. Example: A lion and a tiger compete for a deer.

- c. **Environmental struggle:** Organisms also struggle against environmental factors such as droughts, floods, earthquakes, extreme temperatures, and diseases. Only those organisms that are well adapted to such conditions are able to survive.

3. **Variations:** As we have seen earlier in this unit, variation refers to the differences found among individuals of the same species. Darwin observed that no two individuals are exactly alike, even among plants where no two leaves are identical. Variations may be seen in structure, size, colour, behaviour, and physiological functions. Some variations are favourable, helping organisms survive better in their environment, while others are unfavourable. Individuals with unfavourable variations are less likely to survive, whereas those with favourable variations have a better chance of survival and reproduction. These useful variations are passed on to future generations.

4. **Survival of the Fittest:** As a result of the struggle for existence, only those organisms that are better adapted to their environment are more likely to survive. This is known as the survival of the fittest. The term “fittest” does not mean the strongest, but those organisms that are best suited to their surroundings. Organisms that fail to adapt are gradually eliminated, while the fitter ones survive and reproduce more successfully, producing a larger number of offspring.

5. **Natural Selection:** Natural selection is the process by which organisms with favourable variations are more likely to survive and reproduce, while those with unfavourable variations are less likely to pass on their traits to the next generation. The surviving organisms pass on their advantageous traits to the next generation. Over many generations, these favourable traits accumulate, causing gradual changes within a species. As environmental conditions change, new adaptations may develop. Over long periods of time, natural selection can lead to the formation of new species from a common ancestral population. Thus, natural selection is the main mechanism of evolution that explains the origin of new species.

Examples of Natural Selection

1. **Darwin's Finches of the Galapagos Islands:** The finches of the Galapagos Islands provide a classic example of natural selection. These finches show variations in the size and shape of their beaks, which are related to their

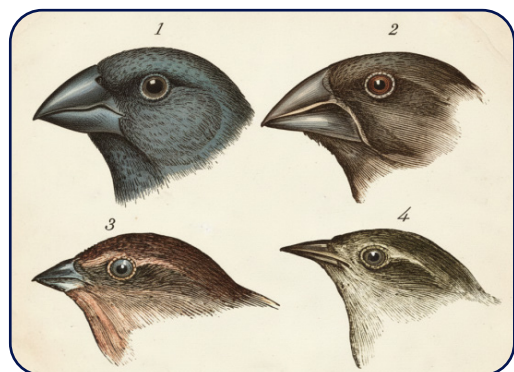


Fig 3.6 Darwin's Finches

feeding habits. Some species have short, thick beaks suitable for eating seeds, fruits and buds, while others have long, thin beaks adapted for feeding on nectar from flowers. When environmental conditions change, such as the availability of food, finches with beak types best suited to the new conditions survive and reproduce more successfully. Over time, these favourable characteristics become more common in the population, leading to the formation of different species.

2. Industrial Melanism in Moths: Industrial melanism in moths is another well-known example of natural selection. Before industrialisation in England, tree trunks were light in colour due to the presence of lichens, and light-coloured moths were more common because they were well camouflaged. Although dark-coloured moths existed, they were fewer in number. With the onset of industrialisation, pollution caused tree trunks to become dark due to soot deposits. As a result, light-coloured moths became more visible to birds and were easily preyed upon, while dark-coloured moths were better camouflaged and survived in greater numbers. Gradually, the dark-coloured moths replaced the light-coloured ones, clearly demonstrating the role of natural selection.

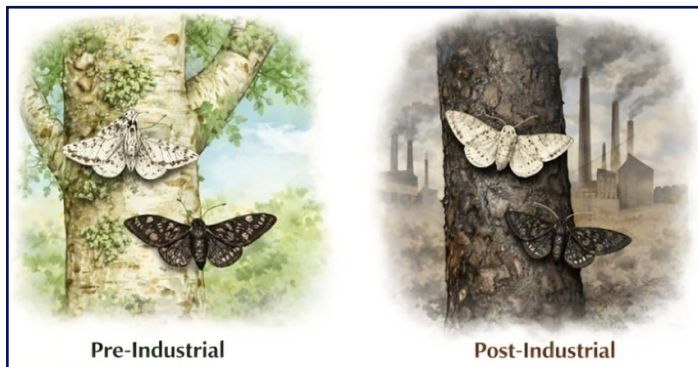


Fig 3.7 Industrial Melanism in Moth



Find examples of natural selection in your surroundings and prepare an article examining how these features help in survival.



*Fig 3.8
Hugo de Vries*

Mutation Theory

Hugo de Vries, a Dutch botanist, proposed the Mutation Theory of Evolution in the early 1900s. According to this theory, evolution does not occur slowly through small gradual changes, but through sudden and large changes called mutations. Hugo De Vries stated that new species arise from pre-existing species due to these sudden heritable changes in the genetic makeup of organisms. He considered mutation to be the chief source of variation responsible for the formation of new species. Unlike Darwin,

Hugo de Vries clearly distinguished between heritable variations and environmental variations, emphasising that only heritable variations play a role in evolution.

Neo Darwinism or the Modern Synthetic Theory of Evolution

Darwin's original theory explained evolution as the gradual accumulation of favourable variations through natural selection. However, it did not clearly explain how variations arise or how they are inherited. To address these limitations, scientists in the mid-twentieth century developed the Synthetic Theory of Evolution, also known as Neo-Darwinism or the Modern Synthetic Theory. This theory is an improved and expanded form of Darwin's ideas. According to this theory, variations arise through mutations, genetic recombination, and chromosomal changes. These variations are inherited according to the principles of Mendelian genetics.

The Modern Synthetic Theory combines knowledge from several fields, including genetics, ecology, geography, morphology, and palaeontology. It explains evolution as the result of the combined action of natural selection, mutation, genetic recombination, gene flow, genetic drift, migration, hybridisation, and reproductive isolation. Thus, the Synthetic Theory provides a comprehensive and widely accepted explanation of how evolution occurs.

Having understood the theories of organic evolution, which explain how life originated, changed and diversified over long periods of time, it becomes necessary to examine how this evolutionary process is reflected in the classification of living organisms. The vast diversity of life produced through evolution is systematically arranged in the animal kingdom based on similarities and differences in structures, functions and evolutionary relationships. Classification helps us understand the evolutionary connections among different groups of animals and trace the gradual progression from simple to complex forms. Since human beings are also a part of the animal kingdom, the study of human evolution logically begins with an understanding of the classification of animals.

Human's Place in the Animal Kingdom

Animals on earth are very different from one another. To study them easily, scientists group animals based on common features such as body structure and habits. This grouping is called classification of

the animal kingdom. Classification helps us understand how animals are related to each other and how they have evolved over time. By studying animal classification, we can also understand the position of human beings in the animal world. Carl Linnaeus, a Swedish botanist, is known as the Father of Taxonomy. He systematised and classified plants and animals by assigning each organism a scientific name consisting of two parts: a genus name and a species name. For example, humans are scientifically named *Homo sapiens*, where *Homo* represents the genus and *sapiens* represents the species. Based on such scientific principles, organisms in the animal kingdom are classified into various taxonomic categories. The following is a taxonomic classification of organisms in the animal kingdom.

Kingdom	Animal Kingdom									
Sub Kingdom	Protozoa					Metazoa				
Phylum	Non chordata					Chordata				
Sub Phylum						Invertebrates		Vertebrate		
Class	Fish		Amphibians		Reptiles		Birds		Mammals	
Sub Class	Prototheria					Metatheria			Eutheria	
Order	Edentata	Cetacea	Sirenia	Chiroptera	Ungulata	Carnivora	Insectivora	Rodentia	Primates	
Sub Order							Prosimii		Anthropoidea	
Super Family	Ceboidea			Cercapithecoidea			Hominoidea			
Family	Pongidae			Hylobatedae			Hominidae			
Genus	Ardipithecus			Austrolopithecus			Homo			
Species	Homo Habilis			Homo Erectus			Homo Sapiens			
Sub Species	Homo sapiens neanderthalensis						Homo sapiens sapiens			

Table 3.1 Taxonomical Chart of Animal Kingdom

Living beings on Earth are broadly classified into the plant kingdom and the animal kingdom by Carl Linnaeus. The classification of the animal kingdom helps us trace the evolutionary pathway from the simplest life forms to modern humans. Life is believed to have begun with simple, unicellular organisms known as Protozoa. Protozoa include unicellular organisms, whereas Metazoa include multicellular organisms.

Metazoa are divided into two major groups: Non-chordata and Chordata. Chordates are characterised by the presence of a dorsal nerve cord, which develops into the brain and spinal cord. Humans belong to the phylum Chordata. The phylum Chordata is

further divided into two sub phylum: Invertebrates and Vertebrates. Invertebrates lack a vertebral column. Vertebrates are characterised by the presence of a vertebral column, an internal skeleton and a well-developed nervous system, which provide structural support and higher levels of organisation.

Vertebrates are further classified into different classes such as fishes, amphibians, reptiles, birds and mammals. Among these, mammals represent the most advanced group. Mammals are warm-blooded animals capable of maintaining a constant body temperature. They possess two sets of teeth, namely deciduous and permanent, which are embedded in sockets. Mammals also have mammary glands and mothers nourish their young ones with breast milk.

The class Mammalia is divided into three subclasses: Prototheria, Metatheria and Eutheria. The subclass Eutheria includes placental mammals, including humans. In eutherian mammals, the unborn young develops within the maternal womb. The mother possesses a placenta, which nourishes the foetus during its growth before birth. The subclass Eutheria is further divided into various orders. Humans are placed in the Order Primates. Thus, through a systematic classification of the animal kingdom, humans are biologically placed within the evolutionary framework that begins with simple unicellular organisms and culminates in modern human beings.

Human's place among Primates

Humans are placed in the Order Primates. Primates exhibit a number of distinctive characteristics that set them apart from other mammals. The important characteristics of Primates are as follows:

- The brain is large in proportion to body size.
- Prehensile hands, enabling to grasp objects.
- Well-developed fingers, toes and flat nails instead of claws.
- Flexible forearm allowing free movement.
- Presence of an opposable thumb, which aids in precise handling.
- Reduced canines compared to other mammals.
- A centrally placed foramen magnum, indicating an upright posture.
- Marked reduction in prognathism (projecting jaw).
- Erect posture and habitual bipedalism in humans.

- The loss of opposability of the great toe, adapting the foot for walking.
- Forward-facing eyes providing binocular and stereoscopic vision.
- Generally, the tendency to give birth to one offspring at a time.

The Order Primate is divided into two sub-orders, such as *Prosimii* and *Anthropoidea*. Humans, along with monkeys and apes, are included in the sub-order *Anthropoidea*. This sub-order is characterised by frontally placed eyes, stereoscopic vision, and a complete bony eye socket.



Fig 3.9 Apes

The sub-order *Anthropoidea* is further divided into three super families like *Ceboidea* (New World monkeys), *Cercopithecoidea* (Old World monkeys) and *Hominoidea*. Humans and apes belong to the superfamily Hominoidea, which is characterised by the absence of tail and absence of cheek pouches.

As per the classical taxonomical chart of animal kingdom (Table 3.1) the super family *Hominoidea* is further classified into three families namely *Pongidae*, *Hylobatidae* and *Hominidae*. Family *Pongidae* includes large apes such as orangutan, chimpanzee and gorilla, *Hylobatidae* includes gibbons and *Hominidae* includes humans (both living and extinct).

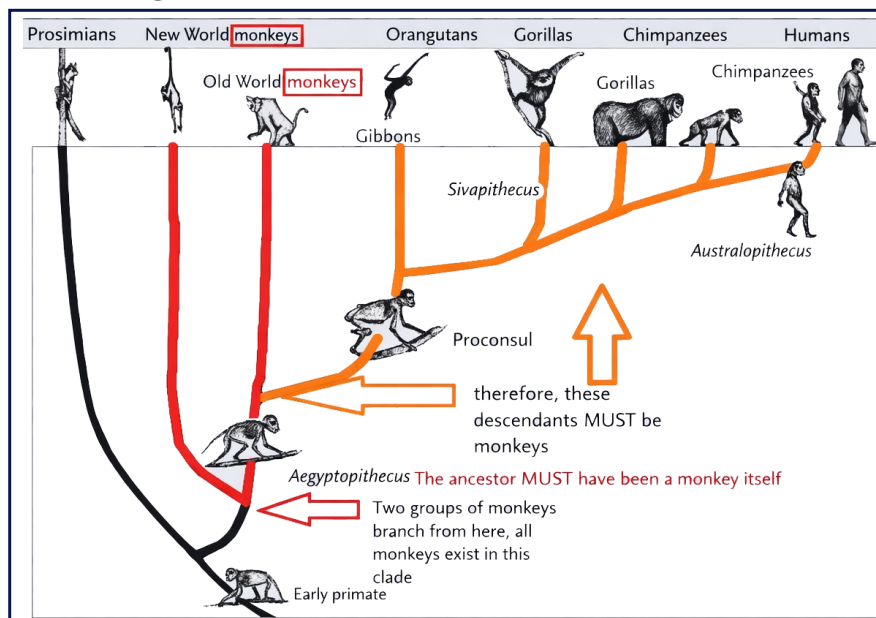


Fig 3.10. Primate Evolutionary Tree

The family *Hominidae* includes several genera, such as *Australopithecus*, *Ardipithecus* and *Homo*. Humans belong to the genus *Homo*. The genus *Homo* includes different species, such as *Homo habilis*, *Homo erectus* and *Homo sapiens*. The species *Homo sapiens* is further divided into two subspecies: *Homo sapiens neanderthalensis* and *Homo sapiens sapiens*. Thus, modern humans are scientifically known as *Homo sapiens sapiens*.

The phylogenetic classification discussed above was made based on the morphological characters, development of brain size, etc. Advances in morphological and molecular studies showed that humans are more closely related to chimpanzees than to gorillas. The orangutans are even more distantly related. As a result, modern classification places humans and the great apes together in the family *Hominidae*. This family is divided into two subfamilies: *Ponginae*, which includes orangutans and *Homininae*, which includes humans and the African great apes. Within the subfamily *Homininae*, taxonomists further divide members into tribes based on evolutionary relationships. Gorillas are placed in the tribe *Gorillini*. Another tribe, *Hominini*, includes modern humans and their extinct ancestors, collectively known as *Hominins*. Chimpanzees and bonobos are placed either in a separate tribe called *Panini* or included within *Hominini*, depending on how closely their evolutionary relationship with humans is interpreted. Figure 3.11 provides a fair illustration of this classification.

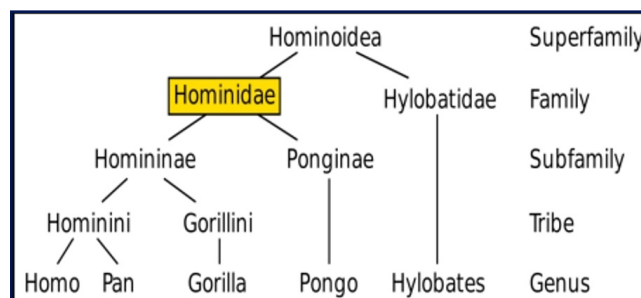


Fig 3.11 Taxonomic chart of super family *Hominoidea*

Human Evolution

The phylogenetic classification of Primates, including the family *Hominidae* discussed above, reflects evolutionary relationships of humans with chimpanzees, gorillas and orangutans. We have seen that evolution is the gradual and continuous process by which living organisms undergo changes in their structures, functions and behaviour over long periods of time. These changes help organisms

adapt to their environment and are passed from one generation to the next. Like all other organisms, humans have evolved over millions of years and share a common ancestry with other forms of apes. Studying the different stages of hominid and human evolution allows us to trace the lineage that eventually led to the origin of modern humans.

Palaeontological evidence from both Asia and Africa leads to different opinions regarding the place of human origin. Some scholars strongly argued that Asia was the birth place of humankind, while others maintained that Africa was the most likely centre of origin. Another viewpoint later suggested that human evolution occurred along different evolutionary lines in different regions of the world. Despite these differing interpretations, Darwin regarded Africa as the cradle of humankind, a view that was later strongly supported by fossil discoveries made by eminent palaeontologists leading to the formation of the out of African theory.



Out of Africa Theory

The 'Out of Africa' theory, proposing that modern humans (*Homo sapiens*) evolved in Africa and migrated globally, was popularised in the 1980s/early 1990s.

Key Proponents (1980s-90s): While Charles Darwin originally proposed the African ancestor theory in the 19th century, the modern "Out of Africa" or "replacement" hypothesis was heavily championed in the late 20th century by British palaeontologist Chris Stringer.

Genetic Evidence: The theory gained strong support in the late 1980s and early 1990s from molecular biologists Allan Wilson and Rebecca Cann through their mitochondrial DNA studies, which proposed a "Mitochondrial Eve".

Timeline: While early *Homo* left Africa around 1.8–2 million years ago (e.g., *H. erectus*), the "Recent Out of Africa" theory specifically points to modern *Homo sapiens* spreading from Africa around 60,000–100,000 years ago.

Core Concept: The theory holds that modern humans evolved exclusively in Africa (roughly 200,000–300,000 years ago) and migrated outwards, replacing other, older human populations (like Neanderthals) with minimal interbreeding.

Recent advances in Molecular Biology and genetics have demonstrated that there was no single fossil species that can be identified directly as the common ancestor of both apes and humans. Instead, these studies support the concept of a Last Common Ancestor (LCA), a hypothetical ancestral population from which the evolutionary stages of modern apes and humans diverged, leading to the emergence of hominins on the human evolutionary line.

From such early ape-like forms, early hominids emerged, the earliest of which were the Australopithecines. From the Australopithecine stage, human evolution continued through later forms such as *Homo erectus*, Neanderthals and finally modern humans, i.e., *Homo sapiens* was represented in Europe by Cro-Magnon. These stages will be discussed in detail in the following sections.

1. Australopithecines

Australopithecines were early hominids and an important stage in human evolution. They looked similar to apes, with small brain case, bi-molar teeth, and protruding faces (facial prognathism). Their cranial capacity was small, ranging from 400 to 700 cc. Unlike apes, they had smaller canines; a pelvis suited for upright walking, and a downward-facing foramen magnum. Some well-known types are *Australopithecus africanus*, *Australopithecus afarensis*, *Australopithecus boisei* and *Australopithecus robustus*.

Australopithecus africanus

In 1924, Raymond Dart, an Australian anatomist working in South Africa, made an important discovery while studying fossils obtained from limestone quarries near Taung in South Africa. He identified the first specimen of an australopithecine. The fossil belonged to a child and is therefore known as the 'Taung Child'. The cranial capacity of *Australopithecus africanus* was about 520 cc, which is larger than that of a chimpanzee, indicating a relatively advanced brain. Dart also observed that the foramen magnum, the opening through which the spinal cord connects to the skull was positioned in a way that suggested an upright posture. Based on this feature, he concluded that *Australopithecus africanus* was likely bipedal, meaning it walked on two legs.



Fig 3.12 Australopithecus africanus skull

Australopithecus afarensis

Australopithecus afarensis is considered more primitive than *Australopithecus africanus*. Fossils of this species were discovered in 1974 by Donald Johanson, American Palaeoanthropologist, at the Hadar site in northern Ethiopia and have been dated to about 3–4 million years ago. This species was upright and bipedal, and is popularly known as “Lucy”. It had a small brain (about 440 cc), prominent canine teeth and a skull resembling that of a modern chimpanzee. Lucy was about 3.5 - 4 feet tall.



Fig 3.13 Lucy

Australopithecus boisei

Australopithecus boisei lived in East Africa about 2.3–1.2 million years ago. It had a strong skull, a large jaw, and a very large molar teeth, which helped it chew tough plant foods. Because of its powerful chewing adaptations, it is sometimes called the “Nutcracker Man.” Its brain was small, around 500–550 cc.

Australopithecus robustus

Australopithecus robustus lived in southern Africa about 2–1 million years ago. It had a strong jaw and large teeth, but smaller than *Australopithecus boisei* and a flatter face. It was adapted to a plant-based diet, likely eating hard seeds and roots. Its brain size was also around 500–550 cc.

Homo habilis



Fig 3.14 *Homo habilis*

Homo habilis, meaning “Handy Man,” was named for its ability to make and use tools. Fossils including skull and jaw parts, were discovered by Dr. Louis Leakey at Olduvai Gorge in East Africa. Leakey suggested that *Homo habilis* should be considered more advanced, as it shows features closer to *Homo sapiens*. It represents an important transitional stage between *Australopithecus* and *Homo erectus*, though some scientists suggest it may be an advanced Australopithecine rather than a separate species.

2. Homo erectus

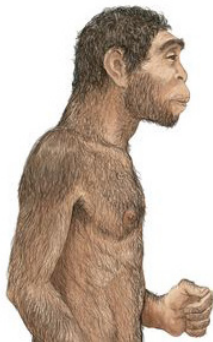


Fig 3.15 *Homo erectus*

Homo erectus, meaning “Upright Man,” represents the second stage of hominid evolution. The first fossil, known as ‘Java Man’, was discovered in 1891 by Eugene Dubois on Java, and it is about 1.9 million years old. Later fossils were found worldwide and given names such as *Pithecanthropus*, *Sinanthropus*, *Atlanthropus* and *Telanthropus*, however, all are now recognised as *Homo erectus*. *Homo erectus* had a larger brain (775–1300 cc), a long and broad skull with a thick brow ridge, a flat face, slightly projecting canines and no chin. Its body was similar to that of modern humans, showing an upright posture, though some ape-like traits remained. Its brain size was about twice that of the Australopithecines and two-thirds that of *Homo sapiens*.

Overall, *Homo erectus* was an important evolutionary stage, bridging the gap between *Australopithecus* and later humans and is considered an ancestor of *Neanderthals* and modern humans.



Did Fire Change Our Biology?

The controlled use of fire marked an important stage in human evolution. Archaeological evidence suggests that early humans, particularly *Homo erectus*, learned to use fire nearly one million years ago. Fire provided warmth, protection from predators, and light, but its most significant impact was on food preparation.

Cooking made food softer and easier to digest, increasing the energy obtained from the same quantity of food. This dietary change is believed to have contributed to reduction in jaw size and teeth, the shortening of the digestive tract, and greater availability of energy for the developing brain. Thus, the use of fire not only changed human behaviour but also influenced biological evolution.

Source: Harari, Y. N. (2014). Sapiens: A Brief History of Humankind

3. Homo neanderthalensis

The third stage of hominid evolution is represented by Neanderthal. In 1856, a skullcap and some bones were discovered in the Neanderthal Valley in Germany. The term “Neanderthal” was introduced by William King in 1863. Neanderthals lived in Europe, North Africa, and parts of Asia between 100,000 and 35,000 years ago, and were well adapted to cold climates. They were hunters and gatherers, used fire and stone tools, lived in groups, and wore animal skins.



Fig 3.16 Neanderthal Human

They had a large brain (1300–1750 cc), a barrel-shaped skull, strong jaws and teeth, no chin, and a sloping forehead. Genetic studies show that modern humans share ancestry with Neanderthals and many people today carry small amounts of Neanderthal DNA, indicating past interbreeding.

4. Cro-Magnon

Cro-Magnon is regarded as the earliest well-known form of modern human (*Homo sapiens*). The name comes from the Cro-Magnon rock shelter in France, where five human skeletons were discovered in 1868 by Louis Lartet. Cro-Magnon people made stone and bone tools, practiced hunting, and were skilled in cave painting.



Fig 3.17 Cro-Magnon skull

They had a large skull with a cranial capacity of about 1590 cc, a broad and moderately high forehead, and a short, broad face. Earlier, Cro-Magnon was considered the first *Homo*

sapiens. However, later discoveries such as the Swanscombe and the London skull, found in older layers, showed that modern human features appeared earlier, indicating that human evolution was more complex than once believed.



Early or transitional forms of Modern Homo Sapiens

The London Skull was discovered in 1925 from central London and is also known as the Lady of Lloyds. It belonged to a woman of about 50 years, with a cranial capacity of around 1260 cc and shows features closer to Cro-Magnon.

The Swanscombe skull was discovered during 1935–1936 at Swanscombe in Kent, England. The skull has a cranial capacity of about 1325 cc, showing close similarity to that of modern humans.

The Grimaldi skeletons were discovered in 1901 from the Grotte des Enfants cave at Grimaldi. The remains included a woman and a child, with cranial capacities of 1265 cc, and 1455 cc respectively. The skulls were long, narrow and high, and scholars like Sollas and Boule noted a resemblance to the Bushmen of South Africa.



Prepare a seminar paper on hominid evolution and analyse the extent to which physical changes influenced the evolutionary process.

5. Homo Sapiens Sapiens

Homo sapiens sapiens is the scientific name of modern humans. Humans have settled in different environmental conditions and developed distinctive physical and cultural traits. The human skull consists of two main parts, the cranium and the face. The cranial capacity ranges from about 1300 to 1450 cc. The forehead is high and bulging, while the supraorbital ridge is greatly reduced. Vision is stereoscopic, allowing depth perception.

The canine teeth are reduced and the big toe is no longer opposable, reflecting complete adaptation to upright walking. The arms are shorter than the legs, and the vertebral column shows four curves, which helps to maintain balance in an erect posture. The body is almost hairless and humans possess the ability for articulate speech.

Humans are unique among living beings because, through a long evolutionary process, they developed a distinctive way of life known as culture, which has already been discussed in earlier chapters.



Did You Know?

Scientists have discovered ancient human fossils in China that do not clearly match any known human species. In 2024, some researchers suggested the name *Homo juluensis* for these fossils. These early humans are believed to have lived in East Asia between 300,000 and 50,000 years ago.

Some scientists think that these fossils may be related to the Denisovans, an ancient human group earlier identified mainly through DNA evidence. However, this idea is still being studied and more research is needed.

This discovery shows that different human populations lived in different parts of the world at the same time, helping scientists better understand the diversity of human evolution.

Recent advances in the study of human evolution

Recent advances in the study of human evolution have greatly improved our understanding of human origins. Genetic studies and DNA analysis show close relationships among modern humans, Neanderthals and Denisovans. The Denisovans, identified mainly through DNA evidence from Siberia, were closely related to both Neanderthals and modern humans. Genetic evidence also shows that Neanderthals and *Homo sapiens* lived together and interbred and many present-day humans carry small amounts of Neanderthal DNA.

From the above discussion, it is evident that genetics studies are crucially important for analysing human evolution. Let us examine these areas in detail.

Human Genetics

Genetics is the branch of biology which studies heredity and variation. The term was coined by William Bateson in 1905. It is derived from the Greek word 'gen', meaning 'to generate' or 'to grow.' As a field of science, it explores the structure, organisation, and function of genes, as well as how they are transmitted and why variations occur within them. The transmission of traits from one generation to another is controlled by functional units called genes. Genes are passed from parents to offspring and act as the basic units of heredity.

The basic principles of heredity were first explained by Gregor Mendel. He proposed that inheritance is governed by specific 'factors' present in reproductive cells. Although he did not use the



*Fig 3.18
Gregor Mendel*

term “genes”, these factors were later recognised as genes. Mendel’s work laid the foundation for modern genetics

Mendel’s Law of Inheritance

Gregor Mendel’s experiments on garden pea plants are considered a major milestone in genetics. Through his experiments, Mendel concluded that heredity is controlled by discrete units called ‘factors’ now known as genes. Based on his findings, he proposed three laws: the Law of Dominance, the Law of Segregation, and the Law of Independent Assortment.

Mendel studied pea plants with contrasting traits such as tall and short plants and yellow and green seeds. When he crossed tall and short plants, all the plants in the first generation were tall. This showed the Law of Dominance, where one trait appears while the other remains hidden. Thus, the Law of Dominance states that, when two contrasting traits are present together in an organism, only one trait (the dominant trait) is expressed, while the other (the recessive trait) remains hidden.

When these tall plants grew and produced seeds, some plants in the next generation were tall and some were short. This happens because each plant carries two traits but passes only one trait to its seeds. Thus, the Law of Segregation explains that each individual has two factors (genes) for a trait, but only one of these is passed on to each offspring during the formation of reproductive cells.

Mendel also crossed plants that differed in two traits at the same time, such as height (tall or short) and seed colour (yellow or green). This explained the Law of Independent Assortment, which means that when two different traits are considered, each trait is passed on independently of the other.

Mendel’s laws form the foundation of genetics. They explain how traits are passed from parents to offspring in a predictable way and laid the groundwork for later discoveries about genes, chromosomes and DNA. Genes are located on chromosomes inside the cell nucleus. Humans have 46 chromosomes arranged in 23 pairs, with one chromosome of each pair inherited from each parent. Variations in genes lead to differences among individuals.

Human Variation

Human beings show great diversity and differ from one another

in many ways. These variations include physical, emotional, and psychological traits..

Physical variations are mainly seen in traits such as height, skin colour, hair type, and facial features. Some traits can be easily observed, while others can be measured using scientific methods. Anthropologists study these physical traits to understand how human populations adapted to different environments over time. However, it is important to note that there is no exact or fixed way to classify humans based on physical features. In the past, scholars attempted to divide humans into different racial groups based on outward appearance. Modern science has shown that such classifications are limited and outdated.

Genetic studies clearly prove that all humans belong to one species, *Homo sapiens*, and are closely related to one another. There are no “pure” races, as human populations have mixed throughout history. Differences in physical traits are mainly the result of heredity and environmental adaptation and do not reflect differences in intelligence, ability, or culture. All human beings share the same biological potential. Every person has the ability to think, learn, create, and contribute to society, regardless of physical appearance.

Just as human beings differ in physical features, variations are also seen in their blood groups. Blood groups are inherited biological traits and their distribution varies among different populations and regions of the world. The study of blood groups helps us understand human variation at a biological level and shows how people can be different yet closely related. Let us now learn about blood groups and their importance.

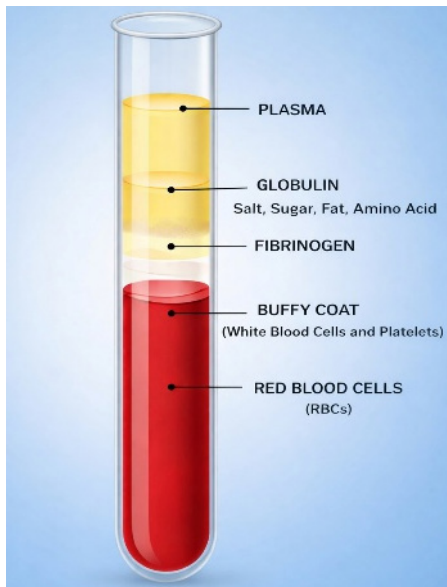
Blood Groups

The study of blood groups is an important part of Physical Anthropology, especially in population genetics. Blood is a specialised connective tissue that performs many vital functions in the body. It transports oxygen from the lungs to all body tissues and carries nutrients required for growth and energy. Blood also removes waste products such as carbon dioxide from tissues and carries them to organs where they are eliminated. In addition, blood plays an important role in protecting the body against diseases by helping to destroy harmful microorganisms.

Components of Blood

Blood consists of two main components: blood corpuscles and blood plasma.

Blood corpuscles include:



*Fig 3.19
Components of Blood*

- Red blood corpuscles (RBCs or erythrocytes), which carry oxygen.
- White blood corpuscles (WBCs or leukocytes), which help defend the body.
- Platelets, which help in blood clotting.

Blood plasma is a pale yellow fluid that contains water, proteins, salts, sugars, fats, and other dissolved substances. One important protein present in plasma is fibrinogen, which helps in blood clotting. When blood is kept in a test tube with an anticoagulant, the red blood cells settle at the bottom white blood cells and platelets form a thin layer above them and plasma remains on top. If clotting proteins like fibrinogen are removed from plasma, the remaining clear fluid is called serum.

Antigens and Antibodies

When foreign substances such as bacteria, viruses, or their toxins enter the bloodstream, they act as antigens. To protect the body, special proteins called antibodies are produced by plasma cells. These antibodies help identify and neutralise the antigens, thus protecting the body from infections.

ABO Blood Group System

In 1900-1901, Karl Landsteiner discovered three Blood groups A, B and O and later, in 1902 Sturli and Decastello identified the AB blood group also. These groups are based on the presence or absence of antigens on the surface of red blood cells (RBCs).

- Blood group A has antigen A on RBCs and antibody b in the serum.
- Blood group B has antigen B on RBCs and antibody a in the serum.
- Blood group AB has both antigens A and B on RBCs and no antibodies in the serum.
- Blood group O has neither antigen A nor antigen B on its RBCs, and both antibodies a and b in its serum.

Antigen on RBC	Antibody in Plasma	Blood Group
A	b	A
B	a	B
A and B	Nil	AB
O	a and b	O

Table 3.2 - Table showing Antigen and Antibody of ABO Blood group system

Antigen on RBCs react specifically with their corresponding antibodies in the serum. For example, antigen A reacts with antibody a and antigen B reacts with antibody b. This reaction is important in blood transfusions, as mixing incompatible blood groups can cause dangerous clumping (agglutination).

Rh Factor (Antigen D)

In 1940, Karl Landsteiner and Alexander Wiener discovered a protein on the surface of red blood cells called the Rh factor, named after the Rhesus monkeys in which it was first identified. They found that when Rhesus monkey blood was injected into rabbits, the rabbits produced antibodies that could cause clumping (agglutination) in some human blood. This showed that many humans have a similar substance on their red blood cells. People who have the Rh factor are called Rh-positive. People who do not have it are called Rh-negative.

Rh incompatibility: This is one of the most common causes of erythroblastosis foetalis. It happens when an Rh-negative mother carries a Rh-positive foetus. During delivery or any event that breaks the separation between the mother's and foetus's blood, the mother's immune system might react to the Rh-positive blood cells and develop antibodies. These antibodies can then cross the placenta in future pregnancies and can then affect those pregnancies if the foetus is Rh-positive. This will cause for haemolytic diseases of the foetus. This condition is known as erythroblastosis *foetalis*.



The Rh factor is important in blood transfusions and pregnancy. If an Rh-negative mother is carrying an Rh-positive baby, Rh incompatibility can lead to a serious condition called *Erythroblastosis Foetalis*. Proper medical care can prevent this problem.

Agglutination Test for Blood Group Identification

A person's blood group is identified using a simple agglutination test. Agglutination means the clumping together of red blood cells (RBCs). In this test, a drop of a person's blood is mixed with known antisera to observe whether clumping occurs.

There are three main types of antisera used: anti-A, anti-B and anti-Rh (anti-D).

- If RBCs agglutinate only with anti-A serum, the blood group is A.
- If RBCs agglutinate only with anti-B serum, the blood group is B.
- If RBCs agglutinate with both anti-A and anti-B sera, the blood group is AB.
- If RBCs do not agglutinate with either anti-A or anti-B serum, the blood group is O.

To identify the Rh factor, blood is mixed with anti-Rh (anti-D) serum.

- If agglutination occurs, the blood group is Rh-positive.
- If no agglutination occurs, the blood group is Rh-negative.



Identify the blood group of students in your class using anti-A, anti-B and anti-D sera with the help of your teacher.

Blood Transfusion

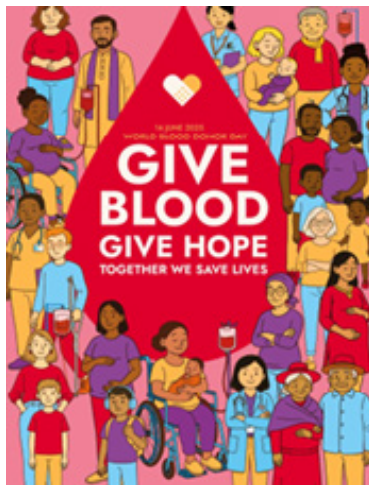


Fig 3.20 Give blood Give hope

Blood transfusion is the process of transferring blood from a donor into a recipient's vein to replace lost blood or improve blood volume. A blood transfusion is safe only when the blood groups of the donor and the recipient are compatible.

If the donor and recipient have compatible blood groups, no agglutination occurs. However, if the donor's red blood cells carry antigens that react with antibodies present in the recipient's blood, agglutination (clumping of RBCs) takes place. This reaction can block blood vessels and may be dangerous. Therefore, careful matching of blood groups is essential to prevent antigen-antibody reactions and to ensure safe blood transfusion.

Universal Donor and Universal Recipient

Individuals with blood group O lack both antigen A and antigen B on their RBCs, but their serum contains both antibodies a and b. Since O group blood has no A or B antigens, it can be safely given to people of any blood group. Therefore, people with blood group O are called universal donors. Individuals with blood group AB have no antibodies in their serum and can receive blood from any blood group. Hence, they are called universal recipients.

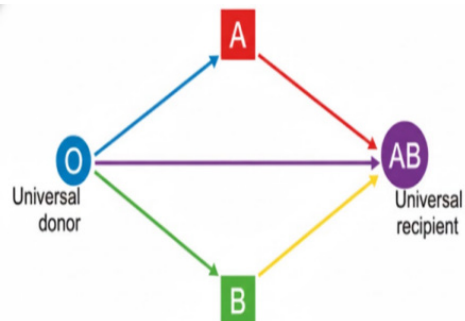


Fig 3.21 Blood group - Donor and Recipient

Prepare a table showing which blood group can donate blood to and receive blood from other groups.



Inheritance Pattern of Blood Groups

The ABO blood group system is inherited genetically. It is controlled by three alleles (genes) A, B and O, located on the chromosomes. These alleles determine the type of antigens present on red blood cells. Alleles A and B are equally dominant, while O is recessive to both. Because of the combination of these three alleles, six genotypes (genetic appearance of blood) are possible. However, since allele O is recessive, only four blood group phenotypes (physical appearance of blood) are expressed: A, B, AB and O. Genotypes and Phenotypes of different blood groups are given in the table.

Blood Group	Genotype(s)	Phenotype
A	AA, AO	A
B	BB, BO	B
AB	AB	AB
O	OO	O

Table 3.3 Genotype and Phenotype in ABO system

Having understood the different blood groups and their combinations, we can now learn how blood groups are inherited from parents to their children. The diagram shown here explains how different combinations of parental blood groups help us predict the possible

blood groups of the offspring. In this example, the possible blood groups of children born to parents with A and O blood groups are shown along with their genotypes.

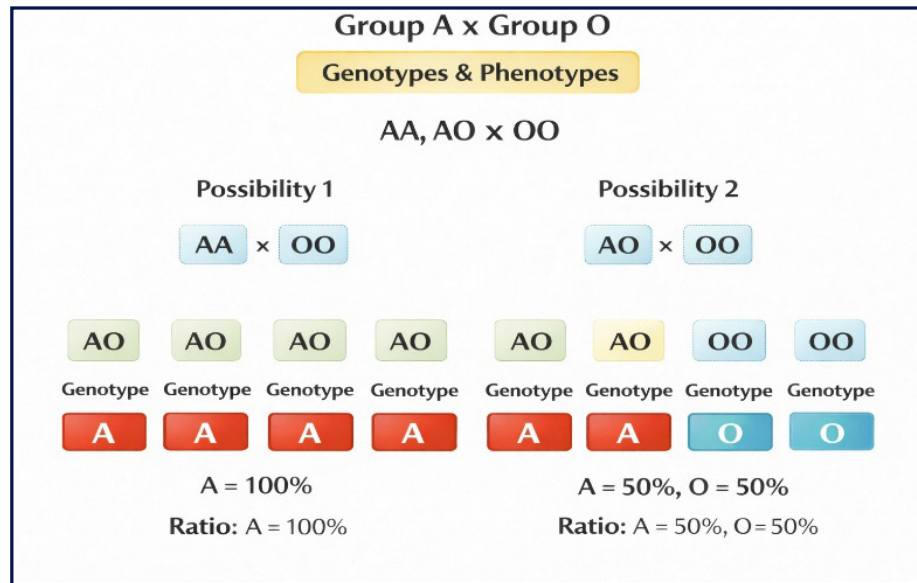


Fig 3.22 Inheritance of blood groups from a parental combination of Group A and Group O.



Examine the following agglutinations of parental blood groups and find the possible blood group of their offspring

Parental combination: AxB, AxAB

Apart from the ABO blood group system, scientists have identified several other blood group systems in humans like MNS blood group System, Bombay blood group, CRIB blood group etc.



MNS Blood Group System

In 1927, Landsteiner and Levine discovered the MNS blood group system. This system is based on the presence of M and N antigens on red blood cells. Unlike the ABO system, natural antibodies are absent in this system. Depending on the antigens present, individuals are classified into M, N, or MN blood groups.

Bombay Blood Group

The Bombay blood group is a rare blood group discovered in 1952 by Dr. Y. M. Bhende in India. People with this blood group lack the H antigen, which is normally present in all ABO blood groups, including O. Since the H antigen is necessary for the formation of A and B antigens, individuals with the Bombay blood group have no A or B antigens. They can donate blood to all ABO groups, but can receive blood only from another Bombay blood group individual.



CRIB Blood Group

CRIB blood group is a recently identified antigen belonging to the Cromer blood group system. It was discovered in a woman from Karnataka, India, whose blood reacted with all known donor samples despite being O Rh-positive. The antigen was named CRIB, where CR stands for Cromer a town in Norfolk, England, where the first antibody of this blood group system was identified in a patient and IB stands for India, Bangalore.

Applications of Biological Anthropology

Applied Biological Anthropology uses knowledge of human biology to solve practical problems in society. Its principles are applied in areas such as health, medicine, genetics, law, industry, sports, and ergonomics.

Areas of Applied Biological Anthropology

Forensic Anthropology: Applies biological knowledge to identify criminals and victims by analysing DNA, bloodstains, hair, fingerprints and skeletal remains. It helps determine age, sex, stature and other physical features, supporting criminal investigations and justice.

Population Genetics: Studies the distribution and change of genetic traits in populations. It helps in understanding hereditary diseases, genetic counselling, disease prevention and human biological variation.

Anthropometry: Uses body measurements to design suitable clothing, footwear, furniture, tools, safety equipment, prosthetics and industrial products that fit diverse human body types.

Public Health and Epidemiology: Helps in understanding disease patterns, nutrition and population health and in planning effective health and disease-prevention programmes.

**Extended Activities****1. Blood Groups Study**

Conduct a Blood Groups Study by collecting (with consent) the known ABO and Rh blood group information of 10–15 individuals (Do not collect blood samples). Begin with a brief introduction to the ABO and Rh systems. Present the collected data in a table and illustrate the frequency using a bar graph or pie chart. Include a short explanation of blood group inheritance and discuss the importance of blood groups in medical practice. Conclude with your observations.

2. Physical Variation Observation Study

Conduct a physical variation observation study by observing and recording (with consent) visible traits such as height range, tongue rolling ability, hand span, arm folding, hand clasping, hair type, and eye colour among community members. Record the data anonymously in a table, analyse the patterns observed, and prepare a brief report explaining the meaning of physical variation, its genetic and environmental causes, and why variation does not imply superiority or inferiority.

3. A Study on the Inheritance of ABO Blood Groups in Families

Select five hypothetical parents and assign them ABO blood groups. Determine the possible genotypes of each parent based on their blood group. Find the possible blood groups of the offspring using an inheritance chart for each parental combination. Record the phenotypes (A, B, AB, or O) and genotypes of the offspring in a table. Observe and note patterns, such as which blood groups can or cannot appear and how dominant, recessive, and co-dominant alleles affect inheritance. Write a conclusion summarising your observations about ABO blood group inheritance.

4

ARCHAEOLOGICAL ANTHROPOLOGY

The Discovery of the Bhimbetka Rock Paintings

In 1957, the renowned Indian archaeologist Dr. V. S. Wakankar was travelling by train from Bhopal to Itarsi. As the train curved along the Vindhyan hills, he noticed the peculiar shapes of the sandstone formations outside the window. They reminded him of similar rock formations he had studied in Spain and France, areas known for their prehistoric cave art. Curiosity overcame him. When the train reached the next station, Wakankar got down, hired a local guide and trekked into the forested hills. What he found changed Indian Archaeology forever. Hidden among the dense vegetation were rock shelters covered with ancient paintings depicting animals, hunters, dancers and symbols. Wakankar immediately recognised them as prehistoric, possibly tens of thousands of years old. Detailed surveys over the next few years revealed more than 700 rock shelters, making Bhimbetka one of the largest prehistoric art complexes in the world. This discovery, made by chance on a train journey, opened a new chapter in understanding early human life in India.



Fig 4.1 Dr. V S Wakankar and Bhimbetka painting

Do you know why the discovery of Bhimbetka is so important?

To truly understand the significance of this remarkable prehistoric site, you must travel through the discipline of Archaeological Anthropology. This field helps you understand what Archaeology is, how it works and what prehistoric life and culture were in different parts of the world.

As you begin this unit, you are not merely learning facts, you are

exploring how early humans lived, created, adapted, and evolved. In essence, you are now exploring through the subject matter of Archaeological Anthropology, uncovering the deep past that Bhimbetka and other ancient archaeological sites continue to reveal.



Suggest examples of similar archaeological sites that you have studied in lower classes and prepare a digital album of the sites.

- How and when did humans first develop settled life?
- When did early humans start using stone tools?
- Who can be considered the earliest creators of art and crafts?
- When did humans make the transition from food gathering to food production?

You will find answers to these questions as you explore this unit and gain an understanding of the basics of Archaeological Anthropology. Let us begin with the meaning and scope of Archaeology and Archaeological Anthropology.



Edakkal Cave - Rock engravings



Edakkal is one of the most important prehistoric archaeological sites in Kerala. It is located in the Wayanad district at about 1,200 meters above sea level. The site is famous for its ancient rock engravings (petroglyphs) carved on the walls of natural rock shelters. The carvings include human figures, animals, symbols, geometric designs, and inscriptions. Some of them are believed to date back to the Neolithic period, while a few later inscriptions belong to the early historic period. These engravings provide valuable evidence about early human life, beliefs, and social activities in South India.

The term **Archaeology** is derived from two Greek words: *arkhaios*, meaning 'ancient' or 'past', and *logos*, meaning 'study' or 'science'. Thus, Archaeology refers to the scientific study of human activity in the past. A person who studies past human cultures through scientific methods is known as an Archaeologist. In the American tradition, Archaeology is regarded as a subfield of Anthropology, whereas in Europe, it has developed as an independent discipline.

Archaeological Anthropology is a branch of Anthropology that studies past human cultures that existed before the beginning of recorded history. It is also known as Prehistory, Prehistoric Archaeology, or Prehistoric Anthropology. This field seeks to understand the origin, development and



evolution of early human societies through the scientific study of material remains left behind by ancient people. These material remains include tools, artifacts, art objects, weapons, buildings and other materials found at archaeological sites. By analysing such evidence, archaeologists reconstruct the ways of life, technologies, and cultural patterns of past societies. This helps us understand how early humans adapted to their environment, how cultures changed over time, and how knowledge and traditions were passed from one generation to another.

Archaeological Anthropologists undertake excavations to recover both cultural and biological remains. They employ a variety of dating methods to determine the age of these findings. Their work helps reconstruct the sequence of human events extending back millions of years. By analysing the tools and material culture, Archaeological Anthropology reveals the technologies used in the past and provides a clearer picture of the economic activities and everyday life of ancient human societies.

The study of human prehistory is incomplete without understanding the Geological Time Scale, which provides the basic framework for tracing human evolution and cultural development through prehistoric and historic periods. By examining the Geological Time Scale, we can identify the major geological time spans and understand the origin and evolution of different organisms on Earth. Early forms of modern humans such as *Homo Erectus*, Neanderthals and Cro-Magnon evolved during the Pleistocene epoch. During this time, stone tool cultures developed in a fully matured form. *Homo sapiens*, along with anatomically modern human populations from different regions, spread rapidly across the globe during the Holocene epoch. This period saw major cultural changes and marked the shift from simple human groups to complex civilisations. Since significant developments took place during this period, it is essential to understand the key concepts in Archaeological Anthropology. These concepts help us

Pattanam Excavation



Pattanam is an important archaeological site in Ernakulam district, Kerala. It is widely identified with the ancient port of Muziris, a major centre of Indo-Roman trade during the early historic period. Excavations have uncovered Roman coins, amphora fragments, beads, pottery, brick structures, and evidence of a wharf. These findings show that Pattanam was a thriving maritime trade centre connected to the Mediterranean world and played a significant role in Kerala's early history.

understand prehistory through the study of material remains such as tools, artifacts and other cultural evidence left behind by early humans.

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 prosimians
	MESOZOIC	SECONDARY	PALEOCENE	66	56	10	Earlier primates like Lemurroids and Tarsioids
			CRETACEOUS	145	66	79	Extinction of dinosaurs, pterodactyles, & toothed birds
			JURASSIC	201	145	56	Spread of dinosaurs
	PALAEOZOIC	PRIMARY	TRIASSIC	252	201	51	Dinosaurs, pterodactyles, early crocodiles appeared
			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
PROTEROZOIC EON	PRECAMBRIAN		ORDOVICIAN	495	444	51	First trace of vertebrates, primitive fish appeared
ARCHEAN EON			CAMBRIAN	541	495	46	Molluscs, star fish, trilobites
			PRE CAMBRIAN	2500	541	1959	Multi cellular life forms -metazoa
			ARCHEAN	4000	2500	1500	Unicellular sea dwelling life forms -protozoa

Table 4.1 - Geological Time Scale

Basic Concepts in Archaeological Anthropology

Archaeological Anthropology uses specific terms and concepts like tool, artifact, site, assemblage, tradition etc to classify and interpret the material remains of past human behaviour. These concepts help archaeologists organise data to reconstruct ancient life ways and cultural changes.

Tool: A tool in Archaeological Anthropology means, any object made, modified, or used by humans to perform a specific function. Every tool is intentionally designed and shaped by humans for a particular purpose. Tools may be crafted from stone, bone, wood, or metal. They reflect the technological knowledge, skill and innovation of a society.



Fig 4.2 Different types of Tools

Stone tools were the earliest tools in human history; humans made and used them with insight, skill, and deliberate planning. As the human brain developed, the human hand also became more skilled, allowing humans to make and use more complex tools. With the advent of agriculture, simple stone tools gradually gave way to more specialised implements, finally

leading to the development of mechanical tools. Stone hand axes, bows and arrows, bone needles etc., are some of the examples of prehistoric tools.

Artifact: An artifact is an object that has been created, modified, or used by human beings, often showing clear signs of workmanship or use. Artifacts serve as important sources of information about the social life, economy, technology, artistic traditions, and belief systems of past communities. While all tools are artifacts, it is important to note that not all artifacts function as tools. For instance, a statue is an artifact due to its human-made nature, but it does not serve as a tool. Common examples of artifacts include pottery, ornaments, beads, figurines, sculpture etc. These objects help archaeologists reconstruct ancient life ways and understand cultural development over time.

Prepare a table showing the differences between tools and artifacts with examples.



Site: A site is a place where evidence of past human activity is discovered. Such sites contain artifacts, tools, structures, and other cultural or biological remains left behind by earlier humans. In prehistoric cultures, different types of sites such as habitation sites, burial sites, workshop sites, rock shelters, and open-air camps can be identified.



Keeladi excavation site

The Keeladi excavation site is an important archaeological site located near Madurai in Tamil Nadu, India. Discovered in 2014, it has revealed evidence of a flourishing urban settlement of the Sangam period (around the 6th century BCE to the 3rd century CE). Excavations at Keeladi have uncovered brick structures, pottery, beads, rings, and tools, indicating advanced town planning, including streets and drainage systems. One of the most remarkable findings is the use of written scripts on potsherds, suggesting literacy and an organised society. Keeladi has provided valuable insights into the life, culture, and trade practices of early

Tamil civilisations, challenging earlier assumptions that urbanisation in South India began much later.

Assemblage: An assemblage is a collection of prehistoric artifacts found together within the same archaeological context or region. It helps researchers understand the activities carried out at a site. It provides insights into the function of the site and the lifestyle of its inhabitants. For example, when several stone scrapers, blades, and cores are discovered together in the same excavation layer, they can be understood as an assemblage.

Industry: An industry refers to the place where prehistoric tools and artifacts were manufactured, as well as the collection of artifacts created and used by a particular human group during a specific period. It reflects technological stage of human development. An industry includes a group of assemblages that share common features of technology and style within a defined time and region. Acheulean industry, microlithic industry, stone industry and bone industry are some of the examples.

Tradition: A tradition refers to a long-standing practice of making tools and artifacts in a particular way, passed down through generations. When certain types of tools or artifacts are continuously used by a group of people over a long period, it is called a tool tradition. The hand axe tradition means making and using hand axes in the same way for a long time. Similarly, the pottery-making tradition refers to making pots using the same methods for generations.

Culture: In Archaeology, culture refers to the totality of material remains such as tools, artifacts, structures, burial practices, arts and other evidence, associated with a particular group of people. It includes the industries and traditions practiced by the same community. Examples: Palaeolithic Culture, Mesolithic Culture, Neolithic Culture, Indus Valley Culture etc.,

Having understood the basic concepts of Archaeological Anthropology, let us now move towards a more detailed study of how early humans made and used their tools. These ideas help us see why different tools were created and how they were used. This leads to the study of stone tool typology and technology, where tools are grouped by their shapes and the methods used to make them. This helps us learn more about the human skills, culture, and technological progress made during prehistoric times.

Stone Tool Typology and Technology

Stone tool typology and stone tool technology are closely related but focus on different aspects of prehistoric tools. Stone tool typology is the classification of stone tools based on their shape, size and use. It helps us identify tools such as hand axes, scrapers and blades. Stone tool typology helps archaeologists group and compare tools across cultures and time periods. Stone tool technology, on the other hand, explains how these tools were made through techniques such as percussion flaking or pressure flaking. It reveals the skills, knowledge and methods that are used in producing them. Together, they provide a complete understanding of prehistoric tool-making traditions and human technological development.

Stone Tool Typology

Stone tools are often grouped into core, flake and blade tools based on how they were made and used.

Core Tools

A core tool is shaped directly from a large piece of stone by removing flakes, resulting in a thick, heavy, sturdy tool like a hand axe. When the flakes are removed from a large stone, the remaining core becomes the tool. The process of removing pieces from the nucleus of a stone is called flaking. Cleaver and the hand axe are the most prominent core tools. Core tools are of two types:

i) Unifacial (Single-edged) core tools:

These types of tools are flaked on only one side of the cutting edge and are often made from pebbles.

ii) Bi-facial core tools: These types of tools are flaked on both sides of the core, giving them a sharper, more symmetrical working edge.



Fig 4.3 Cleaver and Hand Axe



Fig 4.4 Unifacial and Bifacial Core Tool

Draw Unifacial and Bifacial core tools and describe its features.





Fig 4. 5. *Scraper, Point, Borer*

Flake Tools

Flake tools are made from the sharp pieces that break off when a stone core is struck. Small flakes detached from the core are shaped into flake tools. These small flakes are used for cutting, scraping or slicing. They are usually smaller than core tools and were useful for tasks like butchering animals and working with wood. Common examples include scrapers, points and borers.

Blade Tools



Fig 4. 6. *Blade tool*

Blade tools are long and thin very well-made tools from special flakes. The length of a blade tool is at least twice its width. They are produced by controlled flaking to create long, thin blades with straight edges. Blade tools are small, sharp, lightweight in shape. Because of their sharp, straight edges, they were used for cutting, scraping, carving and sometimes hunting when fitted into handles or shafts. Blade tools mark an important technological advancement in human history, as they show greater skill, precision and planning in tool-making compared to earlier stone tools. The blade knife, and blade point are prominent blade tools.



Draw core, flake and blade tool and prepare a table by comparing their features.

We have looked at the different kinds of stone tools used by prehistoric people. This brings us to two important questions:

- How were these tools made in the prehistoric period?
- What methods or technologies did people use to produce them?

Prehistoric humans employed distinct methods and techniques for preparing various types of stone tools. Over time, the technologies used for tool-making progressed from simple methods to more advanced and developed techniques. Based on the evidence provided by stone tools, we will now examine stone tool technology in detail.

Stone Tool Technology

Technology refers to the methods, skills and techniques used in making and using tools. It reflects how humans adapted to their environment at different stages of cultural development. Early humans lived mainly by hunting and gathering. They used simple stone tools like choppers and flakes to cut meat, break bones and scrape hides. As humans became better hunters, they made more carefully shaped tools. Hand axes and cleavers were used for cutting meat, digging roots and shaping wood. When humans began to live in different environments such as cold regions or forests, they needed specialised tools. They made scrapers, blades and points for skinning animals, making clothes and hunting. With the development of farming and settled life, people used stone tools for cutting crops, grinding grains and building houses. Stone flaking, blade production, microlith-making and pottery-making are examples of major technological advancements in the Stone Age. The main stone-tool manufacturing techniques during the Stone Age are: Direct percussion method, Indirect percussion method, Controlled percussion method and Grinding and polishing method.

I. Direct Percussion Method

Direct Percussion means hitting one stone with another to break off flakes and make tools. It is the basic method of stone-tool-making. There are three types of the direct percussion method.

a) Anvil Technique

In this technique, the core (stone to be shaped) is hit against a large fixed stone called an anvil. The anvil stays stationary and the core is moved. This produces large, heavy flakes.

b) Stone-Hammer Technique

The core is held in one hand while another stone is used as a hammer. The hammerstone is struck at specific points to remove flakes from the core. This was the most common method used earlier in stone -tool-making.



Fig 4.7 Direct Percussion – Stone hammer technique



Fig 4.8 Cylinder-Hammer Technique

c) Cylinder-Hammer Technique

In this technique, a cylindrical hammer is used instead of an ordinary stone. A cylinder-hammer is a special type of hammer used in stone-tool-making. It gives stronger but more controlled blows. This method needs more skill and helps produce finer flakes. The tool makers hold the core (stone to be shaped) in one hand. With the other hand, they strike it using the cylinder-hammer. The long, rounded shape helps the tool maker to control where and how forcefully they hit.

II. Indirect Percussion Method



Fig 4.9. Indirect Percussion

In indirect percussion, a flake is detached using an intermediate tool, usually a chisel-like implement. This intermediate tool is placed on a predetermined point of the core and then struck with a hammer. This technique provides greater accuracy and control compared to direct percussion and was widely used in the stone age because it produces large quantities of uniform flakes and blades and minimises wastage of raw material. Indirect percussion is also known as the punch technique.

III. Controlled Percussion Method



Fig 4.10. Controlled Percussion

Controlled percussion or pressure flaking method involves applying steady pressure to detach very small flakes from the edge of a tool. A pointed implement made of bone, antler, or stone is used to press off small flakes from specific points of the core. This technique requires patience, precision, and great skill. It is used mainly for trimming cutting edges, finishing finer tools, and producing small, well-shaped tools. This method allowed prehistoric people to achieve high levels of refinement in tool-making.

IV. Grinding and Polishing Method

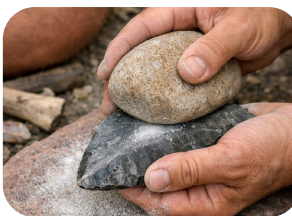


Fig 4.11. Grinding and Polishing

The grinding and polishing technique became highly developed during the Neolithic period. After rough shaping by flaking, the entire surface of a tool, along with its cutting edge, was rubbed against a large sandstone slab. Sand was often added as an abrasive. Polished stone tools represent one of the most advanced technological achievements of the Stone Age.

Conduct a discussion and prepare a report on the topic - stone tool making technology and its development during the Palaeolithic period.



The evolution and development of tool-making traditions show a clear progression, from simple core tools to flake tools and finally to more refined blade tools. The life and culture that emerged during the Stone Ages provide valuable insights into the cultural advancement of Homo sapiens.

We have explored the stone tool typology and technology, each of which helps us understand how early humans lived and adapted. These concepts also form the foundation for studying long-term cultural change. To trace this development through time, archaeologists rely on the types of tools and materials used by prehistoric people.

- How did prehistoric humans live and interact with each other?
- How were their tools linked to their daily life and culture?

Let us now explore the progress of life and culture during the Stone Age. The Three-Age system provides a clear chronological framework for understanding how human societies evolved from simple stone technologies to increasingly complex metal working cultures.

Three-Age System

The Three-Age System is a chronological framework used in Archaeology to classify human prehistory on the basis of technological development, particularly the tools used by early humans. It was first proposed in the 19th century by the Danish archaeologist C. J. Thomsen and later supported with archaeological evidence by another Danish archeologist, J.J. Worsaae. According to this system, human cultural evolution is divided into three major stages, namely the Stone Age, Bronze Age and Iron Age. This classification helps archaeologists trace the cultural and technological progress of early human societies from simple stone tools to more complex and specialised

Differentiate an Ordinary Rock and a Stone Tool



A stone tool is made from the right kind of hard rock, such as flint or quartzite, which is strong and can be easily flaked, whereas an ordinary rock may not be suitable for tool-making. In a stone tool, bilateral flaking is seen, where flakes are removed from both sides to create a sharp cutting edge, but in a natural rock, only a few flakes may be accidentally knocked off from one side by natural forces. A stone tool also shows retouching, where extra small flakes are removed to sharpen or reshape the tool, while an ordinary rock does not show signs of planned shaping or re-sharpening.



Fig 4.12. C. J. Thomsen

technologies. Considering the archaeological significance of the stone age system, let us examine it in detail.

Life And Culture In The Stone Age



Fig 4.13. John Lubbock

The Stone Age refers to the prehistoric period when humans primarily made and used stone tools. In 1865, John Lubbock divided the stone age into Palaeolithic and Neolithic period. The Mesolithic was recognised later as an intermediate phase. Megalithic culture emerged into later Neolithic and continued into the Bronze or Iron age in different regions. Although the Stone Age officially begins with the Palaeolithic period, some early scholars suggested an earlier cultural stage before it, called the Pre-Palaeolithic or Eolithic period, meaning the 'Dawn of the Stone Age.' During the Eolithic period, stones appear to have been only slightly worked and in many cases it is difficult to determine whether they were shaped by human hands or by natural processes. Some scholars argued that the makers of Eolithic artifacts were Australopithecines who lived in the Pre-Pleistocene or late Pliocene. However, extensive research later showed that if Eoliths are indeed human-made implements, they should be placed within the earliest phase of Palaeolithic technology, the true beginning of the Stone Age.

Let us now examine the life and culture of the Palaeolithic period.

1. Palaeolithic Period (Old Stone Age)

The word Palaeolithic is derived from two Greek words 'palaios' (old) and 'lithos' (stone), meaning 'Old Stone Age.' The Palaeolithic period is the earliest and longest phase of human prehistory, extending from about 3.3 million years ago to around 10,000 BP. The Palaeolithic period is further subdivided into the Lower Palaeolithic, Middle Palaeolithic and Upper Palaeolithic periods.

a) Lower Palaeolithic Period

Due to climate change, Africa's forests gradually shifted into open grasslands. In these expanding savannas, early human ancestors started walking upright. It freed their hands for carrying objects and eventually making tools. Homo Habilis, the earliest tool makers and early Homo Erectus were the key hominins of the Lower Palaeolithic period. They were associated mainly with the Oldowan industry dating from about 2.6 to 1.7 million years ago. They produced simple core and flake tools primarily through direct percussion.

Core tools of Lower Palaeolithic period belong to three traditions or cultures, namely Pre-chellean, Chellean/Abbevillian and Acheulian. The Pre-Chellean culture was discovered in the Cromer Forest Bed in England. Typologically a very crude type of hand-axe, including chopper, discs, and scrapers have been collected as major findings. The geological age of this culture is the early Pleistocene epoch.

The Chellean or Abbevillian culture was named after the site Chelles in Northern France. The name Abbevillian was taken from the site of Abbeville in France. It is mainly a bi-facial core-tool culture. Mostly, crude hand-axes are the important tools of this type. The hand axes are manufactured either with stone-hammer or with anvil-stone technology. It is considered the first tradition of the bifacial core-tool culture of the Lower Palaeolithic period.

The Acheulian culture is found mainly in Africa, Europe, and West & South Asia, dating to about 1.7 million to 300,000 years ago. It includes hand-axes, cleavers and other bifacial implements. These tools are shaped carefully on both sides. *Homo erectus*, *Homo heidelbergensis* and Archaic *Homo sapiens* were associated with the Acheulian industry or tradition. During this period both direct percussion and controlled bifacial shaping were resorted to produce hand axes and cleavers. These tools were stronger, sharper and more efficient, showing a clear improvement in craftsmanship and planning.

Flake-tool cultures also flourished in the later part of Lower Palaeolithic period. The Clactonian culture flourished mainly in Britain, dating to about 400,000 to 300,000 years ago. It is characterised by simple flakes, choppers, and strong scrapers; notably lacking hand-axes, which distinguishes it from the Acheulean. The tools were produced using direct percussion without prepared-core techniques. It is generally associated with *Homo Heidelbergensis* and is often viewed as a regional variant of the Acheulean, rather than a distinct long-lasting tradition.

Life during this time involved both hunting and scavenging. Early humans gradually learned to control fire, which allowed them to cook food and stay warm. Some Acheulean sites even showed organised activity areas. It involved tool-making, cooking and social interactions.

The Lower Palaeolithic marked the beginning of human technology and the earliest cultural developments. It was during this long period

that humans first spread from Africa to other parts of the world. These primary achievements set the stage for the more advanced cultures and technologies that emerged in the Middle and Upper Palaeolithic periods.

b) Middle Palaeolithic Period

The Middle Palaeolithic dates from about 300,000 to 40,000 years ago, with regional variations. During this period, tool-making shifted from large core tools to more refined flake tools, especially using the Levallois technique, in which prepared cores were used to strike flakes of predictable shape and size.

The Levalloisian culture is associated with a site named Levallois-Perret in France. The careful preparation of the platform on the core is the defining characteristic of this tradition. First, the core is prepared to look like the back of a tortoise. Then, the flake is detached from this 'tortoise' core. As a result of a direct blow, the flake is split-off from the tortoise core.

In Europe, this period is represented by the Mousterian culture, closely associated with Neanderthals. Mousterian tool kits mainly included scrapers and points, while hand-axes became less common. In Africa, this period is known as the Middle Stone Age (MSA), marked by similar prepared-core technologies and a wide range of tools.

During this period, important changes took place in human evolution. Neanderthals lived across Europe and western Asia, while early Homo sapiens were widespread in Africa and began moving into parts of Asia. Fossil evidence showed that modern humans appeared in Africa around 300,000 years ago, earlier than once believed.

People of this time lived in caves, rock shelters, and open-air camps. Both Neanderthals and early modern humans were skilled hunters who made clothing from animal skins and hunted animals like mammoths, bison and small game. The important cultural development during this period was the burial of the dead bodies.

Overall, the Middle Palaeolithic represents a period of technological refinement, expanded social behaviours and wider geographic spread of human groups. Both Neanderthals and early Homo sapiens demonstrated complex tool-making, adaptability to diverse environments and cultural behaviours that laid the foundations for the dramatic changes of the Upper Palaeolithic period.

Prepare an infographic on Middle Palaeolithic, illustrating tool types, traditions, habitats, humans and culture during this period.



The Middle Palaeolithic gradually gave way to the Upper Palaeolithic through a long process of technological and cultural change. Towards the end of the Middle Palaeolithic, Neanderthals in Europe and early modern humans in Africa and Asia started making stone tools in a more planned and uniform way. Modern humans spread into new regions during this time and these gradual developments finally led to the fully developed Upper Palaeolithic period.

The tool kit of the Upper Palaeolithic is characterised by long, narrow blades struck from carefully prepared cores, along with specialised tools made from bone and antler, personal ornaments and symbolic expressions like art. A shift from flake-based technologies to more advanced blade traditions is marked during the Upper Palaeolithic period.

c) Upper Palaeolithic period

The Upper Palaeolithic period spans roughly from 40,000 to 10,000 years BP, and represents the final and rich phase of the Old Stone Age. The culture of the Upper Palaeolithic is best recognised through its distinctive stone-tool industries. In Europe, these industries appear in a broad sequence such as Perigordian, Aurignacian, Solutrean and Magdalenian cultures.

The Perigordian marks a transitional stage between the Middle and Upper Palaeolithic traditions, distinguished by finely made blades, points and the early use of bone tools. The Aurignacian industry, is strongly associated with the earliest *Homo sapiens* in Europe. It is characterised by long blade production, end-scrapers, burins, and specialised scrapers, along with bone points and early cave art. The Solutrean culture is remarkable for its wonderful craftsmanship producing thin, symmetrical bifacial points. The sequence culminates in the Magdalenian, a highly advanced phase distinguished by its extensive use of bone, antler, ivory and composite tool forms, including harpoons, spear-throwers, barbed points and needles. This period also represents the peak of European cave art traditions. It shows a clear transition from heavy flake-based technologies to the intensive use of standardised blades.

During the Upper Palaeolithic, people were able to make composite tools, where small stone pieces were attached to wooden or bone handles. This made their tools stronger, lighter and easier to use. Unlike Lower and Middle Palaeolithic cultures, people in the Upper Palaeolithic widely used other organic materials such as bone, teeth and horn to make tools which is known as ODK culture.

ODK Culture



Fig 4.14. Bone, Teeth and Horn Tools

A major innovation of the Upper Palaeolithic is the Osteodontokeratic tradition, which includes tools made from bone, antler, ivory, teeth and horn. These raw materials provided flexibility, strength and lightness and allowed the production of specialised implements.

Harpoons with barbs, spear-points, needles for sewing fitted clothing, awls, decorated antler rods and multi-component weapons all appeared during this period. The shift to organic tool kits reflects an advanced level of cognitive planning, as well as adaptations to the cold climates of the late Pleistocene.

Upper Palaeolithic Art



Fig 4.15 cave painting of a bison - Upper Palaeolithic cave art

The Upper Palaeolithic has also been described as the “Golden Age of Prehistoric Art” because symbolic expression reached an unprecedented level of complexity. Cave art flourished in regions such as France and Spain, with celebrated sites including Lascaux and Altamira. These caves contain vivid depictions of animals, hand stencils, geometric signs, and fine engravings. Alongside cave art, mobile or portable forms of art also became widespread. These



Fig 4.16 Hunters and Gatherers

include engravings on bone, antler, ivory and stone. Among these artistic creations, the Venus figurines are particularly significant and are often linked to fertility symbolism within Gravettian groups. Together, these artistic traditions reveal the emergence of complex thought, identity formation, ritual behaviour and possibly the early roots of religious belief. Subsistence practices during the Upper

Palaeolithic remained centered on hunting, gathering and in certain regions, fishing. Hunters employed a large collection of weapons, including thrusting and throwing spears, blade-tipped points and toward the later stages, the bow and arrow.

Settlement patterns varied widely and included cave dwellings, rock shelters, skin or hide-covered tents and the remarkable mammoth-bone huts found in eastern Europe. Communities were likely larger and more socially interconnected than in earlier periods, with clear evidence of long-distance trade networks, shared resources, and habitual seasonal movement following migratory animal herds.

Prepare a comparative chart or infographic of the Lower, Middle and Upper Palaeolithic period comprising the features like approximate time period, early humans, tool type, materials used and lifestyle.



Palaeolithic Period in India

In India, the Lower and Middle Palaeolithic periods represent the earliest stages of human prehistory. The Lower Palaeolithic is characterised by large core tools such as hand-axes, cleavers, and choppers, mainly associated with the Acheulean tradition. Important sites include the Soan Valley, Narmada Valley, Attirampakkam, and Hunsgi–Baichbal which is located in the Kaladgi Basin, Karnataka.

The Middle Palaeolithic shows a shift to smaller, more refined flake tools made using prepared-core techniques, indicating improved skill and adaptability. This period reflects advances in technology, subsistence strategies, and environmental adaptation across different regions of India.

The Upper Palaeolithic period is known from many places where people made long, sharp stone blades, burins, scrapers and other small tools. Important sites include Bhimbetka in Madhya Pradesh, which has both stone tools and very early rock paintings. Upper Palaeolithic sites are also found in parts of Rajasthan, Andhra Pradesh, Karnataka and Central India. These cultures followed a global trend towards blade technology while adapting tool-making methods to local environments and available raw materials, reflecting the flexibility and creativity of early modern humans.

After the long Palaeolithic age of hunters who used large stone tools, the climate of the world changed at the end of the last Ice Age. Forests spread, big animals became fewer and new plants and smaller

animals became more common. These changes led humans to adopt new ways of living. As a result, the Mesolithic began, marked by the use of tiny stone tools called Microliths and more flexible methods of hunting, gathering and fishing.

2. Mesolithic Period (Middle Stone Age)



Fig 4.17 Microliths,

The Mesolithic Age is the period between the Palaeolithic and Neolithic ages. It roughly dates from 10,000 to 6,000 BP. The most important feature of this period is the use of Microliths, which are very small, sharp stone tools. These tiny blades were often fixed into wood or bone to make arrows, spears, knives, sickles, and other composite tools. After the end of the last Ice Age, the climate became warmer. Mesolithic people had to adapt to new environments and use new ways of getting food. They began to rely more on fishing, collecting shellfish, trapping small animals and hunting birds. During this period, the bow and arrow became widely used, even though their earliest appearance dates back to the late Upper Palaeolithic Period. The Mesolithic people might have lived in small seasonal camps and slowly changed towards a semi-settled lifestyle. In some regions, early pottery appeared and the domestication of animals began. Important Mesolithic sites in India include Bagor in Rajasthan and Langhnaj in Gujarat, which provide rich evidence of tools and early human settlements. At the end of the Mesolithic period, people slowly began to change their way of living. Instead of only hunting and collecting food, they started to grow plants and keep animals. This new way of life led to the Neolithic Age. In this way, the Neolithic grew out of the changes that began in the Mesolithic.

3. Neolithic Period (New Stone Age)



Fig 4.18 Neolithic tools

The Neolithic Age marks one of the biggest turning points in human history. It is characterised by the use of polished stone tools and the beginning of agriculture. The Neolithic generally begins around 8,000 BP in many parts of the world and continues until the rise of early metal using and urban cultures. During this period, people learned to cultivate crops, domesticate animals and build permanent villages, shifting from a life of food gathering to food production. Neolithic tools were made by flaking, pecking (hitting to refine the shape),

grinding and polishing, producing smooth stone axes and celts. This gradual but major change in human life was described by archaeologist V. Gordon Childe as the “Neolithic Revolution.”

In the Neolithic period, pottery became common, weaving and house-building developed, and in some regions, early wheels and simple boats were introduced. Social life also became more organised as people lived together in settled communities. As Neolithic farmers began living in settled villages, their social and ritual life slowly became more complex. Over time, these practices developed into the Megalithic tradition, where people built large stone structures for burials and ceremonies. In this way, the Megalithic period grew out of Neolithic developments and led toward the more organised societies of the Iron Age.

4. Megalithic culture

The term Megalithic comes from the Greek words ‘mega’ meaning ‘great’ and ‘lithos’ meaning ‘stone’. Thus, the Megalithic period refers to a period in prehistory marked by the construction of large stone monuments. These huge structures were usually built for funerary, ritual, or memorial purposes. The Megalithic period lasted roughly from 3000 BP to 2000 BP. Megalithic monuments are classified mainly on the basis of the number and arrangement of stone blocks. The major types of megalithic monuments include:

Menhir : A tall, single upright stone slab. Menhirs are found in several parts of India, notably in Kerala, Karnataka, Odisha, Assam and Meghalaya.

Cromlech (Stone Circles): Circular arrangements of upright stones often associated with burials. In India, stone circles are common in South India, especially Kerala, Tamil Nadu, Karnataka and Andhra Pradesh.

Muniyara in Marayur



Marayur lies on the eastern slopes of the Western Ghats, close to the Chinnar Wildlife Sanctuary. The area is noted for megalithic monuments known as dolmens (Muniyara), believed to be prehistoric burial chambers. These structures, along with ancient rock paintings, reveal evidence of human habitation since the Stone Age. Marayur’s traditional craftsmanship in sandalwood carving and jaggery production remains integral to local culture and economy.



Dolmen: A chamber-like structure consisting of two or more vertical stone blocks supporting a large capstone. Dolmens occur widely across India, especially in South India but also in Bastar (Chhattisgarh), Maharashtra and parts of Northeast India.

Cairns, Barrows and Pit-circles: Burial features made of stone heaps, earthen mounds or circles marking subsurface burials. These are most common in South India, particularly in Karnataka, Tamil Nadu, Andhra Pradesh and Kerala.

Topi-kal/Hood Stone: Distinctive mushroom-shaped or hood-shaped capstones placed over a smaller supporting stone, resembling a hood or cap.



Fig 4.19 Topi-kal

Megaliths appear worldwide, flourishing especially in Europe, India and parts of Africa and Asia. Although megalithic structures first appeared in the Neolithic period, their construction continued through the Bronze Age to the Iron Age. In some regions, megalithic building traditions have persisted in modified forms even into the present.



Visit any megalithic monument in your nearby areas and write a report on the importance in the local history and present it in your class.

Archaeologists use dating methods to place sites, artifacts and cultural developments within a clear chronological framework. Without chronology, Archaeology would merely describe objects without understanding their historical sequence. Let us now look at some of the important dating methods used in Archaeological Anthropology.

Dating methods in Archaeology

Dating methods help determine which cultures are older or younger, trace technological progress, track human migrations, understand environmental changes, and relate developments across different regions. Determining the age of artifacts is, therefore, one of the most important tasks in archaeological investigation. Dating methods are broadly classified into two namely: relative dating methods and absolute dating methods.

1. Relative Dating Methods

Relative dating does not provide an exact age in years. Instead, it helps place objects, artifacts, or sites in a sequence of earlier and later events. Some major relative dating techniques include stratigraphy, seriation, fluorine analysis, and pollen analysis.

a. Stratigraphy: Stratigraphy is the study of layered deposits and is primarily a geological method based on the law of superposition. According to this principle, layers of soil or sediment (strata) accumulate over time, with the oldest layers at the bottom and the most recent ones at the top. Thus, artifacts found in deeper layers are generally considered older, while those in upper layers are more recent.

In an ideal, undisturbed context, the sequence of layers reflects a clear chronological order. However, natural geological processes such as earthquakes, volcanic eruptions, landslides, or soil erosion can disturb and shift these layers. Such disturbances may displace artifacts from their original contexts, affecting the accuracy of dating and interpretation.

b. Seriation: Seriation is mainly used to determine the relative age of pottery. It arranges artifacts in a chronological order based on similarities and differences in style, shape, decoration, or frequency of particular designs. Handmade pottery varies in size, shape, surface finish and decorative patterns. As the styles of craftsmanship change over time, pottery with simpler forms and minimal decoration is usually considered older, while pottery with more elaborate designs and refined techniques tends to be more recent. Early pottery was usually plain, as people were still learning basic clay-working skills. Early pots were handmade without the potter's wheel, so they often looked uneven. Decorative techniques developed later as pottery-making improved.



Fig 4.20. Different Forms of Pottery.

Observe the above picture of different forms of pottery and identify which is the oldest one. Give reasons based on style, decoration and craftsmanship.



c. Fluorine Analysis: Fluorine analysis is a method of relative dating used to estimate the age of bones. Fluorine is a non-metallic, pale

yellow, highly reactive element found in groundwater. When bones or teeth are buried in the ground, they slowly absorb fluorine from groundwater. Older bones contain more fluorine, while more recent bones contain less. It works only when bones are buried under similar soil, moisture and temperature conditions. Since fluorine levels vary from one soil type to another, this method cannot provide an absolute age. However, it is very useful for comparing the relative age of bones found at the same archaeological site.

d. Pollen Analysis (Palynology): Pollen is the microscopic male reproductive cells produced by the anthers of flowering plants. It is remarkably durable and can survive for thousands of years under suitable conditions. Pollen analysis is the study of pollen grains that are deposited and preserved in different layers of soil or sediment. It is a method of relative dating that helps identify plant species from different geological periods. Each plant species produces pollen with a distinct and recognisable shape. By studying the pollen preserved in different soil layers, researchers can reconstruct past climates, vegetation patterns and aspects of human subsistence and economy. This analysis helps reveal how plant communities and environmental conditions changed from one period to another.



Find the appropriate dating method for the following objects and prepare a brief note on each.

Bone, Pottery and Plant.

Through relative dating methods, we can determine only the relative age of prehistoric materials. To identify the actual or calendar age of artifacts, archaeologists use absolute dating methods, which provide exact age of archaeological remains.

2. Absolute Dating Methods

Absolute dating methods help us determine the exact or approximate numerical age of artifacts, fossils, and geological deposits. Some commonly used absolute dating methods include Radiocarbon dating, Dendrochronology, Potassium-Argon dating and Thermo luminescence dating.

a. Carbon-14 Dating (Radiocarbon Dating): Radiocarbon dating is one of the most widely used methods for determining the age of organic remains. It is based on measuring the rate of decay of a

radioactive form of carbon known as Carbon-14 (C-14). Willard F. Libby developed Radiocarbon dating in 1947 and was awarded the Nobel Prize in Chemistry in 1960.

All living organisms, plants, animals and humans, contain a measurable amount of C-14. Plants absorb C-14 from the atmosphere during photosynthesis, and animals obtain it by consuming plants. After the organism dies, it stops absorbing carbon and the C-14 already present begins to decay at a constant rate. This decay rate is known as its half-life, which is 5730 ± 40 years. This means that after 5730 years, only half of the original C-14 remains in the sample. To date an object, the material is burned at a very high temperature in a laboratory, to convert it into pure carbon, and the remaining C-14 is measured. Objects such as charcoal, wood, cloth, leather, bone and hair can be dated using this method.

b. Dendrochronology (Tree-Ring Analysis): Dendrochronology is an absolute dating method used to determine the age of trees and wooden objects. Trees produce a new layer of growth each year, known as an annual ring. By cutting a tree and counting these rings, it is possible to determine the number of years the tree lived. The width and appearance of the rings also provide valuable climatic information. During years of heavy rainfall, trees grow faster and form wide rings, while in dry years their growth is slow and the rings are narrow. Each ring represents one year and the differences in ring thickness show past climate conditions. This method is called Dendrochronology and it is a very accurate method used to date wooden artifacts, ancient wooden materials in buildings and old timber up to several thousand years old.



Fig 4.21 Tree Rings

c. Potassium–Argon Dating: Potassium–Argon (K–Ar) dating is a radiometric method used mainly to determine the age of rocks, especially those of volcanic origin. This method works on the principle that the radioactive isotope Potassium-40 (K-40) decays into Argon-40 (Ar-40) and Calcium-40 (Ca-40) over time. The half-life of K-40 is 1,330 million years, making it useful for dating extremely old materials. It is most effective for dating sites that are 500,000 years old or older. This method can be applied only to rocks rich in potassium, which are commonly found in volcanic regions. Because of its long half-life, potassium–argon dating is valuable for studying very early prehistoric periods, including early human evolution.

d. Thermoluminescence Dating: Thermoluminescence dating is used to determine the age of pottery, burned stones and minerals. When pottery is heated during its original firing, it traps small amounts of radioactive energy from the environment. Later, when the pottery is reheated in the lab to about 500°C, it emits light, a glow called thermoluminescence. The intensity of this light is measured. This happens because, radioactive elements like uranium and potassium in the soil release energy. This energy gets stored in the pottery over time. The amount of light released during heating is directly proportional to the amount of radiation absorbed, which reflects how long it has been buried. Thermoluminescence can be used to date materials that are roughly 1,000 to 500,000 years old.



Identify the suitable absolute dating method for fossil, rock, wood and pottery and prepare a writeup.

Archaeological Anthropology has traditionally depended on excavation and manual surveys to uncover traces of human culture. Although effective, these methods are often time-consuming, labour-intensive and sometimes destructive to archaeological contexts. Recent archaeological excavations increasingly rely on advanced, non-invasive technologies to locate buried features before digging and making investigations. Let us examine the recent trends in Archaeological Anthropology.

Recent Trends in Archaeological Anthropology

In recent decades, archaeologists have increasingly adopted scientific technologies and innovative methods like aerial survey, ground survey, underwater archaeology, LiDAR and radar to study sites with greater accuracy, efficiency and minimal damage.

1. Aerial Survey

Aerial survey is a type of regional survey carried out using cameras or sensors attached to aircraft, drones, or satellites. It helps archaeologists detect and map archaeological sites and landscape features from above. Remote-sensing techniques such as aerial photography, drone-based imaging, satellite imagery, infrared scanning, ground-penetrating radar (GPR) and thermography have become essential tools in modern Archaeology. These methods allow archaeologists

to rapidly map large or complex sites and to monitor excavation progress without disturbing the ground. They help reveal buried walls, canals, ancient roads and entire settlement layouts that are otherwise invisible from the ground. They are also highly effective in identifying crop marks and soil marks that indicate hidden structures. Satellite imagery has been widely used to trace extended networks of the Indus Valley Civilisation.

2. Ground Survey

Ground survey refers to the systematic exploration of land surfaces for evidence of past human activity. Archaeologists conduct surface surveys, where they walk across an area to collect visible artifacts and use geophysical techniques to investigate what lies beneath the ground. Archaeologists use surface artifact collection, Ground Penetrating Radar (GPR), magnetometry, electrical resistivity surveys and soil chemistry analysis to study sites without disturbing them. Extensive ground surveys helped identify Neolithic settlement patterns even before large-scale excavations were carried out at Mehrgarh, one of the earliest known farming and village settlements in Balochistan.

3. Underwater Archaeology

Underwater Archaeology involves the recovery and study of submerged artifacts, structures and archaeological sites. It focuses on understanding past human cultures and their interactions with seas, rivers, lakes and coastlines by exploring archaeological remains located underwater. Underwater Archaeology employs methods such as diving exploration, sonar mapping, Remotely Operated Vehicles (ROVs) and deep-water robots or submersibles to investigate submerged sites. These technologies help archaeologists map, photograph and analyse underwater structures and landscapes, even at depths unreachable by human divers. They are essential for studying ancient harbours and maritime trade routes, investigating shipwrecks and lost cargo, exploring submerged cities and preserving valuable maritime cultural heritage.



Fig 4.22 Underwater Excavation

4. LiDAR (Light Detection and Ranging)

LiDAR is a modern remote-sensing technology used to measure the exact distance between a sensor and objects on the Earth's surface. It works by emitting laser pulses, which bounce back from surfaces,

allowing archaeologists to create high-resolution 3D maps of terrain. LiDAR can detect structures hidden under forests, vegetation, or soil and reveal ancient city layouts, roads, fortifications and fields. It allows archaeologists to map large areas quickly and accurately, helping them understand past environments and settlement patterns.

5. Ground-Penetrating Radar (GPR)

Ground-Penetrating Radar (GPR) is a powerful technique that enables archaeologists to explore what lies beneath the ground without excavation. GPR uses radio waves to detect and map subsurface features. A radar antenna emits short pulses of radio waves into the ground. When these waves encounter objects or changes in soil composition, they bounce back to the receiver. These reflected signals are then converted into images that reveal buried structures and artifacts. It is widely used in Archaeology to detect graves, walls, foundations, tunnels and hidden chambers and to map ancient buildings, streets and settlement layouts without digging.

Applied Archaeology

Applied Archaeology uses archaeological knowledge, scientific methods and technology to solve real-world problems beyond academic study. It connects the past with present-day needs by helping in heritage conservation, cultural resource management, environmental planning, sustainable tourism and public education.



Fig 4.23 Tourism destinations - Hampi and Bekkal Fort

A key area is Cultural Resource Management (CRM), which protects and documents archaeological sites threatened by modern development such as roads, dams, industries and mining. Public Archaeology promotes awareness and community participation in protecting heritage. Tourism management ensures sites are used responsibly without damage. Applied Archaeology also includes Environmental Archaeology, which studies past human–environment relationships to guide modern conservation, and Disaster Archaeology, which examines how ancient societies responded to natural disasters. Forensic Archaeology applies archaeological methods to solve legal and criminal cases.

Modern digital technologies such as 3D scanning, GIS, drones and virtual reality are used to record and preserve sites as part of Digital Archaeology. When sites are in danger, Rescue or Salvage

Archaeology is carried out. Maritime and Underwater Archaeology is another important branch, dealing with submerged sites like shipwrecks and coastal settlements.

Overall, Applied Archaeology makes Archaeology useful for society by protecting heritage and supporting sustainable development.

Preservation and Conservation in Archaeology

Preservation and conservation are essential for protecting archaeological sites and artifacts so that they remain available for study, education and cultural continuity.

Preservation refers to safeguarding remains in their existing condition, either through natural processes such as dryness, freezing, or water logging, or through artificial methods like controlled storage, chemical treatment and digital recording. Preserved materials provide irreplaceable evidence about past societies, strengthen cultural identity, support research and education and contribute to tourism and the economy. However, preservation faces serious challenges today, including rapid urbanisation, climate change, looting, lack of funds and low public awareness.

Conservation is the scientific care of sites and objects after excavation to prevent further damage and slow deterioration. It involves cleaning, stabilising, repairing and chemically treating artifacts, along with controlling temperature, humidity and light to protect them from decay. Modern conservation also uses advanced techniques such as 3D scanning, GIS and digital documentation, as well as site management plans, legal protection and community participation. Together, preservation and conservation ensure that archaeological heritage, such as monuments, artifacts and cultural landscapes, remains protected and meaningful for present and future generations.



Extended Activities

1. Heritage Site/Museum Visit and Documentation

Visit a nearby heritage site or archaeological museum and observe the material remains preserved there, such as stone tools, pottery, sculptures, inscriptions, beads, coins, and burial objects. Identify their cultural period and collect information from display boards. Prepare a report including an introduction to the site or museum, a description of important findings, their historical or cultural significance, your personal reflections, and the importance of preservation.

2. Archaeological Site/ Museum Visit and Photo Documentation

Visit a nearby museum or archaeological site and prepare a photo/digital album based on the material remains observed. Obtain permission before taking photographs and capture clear images of important artifacts, structures, inscriptions, tools, sculptures, or pottery. Arrange the photographs in chronological or thematic order, and write a caption below each including the artifact's name, cultural period or date, material utilised, probable function, and historical or cultural significance.

3. Organise an Exhibition

Collect old household objects or locally available materials from your home or nearby area (with proper permission) and organise an exhibition in your school.

5

LINGUISTIC ANTHROPOLOGY

The last speaker of Bo language (Aka-Bo)

The last speaker of an ancient tribal language, Bo, has died in the Andaman Islands, breaking a 65,000-year link to one of the world's oldest cultures. Boa Sr, who lived through the 2004 tsunami, the Japanese occupation and diseases brought by British settlers, was the last native of the island chain who was fluent in the Bo language.



Fig 5.1 Aka Boa Sr

Taking its name from a now-extinct tribe, Bo is one of the 10 Great Andamanese languages, which are thought to date back to pre-Neolithic human settlement of Southeast Asia. Though the language has been closely studied by researchers of linguistic history, Boa Sr spent the last few years of her life unable to converse with anyone in her mother tongue.

Even members of interrelated tribes were unable to comprehend the collection of Bo songs and stories uttered, by the woman in her 80s, who also spoke Hindi and another local language.

Narayan Choudhary, a linguist of Jawaharlal Nehru University who was part of an Andaman research team, wrote on his webpage. "To me, Boa Sr epitomised a totality of humanity in all its hues and with a richness that is not to be found anywhere else." (Extracted from the Report of Guardian dated 04-02-2010)

This news report shows us that language is not merely a system of vocabulary and grammar; it embodies peoples culture, collective memory, identity, knowledge systems and an entire world view - all of which may disappear with the loss of its speakers, unless it has been carefully documented, preserved, and understood in time.

It also means that when a language is lost, a part of humanity's knowledge, collective memory, and cultural identity may be lost with it. Linguistic Anthropology examines language not just as a system of words, but as a mirror of people's culture, identity, traditions, and history as they are expressed in the way people speak in their daily lives. In this unit, we will examine how Linguistic Anthropology seeks to understand the diverse and deep connections between language and culture.



Communication Systems in Humans and Other Organisms

Many animals communicate in different ways. Birds use sounds to attract mates or warn rivals, while insects and mammals use chemical signals such as pheromones to guide others, mark territory, or signal reproductive readiness. Touch is also important. Primates groom to strengthen social bonds, honey bees use physical contact to share information and parents use touch to comfort offspring. Humans rely heavily on visual signals like gestures, posture, and facial expressions to express emotions and intentions. Some organisms communicate biologically through genetic mechanisms. For example, bacteria exchange DNA through conjugation, spreading useful traits like antibiotic resistance, while viruses transfer genetic information by infecting host cells. Over generations, genetic communication through inheritance helps organisms survive and continue their species.

All species, including humans, communicate in one way or other.

Organisms communicate for various purposes:

- To find food,
- To avoid predators,
- To reproduce and
- To ensure their survival.

Organisms use different channels such as sound, smell, touch, and visual signals for communication. Humans are distinguished from other species by their ability to use complex language for communication.

We still do not know exactly when our ancestors first began to speak, although scientists have proposed several hypotheses. Humans are highly evolved and they have the most developed thinking and learning abilities. This is supported by their highly developed brain, which enables complex communication, culture and creativity.

Let us discuss how brain development among humans led to language development.

- A developed brain, particularly the neo cortex, paved the way for greater memory capacity, complex and abstract thought, and improved social cognition.
- During evolution, the brain developed specialised regions that are vital for language development.



- The development of white matter pathways in the human brain allows messages to travel very fast between different brain areas. This fast communication is necessary for speaking, hearing and understanding language in real time.
- Through brain development, humans have developed the ability to represent another object, action or idea with a sound or word. This was necessary for language to form.

White matter pathways in the brain are bundles of nerve fibres that connect different parts of the brain to each other.

Let us examine how the development of the brain helped humans acquire and use language effectively.

Brain areas involved in language

The human brain is divided into two halves: the left hemisphere and the right hemisphere. The left hemisphere controls the right side of the body and the right hemisphere controls the left side of the body. The functions of the left hemisphere include linguistic abilities, logical reasoning, analytical thinking, mathematical skills, sequential processing etc. The area related to linguistic abilities in the left hemisphere is known as Broca's area and Wernicke's area.



The **right hemisphere** is mainly involved in creativity and holistic processing. The right brain is also important for artistic activities, music, imagination and emotional expression. It helps in interpreting non-verbal cues like facial expressions, gestures, tone of voice and body language, which are essential for social interaction.

Broca's area and Wernicke's area

Paul Broca, a French Neurosurgeon and anthropologist, identified the region of the brain in the left frontal lobe responsible for speech production through his study of patients with speech disorders. His research demonstrated that damage to this specific area affects the ability to produce spoken language. This region is now known as Broca's area. Damage to Broca's area results in Broca's aphasia, a condition in which a person can understand language but has difficulty in speaking. In this condition, speech is slow, broken, and difficult to produce, but understanding of language mostly remains intact.

Carl Wernicke, a German neurologist, discovered another part of the brain located in the left temporal lobe, which is involved in

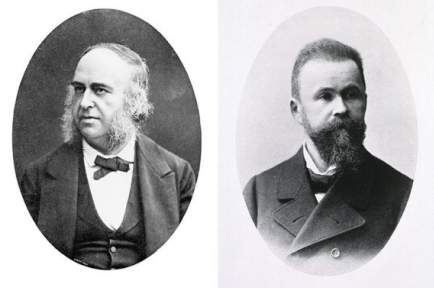


Fig 5.2 Paul Broca and Carl Wernicke



Tan and the Discovery of Broca's Area

Paul Broca's most famous patient was known as 'Tan', the nickname given to Louis Victor Leborgne. He was called Tan because this was the only syllable he could produce, even though he could understand spoken language and think normally. Tan suffered from a severe speech production disorder, later identified as expressive (Broca's) aphasia. After Tan's death in 1861, Broca conducted an autopsy and discovered a lesion in the left frontal lobe of the brain. This finding provided crucial evidence that speech production is localised in a specific area of the left hemisphere, now known as Broca's area.

understanding spoken and written language, processing meaning of words, linking words with concepts etc. Damage of the Wernicke's area leads to Wernicke's aphasia or receptive aphasia. In this condition a person's speech will be fluent and grammatical, but meaningless and use nonsensical words in speech. The person will have difficulty in understanding others' speech also.



Prepare a comparative chart showing the function and result of damage of Broca's area and Wernicke's area.

Now you can also examine the following points and discuss how the emergence of language led to further growth of human brain.

- Using language is a very demanding task. It involves sequencing, memory retrieval and identifying and analysing objects from the sounds they hear. Such continuous activities have led to further growth of brain.
- The brain development occurs rapidly during childhood. Active language learning and its use leads to brain growth.
- Language is not just for communication. It is also a tool for thought. This thinking ability in turn paved the way for developing more complex language. This required a more efficient brain.

“Language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols.” (Edward Sapir, renowned American linguist and anthropologist (1921)).

Now it is evident that physiological modifications helped humans to use language properly and the use of language in turn helped for the development of human brain and other organs of the body. During human evolution, changes in the brain, vocal cords, tongue, lips and breathing system made speech possible. At the same time, the shape

of the skull, jaw and throat changed to allow clear sound production.

The development of the brain and the development of language are fundamental components of human culture. A larger brain laid the foundation for language. The growth of language led to an increase in knowledge and thus to greater challenges for the brain. This language-brain integration led to the origin, growth and complexity of culture. Regular communication increased thinking, memory, social cooperation and learning. Language helped humans plan, teach skills, share culture and survive better. This constant use of language strengthened the brain and supported the growth of other organs through better coordination, cooperation and tool use. Hence, language is an integral part of human behaviour. The study of language, thus, became a sub-field namely, Linguistic Anthropology.

Linguistic Anthropology

Linguistic Anthropology is a sub - field of Anthropology that studies language as part of culture and social life. It focuses on how language is structured, how it is used in everyday interaction and how it reflects and shapes human thought, identity and social relationships. Anthropologically, language is viewed not merely as a system of sounds or grammar, but as a tool for understanding culture. Linguistic anthropologists examine language in relation to kinship, religion, economy and politics, especially in diverse cultural contexts, including tribal and preliterate societies.

The study of language, or linguistics, began as a discipline even before the origin of Anthropology. While linguistics studies the origin, development and classification of language, Linguistic Anthropology studies

How a Linguist and a Linguistic Anthropologist Study Malayalam



A linguist studies Malayalam as a language system. They focus on grammar, sounds, structure, and historical development. For example, verb forms like *varunnu*, *vannu*, and *varum*, noun endings such as *kutti* and *kuttikal*, phonological patterns, regional dialects, and the dravidian roots of Malayalam and its evolution from Tamil.

A linguistic anthropologist studies how Malayalam is used in everyday life and how it reflects culture, identity, and social relationships. They examine regional and social variation, the use of honorifics (*ningal* vs. *nee*), code-mixing with English ("*athu scene aavum*"), online slang and memes, and differences between formal language (news broadcasts) and informal communication (WhatsApp chats).

For example, in studying greetings, a linguist analyses the structure and pronunciation of words like *namaskaram*, while a linguistic anthropologist asks when and why speakers choose *namaskaram*.

In short, a linguist studies Malayalam as a system of rules, while a linguistic anthropologist studies it as a living cultural practice that reflects Malayali society and identity.

language as a cultural resource and speaking as a cultural practice.

Language is the manifestation of how people think and see the world. Every community uses language to express its thoughts, feelings and experiences. Through words, people describe the world around them, their traditions, emotions and daily life. Studying the connection between language and culture helps us understand people better.

Let us now examine the following story to understand the relationship between language and culture.

Avani, a young woman, went to a Western country for her education. She settled there and became an expert in the English language. She developed the habit of replacing Malayalam words with English ones while speaking. After a long time during one Onam season, she returned home. Everyone was sitting together, enjoying the '*onasadhya*.' Her grandparents, parents, friends, relatives and all were present. During the '*onasadhya*' her grandfather asked Avani: "My dear, don't you want to buy '*onapudava*'?"



Fig 5.3 Onam celebration

Avani immediately replied: "*onapudava*? I have brought a few nice 'dresses.' I have plenty of 'clothes.' Grandfather smiled and said: "For our Onam, just 'clothing' is not enough; we need an '*Onapudava*.' That is its beauty. It is not just a piece of cloth, dear; when we say '*Onapudava*,' it has a special significance. It is a symbol of our love and prosperity. It's a tradition passed down through generations."

Avani noticed the word '*Onapudava*.' In that single word, the love, prosperity and the tradition of the custom that her grandfather spoke of were all contained. That word held an emotional depth and a cultural experience that "new clothes" could never convey.

It was then that Avani understood the difference. The word '*Onapudava*' did not merely denote an object, '*Onasadhya*' is not just about eating food. They encompassed the lifestyle, the mindset, the tradition and the perspectives of a community.

Avani's experience clearly shows that words are not merely labels for objects. They are the vehicles of culture. Words carry the values, emotions, traditions and collective memories of a community. Cultural terms like *onapudava* or *onasadhya* express meanings that cannot

be fully translated into another language without losing their cultural essence. Thus, language acts as a vessel through which culture is preserved, expressed and passed on from one generation to the next.

Language and Culture

We can enter the depths of people's way of life through language. When a word or language disappears, the deep meanings and cultural experiences connected to it also fade away. The cultural knowledge passed through that language is no longer transmitted.

The branch of Linguistic Anthropology that deals with the relationship between language and culture is known as **Ethnolinguistics**. This is also called Cultural Linguistics. Ethnolinguistics is closely associated with Ethnosemantics. It analyses how culture classifies and label the world around. We use different names for the word wind to describe its variations. For example, terms like 'breeze' and 'storm' reflect differences in intensity. Ethnolinguistics gives us some insights into the deep relationship between language, thought and culture.

The language and dialects used by people in different regions and societies are different. While Ethnolinguistics focuses on the relationship between language and culture, there is another branch of Linguistic Anthropology that deals with the relationship between language and society namely Sociolinguistics.

Sociolinguistics is the study of how language/dialect and society influence each other. It examines how people use language in real-life social contexts. Sometimes the same person may speak differently at home, in school, or at workplace. It shows language varies according to social context. Sociolinguistics examines how language varies and changes according to social status, solidarity and identity. It also studies how speakers use different dialects and accents to reflect their social



Ethnosemantics and Componential Analysis

Ethnosemantics is the study of how people in different cultures classify and organise their experiences through language. It focuses on folk taxonomies i.e., the way people name and categorise things like plants, animals, colours, and kinship relations in their own cultural context. It is often called Cognitive Anthropology or Folk Semantics.

Componential analysis is a method used to break down word meanings into their smallest semantic features or components. It identifies basic features shared by or contrasted among related words.

Both Ethnosemantics and Componential analysis study meaning in cultural context, Ethnosemantics focuses on cultural categories, while Componential analysis examines the internal structure of word meanings. They reveal how language reflects cultural values, thought patterns and the way people perceive their world.

and regional backgrounds. Sociolinguistics studies language change, showing how languages evolve over time under social influence.



Prepare a chart showing the distinction between Sociolinguistics and Ethnolinguistics.

Relationship between Language and Culture

Language influences how people think and understand the world. It also reflects social roles and status, as the way people speak can show their age, gender, profession, or social position. At the same time, culture shapes language by creating words for things that are important in people's lives and environment.

Language also helps in sharing cultural symbols, values, traditions, and memories. Through stories, greetings, and daily communication, culture is passed from one generation to another. Thus, language is not only a means of communication but also a vehicle through which culture is learned, preserved and continued.

Let us now discuss the various dimensions of the interrelationship between language and culture.

i. Language Influences Human Thought: Edward Sapir, American Linguist and his student, Benjamin Lee Whorf, proposed that there is a strong relationship between language, thought, and culture. According to them, language is not just a tool for communication; it also shapes our thoughts, perceptions and experiences. People who speak different languages may think about reality in different ways because their languages organise ideas differently. This concept is known as **Sapir-Whorf hypothesis**.

This theory has two main versions. The first is **linguistic determinism**, which claims that language determines human thought. According to this view, if a language has no word for an idea, its speakers cannot think about that idea. This strong version has been rejected by linguistic anthropologists and cognitive scientists, because humans are capable of thinking even without language.

The second version is linguistic relativity, which states that language influences the way people think but does not fully control it. Language guides attention and shapes how ideas are expressed and organised, while thinking itself remains flexible.

In short, language does not determine human thought; it only influences it. Therefore, linguistic relativity is accepted, while linguistic determinism is rejected.

“Can humans think without Language?”. Conduct a debate in your classroom.



ii. Language Indicates Social Status and Roles: Language influences status and roles by shaping how people identify, address, and behave toward one another in society. Every society uses language to mark social positions such as age, gender, occupation, kinship, and authority. The words we use and the way we speak show who we are, who others are, and how we should relate to them. Titles and forms of address (e.g., sir, madam, teacher) show respect and social rank.

You might have noticed some differences in the use of words or language depending on economic status, gender, social position, caste, or ethnicity across different societies.

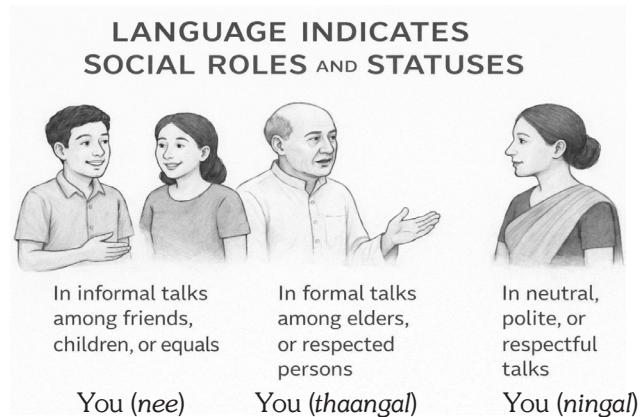


Fig 5.4 language indicates social roles and statuses

See the following differences in speech levels in Kerala depending on respect, age and social distance.

- In informal talks among friends, children, or equals you (*nee*) is used.
- In formal talks among elders, or respected persons. You (*thaangal*) is used.
- In neutral, polite, or respectful talks You (*ningal*) is used. The choice between '*nee*', '*thaangal*', and '*ningal*' reflects differences in social roles and status.

The linguistic forms to convey esteem, respect, politeness or reverence for a person's social status, position, rank, or age is known as honorific forms of language. These forms of language are ultimately tied to culture and society.

Prepare a list of honorific forms and dialects and write short article on gender differences in Malayalam language.



Similarly, dialect is also related to culture and society. A dialect is a variety of language spoken by a particular group of people in a specific geographical area or social group. For example, the Malayalam spoken in Kerala has different dialects, which are directly linked to culture. Dialects are symbols of cultural identity.

iii. Culture Influences Basic Vocabulary of Language: Why do cold-climate cultures have a rich vocabulary for snow, while and desert-climate cultures have many words for sand and wind?

Can you suggest different terms in Malayalam related to coconut?

Check the following ...

'Achinga', 'Machinga', 'Vellakka', 'Karikku', 'Elaneer', 'Thenga', 'Chakiri', 'Chiratta' etc.

Can you find this many basic words related to coconut in English? What could be the reason?

The core vocabulary of a language is influenced by the experiences, environment and culture of the people. We can see that Keralite culture is closely related to the coconut; that is why basic vocabulary related to it is in abundant. As society and culture become more complex, their vocabulary also increases.

iv. Language helps to share Cultural Symbols: Culture is a shared behaviour. Language is the main tool through which people express and share their culture. Every culture has its own cultural symbols like customs, beliefs, traditions, festivals, dress, or rituals. It carries special meanings for that community. Language gives names and explanations to these symbols and helps people understand and pass them on to others. For example, it would be difficult to preserve or communicate the values, cultural symbols, and meanings behind Onam without language. Thus, language acts as a bridge that connects people to their culture and keeps cultural symbols alive in society.



Discuss how language helps to share cultural symbols in the context of language expressions like *Onasadya*, *Pookkalam*, *Thiruvonam*, *Maveli*, *Onaashamsakal* and *Onappaattu*

v. Language is a medium of acculturation and enculturation:

Culture is a learned behaviour. Acculturation is the process of learning or adopting aspects of another culture. When people comes into contact or interact with others using language, they also exchange ideas, habits, and ways of thinking. Similarly, enculturation is the

process of learning one's own culture. Children learn how to behave and how to take part in social life through language.

vi. Language is a vehicle of culture: Language acts as a carrier of culture, connecting the past, present, and future of a community. It carries and transmits the ideas, beliefs, customs, and values of a society from one generation to another through language.

We have seen that language and culture are deeply interconnected. This close relationship is best understood through linguistic communication, which enables individuals and communities to convey meanings, social norms, emotions, and identities in everyday interaction. Let us examine the features of linguistic communication and how languages are grouped into different families.

Linguistic Communication And Language Families

Human language is more than the exchange of words. Linguistic communication is an exclusive property of humans enabling them to share their thoughts, feelings, intentions, information and knowledge through systems of sounds, symbols, and gestures. We have seen that other animals use signals, calls, gestures, or chemical cues for communication. They do not possess a complex grammar-based language as humans do. Let us now examine the features of human linguistic communication and analyse how it stands out from the communication system of other organisms.

Features of Human Communication

The differences between human communication and the communication systems of other organisms arise from the unique structure of the human brain and the highly structured nature of human language. Unlike animal communication, which is limited to fixed signals and specific situations, human language is flexible, symbolic, and creative. Linguists have identified certain key features that distinguish human linguistic communication from all other forms of communication. Let us now examine the different features of human communication in the following section.

i. Productivity or Creativity

The human brain can combine ideas creatively. Hence, humans can connect words, form concepts, and imagining new scenes. So, our brain automatically creates a picture or meaning when we hear that sentence.

Think about what images come to our mind when we hear the news “elephant became enraged”



Language uses finite words to create infinite meanings

You may know only a few thousand words, but you can understand millions of sentences. For example:

“I will buy a blue umbrella tomorrow.”

“I will buy a red umbrella tomorrow.”

“I will buy a blue umbrella next week.”

“I will not buy a blue umbrella tomorrow.”

These are all different sentences, but we understand them instantly.

Humans can create an infinite number of new sentences and express new ideas. When we hear a sentence for the first time, we understand that sentence if we know the rules of that language. This unlimited understanding is possible because humans can combine grammar, vocabulary, and their cognitive abilities. The ability to create and understand infinite number of new sentences and messages from a limited set of sounds, words and rules is called productivity or creativity in human language.

ii. Displacement

Displacement is the human ability to talk about the past, future, distant, imaginary, abstract, and hypothetical situations, events or things. Humans can talk about the past, the future, imaginary events, things that are far away, and even things that do not exist at all. In contrast, animals typically communicate only about immediate situations, such as danger, food, or mating. Humans can go far beyond the immediate moment.

Talking about	Example
Past	Yesterday we went to Wayanad.
Future	It will rain next week.
Distant Places	I heard that it is snowing in Kashmir now.
Imaginary or Unreal Things	There are talking flowers in Alice’s wonderland.
Abstract ideas	Talk about justice and morality in human life.
Hypothetical Situations	If I had wings, I would fly.

iii. Arbitrariness

What is the relationship between a word and its meaning in language?

In language, a word is the signifier, and its meaning is the signified. In linguistic communication, arbitrariness refers to the idea that there

is no natural or logical connection between a word and its meaning. Meanings are assigned to words arbitrarily by a cultural or linguistic group. Words are symbols chosen by their respective linguistic communities.

Examine the following different sounds for the same thing in different language community.

For example, the concept of 'water' is expressed as 'Vellam' in Malayalam, Water in English, *Thanni* in Tamil, *Paani* in Hindi.

These words are arbitrary symbols selected by each respective cultural or linguistic group.

Why is human language said to be arbitrary?

The connection between a word and the meaning it represents is based on social agreement. There is no scientific connection between a word in a language and its meaning.



Onomatopoeic words are words that imitate or resemble natural sounds or sensations. They are less arbitrary than ordinary vocabulary. Their form has a direct connection to the sound they represent. Therefore, they are less arbitrary. Onomatopoeia is the phonetic imitation of sounds. Examples include 'Tic TicTic' - clock ticking, 'Tak TakTak' - knocking sound, 'Bhoom' - explosion



Prepare a list of less arbitrary (onomatopoeic) words from Malayalam and English.



We know that people around the world speak numerous languages. Why did this happen? Linguistic anthropologists are interested in studying how ancient people migrated and interacted, and how cultural and historical connections spread across regions. By understanding the Language families, we gain a clear insight into how languages developed, changed and spread to other parts of the world.

Language families

When we draw a genealogical chart of an extended family with many generations, haven't you noticed that it forms many families and subfamilies? Similarly, languages all over the world evolve over time, forming branches and sub-branches. Each family contains several languages spoken by millions of people across continents.

The Brahmi script is the earliest writing system developed in India after the Indus script. All modern Indian scripts are derived from Brahmi. Therefore, we can say that Brahmi is the mother of nearly all modern Indian scripts.



Historical Linguistics is the scientific study of the changes that occur in languages over time. It also studies the development of new languages and what evolution are taking place in the existing languages. It also studies the changes in phonology, grammar and examines the origin of words and their meaning.

The study of language families is also an area of historical linguistics. The original language from which modern language evolved is known as the proto-language. Linguists use the comparative method to reconstruct proto-languages by comparing modern languages and classify them into language families based on ancestry.

Major Language families of the world			
Language Family	Geographic Region	Major Branches	Examples of Languages
Indo-European	Europe, South Asia, Two American continents	Germanic, Romance, Slavic, Indo-Aryan, Celtic, Iranian	English, Hindi, Spanish, Bengali, Russian, Persian
Sino-Tibetan	East & Southeast Asia	Sinitic, Tibeto-Burman	Mandarin, Cantonese, Burmese, Tibetan
Afro-Asiatic	North Africa, Horn of Africa, Middle East	Semitic, Berber, Cushitic, Chadic	Arabic, Hebrew, Somali, Amharic, Hausa
Niger-Congo	Sub-Saharan Africa	Bantu, Atlantic-Congo	Swahili, Yoruba, Igbo, Zulu
Austronesian	Southeast Asia, Pacific Islands, Madagascar	Malayo-Polynesian, Formosan	Malay/Indonesian, Tagalog, Maori, Hawaiian, Malagasy
Dravidian	South India, Sri Lanka, Pakistan	South Dravidian, North Dravidian	Tamil, Telugu, Kannada, Malayalam, Tulu

A language family is a group of languages that are descended from the same proto-language. Language families are formed based on the phonetic and morphological features of different languages. Languages within the same family show similarities in vocabulary, grammar and sound patterns because they developed from the same origin.

The study of language families is foundational to historical linguistics, comparative linguistics and the study of human migration and cultural

evolution. It reveals how languages diversify over time through migration, isolation, contact and socio-political change.

It is estimated that there are approximately 7,000 languages all over the world. These languages are grouped under about 150 language families. Some of them are extremely large and common, while others are small and confined to limited areas. A few among these language families are prominent due to their global influence, demographic weight, and extensive documentation.

The language families in India are classified into five language groups: Indo-European or Indo-Aryan, Dravidian, Austro Asiatic, Sino-Tibetan or Tibeto-Burmese and other remaining languages, including Tai-Kadai (Kra-Dai), Andamanese etc. Indo-European or Indo-Aryan and Dravidian languages are spoken by the lion's share of Indian population.

Language families are formed because related languages are transmitted from one generation to the next through the process of language acquisition. Children learn the language spoken in their community, inheriting its basic grammatical structure and core vocabulary from earlier generations. Let us examine the process of language acquisition by individuals.

Identify the major language families in India and list the important languages belonging to each family, along with their approximate percentage of the total population and the geographical regions where they are spoken.



The **Linguistic Genome Project (LGP)** is a modern research initiative that aims to map and understand the “genetic structure” of the world’s languages. Similar to how the Human Genome Project studies biological genes, the LGP seeks to identify the basic building blocks of languages and their relationships. It is an international effort involving linguists and computer scientists who collect and analyse large-scale data on vocabulary, grammar, and sounds to trace language evolution and connections. The project also helps preserve endangered languages through documentation and digital recording, and functioning like a linguistic DNA map that reveals shared features and historical change over time.



Phonetic features include the difference in sound system. Different languages use different sets of sounds and they also differ in how those sounds are organised and pronounced. **Morphological** features include the difference in word formation, i.e., how languages form words-how they use prefixes, suffixes, roots, and inflections.



Language Acquisition

Language acquisition is the natural process through which humans learn to understand and use language. It begins from birth and develops as the child grows. Unlike the way subjects are learned in school,

language is acquired automatically through listening, observing, and interacting with others. Children first learn sounds, then words, and finally sentences without being formally taught grammar. This is possible because the human brain is specially designed for language learning. Social interaction, thinking ability and exposure to language—all play important roles in helping children master their mother tongue, as well as additional languages. Let us first examine the main language acquisition theory of Noam Chomsky.



Language acquisition theories

1. The Behaviourist theory of B.F. Skinner explains, Language is learned through imitation, repetition and reinforcement.
2. The Cognitive theory of Jean Piaget illustrates; language develops along with the child's thinking ability. Children understand concepts first and then learn words to express them.
3. The Interactionist or Social Interaction theory of Vygotsky and Bruner describes, language develops through social interaction, especially with parents, elders and peers. Communication helps children learn words and sentence patterns.
4. The Connectionist / Emergentist theory explains that language learning happens through exposure to large amounts of language input. The brain forms patterns and connections through repeated experience.
5. The Nativist Theory or Universal Grammar theory of Noam Chomsky, the famous American Linguist, states that humans are born with an inbuilt capacity to learn language.

Nativist or Universal Grammar Theory



Fig 5.5
Noam Chomsky

According to Noam Chomsky, the American linguist, the human brain contains a Language Acquisition Device (LAD). All languages share common underlying rules. According to him, the human brain contains genetically programmed blueprints or modules for language learning known as **Universal Grammar**. This means that children do not learn language solely through imitation. Instead, their brains are naturally prepared to understand and use language, just as the body naturally grows teeth or learns to walk. Children quickly learn the grammar of their mother tongue because these rules are built into the human brain.

For example, a child in Kerala naturally begins to speak Malayalam words like 'amma', 'vellam' etc without formal teaching. The same child, if raised in Tamil Nadu, would learn Tamil words like 'ammaa'

'*thanneer*' just as easily. This shows that the capacity for learning language is universal. Chomsky also believed that all human languages, though diverse, are more similar than different. They all share basic structures such as nouns, verbs and sentences and follow a similar pattern. Thus, Chomsky emphasised the idea of a universal human language capacity present in all people.

Chomsky's Nativist Theory is often considered highly scientific because it is supported by brain research, universal learning patterns and the rapid, natural acquisition of language by children. However, modern scholars accept a combined approach that includes biological or nativist, social or interactionist and cognitive or mental development factors.

While Universal Grammar and other theories of language acquisition help us understand how humans learn spoken language, communication is not limited to words alone. People also rely on non-verbal signals and paralinguistics to express meaning. Facial expressions, gestures, body posture, tone, pitch and the way we speak often add feelings, emphasis, or clarity to what we say.

Therefore, to understand human communication completely, we must examine both verbal language and the non-verbal and paralinguistic cues that support it.

Non-verbal Communication And Paralinguistics

Non-verbal communication refers to all the way people express messages without using spoken words. It includes facial expressions, gestures, body movements, eye contact, posture, and even the physical distance between individuals. These signals often communicate emotions, attitudes, and intentions more powerfully than speech. Kinesics refers to communication through body movements, proxemics to the use of space, chronemics to the use of time, and haptics to communication through touch.

The Martian Linguist



Noam Chomsky explained the similarity of human languages through an imaginary example of a Martian linguist. He said that if a linguist from Mars visited Earth to study human languages, it would notice that all languages share many common features. Even though Malayalam, English, Hindi, Chinese and other languages appear very different, they all possess words, sentences, grammar rules and similar patterns of language learning in children. Because of these deep similarities, the Martian might think that humans do not speak different languages, but only speak different dialects of one single human language. Through this example, Chomsky emphasised that all human languages are built on a universal structure and that humans share a common biological ability for language.



Fig 5.6 Kinesics

1. Kinesics

Kinesics refers to the study of body language. Through various body movements, humans convey different signals and emotions. It includes the analysis of body motions and gestures used in non-verbal communication. Important types of body movements include the following:

- a) **Facial expressions:** Researchers estimate that humans have a wide range of facial expressions, but only a smaller number of them are meaningful, recognisable and used regularly in communication. Many of these expressions carry different meanings depending on the situation. For example, a smile is usually seen as a sign of happiness or friendliness, but in certain contexts it may be interpreted as disrespect or sarcasm.
- b) **Gestures:** A gesture is a deliberate movement of any body part used to convey meaning. People can point or signal using their fingers, eyes, chin, or head. Cultural differences play a major role—for instance, in some societies shaking the head up and down means “yes” and moving it side to side means “no,” while in other cultures the interpretations are reversed.
- c) **Posture:** Posture refers to the way a person stands or sits in a particular situation. It changes depending on social and personal contexts. An individual’s posture can express confidence, involvement, energy level, attitude and emotional state. Sometimes it also reflects social status, role, or cultural norms. For example, in some cultures, a person walking with hunched shoulders, a bent neck, or a downward gaze may be viewed as submissive.
- d) **Bowing:** Bowing is an important form of non-verbal communication in many cultures. In Japan, for example, bowing is a respectful gesture used during greetings and introductions. In some societies, bowing with eyes lowered indicates trust or humility.

2. Proxemics

Proxemics is the study of how people in different societies perceive and use space while communicating. Typically, individuals stand close only to their intimate relatives and friends. Personal space varies according to culture, gender, social situations, and individual preferences.



Fig 5.7 Proxemics

3. Chronemics

Chronemics refers to the study of how time is used in non-verbal communication. Time perception plays a significant role across cultures. It includes aspects such as punctuality, willingness to wait, and the pace of daily activities. The use of time can influence lifestyles, speech speed, movements, and the length of conversations. Time often reflects status as well - for example, in a workplace, a manager may call employees for a meeting at short notice or keep them waiting, whereas employees usually need to schedule an appointment to meet the manager. Cultural attitudes toward time can therefore shape communication patterns.

4. Haptics

Haptics refers to any form of non-verbal communication involving touch. Touch-related customs vary widely across cultures. In some countries, people greet each other with one kiss on the cheek, while in others two kisses are customary. A handshake combined with a verbal greeting is common in many societies. Hugging is another form of haptic behaviour. Practices of touch differ according to culture, gender, age, social class, caste, and religion.



Fig 5.8 Haptics

Paralanguage

Paralanguage refers to the vocal features that accompany spoken language but are not actual words. It includes elements such as tone of voice, pitch, volume, speed of speaking, pauses, and vocalisations like sighing, laughing, or crying. These features help convey emotions, attitudes, emphasis and meaning beyond the words themselves, making communication more expressive and effective.

Tone of voice shows feelings or attitudes. High and low pitch level of voice makes different meanings in the conversation. Volume includes

the loudness or softness of speech. Speech in fast and slow pace makes distinctive meanings in different occasions.

Sighing, yawning, laughing and crying act as para language because they are vocal sounds that accompany or replace words to communicate emotions, attitudes etc. A sigh is a long breath released through the mouth that conveys tiredness, relief or disappointment etc. Yawning is involuntary vocal act often accompanied by sound that shows lack of interest, boredom, or tiredness etc. Laughing indicates happiness, amusement, or sarcasm etc. Crying includes sobbing or whimpering sounds and conveys meanings of pain, joy, emotional stress etc.

Thus, it is clear that these vocalisations help express emotions and attitudes that spoken words alone may not fully communicate. In many situations, vocalisations add meaning, change the emotional tone of a message, or reveal what a person truly feels. Therefore, vocalisations function as a key component of paralanguage, helping to make human communication richer and more expressive.

Applied Linguistics

Applied Linguistics is the practical use of language studies to solve real-world problems related to communication, education, culture, and society. It applies linguistic theories to improve how people learn, use, preserve, and understand language.

Preservation of Language

This involves protecting languages that are endangered or at risk of disappearing. Scholars document vocabulary, grammar, stories, and oral traditions. Preservation helps maintain cultural identity and ensures that future generations can access their linguistic heritage.

Intercultural Communication

Intercultural communication studies how people from different cultures communicate with each other. It focuses on language differences, body language, cultural norms, misunderstandings, and strategies to improve communication between diverse groups. It is useful in global business, tourism, diplomacy, and multicultural societies.

Language Revitalisation

Language revitalisation refers to efforts to bring back or strengthen languages that are declining or no longer widely spoken. This may

include developing teaching materials, promoting language use in schools, creating media content, or encouraging families to speak the language at home. It aims to increase the number of fluent speakers.

Discourse Analysis

Discourse analysis is the study of how language is used in real contexts such as conversations, speeches, media, classrooms, or social interactions. It examines how meaning is constructed beyond individual sentences by examining tone, structure, power relations, cultural patterns and communication styles.

Tulu Language Revitalisation



Tulu is a Dravidian language spoken mainly in parts of coastal Karnataka. Although rich in culture and history, Tulu is considered vulnerable and is not officially recognised in the Eighth Schedule of the Constitution of India.

Cultural and linguistic activists along with local academics have started awareness programme to teach Tulu to younger generations. Community - driven efforts were initiated to strengthen inter-generational transmission.



Extended Activities

1. Community Language Documentation

Visit a nearby village or local community and interact with people from different age groups. With their permission, record their language expressions such as greetings, kinship terms, and words related to rituals, occupations, food, and local practices. After collecting the data, prepare a brief report explaining the relationship between language and culture in social life.

2. Generational Speech Variation Study

Observe and compare the speech patterns of the older and younger generations in your area. Note differences in vocabulary, pronunciation, use of vernacular language or slang, communication style, and interpersonal interaction. Prepare a brief report highlighting these differences and explaining the possible reasons for the changes.

3. Study of Code-Switching in School

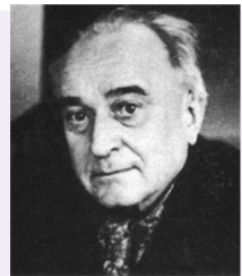
Observe the use of code-switching among students in your school, noting when and why they shift between languages in different contexts such as casual conversations, classroom discussions, or interactions with teachers and friends. Prepare a brief report analysing the reasons for code-switching, including social identity, peer influence, ease of expression, and the impact of education and social media.

6

CULTURAL UNIVERSALS: SOCIAL ORGANISATION

The Nuer Ghost Marriage

In the 1930s, E. E. Evans Pritchard, a British anthropologist documented a remarkable case among the Nuer people of South Sudan. A young woman named Nyaboth was married not to a living man but to a deceased one - a practice known as ghost marriage. Nyaboth's husband, Lony, had died before he could have children. According to Nuer kinship rules, his lineage still needed an heir to carry on his name. So the family arranged for Nyaboth to marry in Lony's name, even though he was no longer alive. Another man from the clan acted as the 'social father' of the children he lived with her and fathered the children biologically but all the children were considered the descendants of the dead Lony, who was legally and ritually their father. To outsiders, this seems strange, but to the Nuer it made perfect sense.



*Fig 6.1
E. E. Evans
Pritchard*



Fig 6.2 Nuer Ghost Marriage

The case of the Nuer ghost marriage clearly shows that the institutions of family, marriage, and kinship are not merely private arrangements but powerful social mechanisms that hold communities together. They ensure that social roles are fulfilled, property and identity are transmitted, relationships are stabilised, and responsibilities are shared across generations. By understanding why practices like ghost marriage exist, we recognise that these institutions arise to meet fundamental human needs like order, continuity, support,

cooperation, and cultural survival. Therefore, the study of family, marriage, and kinship is essential for understanding how societies organise themselves, regulate behaviour, allocate resources, and create meaningful bonds among their members.

In this unit, we explore these institutions in depth to understand how they function, why they vary across cultures, and what they reveal about the organisation of social life. Let us begin by examining the different aspects of marriage, as a cultural institution.

Marriage

You may have attended various marriage ceremonies. Did you notice any differences in the rituals, customs, dress or procedures followed by various social groups? These variations remind us that while marriage is an institution found in almost all cultures, its forms and practices differ widely from one culture to another. Each community attaches its own meanings, rules, and traditions to marriage, reflecting its social values, beliefs, and way of life. Understanding these differences helps us to appreciate marriage not just as a personal event but as a culturally shaped social institution that plays a vital role in maintaining social order and continuity.

“Marriage: Not just as a personal event, but a culturally shaped social institution”- Debate.



American anthropologist Lewis Henry Morgan, proposes that early human societies practiced sexual promiscuity. It is the practice of having sexual relationship with different partners without long term commitment or emotional attachment. With the growth of social organisation, rules were required to regulate sexual relations and ensure social stability. This led to the emergence of marriage as a social institution. Although marriage varies in form across cultures, it exists in almost all societies. It is therefore regarded as a universal social institution that performs several important functions.

In every society, there are explanations for why a person should marry. Examine the following points.

- Regulation of sexual relations
- Legitimisation of children
- Kinship formation
- Transmission of property and inheritance

- Division of labour
- Social control
- Continuity of society
- Economic security
- Cultural and religious functions
- Group solidarity
-
-
-



Examine the extent to which the above factors operate in marriage, and prepare an article with a suitable title to be presented in your class.

Marriage exists in all societies, but its forms, rituals, and rules vary widely across cultures and social groups. We have seen that the institution of marriage varies in different cultures. This diversity can be seen in different communities of Kerala also. Traditionally, the Nairs practised *sambandham*, a form of marriage in which strict rules of marrying within their own group were not followed. Among the Namboodiri Brahmins, only the eldest male was traditionally permitted to marry within the caste, while younger males often formed marital alliances outside it. Muslim marriages are conducted as '*nikah*', a contractual ceremony based on Islamic law, whereas Christian marriages are solemnised in churches through religious vows.

These examples show that marriage, though universal, differs in its social rules, rituals, and meanings. Such variations highlight that marriage is not merely a personal relationship but a socially recognised institution shaped by cultural norms. Therefore, in Anthropology, marriage cannot be defined in a single, rigid way; instead, it must be understood through definitions that recognise both its universal features and cultural diversity.

Definition of Marriage

Marriage is more than a union between a man and a woman. It developed as a way to regulate sexual behaviour, ensure legitimate reproduction, maintain social order, and provide economic and emotional support. Through this, it fulfills essential needs of society.

However, we can see that there are different types of marriages like the following found all over the world.

- Marriage involving one man and more than one woman, and vice versa.
- Marriage between persons of the same sex.
- Ghost marriage as discussed earlier

Considering these different forms of marriage, is it possible to have a universally applicable definition of marriage?

Two definitions of marriage that attempt to include most aspects of marriage are given below.

“Marriage is a universal institution that involves residential cohabitation, economic cooperation and formation of the nuclear family - G P Murdock” - American anthropologist.

“Marriage is a relation of one or more men to one or more women, which is recognised by custom or law, and involves certain rights and duties of both in the case of the parties entering the union and in the case of the children born of it.” Westermarck, Finnish anthropologist.

From the above definitions, it is clear that the institution of marriage in all human societies possesses certain distinctive features as follows.

- Universality
- Social recognition
- Residential cohabitation
- Economic cooperation
- Regulation of sexual relations
- Formation of family
- Legitimacy of children
- Rights and duties of spouses
- Responsibility towards children
-
-
-



Considering all these features and other known characteristics of marriage, could you construct a universal definition of marriage?

From the above analysis of various definitions, it is clear that marriage is not a uniform or fixed institution. It may involve, the union of one man and one woman, one man and several women, one woman and several men, groups of men and women, individuals of same sex, as well as individuals belonging to the third gender. Along with the number of partners, the rules governing marriage also differ widely from one society to another. To understand this diversity in a systematic manner, anthropologists classify marriage into various forms based on the number of spouses, rules of union, and social arrangements. Therefore, it becomes necessary to examine the different forms of marriage in detail.

Forms of Marriage

Marriage is a social institution that exists in almost all cultures. Different societies have developed different forms of marriage based on traditions, religion, economy, and social structure. Based on the number of spouses involved, marriage can be classified broadly as monogamy and polygamy. This basic classification has many subdivisions, as depicted in the chart.

1. Monogamy

Monogamy is the most accepted form of marriage in many societies. In this form, a man or a woman has only one spouse at a time. Monogamy can be further classified into two types, serial monogamy and non-serial monogamy

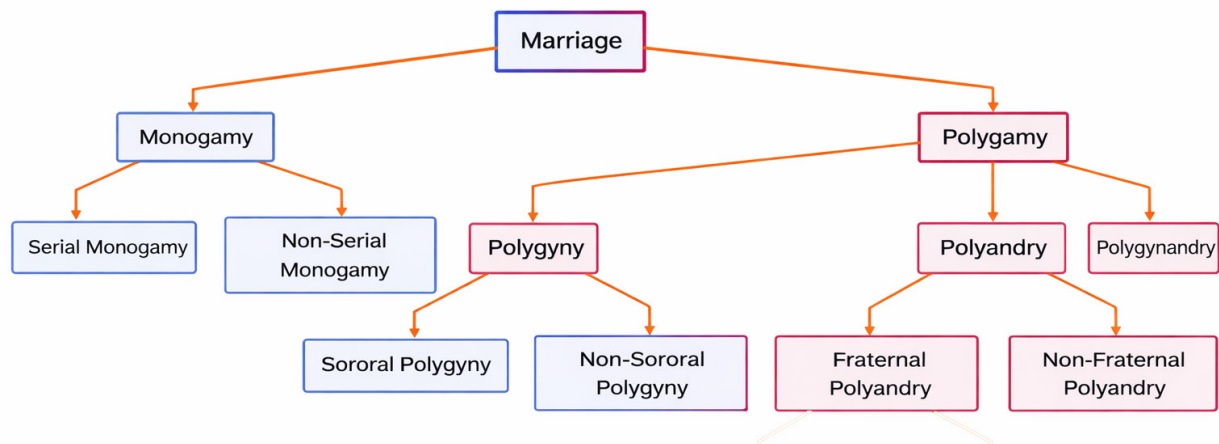


Fig 6.3 Different types of marriages

- a) **Serial monogamy:** In this form, a man or a woman has only one spouse at a time; However, remarriage, following divorce or the death of a spouse also falls within this category.
- b) **Non-serial monogamy:** In this form, a person has only one spouse throughout one's lifetime.

2. Polygamy

Polygamy is a form of marriage in which a person has more than one spouse at a time. Based on the number of males or females involved in the marital alliance, polygamy can be classified into polygyny, polyandry and polygynandry.

a) **Polygyny:** Polygyny is a sub form of polygamy in which a man has more than one wives at any time. Based on the nature of relationship between the multiple wives of a man, polygyny can be classified in to two types: sororal polygyny and non-sororal polygyny.

- i) **Sororal polygyny:** In sororal polygyny the multiple wives of a man are sisters.
- ii) **Non-sororal polygyny:** It is a sub form of polygyny in which, a man marries multiple women who are not sisters.

b) **Polyandry:** This is a form of marriage in which a woman has more than one husband at a time. It can be classified into two types: fraternal polyandry and non-fraternal polyandry

- i) **Fraternal polyandry:** It is a sub form of polyandry in which multiple husbands of a woman are brothers.
- ii) **Non-fraternal polyandry:** It is a sub form of polyandry in which multiple husbands of a woman are not brothers of each other.

c) **Polygynandry:** In some societies, both men and women may have more than one spouse. The form of marriage in which a man has more than one wife and a woman has more than one husband at any given time is known as polygynandry.

Other forms of Marriage

Fictive marriage: Fictive marriage is a form of marriage in which the marriage ceremony is conducted in a proxy manner, using a symbol to represent a person who is not physically present.

Why Polyandry:

Among the Tibetan and Khasa, due to the scarcity of cultivable land, polyandry was once preferred to prevent population pressure on land and avoid the division of property. When the eldest brother marries, his wife becomes the spouse of all younger brothers.



An example of fictive marriage is 'ghost marriage' among the Nuer tribe of South Sudan, as discussed earlier.

Group Marriage: Group marriage has been considered by some early anthropologists as a stage in the evolution of marriage. In this form, a group of men is married to a group of women, and certain marital rights are shared within the group, without exclusive pairing between one man and one woman. However, clear ethnographic evidence for such a system is limited, and many cases earlier described as group marriage are now interpreted as other forms of marriage, such as polyandry or polygyny.

From the study of different forms of marriage, it becomes clear that marriage is not a fixed or unchanging institution. The wide variety of marital forms found across societies suggests that marriage has undergone significant changes over time in response to social, economic, and cultural conditions. To understand how these forms emerged and transformed, it is necessary to examine the evolution of marriage and trace its development from early human societies to the present.

Evolution of marriage

Anthropologists differ in their views regarding the origin and evolution of marriage. However, most anthropologists agree that marriage, as a social institution, did not emerge in its present form suddenly but evolved gradually through successive stages. L. H. Morgan, an American anthropologist, proposed a sequence to explain the evolution of marriage in human societies. According to him, the evolution of marriage passed through the following stages:

Sexual promiscuity → Group marriage → Polygamy → Monogamy

According to L. H. Morgan, in the earliest stage of cultural development, there was no formal institution of marriage. Sexual relationships were not regulated by social rules, and individuals engaged in unrestricted sexual relations. As a result, the role and status of the father were not clearly recognised, and kinship was often traced through the mother.

Over time, societies began to impose certain restrictions on sexual behaviour. These restrictions gradually led to the emergence of group marriage under socially recognised arrangements. With further social development, group marriage gave way to polygamy. Eventually, monogamy emerged as the dominant form of marriage in many

societies. The rise of private property, inheritance, and the need for social stability strengthened monogamous marriage.

Although L. H. Morgan's theory of the evolution of marriage is important for understanding early anthropological thinking, it has been criticised by later anthropologists for the following reasons.

There is no concrete evidence to support the existence of complete sexual promiscuity in early human societies. Morgan's theory is considered speculative, as it is largely based on comparative studies rather than direct historical or anthropological evidence. Many anthropologists argue that even the simplest societies had rules regulating sexual behaviour. Modern anthropologists therefore reject the idea of unilinear social evolution and emphasise that societies have followed different paths of development. Contemporary anthropology views marriage as a dynamic institution shaped by social, economic, and cultural conditions, rather than as a fixed stage in a single evolutionary sequence.

Despite these criticisms, Morgan's theory is significant because it was one of the earliest attempts to explain the evolution of marriage in a systematic way.

Although all human beings belong to a single biological species (*Homo sapiens*) and are biologically capable of interbreeding with any member of the species, marriage is regulated by social and cultural norms. These norms determine who can be chosen as a spouse and who cannot.

Social Regulations in Marriage

In every society, individual choice alone does not determine spouse selection. It is regulated by certain rules, restrictions, and preferences of family and social groups. Let us examine these conditions and preferences in spouse selection prevalent in different societies. Endogamy and exogamy are the commonly found prescriptive conditions in different societies. They are the restrictions that specify the social category from which a person must choose a spouse.

Endogamy

Endogamy refers to the marriage within one's own social group (endo means inside, gamy means marriage). A person is expected to marry only from a particular group such as caste, religion, tribe, or class.



The Tikopians, a small island community studied by the anthropologist Raymond Firth, avoid inbreeding mainly because of strong social rules and traditional beliefs. Marriage or sexual relations between close relatives are considered incest and are strictly forbidden. Tikopians believe that such relationships disturb the moral and sacred order of society (tapu) and can anger ancestral or supernatural powers. As a result, inbreeding is traditionally believed to cause serious illness, weakness, infertility, and even death, either to the couple or to their children. Apart from these beliefs, avoiding inbreeding also helps Tikopians form new family ties and alliances with other groups, which is important for cooperation and social harmony on a small island. Thus, both social needs and traditional beliefs work together to prevent inbreeding in Tikopians

Raymond Firth :We, *The Tikopians* (1936)

Exogamy

Exogamy prohibits marriage within one's close kin group (exo means outside). Members are required to marry outside the group such as the family, lineage, clan, or gotra.

Like these prescriptions, society also imposes certain prohibitions by which individuals are forbidden to marry within a specific group.

Incest Taboo

Prohibitions in marriage mainly appear in the form of the incest taboo. It is the prohibition of marriage and sexual relations between close blood relatives such as parents and children or between siblings.

There are also some preferential type of marriages that suggest suitable choices for a spouse. The following are examples of this category.

Cross-Cousin Marriage

Cross-cousin marriage is the marriage between children of siblings of opposite sex. It can be of two types.

- Paternal cross-cousin marriage: Marriage with father's sister's son/daughter.
- Maternal cross-cousin marriage: Marriage with mother's brother's son/daughter.

Parallel-Cousin Marriage

Parallel-cousin marriage refers to marriage between the children of two brothers or two sisters.

It includes the following:

- Paternal parallel-cousin marriage: Marriage with the father's brother's son/daughter.

- Maternal parallel-cousin marriage: Marriage with the mother's sister's son/daughter.

Uncle–Niece Marriage

In this type of union, a woman marries her mother's brother. It is found in some societies, especially in parts of South India.

Levirate: This is the custom in which a woman marries her deceased husband's brother. The word "levirate" originated from the Latin word 'levir' which means 'brother'. The brother of a deceased man takes responsibility of the widow and her children by marrying her.

Sororate: This is the practice in which a man marries the sister of his deceased wife. The term "sororate" originated from Latin word 'soror' which means 'sister'.

Prepare a write up on different regulation and restrictions of marriage prevalent in our society.



It is within the framework of marriage that relationships of parenthood, kinship, and household organisation develop. Thus, in turn, give rise to another institution, namely; the family. Let us examine how family works as a social institution in different societies.

Family

We have seen that marriage establishes socially approved sexual relationships between individuals. Thus, marriage serves as the foundation of the family. However, the family is not the same as other social groups found in society.

To understand the uniqueness of family, consider the following questions:

- Are the members of all social groups related by blood or marriage?
- Do the members of all social groups share a common residence?
- How does a person become a member of groups such as students' associations, clubs, or play groups? Are such memberships usually permanent or temporary?

A close analysis of these questions reveals that the family is fundamentally different from other social groups.

From the discussion above, we can identify certain features of the family:

- The members of a family are related through blood, marriage, or adoption.
- Family relationships are generally permanent and emotionally close.
- Members usually share a common residence (though this may vary in modern societies).
- There is economic cooperation and mutual responsibility among members.
- The family provides the setting for reproduction and enculturation of children.

Based on these features, can you propose a definition of family? Now compare your definition with the following scholarly definitions:

“Family, in general, is a group based on marriage and the marriage contract, including the rights and duties of parenthood, common residence for husband, wife and children, and reciprocal economic obligations between husband and wife.” - William Newton Stephens

“Family is a social group characterised by common residence, economic cooperation and reproduction. It includes adults of both sexes, at least two of whom maintain a socially approved sexual relationship, and one or more children, own or adopted.”- George Peter Murdock (1957)

Families differ in size, structure, and composition. In certain families, authority may rest with the father, the mother, or be shared by both. Residence may be either common or separate due to modern occupational and educational demands. These variations have led anthropologists to classify families into different forms. Understanding these different forms of family helps us to appreciate how the family institution adapts to social, economic, and cultural changes while continuing to perform its basic functions.

Forms of Family

Based on the nature, composition, and relationships among members, families can be classified into different forms.

1. Nuclear Family

A nuclear family consists of married couples and their children own or adapted. In some rare cases, one or two relatives may also live with them. It is also known as the elementary family, basic family, monogamous family, conjugal family, or primary family.

2. Composite Family

A composite family consists of more than one nuclear family. It may be formed either on the basis of polygamous marriage or through the extension of family across generations.

Polygamous Family

A polygamous family consists of two or more nuclear units formed through multiple marriages. It can be of the following types:

- a) **Polygynous Family:** A polygynous family is formed by the marriage of a man with several women. This family consists of one man, his two or more wives, and their children.
- b) **Polyandrous Family:** A polyandrous family is formed by the multiple marriage of a woman. This family consists of a woman, her multiple husbands and their children.

Extended Family

An extended family consists of two or more nuclear families related through parent–child relationships. Based on residence after marriage, extended families can be classified as follows:

- a) **Patrilocal Extended Family:** In this type, married couples live with the husband's family. This family consists of parents, their unmarried daughters, married and unmarried sons, sons' wives, and grandchildren. Married daughters usually live with their husbands' families.
- b) **Matrilocal Extended Family:** In this form, married couples live with the wife's family. This



Extended families are mainly found in agrarian societies where intensive agriculture is practised. The need for a large labour force in agricultural activities, limited awareness of the advantages of a small family, and lack of awareness regarding human rights have contributed to larger family size. According to Milton Singer, factors such as education, industrialisation, urbanisation, and legal reforms have brought about significant changes in the structure of the family.

family consists of parents, their unmarried sons, married and unmarried daughters, daughters' husbands, and grandchildren. Married sons live with their wives' families.

- c) **Avunculocal Extended Family:** This family is extended through relationships between a man and his sisters's children. In an avunculocal family, after marriage, married couples reside with their maternal uncle.
- d) **Bilocal Extended Family:** A bilocal family allows the couple to live either with the husband's family or with the wife's family. It is a combination of patrilocal and matrilineal residence patterns.

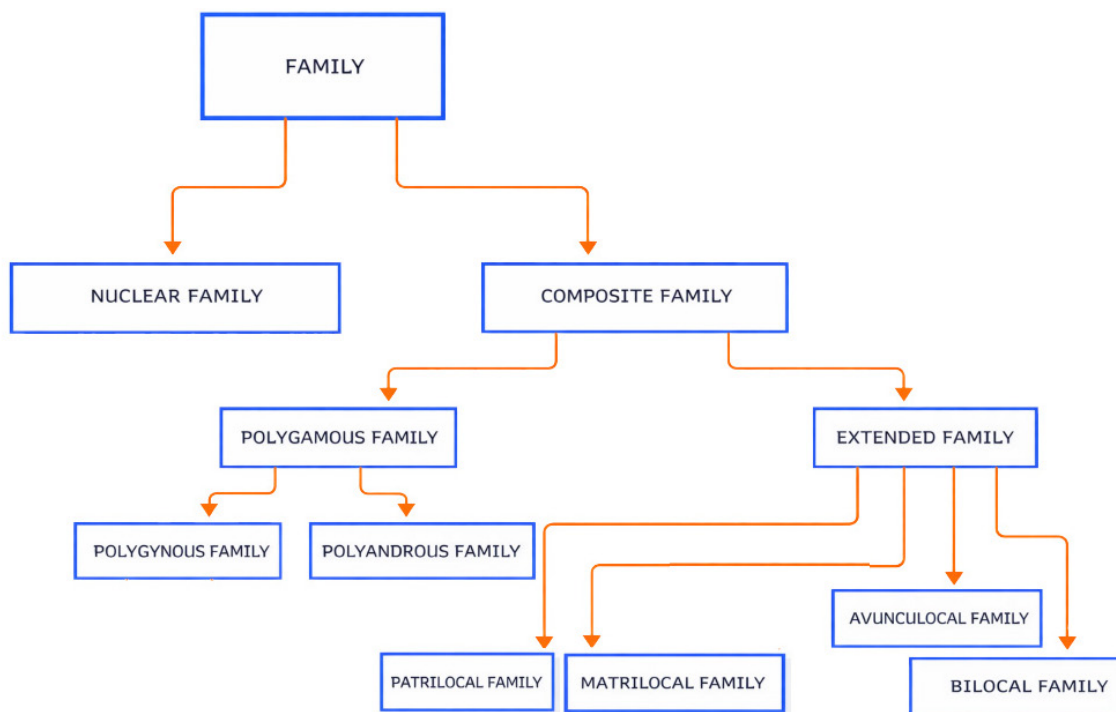


Fig 6.4 Different forms of family

As a basic social institution, the family performs many important functions in society. Let's examine them.

Functions of family

As a member of family, an individual enjoy certain privileges and benefits, as listed below.

- Food
- Shelter
- Education and guidance

-
-

List out further privileges through group discussions.

The above- listed items can be summarised as the functions of family in the following way.

1. **Biological function:** The family provides a socially approved way to satisfy the sexual needs of spouses. It ensures the continuation of lineage and the survival of the human species. The family also provides care, protection, and nurturing to children.
2. **Economic function:** The family provides food, shelter, and basic necessities to its members. It ensures the division of labour among members according to age and gender. The family also plays an important role in the inheritance and transfer of property from one generation to another.
3. **Educational function:** The family takes responsibility for educating children, both formally and informally. It teaches language, customs, values, norms, and traditions. Thus, the family acts as an effective agency for the transmission of social and cultural heritage along with providing formal education.
4. **Psychological function:** Family members are bound together by love, affection, and emotional ties. The family provides emotional support, security, and care to children, the aged, and the sick. Thus, it helps in satisfying the psychological needs of its members.

We have seen that, unlike other social groups, members of a family are related through marital and blood relationships. As soon as a child is born, he or she enters into a network of relationships. This system of relationships based on blood, marriage, and adoption is known as kinship. Let us now discuss this distinctive relationship in the family system, called kinship, in detail.

Kinship

Kinship is defined as the relationship between persons based on blood or marriage. We can observe these two types of relationships

in a family. The relationship between parents and children is based on blood ties, while the relationship between husband and wife is established through marriage.

Kinship occupies an important place in the social organisation of all societies, especially in simple and traditional societies. The role of different kin in the social life of an individual varies from one culture to another.

Types of Kinship

The basic feature of kinship is that it distinguishes between two types of relatives: those related by blood and those related by marriage.

- a) Consanguineal kin: Persons who are related through blood ties are known as consanguineal kin.

Examples: father, mother, son, daughter, brother, and sister.

- b) Affinal kin: Persons who are related through marriage are known as affinal kin.

Examples: husband, wife, father-in-law, mother-in-law, brother-in-law, sister-in-law etc.

In anthropological studies, kinship relations are analysed using certain symbols and abbreviations; we can examine them in detail.

Kinship Symbols, Abbreviations, and Genealogical Chart

Kinship symbols are representations or signs used to express the relationships between members of a family. These symbols are widely used in Anthropology to collect and analyse data related to social organisation. W. H. R. Rivers, a British social anthropologist, was the first to systematically use kinship symbols. During his Torres Strait Expedition, he employed these symbols to draw kinship diagrams or genealogical charts for collecting data on social organisation. A genealogical chart is the diagrammatic representation of family relationships using standard kinship symbols and abbreviations. It helps anthropologists understand patterns of descent, marriage rules, residence, and inheritance in different societies. The commonly used symbols and abbreviations are given here.

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

Using these symbols, we can draw a genealogical chart of a nuclear family. In a genealogical chart, relationships are traced from a focal person known as 'Ego'. The symbol representing the Ego is usually darkened or shaded to distinguish it from other family members.

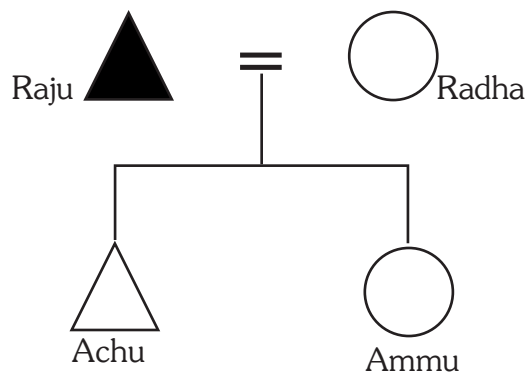


Fig 6.6 Genealogical representation of nuclear family

Genealogical diagrams can be drawn to represent families across several generations. They serve as an important method of data collection in anthropological research. Examine the genealogical chart of composite family covering four generations.

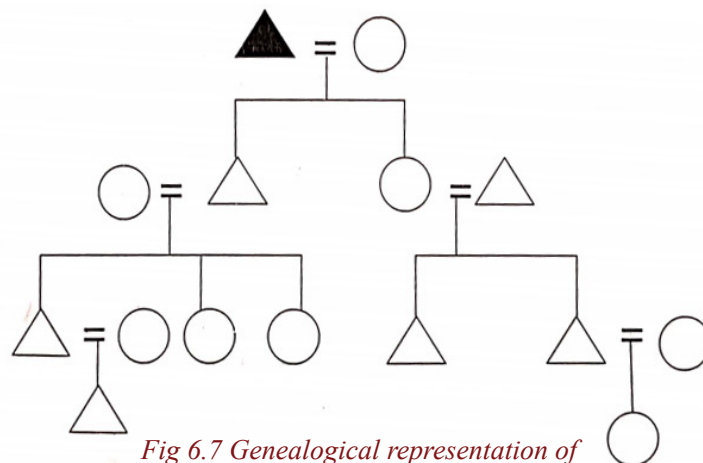


Fig 6.7 Genealogical representation of composite family

We can observe that the intensity of relationship among family members is not the same. Example: the relationship between husband and wife is very close, whereas the relationship between a person and a distant relative is less intense. In order to understand the intensity of relationship between kins, we can classify kinship in to different degrees.

Degrees of kinship

The degree of kinship refers to the intensity or closeness of relationship among relatives (kin). Based on the degree of closeness to Ego (the reference person), kin are classified into primary kin, secondary kin, and tertiary kin.

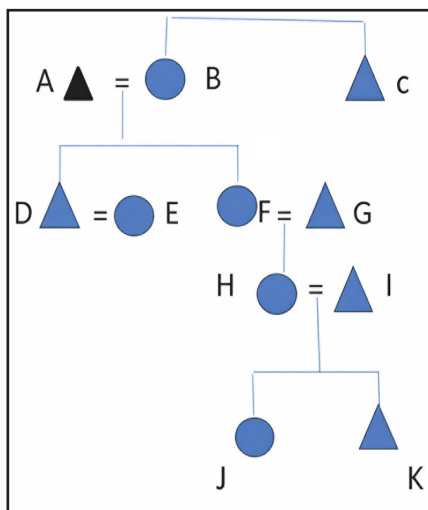


Fig 6.8 Degrees of kinship

1. Primary Kin

Primary kin are persons who are directly related to Ego, either by blood or marriage. Father, mother, brother, sister, son, daughter, husband, and wife are primary kin. Primary kin are of two types:

- Primary affinal kin: Persons directly related to Ego through marriage are known as primary affinal kin. Examples: the husband and wife. In the figure 6.8, B is Ego's primary affinal kin.
- Primary consanguineal kin: Persons directly related to Ego through blood ties are known as primary consanguineal kin. Examples: the father, mother, brother, sister, son, daughter. In the figure 6.8, D and F are Ego's primary consanguineal kin.

2. Secondary Kin

The primary kins of Ego's primary kins are Ego's secondary kin. The father's father, mother's mother, brother's wife, son's son, daughter's daughter etc., are some examples. Secondary kin are also classified into two types:

- Secondary Affinal Kin: The primary affinal kins of Ego's primary consanguineal kin and all primary kins of Ego's primary affinal kin are Ego's secondary affinal kin. Sister's husband, daughter's husband, son's wife etc., are some examples. In the figure 6.8, C, E and G are Ego's secondary affinal kin.

- b) Secondary Consanguineal Kin: The primary consanguineal kin of Ego's primary consanguineal kin are Ego's secondary consanguineal kin. Examples: father's father, mother's brother, brother's son, sister's daughter etc. In the figure 6.8, H is Ego's Secondary Consanguineal Kin.

3. Tertiary kin

The primary kins of Ego's secondary kin are called Ego's tertiary kin. The father's brother's son, mother's sister's daughter, brother's wife's father, son's wife's mother etc are some examples. In the figure 6.8, J and K are tertiary Consanguineal kin of ego and I is Ego's tertiary affinal kin.

Draw a genealogical chart of your family covering at least three generations and identify: primary kin, secondary kin and tertiary kin.



We use different words to address or denote relatives in our family and kin groups. These words are known as kinship terms. Kinship terms vary from culture to culture and reflect social organisation, marriage rules, and descent patterns. Let us now examine kinship terms in detail.

Kinship terminology

Kinship terminology refers to the words and phrases used to describe relationships between family members or kin. These terms are used either to address a relative or to refer to a relative while speaking.

Can you list out at least 20 kinship terms used in your society? Use kinship abbreviations to represent the relationships. An example is given below.



Abbreviation	Relationship	Common terms (Malayalam)
F	Father	Achan / Appan / Uppa
M	Mother	Amma / Umma/Ammachi
S	Son	Makan/

The study of kinship terms reveals important aspects of social organisation, descent, marriage rules, and family structure. Since different terms are used in different situations, kinship terms can be classified on various basis.

1. Classification on the basis of mode of use

Based on how kinship terms are used, they are classified into terms of address and terms of reference.

- a) **Term of address:** This is the word used directly to call a relative. Achan (father), Amma (mother), Chettan (elder brother) are examples.
- b) **Term of Reference:** It is the word used to refer to a relative while talking to someone else. Examples:

“My father

“Her mother

In some cases, terms of address and terms of reference are different.

Example: In Kerala, a woman use the term ‘father’ to address her husband’s father, but she uses the term my husband’s father’ to refer him to a third person.

2. Classification on the basis of range of application

Based on the range of persons to whom a term applies, kinship terms are classified into denotative and classificatory terms.

- a) **Denotative Kinship Terms:** A denotative kinship term refers to one specific category of kin only. Examples: father, mother, son, daughter etc. Each term denotes a single, clearly defined relationship.
- b) **Classificatory Kinship Terms:** A classificatory kinship term is used to denote two or more relatives who share a similar social relationship. Examples: grandfather, grandmother, cousin, ammavan (used for both father’s brother and mother’s brother in many Indian societies). The existence of classificatory kinship terminology was first reported by L. H. Morgan, through his study of the Iroquois Indians of North America. An iroquois child uses same kinship term to call father and father’s brothers and mother and mother’s sisters.

Kinship is formed through relations based on blood, marriage, and adoption. While marriage creates social bonds between individuals and families, an individual’s permanent membership in a kin group is primarily established through blood relationships. Every society follows certain principles to determine how this membership is traced from one generation to another. Based on this kinship they form

large groups connecting different families by tracing their relationship from a common ancestor. Let us examine such groups.

Descent

The system by which an individual traces lineage and establishes membership in a kin group through ancestors is known as descent. Rules of descent in a society determine the inheritance of property, succession, and other social rights and obligations.

Types of Descent

In some societies, kin group membership is traced through the male line; this system is known as patrilineal descent. In other societies, descent is traced through the female line, which is called matrilineal descent. In certain societies, individuals are free to trace their descent through either the male or the female line. This form is known as ambilineal descent. There are also societies in which individuals do not trace descent to a single common ancestor. Instead, relatives on both the father's and mother's sides are given equal importance. This system is known as bilateral descent, meaning "two-sided" descent.

Identify the type of descent followed in your family. Then, draw a genealogical diagram showing how descent is traced in your family.



Marriage and family institutions in contemporary societies are undergoing rapid and significant transformation in response to social, economic, and technological changes. Marriage is gradually shifting from a rigid, community-regulated institution to a flexible, individual-centred partnership, based on personal choice, emotional compatibility, and mutual consent. The dominance of arranged marriages has declined in many contexts, giving way to love or self-arranged marriages, with individuals exercising greater freedom in mate selection. Technology-driven matchmaking through matrimonial websites has further reduced dependence on traditional intermediaries and kinship networks.

From the above discussion it is evident that the institution of family and marriage are under going changes in recent times. Examine the following points and prepare a report on 'recent trends in marriage and family'.

- Spouse selection
- Gender roles
- Age at marriage
- Awareness of individual rights





Extended Activities

1. Genealogical and Kinship Study of Family

Create a genealogical chart of your family covering three generations. In your chart, identify consanguineal kin and affinal kin. Classify family members as primary, secondary, or tertiary kin, and prepare a report providing brief explanations for each classification.

2. Marriage Customs Research

Investigate different marriage practices in your area or other cultures. Prepare an article highlighting the rites, rituals, ceremonies, and social norms associated with these marriages.

3. A Comparative Study of Kinship, Lineage, Descent and Residence

Draw a genealogical chart showing the descent lines of your family or a family you know. Identify the lineage, and residential patterns (locality) within the family. Conduct a cross-cultural comparison with at least one other culture, highlighting differences in lineage, authority, and residence, and prepare a report summarising your findings.

7

CULTURAL UNIVERSALS: ECONOMIC AND POLITICAL ORGANISATIONS

Contrasting Economic Systems : From Sharing to Markets

In a quiet hill area of India, there lived a tribal group in a small village called Kurinji Mala. The people depended on the forest and land for their living. They collected forest produce like honey, fruits, firewood, and medicinal plants. Some families practiced small-scale farming. Work was shared, and whatever they collected was divided among everyone. Money was rarely used. If one family needed help, others came forward.

No one went hungry because sharing and cooperation were part of their life.

Far away, there was a big city with tall buildings and busy roads. People there lived in a modern economy. Everyone had a job—some worked in offices, some in factories, and some ran businesses. They earned money every month. With money, they bought food, clothes, and other needs from markets. People saved money in banks and planned for the future. Life was fast, and people depended more on machines and markets than on nature.

One day, a young boy from Kurinji Mala visited the city. He was amazed by shopping malls full of food and goods. But he also noticed that people were often worried about money and had little time for each other. Later, a city girl visited Kurinji Mala. She enjoyed the fresh air, simple food, and the warm care of the villagers. But she also saw that life was hard when the forest did not give enough food.



Fig 7.1 Rural and city life

These contrasting ways of living depicted in the above description raise important questions for anthropologists:

- Is money necessary for an economy to function?
- Can sharing economy replace markets?
- How do social relationships shape economic behaviour?

Anthropology uses the concept of economic organisation to study how different societies arrange their systems of production, distribution, and consumption according to their cultural values and environmental conditions. By comparing the tribal village and the modern city, we learn that economic organisation is not the same everywhere; in traditional economics it is shaped by culture, tradition, and social structure. This perspective helps us understand human societies beyond modern economic models and appreciate the diversity of economic life across the world.

Economic Organisation

Human beings all over the world engage in one kind of activity or another. Such activities undertaken to earn income and satisfy human needs are termed as economic activities. 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.



“Economic organisation may be defined as the human behaviour by which goods are produced, allocated, distributed, used and consumed” - Hoebel and Weaver

Majumdar and Madan considers that “It consists of ordering and organisation of human relations and human efforts in order to procure as many of the necessities of day to day life as possible with the expenditure of minimum effort. It is attempted to secure the maximum satisfaction possible through adapting limited means to unlimited ends in an organised manner”

“Economic organisation is the way a society arranges work and distributes goods to satisfy the basic needs of its members” - Bronislaw Malinowski

From the definitions given in the trivia we can infer that economic organisation is concerned with social and cultural arrangements through which economic activities are carried out in a society. But

the way a society or country decides how to produce, distribute and use goods and services is called economic system. For instance, we can see different economic systems like, traditional economic system, capitalistic economic systems etc.

Economic Organisation and Economic System

Aspect	Economic Organisation	Economic System
Meaning	The way people organise work and sharing in daily life	The overall type of economy followed by a society or country
Focal Area	How do people work and share resources?	Who controls production and distribution?
Change over time	Changes slowly with culture	Can change through government decisions
Examples	Tribal, Modern economic organisation etc.	Capitalist, Socialist, and Mixed economic systems

Examine the above table showing the difference between economic organisation and economic system and prepare a report on it.



As we have seen earlier, the economic system of tribal people was very much different from that of modern societies. Economic Anthropology study both traditional and modern economic systems. It 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. In the beginning human society was simple in terms of production, consumption and distribution. Let us examine the peculiarities of simple economy in detail.

Simple Economy

A simple or preliterate economy is a small-scale, subsistence-based economic system found in early human societies and many tribal communities. In this type of economy, people produce mainly for their own needs rather than for profit. They depend directly on nature for food and materials through activities like hunting, gathering, fishing, and small-scale farming. Technology is simple, and tools are usually handmade from locally available resources. Overall, a simple economy is characterised by low surplus, minimal specialisation, and

a close connection between economic life and the social structure of the group.

Features of a simple economy

1. Subsistence-based production/collection: People produce or collect mainly for their own use, not for profit but enough for their subsistence.
2. Division of labour: Work is divided mainly by age and gender. Men may hunt, rear cattle, or clear land, women may gather food, collect firewood, or do household tasks and children and elders help according to their ability.
3. Non-monetary exchange: Trade is mostly through barter (goods for goods), reciprocity (give-and-take based on social relationships) and redistribution (sharing through leaders or ceremonies). Money is usually not used for transaction.
4. Small-scale production: Production is small and based on household needs. There is little surplus and therefore little commercial activity.
5. Close relationship with nature: To collect food and other materials people depend directly on the environment.
6. Simple tools and technology: Tribal people use simple tools made from stone, wood, bone, bamboo, and iron. These tools are used for hunting, fishing, farming, and food gathering. For example, bows and arrows, digging sticks, stone axes, sickles, traps, and fishing nets are commonly used.
7. Minimal specialisation: Few specialised occupations exist. Most people know multiple skills necessary for survival.

Let us examine how simple economy is distinctive in the three different factors of economic systems viz production, consumption and distribution.

Production

The early food producing societies were of the subsistence type. They followed the production-consumption economy. Food was produced only for their consumption. For them production means the process of obtaining food 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 group were the unit of production. The allocation of labour and the decision on food-quest were taken at the family level. They were self-sufficient in their economic needs. Therefore the system of commerce did not develop in these societies. They usually produced what they needed. But later on, when extra-production started, new mechanisms were developed to distribute the excess production among other members.

They used tools made in their own community. Boys usually took the cattle to the forest for grazing, while girls went with their mothers or sisters to dig up roots and collect firewood. Older people and young adults did most of the major work. They engaged in preparing the fields, sowing, harvesting or in forest operations like collection of Minor Forest Produce (MFP), fishing and hunting. So, in simple societies, food production also included collection of resources available in the surroundings.

Consumption

In simple tribal societies, consumption means the use of goods and resources to meet basic needs, such as food, clothing, shelter, and tools. Consumption is closely connected with subsistence living. Among many Indian tribal communities, consumption is limited and need-based, not profit-oriented. Food collected from forests - like roots, fruits, honey, fish and small animals - is consumed mainly by the family or shared within the community. For example, tribes such as the Santhal of Jharkhand and West Bengal depend largely on forest produce and small farming, and they consume most of what they grow or gather.

In tribal societies, sharing is an important part of consumption. Food is often shared during festivals, rituals, or times of scarcity. Hoarding

Culture and Consumption patterns



- Among the Santhal, forest foods like mahua flowers are eaten mainly during the flowering season. They are sun-dried and consumed fresh or prepared as food only at that time.
- Many tribal groups in Central India consume tubers and roots mainly during the monsoon season, when these foods are easily available in forests.
- Among the Gond, meat from hunting is eaten during community festivals and rituals and it is shared among all families.
- In many tribal villages, new harvest grain is not eaten until a harvest ritual is performed, thanking nature and ancestral spirits.

and excessive consumption are discouraged by social norms. Among the Gond tribes of Central India, meat obtained from hunting is usually distributed among families rather than consumed by one household alone. Consumption patterns are also shaped by culture and tradition. Certain foods are eaten during specific seasons or rituals, and some items may be avoided due to beliefs or taboos.

From anthropological point of view, consumption in simple tribal societies reflects values such as cooperation, equality, and harmony with nature. It shows that economic activity is not just about wealth, but about sustaining life and maintaining social relationships.

Distribution

The allocation or exchange of goods and services within a local group or between different local groups is known as distribution. Here goods and services are transferred from one party or group to another. The exchange and movement of goods and services can either be within the local group or between different local groups within the society. After hunting 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 and or rural societies as well.

Karl Polanyi, an American economic anthropologist, identified three different modes of allocation or exchange: Reciprocity, Redistribution and Market Exchange.

1. Reciprocity

Reciprocity refers to the exchange of goods and services among individuals or groups of the same kind, such as persons, households, kinship groups, or local communities. It is a system of mutual giving and receiving between people or groups of equal social status. Reciprocity usually involves the exchange of gifts based on social obligations, especially those arising from kinship relationships. It ranges from pure gift-giving without expecting an immediate return to equal exchange and even self-interested attempts to gain more than one gives. Thus, reciprocity exists in three forms: Generalised Reciprocity, Negative Reciprocity and Balanced Reciprocity.

- A. Generalised reciprocity is a type of exchange in which neither the value of what is given nor the time of return is calculated. There is no fixed expectation of repayment. Such exchanges are not guided by economic gain or self-interest. In other words, generalised reciprocity is gift-giving without any immediate return or conscious thought of return. In our society, this type of reciprocity is commonly seen between parents and children. Parents continuously give care, food, education, and services to their children out of love and a sense of responsibility. What parents usually expect in return is not material benefits, but affection, gratitude, respect, and the happiness of their children.
- B. Negative Reciprocity refers to exchanges in which a person tries to gain something for nothing or for less than its real value. Examples include hard bargaining. It is the most impersonal form of reciprocity and usually occurs between strangers or people with weak social ties. Its extreme form is taking goods by force, such as theft.
- C. Balanced Reciprocity is a direct form of exchange in which goods or services of roughly equal value are exchanged, either immediately or within a short period. In this type of exchange, an individual or group gives a gift with the expectation that it will be returned with a gift of comparable value within a reasonable time. Giving gifts on birthdays or similar social occasions is a common example of balanced reciprocity. It may also take the form of barter, silent trade, or ceremonial exchange.

Identify and record the importance of reciprocity by observing the giving and receiving of gifts and services within your family or kinship relationships.



Barter is the direct exchange of goods or services without the use of money. In barter, both sides try to get the best possible deal and may negotiate until both are satisfied. People assess the value of the items being exchanged, and trade between different groups is usually more competitive than exchanges within the same group.

In India, the Kotas of the Nilgiri Hills practised balanced barter with neighbouring tribes. The Kotas, who were skilled musicians and

blacksmiths, supplied tools and performed music during ceremonies for the Toda people. In return, the Todas provided ghee and buffaloes, especially for funeral rituals. The Kotas also exchanged tools with Badaga farmers in return for grain.

Silent trade: It also known as dumb barter, is a special form of barter practiced in some societies, especially in parts of Africa. In this type of trade, goods are exchanged without direct contact or spoken communication between the trading groups. A similar practice is seen among the Semang and Sakai tribes of the Malay forests. Although they consider each other enemies, they continue to trade forest products. The two groups never meet face to face. The Semang leave their goods at a fixed place and withdraw. Later, the Sakai arrive, take the goods, and leave items in return. After that, the Semang return, collect the exchanged goods, and disappear back into the forest

Ceremonial Exchange: Trade may also take place as part of ceremonies, as seen in the Kula exchange among the people of the Trobriand Islands. The Kula is a form of balanced reciprocity, where goods are exchanged in a fair and socially meaningful way rather than for economic profit.

The Kula exchange: is a traditional system in which men travel long distances by canoe to exchange two special types of shell valuables. Red shell necklaces, called soulava, move in a clockwise direction among the islands, while white shell armbands, called mwali, move in a counterclockwise direction. These items are not used as money and have no practical daily use. Instead, they are exchanged to create friendship, trust, prestige, and long-lasting social relationships between different island communities. The exchange follows strict rules and traditional customs. In short, the Kula exchange is a ceremonial exchange of shell valuables meant to strengthen social bonds, not to gain economic profit.

2. Redistribution

Redistribution is a kind of exchange in which goods collected or contributed from members of a group flow to some central point from which they are distributed to the society. Redistribution thus involves a centre where goods come together and from which they are distributed. In India, we are well aware the public distribution system of food grains through the Food Corporation of India (FCI). They collect food grains from different parts of the nation and redistribute

them to the people of India through a network of exchange systems. Such systems are prevailing in simple economy as well.

Redistribution can be of two types: administrative-based and potlatch-based.

(i) Administrative-based Redistribution

In modern governments, people pay taxes like income tax, sales tax, or excise tax. These taxes are collected at a central place and then used for public welfare. In this system, goods and services move toward a central authority, which then redistributes them for the benefit of everyone.

Administrative-based redistribution is not limited to modern states. It also exists in simple or tribal societies, where a chief, headman, or council acts as a central authority. Goods and services flow toward this centre and are later redistributed to the members of the group, especially during times of need or on ceremonial occasions.

In several Indian tribal communities (for example, among the Santhals or Gonds), the village headman collects grain or contributions during harvest time. These are stored in a community granary and redistributed during festivals, communal rituals, or emergencies such as crop failure.

(ii) Potlatch-based Redistribution

It is a form of exchange in which a person or family gives away large amounts of food, goods, or wealth during public ceremonies. This is done not for profit, but to gain social prestige, honour, and recognition. The more a host gives, the higher his or her status in society.

In this system, goods are not accumulated but redistributed through feasts and gift-giving. Those who receive gifts are socially expected to return the gifts later, often in greater quantity, during their own ceremonies. Thus, redistribution takes place over time. Potlatch-based redistribution is commonly seen in simple or traditional societies, where social status is linked to generosity rather than wealth hoarding. Feast-giving during Life-cycle Rituals is an example to this type of distribution.

In many Indian communities, large feasts are organised during marriages, death ceremonies, naming ceremonies, and puberty rites.

The host family distributes food and gifts to relatives and the wider community. Social respect increases when the family conducts the ceremony generously.



Find out the instances of potlatch based re-distribution found in our society and prepare a write up on it.

3. Market Exchange

Market exchange is the exchange of goods and services based on the law of supply and demand. In this system, goods and services are bought and sold for money, and prices are determined by how much of a good is available and how much people want it.

Unlike reciprocity and redistribution, where social relationships and political roles are important, market exchange is impersonal. It takes place regardless of the social status of the buyer or seller. For this reason, market exchange is considered the most purely economic form of exchange.

In market exchange, participants are mainly interested in maximising material gain. Economic goals are more important than social or political goals. Bargaining and haggling are common features, and people often enjoy searching for good deals.

At the same time, markets are not only economic centres but also social spaces. They act as meeting places where people renew friendships, meet relatives, exchange news, gossip, and keep in touch with the wider world.

We can find different types of market systems among the simple societies as follows.



Fig 7.2 A Weekly Market

(i) Temporary market

In some societies, people set up temporary shelters to buy and sell goods. These markets usually happen once a week, so they are also called weekly markets. With the rise of permanent markets, temporary markets have mostly disappeared, except in some tribal and rural areas.

Discuss in your class what may happen to small businesses when large shopping malls are introduced in urban areas, as has happened in the case of temporary markets



(ii) Peripheral market

In subsistence economies, sometimes a small amount of produce may be brought to the market. This is called a peripheral market. People come not only to trade but also to talk, meet friends, and see relatives. It is called “peripheral” because only a small portion of the society’s goods reaches this market.



Temporary markets: held occasionally at fixed times and places

Peripheral markets: trade of small portion of surplus product

Permanent markets: functioning daily at a fixed location

(iii) Permanent market

A permanent market is a place where goods and services are exchanged using money. Here, trade is commercial and aimed at making profit. Goods are brought to the market to be sold at prices decided by supply and demand. Permanent markets are open regularly, unlike temporary markets where people must wait for the market day. Bargaining is common, and consumers influence what is produced. Today, payments can also be made through cheques, credit and debit cards, and UPI payments.

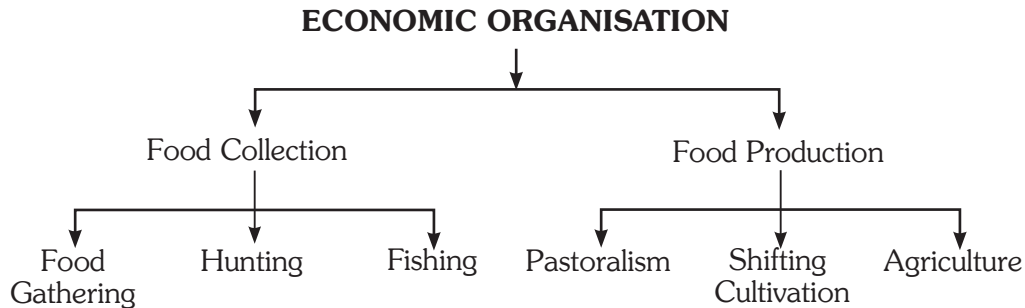
Prepare a chart showing different types of distribution systems found in simple societies.



Economic development does not take place all at once; it occurs through different stages over time. As societies grow and change, the ways in which people produce, distribute, and consume goods also change. Early human communities depended on simple technology and close social relationships, while later societies developed complex institutions, markets, and industries. Anthropologists study these changes to understand how human societies move from simple subsistence-based economies to more complex and organised economic systems. The concept of different stages of economic development helps us understand this gradual transformation of economic life in relation to social, cultural, and technological change.

Stages of Economic Development

Economic organisations of different periods can be basically classified into food collecting economies and food producing economies. The following chart clearly depicts different stages of economic development.



I. Food Collection Economy

Food collection economy is defined as that economy based on all forms of subsistence technology in which food getting is dependent upon naturally occurring resources in the environment i.e., wild plants and animals. Food collection economy includes two types:

- (a) Food gathering economy
- (b) Hunting and fishing economy

(a) Food Gathering Economy

Food gathering is the oldest mode of human existence. Food gathering economy is based on the subsistence technology of gathering edible fruits and vegetables that grow wild and hunting of the animals in wilderness. Those societies which are dependent upon food-gathering economy are known as hunters and gatherers, and collectors, foragers and pre-farming societies. Human societies were food gatherers throughout most of their history.

Earliest humans depended primarily on vegetable foods, supplementing the diet with eggs, insects, and such small game as might be captured without weapons. This is because the people of early times had no weapons for hunting other than stones, clubs, crude hand axes, sticks and spears with wooden points.

Many contemporary simple societies still subsist on them. The living examples of such people include Cholanikans, Kadars, and Kattunaickans of Kerala, Onge, Jarawa and Andamanese of Andaman islands, and Chenchu of Andhra Pradesh.

Characteristics of Food Gathering Economy

- (i) **Nomadism and Semi-nomadism:** Nomadism is the regular or seasonal movements of people from place to place for survival and livelihood. Food-gathering societies are usually nomadic or semi-nomadic because the search for food and water in forests, deserts, or tundra requires frequent movement.
- (ii) **Low Population Density:** This economy supports the lowest population density. In most cases, the total population of an entire tribe does not exceed a few thousand people.
- (iii) **Small, Self-sufficient Groups:** Food-gatherers live in small, self-sufficient local groups, usually nomadic bands or semi-nomadic settlements consisting of about 25 to 30 individuals.
- (iv) **Simple Economic Resources:** The economy is characterised by simple technology, minimal division of labour (often based on age and sex), absence of private land ownership, and lack of capital accumulation.
- (v) **Lack of Surplus:** After meeting their immediate needs, no surplus remains for barter, exchange, or trade.

Many contemporary simple societies continue to depend on food-gathering economy. Discuss the reason and prepare report.



(b) Hunting and Fishing Economy

The hunting–fishing economy is a subsistence system based mainly on hunting animals and fishing, along with the collection of fruits and vegetables through foraging. In such societies, hunting and fishing are the most important means of livelihood, even though plant foods also form part of the diet.

This type of economy is found mainly among tribal societies living near sea coasts, rivers, lakes, and other water bodies. For these communities, fish are the primary object of the chase, rather than land animals. They catch fish using arrows, harpoons, spears, nets, hooks, traps, and sometimes by stupefying fish with natural intoxicating substances. Although fishing is dominant, they also hunt land animals for food. Therefore, they are called hunters as well as fishers.

Unlike hunting–gathering tribes, which are usually nomadic or

semi-nomadic, hunting–fishing societies tend to be sedentary. Fishing provides a more stable and abundant food supply, allowing these communities to live in permanent settlements.

Their economy is marked by the use of relatively elaborate technology, such as canoes, boats, harpoons, spears, nets, hooks, traps, and fishing tools.

Another important feature is the production of surplus. Fish can be easily preserved by drying or smoking, making storage possible. As a result, many fishing societies engage in trade, exchanging surplus fish for other goods or selling them for money.

Overall, the hunting–fishing economy is more stable, productive, and technologically advanced than simple hunting–gathering economies.

II. Food Production Economy

Food production economy is that economy which is based on the subsistence technology of domestication of plants and animals. It reveals how the tribal societies domesticate food sources and acquire control over certain natural processes such as animal breeding and plant seeding. Food production economy includes three sub types of economy as follows

(a) Pastoralism

Pastoral economy is based on the subsistence technology of domesticating the animals such as cattle, sheep, goats, yaks, buffaloes, camels, horses, donkeys and reindeers. Pastoralism is a transitional phase between food collection and food production. It is a type of ecological adaptation found in the areas which is not suitable of hunting-fishing and agricultural activity. As a result, the inhabitants adapt livestock breeding and lead a nomadic life.

Pastoralists keep a good relationship with agricultural group as they live in adjacent areas. They exchanged their products with that of neighbouring agriculturalists. They move their herds in search of new grazing land and water. The Todas of Nilgiris, Gujjars of Jammu 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.

Features of Pastoral Economy

- (i) **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.
- (ii) **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 Gujjars rear sheep, the Tschembago rear pigs.
- (iii) **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.
- (iv) **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.



Fig 7.3 Pastoral Society

Gradually human population increased, it is necessary to get additional sources for food. Intellectual growth of human beings also paved the way to produce food rather than mere food collection. They started to plant seeds or plants in suitable places. It was the early stage of cultivation

(b) Shifting cultivation

It is an early form of cultivation. Historians and social scientists are of the view that pastoralism and shifting cultivation started more or less simultaneously in the development of human culture.

Shifting cultivation is a traditional method of farming practiced mainly in forested and hilly regions by many tribal and small-scale societies. It is one of the earliest forms of agriculture and is closely linked to simple economies and subsistence farming.

In shifting cultivation, the land is used only for a short period. Farmers first clear the land and lay it for some days to become dry, 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 becomes ready to be harvested on the onset of winter. They continue

cultivation there for two or three years. Hence it is also known as slash-and-burn cultivation.

As the soil gradually loses its nutrients and becomes less productive, they move to a new forest area, clear it, burn it, and start cultivation again. The old plot is left for many years, allowing the forest to regrow and the soil to naturally regain its fertility. Shifting cultivators grow a variety of mixed crops such as millets, maize, rice, yam, sweet potato, vegetables, beans, pulses and spices (ginger, turmeric). They use tools which are simple, locally made, and include digging sticks, hoes, axes and knives.

Shifting cultivation is known by different names in different parts of India namely, Punam in Kerala, Jhum in Northeast India particularly in Assam, Podu in Odisha and Kumari in Karnataka.

Features of Shifting Cultivation



Fig 7.4 Shifting cultivation

- Rotation of field of cultivation
- No irrigation, depend upon seasonal rainfall
- No fertilisation
-
-
-



Some of the features of the Shifting Cultivation are given above. Complete the list by adding more features based on your understanding and review of additional literature.

You have already learned the processes and features of shifting cultivation. Now discuss the problems and limitations of shifting cultivation in your groups.

- Soil erosion on slopes • Deforestation
-
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Over thousands of years, agriculture slowly developed from simple shifting cultivation to permanent farming. Gradually, they learned to save seeds and plant them in the same fields every year, which encouraged them to settle in one place. That was the beginning of settled agriculture.

(c) Agriculture

By around 4000–3000 BCE, in many regions farmers used permanent fields. Intensive and permanent way of cultivation was a revolution in the history of human beings. As farming became more stable, permanent villages grew, food production increased, and agriculture became the foundation of settled life and early civilisations. The domestication of animals helped with ploughing and provided manure, making farming easier and more productive. Later, the development of irrigation systems like wells, canals, and tanks allowed crops to grow even in dry seasons.

Features of Agriculture

- Settled life
- Highest population density
- Permanent rural and urban settlement
- Based on plough cultivation
-
-

Some of the features of agriculture are given above. Find out other features related to agriculture and discuss them in the classroom.



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.

Industrial Economy

The modern economy is called an industrial economy, which began with the Industrial Revolution in England in the mid-18th century. Before this, the Agricultural Revolution had increased farm production, creating surplus and profits that encouraged industrial growth. The Industrial Revolution replaced manual labour with machines, increasing production in both quantity and quality. Earlier, industries were run at the family level, where families pooled their resources

to operate small factories. As production grew, more money was needed for raw materials, tools, technology, and machines. This led to the development of new institutions like banks, marketing agencies, transport, and communication systems. Over time, the industrial economy became more complex, required more skills, and needed large amounts of capital.

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

As economies became more advanced, knowledge, ideas, and technological expertise became the main sources of growth. This shift led to the rise of the knowledge based economy.

Knowledge based Economy



Fig 7.5 Use of information and communication technology

A knowledge-based economy is an economy in which knowledge, information and skilled human resources are the main sources of growth and development. Instead of relying mainly on natural resources or physical labour, it depends on innovation, research, technology, education and expertise. Industries such as information technology, biotechnology, telecommunications, and advanced manufacturing play a major role.

In such economies, continuous learning, creativity and the ability to use information effectively are essential. Countries with strong knowledge based economies are usually more productive, competitive, and capable of rapid economic progress. Digital cash services (like UPI, mobile wallets, online banking) are products of this technology driven environment. It promotes e-commerce, online services, remote work and digital platforms, all of which are central to the knowledge economy.

The key characteristics of a knowledge economy are given below:

- Knowledge as the main resource: Ideas, skills and innovation become more important than land, labour or capital.

- High use of technology: Especially information and communication technologies (ICT) for production and services.
- Innovation driven growth: Continuous research, creativity and development of new products/services.
- Skilled and educated workforce: Emphasis on education, training, and lifelong learning.
- Rapid information flow: Fast creation, sharing and use of information across sectors.
- Service dominated economy: Growth in IT, finance, education, healthcare, research and development, and other knowledge based services.
- Global connectivity: Integration with global markets and digital networks.
- High productivity: Knowledge and technology increase efficiency and output.

‘Knowledge economy is beneficial to every section of Kerala society’-
Organise a debate based on this.



Political Organisation

Once there was a case of dispute between two families of Gonds, a central Indian tribe regarding the boundary of agricultural land. One family accused the other of encroaching upon their ancestral land during cultivation.

Instead of approaching the police or court, the matter was taken to the village council, locally headed by the Panch (elder) and assisted by respected senior members of the community. These elders were chosen not by election but by age, experience, and moral authority.

The village council called a meeting in the central place of the village. Both parties were given an opportunity to present their views. Witnesses from the village who knew the traditional land boundaries were also consulted. There were no written records; decisions were based on customary law, collective memory, and consensus.

After careful discussion, the elders inspected the land and referred to traditional boundary markers like trees and stones. The council emphasised reconciliation rather than punishment.

The elders decided that the disputed portion belonged to one family but allowed shared use of a small section for the current agricultural season to avoid hardship. The family at fault was asked to offer a ritual feast to the village as a sign of apology. No physical punishment was given. The decision was accepted voluntarily by both parties, as defying the council would result in social disapproval and loss of prestige.

In this case you can find some peculiar aspects of dispute settlements in traditional societies.

What differences could you find in dispute settlement of this tribal group with modern system?

- The political system is informal
- It is community-based
- Authority rests on tradition

You can find that systems of dispute settlement vary across different communities and societies. In modern societies, social order is maintained through written laws and official authorities. Any societies, modern or traditional maintain order and resolves conflicts through recognised authority and social rules.

You have learnt the political activities of modern societies in the subject Political Science. But we have seen that all types of societies have one or other types of political system. We examine such political life in the subject Political Anthropology.

Political Anthropology

Political Anthropology is a branch of Social Anthropology that studies political life in different societies, whether it is preliterate or modern. It examines how power, authority, leadership, law and governance operate in both simple (tribal, band, chiefdom) and complex (state) societies. It is the cross-cultural study of political systems of formal and informal political institutions.

Political Organisation

Political organisation refers to the way a society maintains internal order and manages its relations with neighbouring groups. It mainly deals with how power is distributed and exercised in society. Modern political organisation is associated with formal systems such as political parties, government, parliament, panchayath, police, judiciary, army, and other specialised offices.

Often the term political organisation is equated with the concept political system. However there is clear distinction between these concepts. Political organisation refers to the structure of authority, leadership, and institution through which power is exercised and social order is maintained. On the other hand the political system is the broader framework that includes political organisation along

with laws, norms, values, and processes that guide political activities. Political organisation provides the structural foundation of the political system, while the political system explains how this structure functions within society. Together, they regulate behaviour, manage conflicts, and ensure stability and continuity in social life.

Political System

A political system refers to the organised way in which power, authority, and decision-making are structured and exercised within a society. It defines how rules are made, enforced, and interpreted, and how leaders are selected or replaced. Every political system—whether simple or complex aims to maintain order, resolve conflicts, and coordinate collective activities. In small, traditional societies, political systems may be informal, based on kinship, customs, and the authority of elders. However in larger, modern societies, they tend to be formal, involving institutions such as governments, courts, and administrative bodies. Overall, a political system shapes the relationship between the rulers and the ruled and ensures the smooth functioning of social life.

Now can you differentiate the concepts of political system and political organisation.

- Political system includes ideas, norms, rules, processes, and institutions related to politics. But political organisation consists of concrete bodies such as the state, government, councils, or leadership groups.
- Examples for political systems are democracy, monarchy, tribal political system etc. Examples for political organisation include state, government, band, tribe, village council etc.
-
-

We have seen that political systems shape the relationship between the rulers and the ruled.

What makes some people rulers and others the ruled is the exercise of power and authority. Power and authority are the key concepts in any political system because they explain how power is created, distributed, exercised, and legitimised in different societies, both simple and modern. Let us discuss it in detail.

Power and Authority

Power is a broad concept that refers to a person's ability to make others act according to his/her wishes. It is the capacity to influence others, but it becomes real power only when it can overcome resistance and control or shape the behaviour of others even when they do not agree. Power exists in both democratic and authoritarian systems, and in both cases, people follow the established power structure.

When a person uses her/his influence over another person irrespective of her/his will, it is called power.

Authority is a form of power that is recognised as legitimate by society. It is the official right to make decisions and give orders, based on accepted rules, traditions, and procedures. Authority is tied to a position or institution, not just personal strength. For example, a leader who comes to power through a military coup may control others through force, so he has power but little authority. In contrast, elected leaders have authority because people accept and trust their right to lead, and they may also have significant power.

When a person uses her/his influence over another, who willingly accepts it we call it authority.

Authority can be divided into three types: traditional authority, charismatic authority and legal authority.



Fig 7.6 Traditional authority

Traditional authority is based on customs and long-established traditions. People obey leaders such as tribal chiefs, kings, or elders because authority has been passed down from the past and is socially accepted.

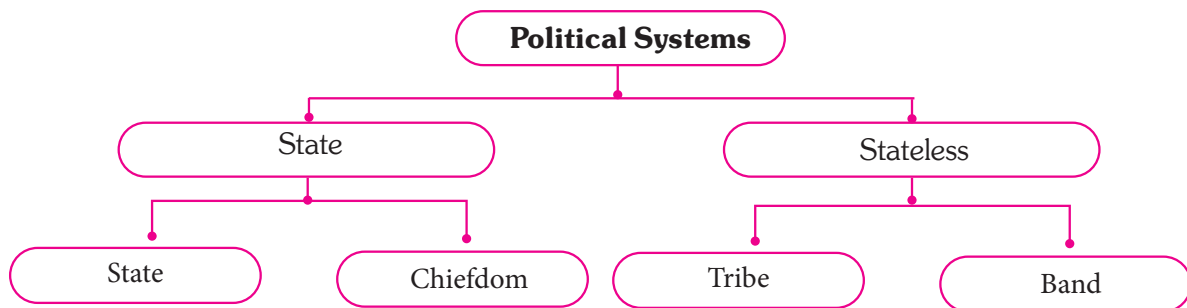
Charismatic authority arises from the personal qualities of a leader. People follow such leaders because they believe in their extraordinary abilities, courage, or spiritual power. This type of authority depends on personal influence and usually lasts only as long as the leader continues to inspire people.

Legal authority is based on written laws and formal rules. Authority belongs to an office or position, not to the individual who holds it. Government officials, judges, and administrators exercise power according to law, and when they leave office, their authority also ends.

Power and authority are closely linked with political systems because every political system depends on them for its functioning and stability. But it varies from society to society. Hence we can find different types of political systems all over the world.

Types of Political Systems

Anthropologists try to evaluate the political system of pre-literate societies in terms of two categories namely society with state organisation and society without state organisation. Otherwise there are state societies and stateless societies. The former are centralised system and the latter are decentralised system.



State and Stateless Political System

A State Political System is a well-organised and autonomous system in which power is held by a central government. It has many communities within a fixed territory and a permanent population. The state discharges its function through government. The government makes laws and enforces them to maintain order in society. Institutions like the legislature, executive, judiciary, police, and army help the state function smoothly. Power is exercised through written laws and rules, not through kinship or customs. The state also looks after internal administration and maintains relations with other states. The chiefdoms and modern states are good examples of state system.

A Stateless Political System is a simple and informal system of governance. It does not have a central government or written laws. Rules are based on traditions and customs that are passed on orally from one generation to another. In this system, group responsibility is more important than individual rights. Punishment is meant to create fear and may be given not only to the offender but also to their relatives. Decisions are based on customs, oaths, ordeals, and the statements of witnesses. Magic and religion strongly influence daily life and decision-making. Band and tribal societies are good examples of stateless political systems.

Difference between State and Stateless Political System

Parameter	Stateless System	State System
Nature of society	Mostly egalitarian, homogenous with mechanical solidarity	Mostly stratified, heterogeneous put together by organic solidarity
Territory	No strict sense of territory, mostly nomads	Strict sense of territory, mostly lead sedentary and settled life
Authority	The eldest or most skilled individual may hold some authority	Well defined centre of authority at the top
Occupation	Hunting & gathering, pastoralism and horticulture	Agriculture, intensive agriculture and industrial activity

Centralised and Decentralised Political System

A Centralised Political System is one in which political power and authority is concentrated in a single central authority or government. Decisions are taken at the top level and are applied uniformly throughout the society or state. Such a system has formal laws, clearly defined rules, and specialised institutions like the executive, legislature, judiciary, police, and army. Centralised political systems ensure strong control, efficient administration, and uniformity in governance. This type of system is commonly found in states and well-organised chiefdoms.

A Decentralised Political System is one in which political power and authority are distributed among several local groups or units rather than being concentrated in a single centre. Decision-making is usually carried out by elders, clan heads, or local councils, often through discussion and consensus. Politics in such systems is closely linked with kinship, religion, and social relations. Decentralised political systems are commonly found in band and tribal societies.

But can you find illustrations of decentralisation of power and authority as part of modern state system?

Are you familiar with Gramasabha, where political decisions are taken at ward level?

Why should we resort to such decentralisation of power within the state system?

It aims to bring governance closer to the people by allowing local bodies to make decisions based on local needs. Through decentralisation, participation of people increases, administration becomes more efficient, and local self-government is strengthened. The main purpose of the 73rd constitutional amendment in India was to strengthen local self-government by giving constitutional status to the Panchayatiraj Institutions. In Kerala the decentralisation of political power implemented in the form of peoples planning (Janakeeyasuthranam) and grama sabha plays an important role in decision making at the grassroots level.

Observe the process of Gramasabha in your ward and prepare an article to be presented in the class room



The political system is an important social institution that helps maintain order, unity, and cooperation in society. It develops as people live together and face common needs such as security, leadership, and regulation of social life. As societies grow in size and complexity, their political systems also evolve to manage relationships, resolve conflicts, and protect the group.

Development of Political System

In the early stages, leadership and organisation were temporary but over time they became permanent and more organised according to social needs. It is believed that the earliest form of political organisation developed out of kinship and family structures. Political organisation gradually developed from small, self-governing groups to large, unified regions. Anthropologist Elman Service (1962) identified four main stages of political organisation as band, tribe, chiefdom, and state.

Band

A band is the simplest and most basic form of political organisation found in small-scale, usually nomadic or semi-nomadic societies such as hunter-gatherers. Bands typically move from place to place depending on seasonal availability



Fig 7.7 Band Society

of resources. They are small groups, having a population of more or less 100 people and are usually related by kinship. Bands have no formal leadership or institutionalised authority. Everyone is considered equal, and decisions are made collectively. Leadership, when it exists, is informal and based on personal qualities like experience, hunting skills or wisdom. Such leaders are often called headmen, but they have no coercive power. Band society is egalitarian in nature.

Tribe

A tribe is a more complex political organisation than a band. It is made up of several bands or lineage groups that share a common language, lifestyle, and a specific territory. These groups are often linked through a clan system, where people believe they have a common ancestor. Leadership in tribes is usually informal. Since kinship forms the basis of social organisation, elders or certain age groups often guide the community. Unlike bands, tribal societies are mostly food producers. They practise cultivation and animal husbandry, which are more productive than hunting and gathering. As a result, tribes have a larger population and a more settled way of life than hunter-gatherer bands. The tribal leader, called a headman or chief, is usually someone who works hard, is generous, and is skilled in activities like hunting, farming and managing people. Like band, tribe is also egalitarian in nature.

Chieftdom



Fig 7.8 A Chief and his family in a Chieftdom

Chieftdom is a form of political organisation that is more advanced than a tribe but less complex than a state. In chieftdom, a single chief holds central authority over several villages or communities. Unlike tribes, leadership in chieftdom is hereditary. The position is usually passed down within a particular family line. Chiefs have the power to collect and redistribute resources, settle disputes, organise communal labour, and conduct religious or ceremonial duties.

Chieftdoms are ranked societies and the chief and his family exert greater prestige. People have different social ranks, such as commoners and nobles. Economic activities are usually based on agriculture, which supports a larger and more settled population.

Overall, chiefdom shows the beginning of formal political structure, economic control, and social hierarchy.

State

The state is the most formal type of political organisation. In state, political power is centralised in a government which may legitimately use force to regulate the affairs of its citizens, as well as its relations with other states. A state political system has clear geographical boundaries within which it exercises authority. It is characterised by centralised authority, where political power is concentrated in a central government rather than being spread among kin or family groups.

States exist in societies with large and diverse populations, many different groups, and various social classes. All known states show social inequality, where wealth and economic activities are not shared equally. State societies are usually based on intensive agriculture, which support large populations and complex institutions.

In state system governance is carried out through a formal government system, with established institutions such as the legislature, executive, and judiciary and laws are written and codified. The state maintains a monopoly over the legitimate use of force, using agencies like the police and military to enforce laws and maintain order. Stratification of society in state is based on class and caste.

We have seen that political systems evolved to maintain social order through social control. In order to this, every society developed systems of adjudication, which differ in simple and modern societies.

Traditional and Modern Law

Law is a part of society and is closely connected to how society is organised. It provides rules of behaviour that help to maintain stability of the society. These rules are created and enforced by an authority and people in the community generally accept them. In simple societies it is informal and community-based, while modern law is formal, systematic, and enforced by the state. On the whole traditional laws are essentially different from the modern law on the following grounds.

Traditional Law	Modern Law
Customary law	Written law
Predominantly criminal law	Includes criminal law, civil law and several other branches
Imprisonment is rare	Imprisonment is frequent
Single council for adjudication	Different councils like district court, high court, civil court and criminal court.
Trial in the form of oaths and ordeals	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.
Adjudication is based on public opinion and decision of council	Based on constitution and law
Punishment in the form of fine, compensation, communal feast, out casting etc.	Punishment in the form of fine, compensation, imprisonment, capital punishment etc.
Not the culprit but the whole family is punished	Only the culprit is punished

Sources of Traditional Law

- (i) Long-standing Customs and Traditions: These are practices followed by the community over many generations. When people repeatedly follow a rule and consider it binding, it becomes customary law. Practices related to marriage, inheritance, festivals, religion, and rituals often become sources of customary rules. Stories, proverbs, teachings, and instructions passed down orally from one generation to the next also preserve customary rules.
- (ii) Social Norms and Beliefs: Traditional laws often arise from the community's shared values, moral beliefs, and cultural practices. What the society considers right or acceptable becomes a law.
- (iii) Decisions of Elders, Councils or Social Panchayat: In many traditional communities, disputes are settled by elders, chiefs, or councils. Their repeated decisions in similar cases gradually form a body of traditional law. The decision of the social panchayat is regarded as law and the accused is punished for disobeying it.
- (iv) Religion: Many customs and rules in traditional societies grow

out of religious beliefs, sacred traditions, and moral teachings. Religious practices often guide how people behave in everyday life, including matters like marriage, inheritance, conflict resolution, and social duties.

As discussed earlier, Political Anthropology examines both simple and complex political systems. Do we find any differences in the adjudication processes of these systems? We can see that the modern system is more organised and systematic. What about simple societies? Let us examine

Dispute settlement in pre-literate societies

In pre-literate societies, dispute settlement was informal and community-based, as there were no written laws or formal courts. Social order was maintained through customs, traditions, and collective authority accepted by all members of the group. Most disputes were settled by elders, clan heads, or village councils, who acted as judges. Their decisions were based on customary law, moral values, and long-established traditions. The aim was not punishment but restoration of harmony and maintenance of social unity. The methods such as negotiation and mediation, and the involvement of social panchayath are common.

Negotiation and mediation are peaceful ways to resolve conflicts. Negotiation is the direct discussion between the disputing parties to reach a mutually acceptable settlement. They solve the problem themselves, without any fixed rules, and any agreement is acceptable as long as it brings peace. Mediation happens when a neutral third person helps the disputing parties reach a solution, but this mediator has no official power to enforce a decision. Both methods encourage compromise,

Among the Nuer of East Africa, community disputes are often resolved with the help of an informal mediator called the 'leopard-skin chief'. This 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 there and then 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.



Fig 7.9 Dispute settlement through mediation

prevention of violence, and maintenance of social unity in preliterate societies.

Social Panchayat is an informal, community-based institution found in many traditional and rural societies. It operates outside the formal legal and administrative system. It consists of respected elders or influential members of the community who collectively take decisions on social matters. Social Panchayats are based on customs, traditions, and moral norms rather than written laws. Nattukuttam and Oorukuttam were traditional village councils found in early and rural South Indian society, especially in Keralam and Tamil regions. They played an important role in maintaining social order and settling disputes at the local level. Their role and functions are as follows.

- Settles minor disputes related to family, marriage, property, and social behaviour.
- Acts as a means of social control through advice, warnings, fines, or social sanctions.
- Promotes harmony and unity within the community by encouraging compromise and reconciliation.
- Protects community values and ensures conformity to accepted social practices.
- Provides quick, low-cost justice without formal legal procedures.



Fig 7.10 Oorukuttam: A traditional village council

In brief, the Social Panchayat plays an important role in maintaining social cohesion and regulating community life, especially in societies where traditional norms remain strong. The establishment of guilt is always important for the administration of justice. To achieve this, evidence is required.

Evidence

Evidence is the information, facts, or materials presented to prove or disprove the truth of a claim or allegation. Oath and ordeal are traditional methods of collecting evidence found mainly in traditional societies.

An **oath** involved a firm declaration made by the accused or witnesses, often in the name of a God, sacred object, or ancestral spirit. It was believed that if a person took a false oath, divine forces would bring misfortune, illness, or death upon them. Because of this fear, oaths

were considered a powerful means of ensuring truthfulness and maintaining social order.

Ordeal was a method in which the accused was subjected to a physical test to prove innocence or guilt. Common forms included holding hot iron, dipping a hand in boiling water, walking over fire, or being submerged in water. If the person survived or escaped from injury, they were declared innocent; injury or failure was taken as proof of guilt. These ordeals were based on the belief that supernatural powers would protect the innocent. In short, oath and ordeal function as important judicial practices for collecting evidence in early societies, reflecting strong faith in divine justice and the absence of scientific methods of investigation.

Among the Malers in central India an accused is brought before the “Jhanda Gossaiya” and is asked to touch a knife placed at the sacred centre and while touching the knife, he is asked to say- “ I will die if I tell a lie” and thereafter he narrates the incident in detail. Similarly, among the Oraons and Mundas of Chotanagpur, an individual before producing his evidence is asked to take an oath sitting on a tiger’s skin or holding a tiger’s jaw. The guilty person never dares to tell a lie for the fear of being killed by a tiger.



Trial is a formal process used to examine facts and decide whether a person is guilty or innocent in a dispute or crime. 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.

Punishment

Punishment refers to a penalty or corrective measure imposed on a person who violates accepted rules, laws, or norms of a society. Their main purpose is to discourage wrongdoing, correct behaviour and maintain social order. In different societies, punishment may take various forms as follows.

Compensation (Wergild/Blood money): The offender pays compensation in the form of money, cattle, grain or goods to the victim or the victim’s family.

Public apology: The offender admits the mistake before the community to restore social harmony.

Ritual punishment or purification: The offender performs rituals, sacrifices or cleansing ceremonies to remove pollution or guilt.

Social criticism or ridicule: The community expresses disapproval through criticism, mockery or loss of prestige.



Compensation

Among the Gonds of Central India, offences such as injury, adultery or land disputes are settled through compensation. The offender pays cattle, grain or money to the victim's family.

Public Apology and Feast

Among the Santhals of Jharkhand and West Bengal, minor offences like quarrels or disrespect are punished by a public apology before the village council (Manjhi Pargana). Often, the offender is required to offer a community feast, symbolising reconciliation.

Ritual Purification

Among the Todas of the Nilgiri Hills, violations of ritual purity, especially those related to dairy temples, are punished through ritual purification ceremonies. The offender performs prescribed rituals to remove pollution and regain social acceptance.

Temporary social exclusion: The offender is temporarily excluded from social or ritual activities.

Fines in kind: Payment of goods such as livestock, food grains or household articles instead of money.

Community service: The offender performs work for the community as a corrective measure.

Physical punishment (rare): Mild physical punishment may occur in some societies but it is generally avoided.



Prepare a report comparing the differences in dispute settlement of the pre-literate and a modern societies. Consider the differences in the agencies of power, evidence, and punishment



Extended Activities

1. Distribution mechanisms in society

Explore real-life examples of reciprocity such as helping neighbours, sharing food, and exchanging labour; distribution of gifts during festivals, community food distribution, and government ration systems; and market exchange such as shops, weekly markets, and online purchases in your neighbourhood. Based on your observations, prepare an article explaining how these systems help in the distribution of resources in society.

2. Local governance observation

Observe a gramasabha meeting to systematically study the procedures involved in local decision-making. Collect information on leadership roles, participation of community members, decision-making processes, and implementation of resolutions. Based on your field observations and secondary sources, prepare an analytical paper examining the nature of power, types of authority, and the political structure operating within local governance.

3. Kudumbasree self-help group study

Conduct an interview with Kudumbasree self-help group members to study their income-generation activities and internal decision-making processes. Based on your field observations and interactions, analyse the impact of Kudumbasree self-help groups on women's decision-making power within the family as well as in society.

8

RELIGION AND FOLKLORE

The Lightning and the Child

In a small hut near the forest, a boy sat with his grandmother. He had never seen a big storm before. A bright flash of lightning lit up the room, and a loud crack of thunder shook the walls.

The boy jumped in fear and covered his ears. He ran into his grandmother's arms. She smiled and said, "Don't be scared. It's just the sky talking to the earth. When I was young, we bowed our heads during thunder to show respect to the rain spirits."

The boy looked outside. The trees bent in the wind, rain poured down, and lightning flashed again. This time, instead of hiding, he bowed just like his grandmother.

The thunder sounded again — but now it seemed softer, almost like a song.



Fig 8.1 Lightning and the child

The above story shows one of the ways humans respond to natural phenomena. However, do you think the same response pattern continues in every time and every place? It may vary according to our knowledge level, perception, culture, and so on.

We already understand that human beings are intrinsically curious about themselves and their surroundings. They have wondered about natural phenomena such as thunder, lightning, flood etc. They tried to explain these phenomena from the earliest stages of cultural development, with their limited understanding and would ask questions such as:

- Why does this happen?
- What could be the force behind it?
- How can we survive such forces?

Early humans acted as the first thinkers, using their curiosity and reasoning to make sense of their surroundings. When they observed natural events like storms or floods, they could not explain these phenomena scientifically. They believed such events were caused by unknown forces, which they later interpreted as supernatural powers. They also developed various ways to communicate with these powers. Sometimes they tried to obtain help from the supernatural, which anthropologists refer to as magic. Magic involved attempts to control supernatural forces for good or bad purposes, often through special rituals.

But when people realised they could not control powerful natural forces, they began to respect and submit to them. This may have led to the rise of religious belief, where people worshipped and prayed to supernatural beings for protection and guidance.

Over time, humans began to observe nature more closely. They looked for causes and effects and tested their ideas through observation and experiments. The knowledge gained through this careful and logical process came to be known as science.

People looked for ways to understand the forces around them and to influence what happened in their lives before science developed. Lacking scientific explanations, they turned to practices that could control or appeal to unseen powers. In the late 1800s, the British anthropologist E. B. Tylor said that magic, religion, and science are different ways people have used to understand the physical world and the events around them. Building on Tylor's ideas, the Scottish anthropologist James Frazer suggested that human societies developed through three stages: magic, religion, and science. To understand this better, we will first look at the idea of magic and how different cultures used it to deal with the supernatural forces.

Have you heard of any rituals in your area related to healing, harvest, pleasing spirits etc. These rituals show that before the development of scientific explanations, people believed that supernatural forces could be influenced through special practices. Such practices, based on belief rather than scientific reasoning, are often described as magic.

Studying these rituals helps us understand how magic functioned as an early way for humans to explain and control the world around them.

Magic

Magic is the practice of trying to control or influence supernatural forces to achieve a desired result. It may be used for good or bad purposes, depending on the intention of the person using it. Magic is based on the belief that unseen powers can be invoked or controlled through special rituals, symbols, words, or objects.

James Frazer, a British anthropologist studied magical practices in many cultures. He said that magic is based on two main ideas. The first is the 'law of similarity', also called imitative magic. It is based on the belief that 'like produces like'. People believe that performing magic on an object that looks like a person will affect that person. For example, hurting a doll is believed to cause pain to the person it represents.

The second is the 'law of contact', also known as contagious magic. According to this idea, things that have once been in contact stay connected. Because of this belief, people are careful with items like hair, nails, or clothes. It is believed that if magic is performed on these items, the person they belonged to will be affected.

Magic is used for both good and bad purposes. White magic refers to magic used for good. It can be productive, such as using chants and offerings to ensure a good harvest, or protective, such as carrying a lucky stone or jewellery for safety. Black magic is used to harm others or destroy their wealth.

Early humans believed that supernatural forces had great power. At first, they tried to control these forces through magic to get what they wanted. But magic might not always yield the desired result. So, people started to respect and worship these forces. This may have led to the development of a more organised system of beliefs and practices called religion.

Today, many religions exist, and they influence how people understand life, make decisions, and live in society. Let us now explore when, how and why religion started and how it influenced human society over time.

Religion

Anthony F C Wallace, an American anthropologist defined religion as “a set of rituals rationalised by myth, which mobilises supernatural powers for the purpose of achieving or preventing transformations of state in man and nature”.

This definition shows that when people face problems they cannot solve, they often turn to supernatural powers. Religion is the set of beliefs and practices used to influence parts of the universe beyond human control. Since no culture has ever fully controlled the universe, religion exists in all societies, making it a cultural universal. However, because people were at different stages of cultural development in different times and places, religious beliefs and practices vary.

Now, let us turn to the question of when religion first began and how early humans developed religious beliefs.

Origin of Religion

Anthropologists believe that religion began during prehistoric times, long before writing existed. Early forms of religious behaviour appeared when humans developed consciousness, symbolic thinking, and awareness of death, mainly during the palaeolithic period.

Archaeologists have found evidence that Neanderthals, who lived at least 60,000 years ago, may have had religious beliefs. One important discovery comes from Shanidar cave in Northern Iraq, where several

Shanidar Cave Findings



Ralph S. Solecki (Columbia University) excavated Shanidar Cave in Iraqi Kurdistan during the 1950s–60s, uncovering multiple Neanderthal skeletons (Shanidar 1–9, plus a partial tenth). Some burials showed deliberate positioning, and analyses of soil from Shanidar 4 suggested pollen clusters, leading to the famous “flower burial” interpretation, implying symbolic behavior.

Later studies, from the 1990s onward, questioned this interpretation, suggesting natural processes like rodents, bees, or sediment movement could explain the pollen concentrations. New fieldwork in the 2010s by teams from Cambridge and Birkbeck confirmed deliberate Neanderthal burials and provided updated stratigraphic and contextual data.

A 2023 palynological review concluded that some pollen clumps may result from non-cultural causes, challenging the flower-placement idea, while still recognising Shanidar as key evidence of intentional Neanderthal burial practices.

Neanderthal skeletons were found. Some of the bodies seemed to be placed carefully, which suggests that Neanderthals purposely buried their dead. This suggests, that they may have respected the dead and practiced early forms of symbolic behaviour.



Archaeologists have found deliberately arranged burials at sites like La Chapelle-aux-Saints (France) and Skhul and Qafzeh caves (Israel) from the middle palaeolithic period (about 100,000–40,000 years ago). The bodies were placed in specific positions, often with red ochre (symbolising blood or life) and buried with tools, food, and ornaments, suggesting a belief in life after death.

The discovery of figurines, such as the Venus of Willendorf in Austria, shows evidence of fertility worship. This small female figurine, found in 1908 near the Danube River, belongs to the upper palaeolithic period (Gravettian culture, around 28,000–25,000 BCE).

- Why did humans develop a system of religion?
- Does it prevail in all cultures?

Religious beliefs and practices are found in all known contemporary societies. We have evidence of the universality of religion since historic times. Anthropologists are interested in finding out why religion is found in all societies rather than looking into the features or superiority of any particular religious faith. We have different theories related to the universality of religion.

Theories of Universality of Religion

The theories of universality of religion seek to explain whether religion is a phenomenon found in all human societies and, if so, why it appears to be so widespread. Anthropologists have long debated whether religion is a universal human trait or a product of specific historical and cultural conditions. The following theories attempt to understand religion as a fundamental aspect of human life, rooted in psychological, social, or evolutionary needs.

1. Psychological Theories

According to this theory, religion helps people cope with fear, anxiety, and uncertainty, especially about death, illness, and natural disasters. E. B. Tylor believed that religion developed out of fear. Sigmund Freud also viewed religion as a response to fear and wish-fulfilment, providing a therapeutic solution to inner conflicts.

Bronislaw Kasper Malinowski said religion exists everywhere because it helps people deal with fear, anxiety, and uncertainty in life. Carl Jung and Abraham Maslow added that religion not only reduces anxiety but also has healing and positive effects on the mind. Overall, psychological theories explain that religion developed to meet human psychological needs. Since these needs are common to all people, religion is found in every culture.

2. Sociological Theories

The sociological theory explains religion by looking at its role in society. According to this view, religion exists not just because of individual belief, but because it helps society function smoothly.

Emile Durkheim, a French sociologist, believed that religion is mainly a social institution. He said that religion brings people together and creates a sense of unity. Through shared beliefs and rituals, members of a society feel connected to one another. Durkheim explained that religion separates the world into two parts: the Sacred and the Profane. Sacred things are places, objects or ideas set apart and considered holy, special or worthy of reverence. Example: holy books, rituals etc., Profane things are ordinary everyday things that are not considered holy or spiritual. Example: daily chores, games etc. Religious rituals, according to him, strengthen social bonds and reinforce common values and moral rules.

3. Functional Theories

The functional theory explains that religion exists because it serves important purposes in human life. It helps people understand life and cope with fear and uncertainty, and it offers answers to questions about life, death, and suffering. B.K. Malinowski believed that religion helps people deal with fear, anxiety, and uncertainty, especially in situations beyond human control. A. R. Radcliffe-Brown studied how religion benefits society as a whole. He said that important social values are expressed through sacred rituals. According to him, religion helps keep society united and stable by encouraging cooperation, mutual support, and peaceful living..

4. Other Theories

In addition to the above-mentioned theories, the ideas of several other scholars also explain why religion became a part of all cultures. The evolutionary theory proposed by E. B. Tylor and James Frazer argues

that religion developed gradually alongside the growth of human culture. Early humans created religious beliefs to explain natural phenomena that they could not understand scientifically. Max Weber viewed religion as an instrument of social control. Diffusionists such as G. Elliot Smith and Wilhelm Schmidt argued that religion originated in one region and later spread to other areas through cultural diffusion. Over time, it became an integral part of all cultures.

Analysis of the above theories clearly emphasises the causes behind the origin of religion. It shows that religion originated to fulfil certain functions for humanity. Can you identify the different functions of religion as explained in these theories?



Complete the list of functions of religion given below by analysing the above theories.

Functions of religion

- Integrative function: Religion is an integrating force in society.
- Explanation and validation: It helps to explain certain phenomena.
-
-

Do you think all present-day religions are alike? We can observe different ideologies and concepts of God across various religious traditions. However, there are certain basic elements common to all religions. Let us examine these in detail.

Elements of religion

Although religions differ in beliefs and practices, they share some basic elements. These elements help people express their faith, connect with the sacred, and guide their behaviour in society. Studying these common elements helps us understand how religions work and why they are important in human life.

1. Beliefs

Religious belief is the faith or conviction that people have in a super natural power. It involves trust, devotions and acceptance of spiritual ideas. In all cultures, people believe in powers that exist beyond the

natural world. Religion includes the beliefs and practices related to these supernatural powers. These beliefs and practices vary from one religion to another. Some major types of religious beliefs found around the world are explained below.

A. Animism

The idea of Animism was proposed by the British anthropologist E. B. Tylor to explain the origin of religion. According to Tylor, animism is the belief in spirits or souls that exist in humans, animals, plants, and natural objects. Tylor believed that early humans tried to understand experiences like dreams, sleep, illness, and death. From these experiences, they developed the idea that humans have a soul that can leave the body. Gradually, this belief was extended to animals, trees, rivers, and other natural forces.

According to Tylor, religion began with the belief in spirits and later developed into more complex forms, such as belief in Gods and organised religions. He described animism as the earliest and simplest form of religion.

An important type of animism is ancestral worship which is found among many tribes. The Santhals worship their ancestors as family and village deities. In western India, the Bhils believe in the survival of the dead. They believe the soul continues to exist as a spirit.

B. Animatism

R R Marett, British Anthropologist, proposed the idea of Animatism as a basic form of religion. According to him, animatism refers to a belief in an impersonal power behind material object, as well as living beings. This power influences humans and can also be controlled under certain conditions. Marett considered animatism to have existed even earlier than animism. It was only later in human evolution that people started believing in souls and other spiritual beings. Animatistic beliefs are termed differently in different places. Important among them are Manaism and Bongaism.

i. Manaism

Manaism is an animatistic belief found in Polynesian society. It is an impersonal, mysterious power that resides in certain objects, people or places. The Polynesian term refers to any power that increases one's natural abilities. It helps one perform

otherwise impossible tasks such as the growth of crops, or the defeating of enemies etc. The power of mana can be seen in persons, places, animal, plants, and sometimes in inanimate objects. For example: a chief may have strong mana, a sacred mountain may be believed to hold mana, certain animals or trees may possess special power, and a sacred stone or weapon can be thought to contain mana.

ii. Bongaism

Bongaism is an early form of religious belief found among some tribal communities of India, especially the Munda, Santhal and Ho tribes. It is based on the belief in Bonga, a group of supernatural spirits that influence human life and nature. Bongas are believed to live in forests, hills, rivers, trees, and villages. They can be good or harmful, depending on how people treat them. If respected through rituals and offerings, bongas are believed to protect people and bring good health and prosperity. If neglected or angered, they may cause illness, misfortune, or natural problems. For example, the Santhal tribe of India believes in bongas. If a family falls sick, they may perform a ritual or offer sacrifices to the bonga to seek protection and healing. Similarly, during harvest or festivals, offerings are made to bongas to ensure good health, prosperity, and harmony with nature.

C. Naturalism

Max Muller, a German philologist, emphasised that the earliest form of religion must have been Naturalism, or the worship of



A clan is a group of people who are related by blood, ancestry, or common descent, often sharing a common name, symbol, or totem.

Clans usually live together or in close communities and may follow shared customs, traditions, and rituals.

Example: In some tribal societies, a clan may be identified by a particular animal or plant as their totem, such as a tiger clan or a banyan tree clan.

nature. Humans in the ancient period were inspired by natural phenomena without understanding them and tried to explain them. An attitude of love and reverence towards object of nature was born, and they believed in the power of rivers, mountains, trees, and other natural objects. The Munda tribal people of Chota Nagpur, worship the sun God. The sun is considered a powerful deity that gives life, energy, and protection. Rituals and

offerings are made to honour the sun and seek blessings for health, prosperity, and a good harvest.

D. Totemism

Totemism is a belief system in which people are connected to a particular animal, plant or natural object known as totem. The totem is believed to be the originator of a particular clan. The killing and eating of which is forbidden for the people associated with the totem. Each band is associated with a totem and believes that its ancestors have descended from that totem. Totemism highlights the interconnectedness of humans and natural environment.

E. Ancestor worship

Herbert Spencer, an English philosopher, believed that ancestor worship was an early form of religion. He said that dreams made people think about the spirits of the dead, and over time these ancestor spirits were imagined as Gods. People also believed that the souls of their ancestors protected their family or tribe.

In modern times, many religions focus on an all-powerful and ever-present being called God. These beliefs are usually based on teachings found in holy books. Today, religions are mostly divided into two types: monotheism and polytheism.

Monotheism is the belief in one God, although some monotheistic religions also accept other spiritual beings. Polytheism is the belief in many Gods, who are usually seen as having similar levels of power.

2. Rituals and Rites

Religious rituals are special actions or ceremonies that people perform to show their faith and feel connected with a supreme power. These actions are usually repeated in the same way each time. They may include praying, singing, lighting lamps, offering food, or celebrating festivals.

Rituals help people express their beliefs, bring the community together, and feel comfort and meaning in life. They aim to create a connection with the divine. The British anthropologist Edmund Leach pointed out that the spoken words of a ritual (verbal part) cannot be separated from the actions performed (behaviour part). Each person may experience rituals in a personal and emotional way.

Religious rituals can be classified into:



Rites and Rituals

Rites are special ceremonies performed at important stages of life, like birth, marriage, or death, and they mark a change in a person's social status. Rituals, on the other hand, are repeated religious actions or ceremonies that people perform regularly to express their faith, such as prayers or festival worship. In short, rites are life-changing ceremonies while rituals are regular practices.

The marriage rite is the main ceremony that marks the change in a person's social status from unmarried to married. Within this marriage rite, there are many rituals, such as chanting mantras, exchanging garlands or rings, tying the mangalsutra, and taking vows. The rite marks the life transition, while the rituals are the repeated actions that make up the ceremony.

- a) **Periodic rituals:** Periodic rituals are religious or cultural ceremonies that are performed at regular intervals. These rituals mark the passage of time and help organise social and religious life. They are carefully structured and repeated according to a traditional calendar or natural cycles like seasons, agricultural periods, or lunar phases. Rituals related to planting, harvesting etc. are included in this category. It also includes rituals to commemorate the birth or death of a divine being.
- b) **Non-periodic Rituals:** These occur irregularly at any time in response to unscheduled events like drought or flooding. This can be rituals related to events in a person's life such as illness, infertility etc.

In addition to rituals, certain rites are also performed at different stages of life.

Rites of passages: These are ceremonies that mark important changes in a person's social status. These include ceremonies related to birth, initiation or coming of age, marriage, and death. For example, naming ceremonies for a newborn, wedding ceremonies, and funeral rites are all rites of passage.

According to the Belgian anthropologist Arnold Van Gennep (1960), all rites of passage have three main stages

- a. **Rites of incorporation.** This stage marks the acceptance of the individual into a new social group or status. Marriage ceremonies are a common example, as they introduce a person into a new family or social role.
- b. **Rites of transition:** This takes place during the period when a person is moving from one status to another. This stage includes rituals related to initiation, pregnancy, and betrothal etc.

- c. Rites of separation. These rites are conducted when a person is symbolically removed from a former social position or group. For example, death is a rite of passage that marks the final separation of a person from society, and funeral rituals form part of this rite.

Rites of Intensification

The rites meant to strengthen the unity of a community are called rites of intensification. They are group rites performed to renew social bonds and shared values, especially during times of stress or crisis.

According to A. R. Radcliffe-Brown, these rites help maintain the social and moral order of society. They may be performed regularly during festivals or seasonal changes, or during difficult situations such as droughts, famine, war, or other community problems.

Prepare a chart showing different rites from birth to death and their corresponding rituals performed in our society.



Rites of passage mark important changes in a person's life, such as birth, marriage, or death. These ceremonies often involve special knowledge or skills to be performed correctly. This is where religious specialists play an important role. They guide the community in performing rituals, ensuring that each rite is carried out properly.

3. Religious Specialists

Religious specialists are peoples in a community who have special knowledge or skills related to religion. They guide others in performing rituals, interpreting sacred texts, and communicating with the divine. Depending on the culture, they may be called priests, priestesses, shamans, monks, or medicine men. They officiate over rituals and interpret myths. The type of religious specialist varies with society.



Fig 8.2 Shaman

Among tribal peoples shamans are considered religious specialists. They are part-time religious practitioners who are believed to have contact with supernatural powers. They are involved in healing activities and treat both physical and psychological illness. Priest and priestess are full-time religious specialists. In contrast to shamans, priest and priestesses are usually trained through formal educational processes to maintain religious traditions and rituals. They are associated with more complex social cultural systems.

4. Symbols



Fig 8.3 Symbol

Religious symbols are objects, images or gestures that represent a particular faith. The ‘Cross’ in Christianity, ‘Om’ in Hinduism, ‘Crescent moon and star’ in Islamism and ‘Dharma wheel’ in Buddhism symbolising the ideas, values or belief of the concerned religion.

Religious symbols in tribal religions are closely linked to nature, ancestors, and everyday life. They help tribes understand the world, maintain social harmony. Natural objects like trees, rivers, stones, animals, and the Sun are treated as sacred symbols.

Totems represent clan identity and protection, while ancestors are symbolised through stones or small shrines. Ritual objects, dances, and body markings also act as symbols to communicate with spirits. These symbols help tribal communities express their beliefs, maintain unity, and pass traditions from one generation to another.

5. Myth

A myth is a deeply traditional and sacred story that serves as a society’s original explanation for the world. Unlike simple fiction, people who created myths considered these tales to be the absolute truth about fundamental matters—such as how the universe began, where humanity came from, and why certain natural events occur—thereby providing the foundational beliefs and values upon which their entire culture was built. There are mythological stories related to each religion. A myth embodying a specific world view contains stories of the Gods, their origins, activities and moral injunctions they teach. Myths not only give explanations of how things originated but also validate the beliefs, values and behaviour patterns of a culture. They consist of a people’s assumed knowledge about the universe and the natural and supernatural worlds.

As humans evolved, our understanding of nature transformed from mythological explanations to more rational and empirical approaches. Thus, science emerged as a distinct discipline, enabling us to systematically study and describe the natural world. The observation of celestial bodies led to the development of astronomy. It enabled us to understand how the universe works. Observations of living organisms led to the development of biology. According to the area of inquiry, different scientific disciplines were developed.

Science

Science began as a way for humans to understand, explain, and control the natural world. It developed as a systematic method for studying natural events, rather than relying on myths, traditions, or personal beliefs. Science explains nature through observation, evidence, experimentation, and logical reasoning. For example, instead of attributing thunder to supernatural powers, science explains it as a result of electrical charges in clouds.

The main features of science include its systematic approach, use of evidence, objectivity, testing through experiments and logical analysis. Scientific knowledge is also verifiable and open to change when new evidence is discovered. The relevance and methods of science will be studied in detail later.

We have seen different ways in which humans respond to natural phenomena over different periods of cultural development. These responses are accumulated and became a knowledge system. This knowledge is transmitted to future generations in different ways. Most people transmit cultural elements through oral texts. We call it folklore. Folklore reflects the relationship between humans and the natural world. For instance, it explains natural phenomena like seasonal changes. Moreover, it offers ways to cope with the power of nature through rituals, ceremonies etc.

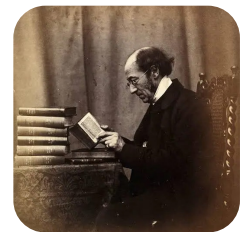
Folklore

The word folklore comes from two words-folk, meaning 'people' and 'Lore', meaning 'knowledge' or 'tradition'. So, folklore literally means 'the traditional knowledge of the people.' The traditional knowledge was initially known as popular antiquities or popular literature. The term folklore was first used by William J Thoms, a British folklorist, in 1846 to replace the term 'popular antiquities'. He used the term to denote the lore of the people. This lore includes the manners, customs, observances, superstitions, ballads, proverbs, and so on, of olden times.

Earlier folklore was considered a collection of traditional beliefs, customs, stories, etc., that are passed down from one generation to another, usually by word of mouth. It includes everything that is shared, created, and preserved by the common people rather than



Fig 8.4 Scientific temper constitutional duty



*Fig 8.5
William J Thoms*

written or formally recorded by scholars or historians. Folklore gives us an insight into how people lived, in the world in earlier times.

Alan Dundes, an American folklorist, made important contributions to folklore studies. He observed that not all orally transmitted material is folklore, so oral transmission alone is not enough to distinguish folklore from non-folklore. He also emphasised that folklore is not limited to the past; it is living and continuously created and reshaped even in modern times. There are parts of folklore that evolve through written method. For example, although Baul songs-a very significant part of Bengali folksong- are transmitted through the written methods, including traditional letters and autographs, they still remain a part of folklore. Many folk songs presented through radio or television are composed and written by modern artists. Folk dances, art forms, crafts etc. are transmitted neither orally nor as the product of written tradition. One must learn and acquire knowledge of these elements through imitation and training. Defining folklore with these limited notions excludes the knowledge and life experience of city life.

Dundes argued that folklore is not just about old tales, songs, or customs, but about any expressive form shared by a group. He defined folklore as “a body of knowledge and practices shared by a folk group,” According to him ‘folk’ could mean any group that shares a common identity or tradition (e.g., occupational groups, families, students).

Thus, folklore is considered the creation of people who live in a particular geographical area, and share the same language, culture, mechanism of livelihood, and living conditions. In short, folklore is a way of life and the traditional heritage of a people bound by common identity.

Anthropologists view folklore as a complete cultural system that includes traditional expressions, behaviours, and material objects shared within a group. These different forms of expression are known as the elements of folklore. The most influential and widely accepted classification of these elements is based on the work of Alan Dundes.

Elements of Folklore

Alan Dundes classifies the elements of folklore in his book *The Study of Folklore* (1965) as verbal, material and customary folklore. Verbal folklore includes orally transmitted forms such as

myths, legends, folktales, proverbs, riddles, and folk songs, through which a community expresses its beliefs, values, and collective wisdom. Material folklore refers to the tangible cultural expressions of a group, such as traditional clothing, tools, crafts, architecture, and artworks, which reflect everyday life and skills. Customary folklore consists of traditional practices and behaviours like rituals, festivals, life-cycle ceremonies, and social customs that guide community life and maintain cultural continuity.

1. Verbal Folklore

This includes all traditional forms of oral expression. Dundes considers verbal folklore to be the primary element of folklore. It includes the following items.

- a. Myths: The Standard Dictionary of Folklore defines a myth as a 'story' presented as having actually happened earlier. Myths explain the traditions, Gods, heroes, and religious beliefs of a community. They express the important values and ideas of a culture. In early or simple societies, myths are considered a real part of life and guide people's behaviour. In India, many myths exist that describe the origin of caste, deities etc.

Collect details of a myth and prepare a short note for discussion and presentation in class.



- b. Legends: Legends are stories told as though they really happened. They usually describe the bravery of leaders or the origin of customs. Legends mix real events with supernatural elements. They may or may not be true, but they are used to entertain people, inspire them, and pass values on to the next generation. They are narrated as if they are from real life and often highlight the heroism of ancestors or Gods. Very long legends written in rhythmic prose or poetry are called epics.

Collect details of a legend and prepare a short note for discussion and presentation in class.



- c. Folktales: Folktales are traditional stories that teach courage, good behaviour, moral values, and respect for the supernatural. They include fairy tales, animal stories, magical tales, funny stories, and moral stories. In Kerala, popular folktales include

Parayipetta Panthirukulam, the stories of Kayamkulam Kochunni and *Viruthan Sanku*, and tales about the origins of Theyyam, Thira, and various Stalapuranas. The book *Aithihyamala* by Kottarathil Sankunni is a well-known collection of Kerala's folk tales.



Collect details of a folktale prevalent in your area and perform a role play or skit based on the story in class.

- d. Ballads : Ballads are narrative songs set to music, written in simple stanzas and often related to heroes of the past, emphasising themes such as love, bravery, tragedy, adventure, or historical events. They are written in simple language so that common people can easily remember and pass them on. Ballads have a musical rhythm and rhyme, making them suitable for singing, and they often use repetition and refrains. Instead of detailed descriptions, they focus more on action and dialogue. Through their stories, ballads reflect the values, beliefs, and history of a community. Vadakkanpattukal (Northern Ballads) and Thekkanpattukal are some examples in Kerala.
- e. Folk songs: Folk songs are traditional songs that are passed from one generation to another, usually by word of mouth. They show the culture, beliefs, and way of life of a community. These songs often talk about religion, farming, important life events, nature, and heroic deeds. They express the feelings and dreams of ordinary people. In Kerala, examples of folk songs include Thottam Pattu, Vanchippattu, Villadichanpattu, Vadakkan Pattu, Thekkan Pattu, Mailanchi Pattu, Vattakkali Pattu, Oppana Pattu, and Margamkali Pattu.



Collect details of a ballad or a folk song for group singing or choral reading in your class, followed by a discussion on its significance in society. You may also make a screen play based on it and enact a skit in class.

- f. Proverbs: Proverbs are short, traditional sayings that give advice or teach moral lessons. They come from the experiences of early people and are passed down orally from one generation to another. A proverb is meaningful only

when used in the right situation. Proverbs help us understand society and reveal truths about life. Identify some proverbs like *Othupidichaal Malayum Porum* prevalent in your locality and see how they relate to local culture.

- g. Riddles: A riddle is a question, statement, or phrase that has a hidden or double meaning. Riddles are a form of entertainment and help develop children's thinking skills. Here is a riddle in Malayalam, *Adi paara, nadu vadi, meethe kuda*. Identify its answer and collect such riddles in your language.

Examine how the above folk elements help anthropologists study human culture and society.



2. Material Folklore

Material folklore is concerned with tangible, physical objects produced and used traditionally by a particular culture. It includes the following items.

- a) Folk costumes and jewellery: Folk costumes and jewellery are traditional forms of dress and ornamentation that represent the cultural identity of a community. They are often linked to social status, age, gender, occupation, and ritual significance. Costumes may vary for festivals, rituals, marriages, and daily use.
- b) Traditional housing forms: Traditional houses are built using locally available materials and reflect adaptation to climate and environment. Mud houses, thatched huts, wooden houses, and stone dwellings are some of the examples. *Kudi, Pura, Mana, Nalukettu* etc are some of the house forms of traditional Kerala. The layout and structure of houses reveal social organisation, family patterns, and economic conditions.
- c) Handicrafts and tools: Handicrafts are objects made by hand using traditional techniques, often for domestic or ceremonial use. Examples include weaving, carving, embroidery, metal work, and basketry. Traditional tools are used in farming, fishing, hunting, and household work.
- d) Pottery, Masks, Toys: These are creative artisanal products with both functional and symbolic roles. Pottery is used for cooking,

storage, and rituals. Masks are often employed in religious ceremonies, dances, and theatrical performances, symbolising spirits or deities. Traditional toys reflect children's cultural learning and imitation of adult roles. Anthropologically, they show artistic traditions and the symbolic universe of a community.

- e) **Agricultural Implements:** Agricultural implements are traditional tools used in farming and cultivation. Ploughs, sickles, hoes, harrows, and wooden yokes are some of the examples. Their design reflects ecological adaptation, crop patterns, and farming techniques. These implements demonstrate the relationship between human culture and subsistence practice.
- f) **Folk Science and Technology:** This refers to indigenous knowledge, skills and techniques developed by local communities over generations. Traditional farming techniques, irrigation methods, weather prediction, herbal knowledge, and tool-making skills, architecture, textiles and crafts are some of the examples. These are based on observation, experience and experimentation and closely linked with culture and environment.



Fig 8.6 Devakooth

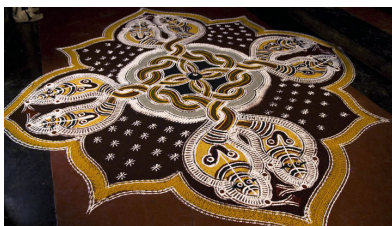


Fig 8.7 Kalamezhuthu

- g) **Folk Arts:** Folk arts are collective, participatory art forms rooted in local tradition passed down orally or through practice within communities. Folk arts can be classified into performing art and non-performing art. Performing art involves live presentation and require artists to use their bodies, voices or movements to express ideas. Art form like theyyam, dances, puppetry etc., are the examples of performing art. Non- performing arts are often referred to visual or fine arts. It doesn't require live presentation and can be experienced at any time. Paintings, embroidery, sculptures, carvings, pottery etc., are included in this category. These are physical creations and therefore they belong mainly to material folklore.



Collect details regarding the material folklore and examine how it differs from classical or modern material culture.

3. Customary Folklore (Social / Behavioral)

Customary folklore refers to the traditional social practices, customs, and patterns of behaviour followed by a community in its daily life. These customs guide how people behave on important occasions such as birth, marriage, and death, as well as in everyday social interactions. Customary folklore plays an important role in maintaining social order, cultural identity, and cultural continuity. It reflects the values, beliefs, and moral principles of a society and helps members develop a sense of belonging. Let us examine customary folklore practices such as rituals, ceremonies, life-cycle ceremonies, festivals and seasonal observances, folk medical practices, and folk beliefs that are passed down from generation to generation.

- a) **Rituals and ceremonies:** These are formal, structured activities performed according to traditional rules and beliefs. They are often linked to religion, life-cycle events, and community welfare. Rituals may involve prayers, offerings, sacrifices, or symbolic actions.
- b) **Marriage and funeral customs:** Marriage customs include engagement rituals like wedding ceremonies, post-marital practices etc. They define kinship relations, inheritance, and social responsibilities. Funeral customs include burial, cremation, mourning practices, and ancestor worship. They reflect beliefs about death, the afterlife, and the continuity of the soul.
- c) **Festivals and seasonal observances:** Festivals are traditional celebrations associated with religious beliefs, agricultural cycles, or historical events. Seasonal observances mark times such as harvest, monsoon arrival, or winter solstice like Utharayanam, Makarasamkranthi etc. They involve music, dance, feasting, and communal gatherings.
- d) **Folk Medicine:** Folk medicine refers to traditional healing practices based on indigenous knowledge systems and cultural beliefs. It includes herbal remedies, spiritual healing, massage, rituals, and magico-religious practices.
- e) **Folk Beliefs:** Folk beliefs are traditional ideas or practices followed by people in a community and passed down from one generation to another. These beliefs explain natural events, health, luck, misfortune, and everyday experiences, often involving supernatural forces, spirits, or omens. Belief in ghosts, spirits, astrology, snake

worship, and the evil eye are some examples of folk beliefs in Kerala.

- f) Folk games: Folk games are traditional games that are passed down from one generation to another within a community. They are usually played for fun and do not require offensive equipment.



Observe some customary folklore practices in your area and describe it with special reference to its social and cultural significance.

As we have seen earlier, folklore includes folk songs, stories, proverbs, festivals, rituals, traditional crafts, and local beliefs. When experts use these traditions to help people in areas such as education, health, tourism, community development, or cultural preservation, it becomes applied folklore.

Applied Folklore

Applied folklore is the practical use of folklore to solve real-life problems and improve community life. Instead of studying folktales, songs, customs, or traditions only for academic purposes, applied folklore uses this knowledge to help people in everyday situations. In this way, applied folklore involves the practical use of different elements of folklore for the social benefit of the community.

Folklore is widely used in the fields of advertisement, marketing, tourism, education, and health. Nowadays folk knowledge and beliefs are often utilised for popularisation and marketing of products. Folk arts, songs, and stories are used for advertisements. Indigenous medicines like Ayurveda, Tribal medicine and art forms like Theyyam, Thira and Kalaripayattu, are used for promoting tourism. Folk literature printed in text forms are used for formal education. Folk songs and stories are used for promoting communal harmony.



Find out other areas of application of folklore and prepare a report by collecting details from various sources.

Documentation of folklore

Documentation of folklore means collecting, recording, and preserving traditional stories, songs, rituals, customs, beliefs, arts, and practices of a community. It can be done through writing, audio or video

recordings, photographs, or digital archives. We will now examine the importance and relevance of documentation of folklore.

Relevance of folklore documentation

Due to modernisation and globalisation, our lifestyle has changed drastically. So, we must ensure that future generations are provided the opportunity to understand their cultural roots. The following points emphasise the importance of documentation of folklore.

1. **Preservation of Cultural heritage:** Many traditional practices are passed down orally. If not recorded, they may disappear over time. Documentation helps protect cultural heritage for future generations.
2. **Understanding the past:** Folklore reflects the values, lifestyle, and history of a community. By documenting it, we learn how people lived, what they believed, and how societies developed. It strengthens cultural identity and pride.
3. **Educational Value:** Documented folklore becomes a useful resource for students, teachers, and researchers. It helps in the study of Anthropology, Language and Literature, Sociology, and Art.
4. **Promotion of Traditional Art and Artists:** When folk traditions are recorded, they gain recognition. This can help local artists, performers, and craftsmen get support, opportunities, and appreciation.
6. **Encourages Tourism:** Proper documentation helps in showcasing unique cultural practices to visitors. This supports cultural tourism. It can benefit local communities economically.
7. **Prevents Misinterpretation:** Without proper records, traditions can be misunderstood or wrongly represented. Documentation ensures accuracy and authenticity, protecting the true form of folklore.
8. **Useful for Future Research:** Once preserved, folklore becomes a rich source for scientific and artistic research. Future generations can build on existing knowledge to understand cultural changes.

Thus, folklore may be understood as a meaningful human response to nature and the surrounding environment. It is shaped by people's attempts to explain, adapt to, and live in harmony with natural forces such as seasons, landscapes, animals, and climatic changes. Through myths, rituals, folk songs, taboos, and beliefs, communities interpret natural phenomena and express respect, fear, and dependence on nature. At the same time, folklore functions as an important medium for the transmission of tradition, passing knowledge, values, moral lessons, and cultural practices from one generation to the next through oral and customary means. In this way, folklore not only preserves collective memory and identity but also ensures cultural continuity by linking past experiences with present life, enabling societies to respond creatively and meaningfully to both nature and social change.



Extended Activities

1. Documentary of Folk Performance

Prepare a documentary film on any one folk performance in your locality. Include details about costumes, songs or dialogue, traditions, myths/legends, and the role of the main character.

2. Report on Life Cycle Rituals

Observe and document life cycle ceremonies practised in a community. Based on your field observations, interactions and findings, prepare a report.

3. Preservation of Cultural Heritage

Undertake a field-based study to systematically document any traditional stories, songs, rituals, customs, beliefs, arts, and cultural practices of a selected community in your area. Analyse their cultural significance and prepare a report.