UNIT THREE:
Infrastructure:
Mode of Production: Environment, Technology, Forms of Exchange
Focus on Forager Societies

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Overview: This section focuses on the first part of the Universal Pattern from the theory Cultural Materialism as a theoretical framework in which to view the four main types of societies we will be discussing. Though we will do a brief overview of Foragers, Pastoralists, Horticultural and Agricultural societies, your first test will focus in more detail on Foragers. At the end of this chapter is a summary review for the first test.

READ: Description of Cultural Materialism

2.1 **Review:** Theory of Cultural Materialism. (From our first week's reading "1UNIT one Introduction to Anthropology", pg 23-24)

Source: Pope Fischer, Lisa.

WHAT IS CULTURAL MATERIALISM?:

Anthropologists use a range of theories to explain cultural practices. A theory is simply a way in which to explain cultural phenomena. ***By the end of the course, you should have a thorough understanding of the theory "Cultural Materialism***."

CULTURAL MATERIALISM: (1. Theory, 2. Cultural Similarities/Differences, 3. Material Constraints)

(Marvin Harris)

Cultural materialism is a **research strategy** used by some anthropologists to explain the causes for the **differences and similarities** in thought and behavior found among human groups. Anthropologists observe a cultural practice and then ask themselves what caused this cultural practice to develop? Cultural materialists say that the best way to explain different cultural practices in different societies is to look at the **material constraints** found in that particular society (the "infrastructure"). The Infrastructure consists of the interaction of the "mode of production" (the culture, environment, and technology) and the "mode of reproduction" (things that affect the population size such as birth rates, death rates, and migration). The material constraints ("Infrastructure") result from the costs and benefits related to the production of food, shelter, tools, and machines, and from the size of human populations within limits set by biology and the environment. How do different cultures obtain food and shelter to sustain their population?

Cultural Materialism uses the universal pattern -- the construction of infrastructure, structure, and superstructure -- as a way to understand culture. Cultural materialist approaches believe **infrastructure** is the underlying foundation of a culture (the mode of production and mode of reproduction, the limits set by biology and the environment). This course looks at five different modes of production (See below). If you understand the infrastructure, you can find the cause for cultural variations in the structure and superstructure. **Structure** consists of the "Domestic Economy" (How groups or families organize), and "Political Economy" (How groups deal with issues of cohesion and conflict, and forms of leadership). **Superstructure** consists of the values and beliefs that support the system. It consists of art, architecture, religion, worldview, sports, games, folktales, movies, mental, and spiritual aspects of life, etc. How does infrastructure affect the type of structure and superstructure that one finds in a particular culture?

1. INFRASTRUCTURE refers to the underlying foundation consisting of the mode of production and mode of reproduction.

The mode of production (environment, technology, modes of exchange) consists of the technology and practices that people use to attain basic subsistence such as the production of food and other forms of energy. These technologies and practices work in conjunction with a specific environment or habitat (Technology of subsistence, techno-environmental relationships, ecosystems, work patterns). It has to do with the type of environment and the type of technology, tools, or methods people use in that environment to sustain themselves. In addition, systems of exchange (reciprocity, redistribution, market exchange) serve to allocate resources to others and in some cases solidify social bonds. We will talk about how goods are consumed and exchanged in different societies. We will look at five types of modes of production. (Refer this chapter, 3UNIT THREE Infrastructure)

Types of modes of production:
1. Hunting and Gathering (or Foraging) (Example: Dobe Ju'hoansi / !Kung San from the Kalahari in Africa; or traditional Inuit Eskimos from the Artic)
2. Pastoralism (Example: Masai of Kenya; or Nuer of Sudan; or the traditional Navajo of the US)
3. Horticulture (Example: Yanomamo from the Tropics in Brazil & Venezuela; The Kayapo of Brazil; the Asmat of New Guinea; the Kawelka of New Guinea,)
4. Agriculture (Example: Inca Empire in Peru; Zapotec Indians of rural S. Mexico, Ayamara Indians in Bolivia, Amish farmers of the US)
5. Industrial and post-industrial economies (Example: USA; EU; urban Japan)

The mode of reproduction (birth rates, death rates, migration) refers to the technology and practices people use that affect the population size (Demography, mating patterns, fertility, mortality, migration etc.). This has to do with birth rates, death rates, and migration patterns that affect the average population size of a given culture. In general, mode of reproduction is interested in the size and general demographic composition of the group.

2. STRUCTURE: refers to how people organize domestically and politically. Structure entails the economic, political, and behavioral activities that organize people into groups. It consists of the groups and organizations present in every society that deal with exchanging goods, labor, and information.

Domestic economy (family (affines, consanguines), marriage patterns, division of labor) is the organization of reproduction and basic production, exchange, and consumption within camps, houses, apartments, or other domestic settings (Family, domestic division of labor, age and sex roles, etc.). In particular we will be talking about kinship organization. How is domestic economy related to infrastructure?

(Refer to 4.1 UNIT FOUR Structure Domestic Economy)

Political economy (conflict & conformity, laws, forms of leadership, patterns of warfare) is the organization of reproduction, production, exchange, and consumption within and between bands, villages, chiefdoms, states, and empires. (political organizations, corporations, clubs, division of labor, taxation, tribute, education, hierarchies, police, military, war, etc.). How are groups organized and what maintains group cohesion? What types of leaders are in different types of societies (Band, headman, tribe, bigman, chief, king, president, etc.)? How is social order and conflict dealt with in different societies (informal, formal, laws, rules, police, judges, etc.) How are forms of leadership and systems of order related to infrastructure? (Refer to 4.2 UNIT FOUR Structure Political Economy)

3. SUPERSTRUCTURE refers to the belief or value system that helps solidify the infrastructure and structure. A culture's worldview, beliefs, and values are often expressed in the form of art, architecture, music, dance, literature, religious rituals, festivals, sports, games, hobbies, science, folktales, myths, movies, television, popular culture, etc. How does superstructure reinforce or reflect the values set by the infrastructure? (Refer to UNIT 5.1FIVE Superstructure Religion, and UNIT 5.2 Superstructure Art Expressive Culture)

BRIEF OVERVIEW OF FORMS OF SOCIETIES

READ THE FOLLOWING:

Economic Organization

Dogon with his son herding cattle in upcountry Mali, 12 June 2008 Ferdinand Reus [CC BY-SA 2.0 (http://creativecommons.org/licenses/by-sa/2.0)], via Wikimedia Commons

Key Terms & Concepts

- Economic organization
- Systems of production
- Carrying capacity
- Subsistence strategy
- Foraging: aquatic, pedestrian, equestrian
- Pastoralism
- Horticulture: shifting field, slash and burn, polycropping

- Intensive agriculture: non-industrial, industrial
- Monocropping
- Neolithic revolution

Subsistence Strategies

Economic Organization

All cultures need ways to produce goods and distribute them for consumption. This is the essence of an economic system. The forms these take vary across the globe and make involve interaction with family or non-family. It many involve work from the home or it may be with a corporation. Some economic systems support the independence of families, while others result in a greater, albeit oft unacknowledged, interdependence. In this section we start with the mode of production, including how people get their food.

Mode of Production

The ways in which food and other material items are collected is called a **system of production**. Specifically, the manner in which a group produces its food is referred to as a **subsistence strategy**. In a capitalist system, money is the key to production. From the farmer who must purchase land and seed in order to produce food to non-farmers who must have money in order to buy food and other goods, everybody needs money in order to meet their needs. In kin-based types of economic systems, social obligations fulfill the role of money.

The primary focus of this section will be subsistence strategies as they influence other types of behavior. Anthropologists frequently categorize groups by their subsistence strategy, or how they get their food. Through research, anthropologists discovered that the subsistence strategy oftentimes predicted other forms of behavior, e.g., population size, division of labor, and social structure.

Foraging (also referred to as Hunting & Gathering)

For roughly 90% of history, humans were **foragers** who used simple technology to gather, fish, and hunt wild food resources. Today only about a quarter million people living in marginal environments, e.g., deserts, the Arctic and topical forests, forage as their primary subsistence strategy. While studying foraging societies allows anthropologists to understand their cultures in their own right, the data from these studies provides us with an avenue to understanding past cultures.

General Characteristics

While the resources foraging groups utilize vary depending on the environment, there are some common characteristics among foragers:

- Foragers generally make their own tools using materials available in the local environment, however, through the process of development and increasing contact with other groups of people, machine made tools are making their way into foraging societies.
- There is a high degree of mobility as the group may follow migrating herds or seasonally available resources.
- Group size and population density is small so as not to surpass the carrying capacity of the environment.
- Resource use is extensive and temporary. In other words, foragers may use a wide-variety of resources over a large territory; however, they leave enough resources so that the area can regenerate. Once the resources reach a certain level, the group moves on.
- Permanent settlements are rare.
- Production is for personal use or to share and trade.
- The division of labor tends to be divided by age and gender.
- Kin relations are usually reckoned on both the mother and father's side.
- There is usually no concept of personal ownership, particularly of land.
- If left to follow traditional patterns, foraging as a subsistence strategy is highly sustainable.

Types of Foraging Groups

Haida village, Wrangel, Alaska circa 1902

Aquatic: Aquatic foragers, like the Ou Haadas, or the Haida, who live in the Queen Charlotte Islands, British Columbia, Canada, and Prince of Wales Island in Alaska, United States, rely primarily on resources from water. At the time of contact with Europeans, the Haidu utilized a wide variety of foods from the surrounding waters, including salmon, halibut, crabs, scallops, sea cucumber, sea lion, otters, and seaweed. They also hunted

for land mammals like bear and deer and gathered wild plants such as rhubarb, fern, and berries.

Pedestrian: As the name implies, pedestrian foragers get their food by collecting on foot. The !Kung San are more properly known as the Zhu|õasi. They live in the Kalahari desert are one example of a pedestrian foraging group. The Zhu|õasi use about 100 species of animals and over 150 species of plants, although not all are used for food. The primary food source is the mongongo nut that is high in protein. The Zhu|õasi eat their way out of areas, starting with their favorite food and then the less desirable food. Once the resources get low, the group will move to a new area. The Zhu|õasi also move seasonally as resources become available. During the rainy season, the Zhu|õasi live in small groups of 2-3 families. In the dry season, large camps of 20-40 people are established near permanent water sources.

Equestrian: Equestrian foragers are the most rare type of foraging group, being identified only the Great Plains of North America and the pampas and steppes of South America. This type of foraging strategy emerged after contact with European settlers who reintroduced the horse to the Americas. The Aonikenks live on the Patagonian Steppes of South America. The Aonikenks, also called the Tehuelche or people of the south, hunted guanaco, an indigenous camelid, in seasonal rounds. They also ate rhea (sometimes referred to as the South American ostrich), roots, and seeds.

Pastoralists

Pastoralism is a subsistence strategy dependent on the herding of animals, particularly sheep, goats and cattle, although there are pastoralists who herd reindeer, horses, yak, camel, and llamas. This does not mean that the people only eat the animals they raise, in fact, some pastoralists only eat their animals for special occasions. They often rely on secondary resources from the animals for food, e.g., blood or milk, or use the by-products like wool to trade for food. Some pastoralists forage for food while others do small-scale farming to supplement their diet. Like foragers, many pastoralists are forced to live in the world's marginal environments all over the world.

General Characteristics

- Production is for more than meat and milk. Some animals are used as beasts of burden, while others are used for their fur. Animal products are for both personal use and trade.
- Pastoralism is characterized by extensive land use. Animals are moved to pasture; fodder is not brought to them.

- Generally speaking, pastoralists live in extended families in order to have enough people to take care of all of the duties associated with animal care and other domestic duties.
- Division of labor is gender based.
- Most pastoralists are monotheistic (but not all of them); usually the belief is tied closely to their animals.
- The concept of ownership is restricted to animals, housing and some domestic goods. Land is communal and many pastoralists contend that they have travel rights over lands because of centuries-old migratory patterns that supersede modern land ownership.
- Wealth is determined by herd size and often the number of wives and offspring a man has.
- Kin relations are patrilineal, which means that the father's side of the family is reckoned as kin.
- While some pastoralists are more sedentary, most are nomadic, moving to temporary pastures as needed or seasonally. Semi-permanent camps are set up with each move. Decisions about when to move are made communally.
- Because of the low to moderate consumption rate, the sustainability of pastoralism is high if the herders have access to enough land.

Dogon pastoralists

The Ariaal are one example of pastoralists. They live on the plains and slopes of modern Kenya. The Ariaal are successful because they practice a highly diversified system of animal husbandry with the key being herd diversity (camel, cattle, sheep and goats) and mobility. The Ariaal split the herd and pasture them in different places, a practice that ensures herd survivability against disease and drought. The herds are used to encourage growth of seasonal vegetation, which provides the group with trade items.

Sheep and goats are used primarily for food, as is camel milk. The blood of the animals is also used. This is a good adaptation because blood is a renewable resource and it is highly nutritious. Cattle are used as bride price (more on bride price in the section on Marriage and Family). The exchange of cattle as part of a marriage helps to maintain herd diversity and distribute the wealth among the people.

Ariaal settlements are widely dispersed, making it difficult to maintain social cohesion. One way the Ariaal have devised to help with social cohesion is age-sets. An age set is a group of individuals of roughly the same age that are given specific duties within the society at large. In the case of the Ariaal, there are three age-sets for each sex: for males the age sets are boy, warrior, elder; for females, girl, adolescent, married. Each age set has a specific set of clothes, diet, duties and socializing rules. For instance, adolescent girls are not allowed to associate with any males, including their father while warriors are not allowed to associate with women, including their mother. This practice not only ensures that labor is distributed among members of the group, but serves as a form of population control.

Horticulturists

Horticulturalists are small-scale farmers, but this should not be confused with family farming in industrial regions of the world. Horticulturalists grow not only crops, but often raise animals and gather economically useful plants. They generally produce only what they can consume themselves, a practice anthropologists refer to as subsistence farming. Horticulturalists are found in all areas of the world except the Arctic.

General Characteristics

Slash and burn agriculture.

- Domestic crops are cultivated using hand tools, which may have been made by hand.
- Farming is done in conjunction with foraging activities and/or trade.
- There is limited surplus production, although as a result of modern development there may be some surplus production.

- Groups have a staple crop around which ritual and social activity takes place. This staple varies from culture to culture, but is generally a plant that can be stored easily such as tubers, maize, rice, or wheat.
- Production is primarily for personal use and trade.
- The division of labor is generally by gender, although all members of the groups may be called upon to help with the crops.
- Kin relations may are predominantly patrilineal, but occasionally may be matrilineal.
- Status is often based on the size of family that can be supported or on how much an individual can give away to gain allies.
- In ancient horticultural societies, the belief system was polytheistic with the primary deities focused on rain and crops. Modern horticulturists follow a variety of different belief systems, but often still have elements of the polytheistic system of old.
- Most horticulturalists do not own the land they use to grow food; however, they claim land-use rights to it.
- Land use is extensive as fields are often used for only a couple of years and then allowed to lie fallow from anywhere to 2-15 years. This is called **shifting field agriculture**.
- Many horticulturalists practice **slash-and burn agriculture** whereby vegetation is cut down and burned. When it rains, nutrients from the ash seeps into the soil thereby regenerating soil fertility.
- Permanent settlements are common.
- Horticulturalists may practice **polycropping** (planting different crops in the same field).
- Like foraging and pastoralism, if given enough land to utilize, horticulture is fairly sustainable.

The Chimbu of the central highlands of Papua New Guinea grow sweet potatoes, which are used to feed both people and domesticated pigs. The Chimbu recognize over 130 different types of sweet potatoes, each grown in its own microclimate and having its specific use. Sugarcane, bananas, taro, beans and various nuts and fruits are also grown in year-round gardens. Pigs and sweet potatoes are both important resources for food exchange. Food exchanges were used to foster reciprocal relationships among people. If an individual did not uphold the reciprocal relationship by repaying the food exchange, they would lose status within the society. Today, not only is food a part of the exchange, but money earned through the sale of coffee, vegetables and jobs.

The Chimbu reckon descent through the father's line. Traditionally, men live in communal houses away from women and children. The men's communal houses are usually placed in areas that were easily defensible. The women and children live in natal groups near their gardens where they can keep a close eye on the crops. Women are also responsible for raising pigs. Currently, the traditional patterns of residence are breaking down and nuclear families are becoming more common.

Intensive Agriculture

Intensive agriculture was developed in order to produce greater amounts of food for large populations. It is the most recent form of subsistence strategy emerging about 10,000 years ago. With the emergence of intensive agriculture major changes occurred in other areas of culture. Deities in polytheistic cultures began to represent rain and important plants. Power began to become more centralized as the need arose to organize the growing, harvesting, and distribution of crops. With a changing power structure, social ranking became the norm. People became more dependent on one another as occupational specialization developed. Urbanization occurred as there was now a method to feed a large, non-food producing populace. In other words, a class-based society emerges.

Indian Farmer

There are two basic forms of intensive agriculture: non-industrial and industrial. The former is dependent on human labor and draft animals, while the latter is reliant on machinery. However, there are characteristics that unite the two forms. Both forms of intensive agriculture manipulate the landscape. This may entail actual modification of the landscape through clearing tracts of land, terracing hillsides or digging irrigation systems. Fertilizers are usually required because growing takes place on permanent fields. The type of fertilizers varies. Non-industrial agriculturalists may use natural fertilizers such as animal dung. Industrial agriculturalists use chemical fertilizers.

Private ownership is the norm for intensive agriculture. While non-industrial agriculturalists may own the land with extended family, a single family or corporation owns industrial agricultural land. Permanent residences became the norm.

With the advent of industrial agriculture other changes occurred. Women began to be relegated to the private arena; they became the homemakers while men engaged in public work, farming, politics, etc. Mass production of food became the primary focus of agricultural endeavors. Monocropping replaced polycropping. Machinery became common, requiring agriculturalists to have a high capital investment in their farms, eventually leading to many family farms being

bought out by large corporations. Unlike the other forms of subsistence, intensive agriculture is not sustainable because it destroys habitats, increases erosion, increases water use, undermines stability of other systems, and encourages high consumption both of fossil fuels and food itself.

All four of the subsistence strategies are in use today. Foragers, pastoralists, and horticulturalists are threatened through government selling and protecting of areas such as game preserves, thereby restricting land use.

Forms of Exchange:

READ THE FOLLOWING:

Key Terms & Concepts

- Market principle
- Reciprocity
- Systems of exchange: generalized reciprocity, balanced reciprocity, negative reciprocity
- Redistribution
- Systems of redistribution: Big Men, taxes, Potlatch

Forms of Exchange

Once people have produced goods those goods need to be distributed for consumption. This guided through several principles: redistribution, reciprocity, and market. These principles are not mutually exclusive and all may be found within the same society. The **market principle** is based on the practice of goods bought and sold using money. Profit is a key motivating principle. Value is theoretically based on demand and supply, but supply can be artificially manipulated to value and, therefore, increase profit margin. Market economies are the hallmark of large-scale, industrial groups. Other characteristics of market economies include the accumulation of capital (wealth used to fund more production) and complex economic interactions, including international components. Market economies are synonymous with intensive agricultural societies. In the modern world, non-market economies exist under the umbrella of a national market economy; however, there are some cultural groups, e.g., foragers, who have little interaction with the national economy. Groups such as this are generally left out of economic development plans. In fact, they are often seen as impediments to modern economic

development, leading to marginalization and deprivation as their ability to meet their needs is impeded.

Men selling various fruit and vegetables at an outdoor market in Zanzibar

Non-market economies are based on reciprocity or redistribution. **Reciprocity** is a direct exchange of goods or services while **redistribution** refers to the movement of goods or services from a central authority to the members of the society.

RECIPROCITY

There are three types of reciprocity: generalized, balanced, and negative. **Generalized reciprocity** refers to an exchange that incurs no calculation of value or immediate repayment of the goods or services. This usually happens among close kin and friends; e.g., !Kung hunters sharing meat with other members of the family (Hxaro Exchange) or buying a cup of coffee for a friend. It acts as a form of social security among kin—sharing with family ensures that they in turn will share with you. Generalized reciprocity has an element of altruism to it. Think about a person who makes a bunch of sandwiches and then hands them out to the homeless. That person is distributing food without expectation of repayment.

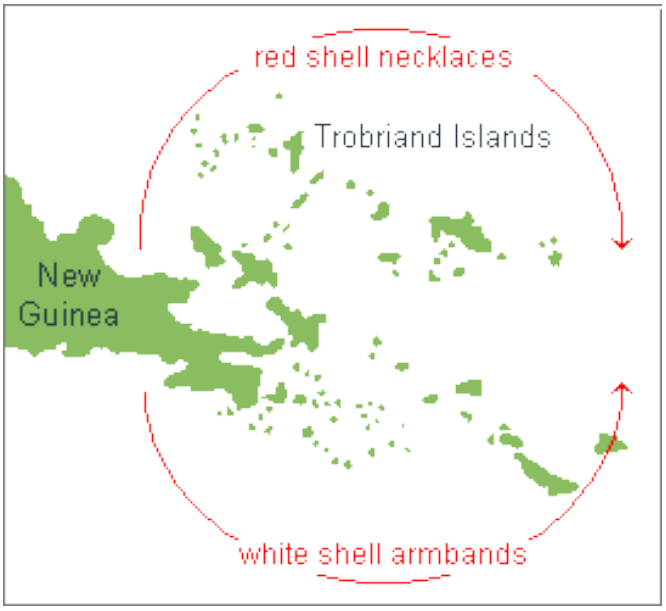
Balanced reciprocity involves calculation of value and repayment of the goods or services within a specified time frame. Some foragers will exchange wild game for modern hunting implements such as metal knives. Horticulturalists may exchange some of their product for machetes.

Storeowners may exchange goods for services of skilled tradesmen. Gift giving in modern society is another example of balanced reciprocity. As adults, when gifts are given there is an expectation that we will receive a gift of equal value in return at a fixed point in the future. For instance, if we receive a birthday gift from a friend, it is expected that we will give that friend a gift of similar value on their birthday.

Negative reciprocity occurs when one party attempts to get more out of the exchange than the other party. This can happen through hard-bargaining, deception, stealing, or even selling food at an inflated price because there is no other option; e.g., vendors at special events.

Cultural example of reciprocity: The Kula Ring

"The Kula Ring was a closed trading system in which only established senior male trading partners from each island could participate. The trade was carried out with large outrigger sailing canoes. Long, dangerous sea voyages were undertaken for the purpose of this trade. On the surface, it appeared to be primarily an exchange of gift items and ceremonial feasting organized to reinforce bonds between senior trading partners. The trade network was essentially circular. If a trader was traveling in a clockwise direction around the circuit, he would give long necklaces of red shells (*soulava*) as gifts to his trading partner. If he was traveling in a counterclockwise direction, he would give armbands of white shells (*mwali*). These necklaces and armbands were the kula items.



Kaibola men of the Trobriand Islands

The way in which traders greeted each other on arriving at an island and carried out their trade was prescribed by tradition. While the senior trading partners formally greeted each other and reinforced their friendship and authority by giving kula gifts, the younger men usually unloaded more practical trade items on the beach to be bartered. These were mostly surplus luxury items

from their home islands. The kula gifts were exchanged with the assumption of generalized reciprocity. The regular trade goods were mostly traded in a manner that resulted in balanced reciprocity. If asked why they were undertaking these long distance trading expeditions, the Trobriand Islanders would very likely emphasize the social rather than the economic gain. However, both were the result". *(Source: http://anthro.palomar.edu/economy/econ_3.htm)*

Cultural Example of Reciprocity: Hxaro Exchange

"The !Kung, or Ju/'hoansi, as they refer to themselves, is a hunting-gathering society which occupy an area of the Kalahari Desert along the border between Namibia and Botswana. The Dobe area consists of about 10 waterholes. The Ju/'hoansi number around 450, and all of them seem to be related to each other in some way. Their kinship relation is determined by 3 systems- by lineage, by name and resolution by '*wi*'. The Ju/'hoansi are organised into small, nomadic bands, which consistently live and move together. Despite being a rather egalitarian society, they are able to maintain harmony by reducing the number of conflicts. Due to the harsh environment, social relationships are important for survival and through the hxaro exchange, they are able to maintain relationships with other nomadic bands and within their own small bands.

The Hxaro is the Ju/'hoan system of delayed form of non-equivalent gift exchange. It is a useful mechanism for circulating goods, lubricating social relations and maintaining ecological balance.

A key characteristic of the hxaro exchange is the egalitarian nature of this system. This means that both men and women are able to participate in this exchange system, with no gendered divide or power play in place.

According to Wiessner, the hxaro is also viewed as a system for risk pooling. In a highly connected system, information about social and natural resources flows without restraint and allows for the redistribution of people over resources.

[. . .]

Distinct nature of Hxaro exchange

The Ju/'hoansi's hxaro exchange system is distinct from other forms of exchange such as barter trade and forager exchange systems.

There are 3 notable differences that can be observed.

Firstly, unlike the barter trade which requires an immediate return of a good with an equal worth, the hxaro exchange requires neither of these.

Secondly, while our system primarily involves the exchange of goods and services for money

(economic basis of exchange), the hxaro system places more significance on the social relations that are fostered as a result of these exchanges. The goods exchanged take secondary importance.

Thirdly, the hxaro exchange has features atypical for forager exchange systems: semi formalized partnerships, concatenation of exchange partnerships into chains with a prescribed course, and inheritance of partnerships (Wiessner I994)."

(Source: http://sc2218.wikifoundry.com/page/INTRODUCTION+TO+THE+JU%2F+%27HOANSI+%27S+EXCHANGE+SYSTEM)

REDISTRIBUTION

Redistribution refers to the movement of goods or services to and from a central authority. The authority may be a single individual, e.g., a chief, or a group of people, e.g., temple priests. The central authority may not be interested in accumulating wealth for themselves, but use the distribution of goods and services to create interdependence among the parties involved.

Cultural Example of Redistribution: Potlatch

The **potlatch** is a specialized form of redistribution that was common among native cultures of the Pacific Northwest. Native tribes living in the coastal areas of what is now known as Oregon, Washington, British Columbia, and southern Alaska created a competitive system involving elaborate feasting and gift giving that was used to increase status of the giver. The giver often took years to accumulate all of the goods necessary for the potlatch. Statuses were easily determined by who received the most goods. An element of negative reciprocity was involved in the potlatch as it created an expectation that in the future, receivers would give back to the giver more than they received. While that suggests that the potlatch impoverished families, the relative continual redistribution of goods throughout the society ensured that people were taken care of; the potlatch created interdependence among members of the society.

"Redistributive exchanges are not unique to the Western World. In fact, some of the most elaborate ones that we know of have been in small-scale societies with non-market economies. The **potlatch** among the Indian cultures of the Northwest Coast region of North America is a good example. This was a complex system of competitive feasting, speechmaking, and gift giving intended in part to enhance the status of the giver. While potlatches were important traditions of Indian communities from Oregon to Southern Alaska, they are most well known among the Kwakiutl people of northern Vancouver Island and Queen Charlotte Strait in Western Canada. For the Kwakiutl, potlatches were important social gatherings held to celebrate major life events such as a son's marriage, the birth of a child, a daughter's first menses, and the initiation of a sister's son into a secret society. They also were used to assert or

transfer ownership of economic and ceremonial privileges. It sometimes took years to accumulate the things needed for a big potlatch. Loans (with interest) had to be called in from relatives for this purpose. When all was ready, high ranking, influential people from the local and other communities were invited for several days of feasting and entertaining. Guests were seated according to their relative status. The host made speeches and dramatically gave gifts of food, Hudson Bay Company blankets, canoes, slaves, rare native copper artifacts, and other valuable items to the guests. The guests with higher status received more. The host sometimes also destroyed money, wasted fish oil by throwing it on a fire, and did other things to show that he was willing to economically bankrupt himself in order to increase his social status. The acceptance of the gifts was an affirmation of the host's generosity and subsequently of his increased status. The feast and the gifts essentially placed the guests in debt to their host until they could at some future time invite him to their own potlatch and give him more than he gave them--in essence a return on an investment. The potlatch served as a tool for one-upmanship for important Kwakiutl men.

During the 19th century, there was a continuous cycle of potlatches among the Kwakiutl in which the amount of wealth given away progressively escalated. The Canadian government outlawed potlatches in 1884 partly out of the mistaken belief that the Kwakiutl were bankrupting themselves. In fact, very little wealth was being lost. What was happening was a redistribution of perishable goods and items of high value throughout the society. Men who voluntarily gave away their wealth in potlatches were later the recipients of many potlatch gifts. The Canadian government finally lifted their ban on potlatches in 1951. Potlatches are again occurring openly among the Kwakiutl and some other indigenous peoples of the Northwest Coast. Today, they are used to commemorate important family and clan events such as baby showers, weddings, school graduations, special anniversaries, and in memory of dead relatives.

NOTE: While the 19th century Kwakiutl potlatch feasts were greatly focused on impressing other men of high status in order to move up in social ranking, this competitive aspect of gift giving was less important for other Northwest Coast societies. Among the Salish people of Washington and Oregon, this sort of competition was considered to be inappropriate. Among the Tlingit of southern Alaska, gifts given at mortuary potlatches were simply intended as compensation for assisting at the funeral." (Source: http://anthro.palomar.edu/economy/econ_3.htm)

Cultural Example of Redistribution: Moka

The **Big Men** of Highland Papua New Guinea redistribute goods they have accumulated to create and maintain alliances in an area where conflict with other groups occur relatively frequently. In industrial societies, progressive income **taxes** are an example of redistribution—taxes are collected from individuals dependent on their personal income and then that money is distributed to other members of society through various government programs. Charitable donations function similarly.

"Among many of the indigenous societies of New Guinea, elaborate redistributive exchanges similar to the potlatch have been very important cultural traditions. In order to increase personal status and become a respected "big man," senior men often spent years accumulating pigs and other valuable, exotic items such as cassowaries (large birds similar to emus and ostriches) in order to give them away at elaborate ritual feasts. As in the case of the potlatch, recipients of pigs and other valuable things were obliged to return gifts of greater value at some time in the future. Failure to do so would be unthinkable because of the loss of respect and status that would result. Perhaps the most well known of the New Guinea pig give-away traditions was among the Kawelka of the Central Highlands. As a result of trade with the outside world, the Kawelka pig give-away events had grown in scale by the 1970's to include motorbikes, trucks, and tens of thousands of Australian dollars. At times, the total value of the goods given away reached hundreds of thousands of dollars. This was an extraordinarily large fortune for essentially subsistence base horticultural societies. It is important to keep in mind that most of this wealth actually circulated within the society. As a result, there was very little net loss. However, a small number of the pigs were eaten and the cassowaries were usually killed for their feathers.

Papua New Guinea men preparing themselves for a ceremony

(Source: http://anthro.palomar.edu/economy/econ_3.htm)

WATCH THE FOLLOWING:

Watch short video "What is a gift Economy?" Alex Gendler (4:05), TED Lessons worth sharing,2014.
https://www.youtube.com/watch?v=EaxjxICgahc

Mode of Reproduction: Demography, Birth rates, Death rates, migration:

Mode of Reproduction: Demography, birth rates, death rates, migration

China is the world's most populous country, with over 1.3 billion people. The Chinese government, like many other governments, has a number of policies related to fertility.

Demography is the study of human population dynamics. It encompasses the study of the size, structure and distribution of populations, and how populations change over time due to births, deaths, migration, and aging. Demographic analysis can relate to whole societies or to smaller groups defined by criteria such as education, religion, or ethnicity.

Why study demography?

Before proposing complex theories to explain sociological phenomena (e.g., World Systems Theory), especially at the macro and/or societal levels, sociologists should first turn to demographic indicators for possible explanations. Demographic analysis is a powerful tool that can explain a number of sociological phenomena.

> For instance, in examining the elements that led to the first World War, most people turn to political and diplomatic conflicts but fail to consider the implications of expanding populations in the European countries involved. Expanding populations will result in increased competition for resources (i.e., food, land, access to trade routes and ports, etc.). Expanding populations may not be the primary cause of World War I, but it may have played a role in the increased hostilities leading up to the war. In this fashion,

demographic indicators are often informative in explaining world events and should be turned to first as explanations.

Demographic Indicators

Because demography is interested in changes in human populations, demographers focus on specific indicators of change. Two of the most important indicators are birth and death rates, which are also referred to as *fertility* (see also fecundity) and *mortality*. Additionally, demographers are interested in migration trends or the movement of people from one location to another. Some of the specific measures used to explore these elements of population change are discussed below. While demography often provides useful portraits of social patterns, it is important to note that - especially in relation to minority groups - accurate numerical values are often difficult to achieve, and thus demographic understandings of social structures and patterns are continuously shifting in relation to the availability of more accurate data and measurement techniques.[1]

Fertility and Fecundity (Birth Rates)

Fertility, in demography, refers to the ability of females to produce healthy offspring in abundance. Fecundity is the potential reproductive capacity of a female. Some of the more common demographic measures used in relation to fertility and/or fecundity include:

- crude birth rate: the annual number of live births per thousand people
- general fertility rate: the annual number of live births per 1000 women of childbearing age (often taken to be from 15 to 49 years old, but sometimes from 15 to 44).
- age-specific fertility rate: the annual number of live births per 1000 women in particular age groups (usually age 15-19, 20-24 etc.)
- total fertility rate: the number of live births per woman completing her reproductive life if her childbearing at each age reflected current age-specific fertility rates
- gross reproduction rate: the number of daughters who would be born to a woman completing her reproductive life at current age-specific fertility rates
- net reproduction rate: the number of daughters who would be born to a woman according to current age-specific fertility and mortality rates

Another important demographic concept relating to fertility is *replacement level*. Replacement level fertility refers to the number of children that a woman (or monogamous couple) must have in order to replace the existing population. Sub-replacement fertility is a fertility rate that is not high enough to replace an existing population. Replacement level fertility is generally set at 2.1 children in a woman's lifetime (this number varies by geographic region given different mortality rates). Sub-replacement fertility is below approximately 2.1 children in a woman's life time. The reason the number is set to 2.1 children per woman is because two children are needed to replace the parents and an additional one-tenth of a child is needed to make up for the mortality of children and women who do not reach the end of their reproductive years.[2] Of course, women don't have one-tenth of a child; this results from statistical averaging between women who have more than two children and those who have two or fewer children.

The chart below illustrates trends in childbearing by region of the world. Fertility rates dropped earlier in the more developed regions of the world, followed by Asia and Latin America. Fertility rates are just starting to decline in Africa.

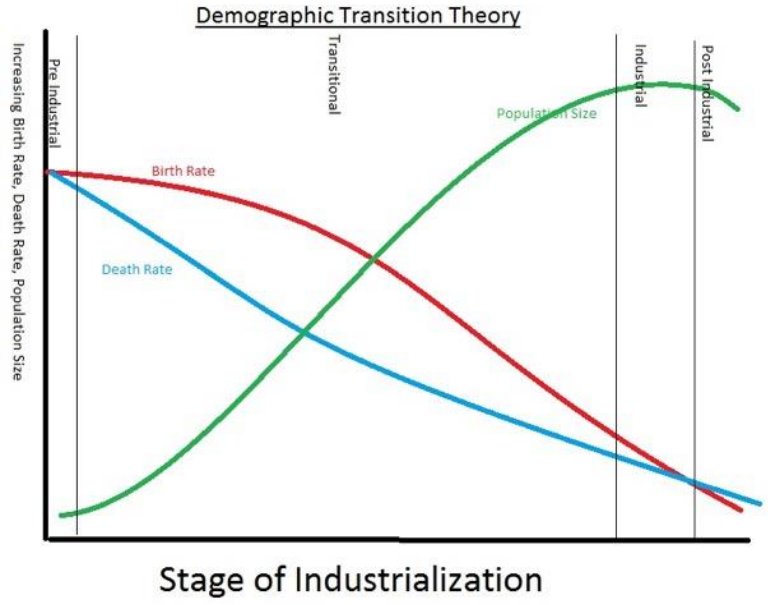
Mortality – Death Rates

Mortality refers to the finite nature of humanity: people die. Mortality in demography is interested in the number of deaths in a given time or place or the proportion of deaths in relation to a population. Some of the more common demographic measures of mortality include:

- **crude death rate**: the annual number of deaths per 1000 people
- **infant mortality rate**: the annual number of deaths of children less than 1 year old per thousand live births
- **life expectancy**: the number of years which an individual at a given age can expect to live at present mortality rates

Note that the crude death rate as defined above and applied to a whole population can give a misleading impression. For example, the number of deaths per 1000 people can be higher for developed nations than in less-developed countries, despite standards of health being better in developed countries. This is because developed countries have relatively more older people, who are more likely to die in a given year, so that the overall mortality rate can be higher even if the mortality rate at any given age is lower. A more complete picture of mortality is given by a life table which summarizes mortality separately at each age.

Demographic Transition Theory



The transition involves four stages, or possibly five.

- In stage one, pre-industrial society, death rates and birth rates are high and roughly in balance. All human populations are believed to have had this balance until the late 18th century, when this balance ended in Western Europe.[9] In fact, growth rates were less than 0.05% at least since the Agricultural Revolution over 10,000 years ago.[9] Population growth is typically very slow in this stage, because the society is constrained by the available food supply; therefore, unless the society develops new technologies to increase food production (e.g. discovers new sources of food or achieves higher crop yields), any fluctuations in birth rates are soon matched by death rates.[9]
- In stage two, that of a developing countr(y/ies), the death rates drop quickly due to improvements in food supply and sanitation, which increase life expectancies and reduce disease. The improvements specific to food supply typically include selective breeding and crop rotation and farming techniques.[9]Other improvements generally include access to ovens, baking, and television. For example, numerous improvements in public health reduce mortality, especially childhood mortality.[9] Prior to the mid-20th century, these improvements in public health were primarily in the areas of food handling, water supply, sewage, and personal hygiene.[9] One of the variables often cited is the increase in female literacy combined with public health education programs which emerged in the late 19th and early 20th centuries.[9] In Europe, the death rate decline started in the late 18th century in northwestern Europe and spread to the south and east over approximately the next 100 years.[9] Without a corresponding fall in birth rates this produces an imbalance, and the countries in this stage experience a large increase in population.
- In stage three, birth rates fall due to various fertility factors such as access to contraception, increases in wages, urbanization, a reduction in subsistence agriculture, an increase in the status and education of women, a reduction in the value of children's work, an increase in parental investment in the education of children and other social changes. Population growth begins to level off. The birth rate decline in developed countries started in the late 19th century in northern Europe.[9] While improvements in contraception do play a role in birth rate decline, it should be noted that contraceptives were not generally available nor widely used in the 19th century and as a result likely did not play a significant role in the decline then.[9] It is important to note that birth rate decline is caused also by a transition in values; not just because of the availability of contraceptives.[9]
- During stage four there are both low birth rates and low death rates. Birth rates may drop to well below replacement level as has happened in countries like Germany, Italy, and Japan, leading to a shrinking population, a threat to many industries that rely on population growth. As the large group born during stage two ages, it creates an economic burden on the shrinking working population. Death rates may remain consistently low or increase slightly due to increases in lifestyle diseases due to low exercise levels and high obesity and an aging population in developed countries. By the late 20th century, birth rates and death rates in developed countries leveled off at lower rates.[3]

- Some scholars break out, from stage four, a "**stage five**" of below-replacement fertility levels. Others hypothesize a different "stage five" involving an increase in fertility.[5]

As with all models, this is an idealized picture of population change in these countries. The model is a generalization that applies to these countries as a group and may not accurately describe all individual cases. The extent to which it applies to less-developed societies today remains to be seen. Many countries such as China, Brazil and Thailand have passed through the Demographic Transition Model (DTM) very quickly due to fast social and economic change. Some countries, particularly African countries, appear to be stalled in the second stage due to stagnant development and the effect of AIDS.

Migration

• ***Domestic or Internal migration****: movement within country boundaries*

The likelihood of a given individual in the U.S. moving to another place in the U.S. in any given year has declined over the last 40 years. Only about 1 in 10 Americans have moved in the last year, which is about half the proportion that changed residences annually in the 1960s.[16][17] The reduction in moves is attributable to aging populations (older people are less likely to move) and an increase in dual-career couples. Those who do move are generally driven by jobs.[16]

Close to 37% of Americans have never moved from the community in which they were born.[16] There are wide variations in native inhabitants, however: 76% of Texans were born in-state while only 14% of Nevadans were born in-state. Some states lose a large number of people who were born in the state as well, like Alaska, where only 28% of the people born in that state have remained there.[16] Immigration is often a controversial topic, for a variety of reasons, though many have to do with competition between those already living in the destination location and those arriving in that location. One recent study finds that one type of competition between immigrants and non-immigrants may be overstated. Some people have suggested that natives' opportunities to attend college are negatively impacted through competition with immigrants.[18] Neymotin (2009) finds that competition with immigrants does not harm the educational outcomes of U.S. natives and may in fact facilitate college attending.[18] Additionally, recent research suggests that opposition to immigration is less about competition over jobs and more about how immigrants might change the identity of the society where the migrants move.[19]

• ***International migration:*** movement across country boundaries

• ***Transnational migration:*** movement in which a person regularly moves back & forth between two or more countries and forms a new cultural identity transcending a single geopolitical unit.

• ***Return migration:*** people who move to another country but after a time return permanently to their homeland.

Causes of migration:

- Push-pull theory: (cost / benefits to migration)
  - Push factors: low economy, political unrest/war, natural disaster, etc.
  - Pull factors: better economic opportunities, no war, religious freedom, quality of life, etc.
- Personal choice may also be a factor when choosing to migrate.

Types of migrants: labor migrants, displaced person's (refugees), institutional migrants (students, soldiers, nuns, etc.), national policies related to inclusion/exclusion of particular migrants (resentment, lifeboat mentality).

Adjustment: Adjustment to new situation/culture, migration and Human rights -- "right of return"

CULTURAL EXAMPLE: FORAGER SOCIETY

A look at a Forager Society: Dobe Ju'Hoansi
We will be watching a film by John Marshall, "A Kalahari Family: A Far Country," in class and you will need to describe examples from the film that illustrate your understanding of the Infrastructure of Forager societies on the first test. You can also explore the Smithsonian National Museum of Natural History research and collections about John Marshall's work:

(Disclaimer: the link to the Smithsonian website does not indicate that the Smithsonian endorses, whether expressly or implicitly, any products, services or opinions provided on City Tech's website. Once you click on the link, the user is leaving this website and accessing another).

http://anthropology.si.edu/johnmarshall/

You can also access the film via the city tech library database (you need your city tech ID): Kanopy Films
https://citytech-kanopystreaming-com.citytech.ezproxy.cuny.edu/video/kalahari-family-part-i-far-country

REVIEW THE GENERAL OUTLINE OF FORAGER SOCIETY BEFORE ADDRESSING FILM QUESTIONS.

Source: Pope Fischer, Lisa

Hunting and Gathering (or Foraging) (Example: Dobe Ju'hoansi / !Kung San from the Kalahari in Africa; or traditional Inuit Eskimos from the Artic). SMALL SCALE SOCIETY
Film: A Kalahari Family: Part One "A Far Country"
(*We will watch this film in class – you can also access it through City Tech Library Database: Kanopy)

Foragers rely on hunting and gathering food from the natural environment using simple tools and technology. They are a small homogenous population of people that must migrate to sustain themselves. Though there is no ownership of property, they must rely on the temporary use of large areas of land. They have minimal consumption needs that require minimal labor to obtain. This is an extensive strategy that depends on a sophisticated understanding of the environment. Being egalitarian and encouraging reciprocity are adaptive survival strategies. This is the oldest mode of production.
General Characteristics of **Forager Society** (Cultural Materialist Perspective).

OUTLINE OF FORAGER SOCIETY BROKEN DOWN IN TERMS OF THE UNIVERSAL PATTERN:
I. INFRASTRUCTURE: (the type of tools, technology, methods, and practices one uses within a given environment to obtain food and shelter).

1) Mode of Production:

Hunters and Gatherers (Foragers)

A. Resource use is extensive and temporary.
B. Mobile, settlement is migratory,
C. Property relations -- no ownership of property -- they have "use rights"
D. Food source tends to be scarce/Ecology varies, mostly gathered foods, no storage, production is for use, and consumption level is low.
E. Forager's needs for goods not great, hence minimal labor efforts are required to obtain them (Tend to work fewer hours per week than in post-industrial societies such as USA).
F. Portable, personal technology, tools
G. Mode of consumption: minimalism, finite needs
H. Mode of exchange (reciprocity/sharing)

2) Mode of Reproduction -- THIS IS A SMALL SCALE SOCIETY

(Mode of Reproduction deals with things that affect population size)

A. Low population density
B. Population growth: moderate birth rates, moderate death rates.
C. This is a homogeneous population
D. Traditionally have good health records
E. Small # of children

i) Value of # of children: moderate
ii). Birth spacing -- important for mobile societies
iii). Fertility Control:
a. Indirect means: Low fat diet of women, women's work & exercise, prolonged breast feeding, spontaneous miscarriage.
b. direct means: induced abortion, infanticide

II. STRUCTURE: Deals with how groups organize, how do they form group cohesion, how do they deal with conflict. Includes forms of leadership, discipline, and control.

1) Domestic Economy

(Domestic Economy deals with how families are organized & division of labor)

A. Bilineal Kinship -- use of available kin, need of flexibility

B. Examples of monogamy and polygamy, with bilocal and neolocal post marriage residence patterns.

C. Centered in household and small family group (nuclear family). The family:
i) regulates sexual activity
ii) enculturates children
iii) Indulgent child rearing – independence and assertiveness training.
iv) Family as strong & efficient economic unit

D. Division of labor:
i. Flexible
ii. differentiated by age
iii. Organized within families
iv. Overlapping gender roles
1) Often distinct gender division of labor -- especially in circumpolar groups with hunting of large animals (an adaptation to resource scarcity)
2) However, among temperate climates minimal gender division of labor.
3) Gender hierarchy: status of women is equal.
a) This type of society is unable to build surplus, and there is no private property to create inequities.
b) Women provide most of the food through gathering increasing their status in the group.
c) There are no divisions between public & private space.
d) Individuals who carry out decisions tend to make them.
v. Property relations: egalitarian & collective

E. primary budgetary fund: basic needs – sharing important especially with kin.

2) Political Economy (Political Economy addresses how groups organize, how groups deal with cohesion and conflict)

A. Little warfare at this level/Defense - no high conflict. Some conflict over use rights of territory but conflict neither intense nor likely to be lethal.

B. Little political activity because they are small.

C. No real leaders -- (Political organization: Kinship polities, Bands, Headmen with no power).

D. Social organization of exchange - small groups, face to face
E. Characteristics: Informal and Primary (Egalitarian structure, Ties based on balanced exchange)

III. SUPERSTRUCTURE: (Superstructure consists of values and beliefs. These values and worldviews can be expressed and reinforced in art, sports, architecture, ritual practices, folktales, myths, etc.)

A. Portable art and spirits (Individualistic cults)
B. Animism: world is filled with spiritual forces and belief in a number of spirits. Animism includes the belief in souls or "doubles."
C. Shamanism: Healing system related to animism. Learn to detect & control spiritual forces.
    i. Depend on help of an inherited or acquired spirit helper
    ii. Trance
    iii. communal (communal healing system)
D. Marriage beliefs and practices --
    i. Little formal marking
    ii. Little expenditure of effort, time, money.
E. Architecture: Foragers build dwellings as needed. There is no permanent architecture.
F. Sharing and equality are important value systems.

*Basic similarities: ***flexible, egalitarian (sharing***), small group size, small nuclear family units. Kinship dependence is important. Prestige is based on the ability to share. There are no leaders with power -- only the ability to persuade or express sentiments of the community.
* There is variation. There are different cultural variations among various types of forager societies.

FILM QUESTIONS FOR FORAGER SOCIETY

Source: Pope Fischer, Lisa

FILM: A Kalahari Family – part one – A Far Country (80 Minutes)

BACKGROUND:
John Marsall had been filming the people of the Kalahari Desert since 1971 when he was 17 years old in 1951. The film depicts the Dobe Ju'Hoansi or !Kung San peoples, a forager society that depends on hunting and gathering food for subsistence. This film illustrates the challenges of hunting but also the social cultural implications that hunting has for the community. Each film we see in this course will be a way to understand various types of societies and how a cultural materialist would view them. You will be asked to describe these societies in an essay on an exam. The first exam focuses on "Infrastructure," but for the final exam you will need to describe the complete universal pattern for a society of your choice (Forager, Pastoral, or Horticultural society).

INFRASTRUCTURE

MODE OF PRODUCTION

1) How would you describe the environment that these people live in?
2) What is the most limiting factor in this environment?
3) How do the traditional Kung San survive? How do they obtain food and shelter?
4) What type of tools (technology) did the traditional Kung use?
5) (Consumption pattern) What type of items/goods do the traditional Kung have? How did they obtain these items?
6) (Exchange pattern) In the traditional way of life, if someone were not able to hunt, how do they get meat? Do they buy it? What form of exchange do they have?

MODE OF REPRODUCTION

1) What is the population size and demography?
2) How healthy were the traditional Dobe Ju/hoansi? What form of healing practices did they rely on and how is this reflective of the infrastructure?
3) What are some things that might affect the population size?

STRUCTURE

DOMESTIC ECONOMY

1)Describe examples of the role of kinship in this society. How are families important?
2)What type of marriage traditions do they have? What type of lineage system?
3)How is labor divided among the group? Is there a gender division of labor and does this affect the status of women in this society?
4)In what way do family connections relate back to the Infrastructure? (forms of exchange? Marriage decisions? Etc.)

POLITICAL ECONOMY

1) Describe the "leader" of the group? Did he or she look like a leader? Did he have any status marking to differentiate him from others in terms of clothing or attitude?
2) Do you see any examples of conflict? Do you see any signs of political activity? What were the ways they created group cohesion? How did they resolve conflicts?
3) Can you relate the size of the population (mode of reproduction) to the form of control? In what ways do these methods of control and discipline work well for a small group of people? Would they work well in a large population?

SUPERSTRUCTURE

1) What were some examples of artistic expressions?
2) What type of architecture do they have? How can this type of architecture be explained in terms of the infrastructure?
3) What kind of belief system do they have? Do they have religion?
4) Why is their spiritual connection to the environment reflective of their infrastructure?
5) What is a shaman?
6) What were some traditional !Kung values? How were values reinforced in the society?
7) Were there any games or sports? How might these games be reflective of the type of society in which they live (look at the infrastructure)?

FIRST TEST

Concepts and terms for first test:

Anthropology: "The study of the human species and its immediate ancestors" (Kottak 2010: 449, 2).

Four Fields of Anthropology:

Biological/Physical Anthropology: "The branch of anthropology that studies human biological diversity in time and space – for instance, hominid evolution, human genetics, human biological adaptation; also includes primatology (behavior and evolution of monkeys and apes). Also called physical anthropology" (Kottak 2010: 450, 16).

Archaeological Anthropology: "The branch of anthropology that reconstructs, describes, and interprets human behavior and cultural patterns through material remains; best known for the study of prehistory" (Kottak 2010: 450, 14).

Linguistic anthropology: "The branch of anthropology that studies linguistic variation in time and space, including interrelations between language and culture" (Kottak 2010: 456, 17).

Cultural Anthropology: " The study of human society and culture; describes, analyzes, interprets, and explains social and cultural similarities and differences" (Kottak 2010: 452, 12).

*Applied Anthropology: "The application of anthropological data, perspectives, theory, and methods to identify, assess, and solve contemporary social problems" (Kottak 2010: 450, 18, 405).

Ethnography: " Fieldwork in a particular culture" (Kottak 2010: 453, 12).

Ethnology: "The theoretical, comparative study of society and culture; compares cultures in time and space" (Kottak 2010: 453, 13).

Methodology terms:

Absolute Dating: "Dating techniques that establish dates in numbers or ranges of numbers" (Kottak 2010: 449, 55).

Cultural Consultant: "Someone the ethnographer gets to know in the field, who teaches him or her about their society and culture, aka informant (Kottak 2010: 452, 63).

Emic: "The research strategy that focuses on native explanations and criteria of significance" (Kottak 2010: 453, 62)

Etic: "The research strategy that emphasizes the observer's rather than the natives' explanations, categories, and criteria of significance" (Kottak 2010: 453, 63).

Excavation: "Digging through the layers of deposits that make up an archaeological site" (Kottak 2010: 453, 52).

Fossils: "Remains (e.g., bones), traces or impressions (e.g., footprints) of ancient life" (Kottak 2010: 454, 51).

Genealogical Method: "Procedures by which ethnographies discover and record connections of kinship, descent, and marriage, using diagrams and symbols" (Kottak 2010: 454, 61).

Informed Consent: "Agreement to take part in research, after the people being studied have been told about that research's purpose, nature, procedures, potential impact on them" (Kottak 2010: 455, 47).

Life History: "Of a cultural consultant; provides a personal cultural portrait of existence or change in a culture" (Kottak 2010: 456, 62).

Longitudinal Research: "Long-term study of a community, society, culture, or other unit, usually based on repeated visits " (Kottak 2010: 456, 64).

Participant Observation: "A characteristic ethnographic technique; taking part in the events one is observing, describing, and analyzing" (Kottak 2010: 458, 57).

Random Sample: "A sample in which all member of the population have an equal statistical chance of being included" (Kottak 2010: 459, 66).

Relative Dating: "Dating technique (e.g., stratigraphy) that establishes a time frame in relation to other strata or materials, rather than absolute dates in numbers (Kottak 2010: 460, 55).

Sample: "A smaller study group chosen to represent a larger population" (Kottak 2010: 460, 65).

Survey Research: "Characteristic research procedure among social scientists other than anthropologists. Studies society through sampling, statistical analysis, and impersonal data collection" (Kottak 2010: 461, 65).

Variables: "Attributes (e.g., sex, age, height, weight) that differ from one person or case to the next" (Kottak 2010: 462, 66).

Evolution, Genetics, and Human Variation

Adaptation: "The process by which organisms cope with environmental stresses" (Kottak 2010: 449, 3).

Adaptive: "Favored by natural selection in a particular environment" (Kottak 2010: 449, 80).

Alleles: "A biochemical difference involving a particular gene" (Kottak 2010: 449, 77)

Chromosomes: "Basic genetic units, occurring in matching (homologous) pairs; lengths of DNA made up of multiple genes" (Kottak 2010: 451, 76).

Creationism: "Explanation for the origin of species given in Genesis: God created the species during the original six days of Creation" (Kottak 2010: 452, 71).

Darwin's Postulates: 1. Struggle for existence in a given environment, 2. Genetic variation, variation in fitness, 3. Inheritance of variation

Dominant: "Allele that masks another allele in a heterozygote" (Kottak 2010: 453, 76).

Evolution: " Descent with modification; change in form over generations" (Kottak 2010: 453, 73).

Gene: "Area in a chromosome pair that determines, wholly or partially, a particular biological trait" (Kottak 2010: 454, 77).

Gene Flow: "Exchange of genetic material between populations of the same species through direct or indirect interbreeding" (Kottak 2010: 454, 83).

Gene Pool: "All the alleles and genotypes within a breeding population – the "pool" of genetic material available" (Kottak 2010: 454, 79).

Genotype: "An organism's hereditary makeup" (Kottak 2010: 454, 77).

Heterozygous: "Having dissimilar alleles of a given gene" (Kottak 2010: 454, 77).

Homozygous: "Possessing identical alleles of a particular gene" (Kottak 2010: 455, 77).

Independent Assortment: "(Mendel's law of): Chromosomes are inherited independently of one another" (Kottak 2010: 455, 78).

Meiosis: "Special process by which sex cells are produced; four cells are produced from one, each with half the genetic material of the original cell" (Kottak 2010: 456, 78).

Mitosis: "Ordinary cell divisions; DNA molecules copy themselves, creating tow identical cells out of one" (Kottak 2010: 457, 78).

Mutations: "Change in the DNA molecules of which genes and chromosomes are built" (Kottak 2010: 457, 82).

Natural Selection: "Originally formulated by Charles Darwin and Alfred Russell Wallace; the process by which nature selects the forms most fit to survive and reproduce in a given environment" (Kottak 2010: 457, 10, 73).

Phenotype: "An organism's evident traits; its "manifest biology" – anatomy and physiology" (Kottak 2010: 458, 6, 391).

Racial Classification: "The attempt to assign humans to discrete categories (purportedly) based on common ancestry" (Kottak 2010: 459, 6).

Random Genetic Drift: "Change in gene frequency that results not from natural selection but from chance; most common in small populations" (Kottak 2010: 459, 82).

Recessive: "Genetic trait masked by a dominant trait" (Kottak 2010: 459, 76).

Sexual Selection: "Based on differential success in mating, the process in which certain traits of one sex (e.g., color in male birds) are selected because of advantages they confer in winning mates" (Kottak 2010: 460, 81).

Species: "Population whose members can interbreed to produce offspring that can live and reproduce" (Kottak 2010: 461, 84).

The Primates

Anthropoids: "Members of Anthropoidea, one of the two suborders of primates; monkeys, apes, and humans are anthropoids" (Kottak 2010: 449, 96).

Arboreal: "Tree dwelling" (Kottak 2010: 450, 96).

Bipedal: "Upright two-legged locomotion, the key feature differentiating early hominins from the apes" (Kottak 2010: 450, 130).

Brachiation: "Swinging hand over hand movement through trees, characteristic of arboreal apes and some New World monkeys" (Kottak 2010: 450, 101).

Convergent Evolution: "Independent operation of similar selective forces; process by which analogies are produced" (Kottak 2010: 451, 95)

Hominid: "A member of the taxonomic family that includes humans and the African apes and their immediate ancestors" (Kottak 2010: 455, 29, 122).

Homologies: "Traits that organisms have jointly inherited from their common ancestor" (Kottak 2010: 455, 93).

Opposable thumb: "A thumb that can touch all the other fingers" (Kottak 2010: 458. 97).

Primatology: " The study of the biology, behavior, social life and evolution of monkeys, apes, and other nonhuman primates " (Kottak 2010: 459, 92).

Prosimians: "The primate suborder that includes lemurs, lorises, and tarsiers" (Kottak 2010: 459, 96).

Terrestrial: "Ground-dwelling" (Kottak 2010: 461, 92).

Early Hominins

Australopithecines: "Varied group of Pliocene-Pleistocene hominins. The term is derived from their former classification as members of a distinct subfamily, the Australopithecine; now they are distinguished from Homo only at the genus level" (Kottak 2010: 450, 123).

Types of Australopithecines:
•A.afarensis: Early form of Australopithecus, found in Ethiopia at Hadar ("Lucy") and in Tanzania at Laetoli; dating to the period between 3.8 and 3.0 m.y.a" (Kottak 2010: 449, 126).
•A.africanus First Australopithecus discovered, in South Africa; dating to 3.0-2.5 m.y.a.
•A.anamensis Earliest form of Australopithecus yet discovered; found in Kenya and dating to 4.2 m.y.a. " (Kottak 2010: 449, 124).
•A.boisei Late, hyperobust form of Australopithecus, found in East Africa and dating to the period between 2.6 and 1.2 m.y.a. " (Kottak 2010: 449, 124).
•A.Robustus Robust form of Australopithecus, found in South Africa and dating to the period between 2.6 and 2.0 m.y.a., aka Paranthropus" (Kottak 2010: 449, 124)

Bipedalism: "Upright two-legged locomotion, the key feature differentiating early hominins from the apes" (Kottak 2010: 450, 130).

Hominid: "A member of the taxonomic family that includes humans and the African apes and their immediate ancestors" (Kottak 2010: 455, 29, 122).

Hominin: "A member of the human lineage after its split from ancestral chimps; used to describe all the human species that ever have existed, including the extinct ones, but excluding chimps and gorillas" (Kottak 2010: 455, 29, 122).

Homo habilis: "Ancestor or contemporary of H. erectus; lived from about 1.9 to 1.44 m.y.a. " (Kottak 2010: 455, 132, 133).

Oldowan Pebble tools: "Earliest (2.0 to 2.5 m.y.a) stone tools; first discovered in 1931 by L.S.B. and Mary Leakey at Olduvai Gorge" (Kottak 2010: 457, 133).

The Genus Homo

TOOLS:

Oldowan Pebble tools: "Earliest (2.0 to 2.5 m.y.a) stone tools; first discovered in 1931 by L.S.B. and Mary Leakey at Olduvai Gorge" (Kottak 2010: 457, 133).

Acheulian: "Derived from the French village of St. Acheul, where these tools were first identified; Lower Paleolithic tool tradition associated with H. erectus" (Kottak 2010: 449, 144).

Mousterian: "Middle Paleolithic tool-making tradition associated with Neandertals" (Kottak 2010: 457, 152).

Blade Tools: "The basic Upper Paleolithic tool type, hammered off a prepared core " (Kottak 2010: 450, 158).

Clovis Tradition: "Stone technology based on a projectile point that was fastened to the end of a hunting spear, it flourished between 12,000 and 11,000 B.P. in North America " (Kottak 2010: 451, 160).

Neolithic ""New Stone Age," coined to describe techniques of grinding and polishing stone tools; the first cultural period in a region in which the first signs of domestication are present" (Kottak 2010: 457, 166).

HOMOMIN

Homo erectus: "Hominin type that lived from approximately 1.9 to 300,000 m.y.a.; widely distributed throughout the Old World; immediate predecessor of Homo sapiens" (Kottak 2010: 454, 141).

HOMO SAPIANS

Archaic H. Sapians: "Early H. sapiens, consisting of the Neandertals of Europe and the Middle East, the Neandertal-like hominins of Africa and Asia, and the immediate ancestors of all these hominins; lived from about 300,000 to 30,000 B.P. " (Kottak 2010: 450, 149).

Neandertals: H. sapiens neanderthalensis, representing an arachaic H. sapiens subspecies, lived in Europe and the Middle East between 130,000 and 30,000 B.P. " (Kottak 2010: 457, 149).

Anatomically modern humans (AMH): "Including the Cro-magnums of Europe (31,000 B.P.) and older fossils from Skhül (100,000) and Qafzeh (92,000); continue through the present " (Kottak 2010: 449, 153).

Paleolithic: "Old stone age (from Greek roots meaning "old" and "stone"); divided into Lower (early), Middle, and Upper (late) " (Kottak 2010: 458, 143).

Upper Paleolithic: "Blade-toolmaking traditions associated with AMHs; named from their location in the upper, or more recent, layers of sedimentary deposits" (Kottak 2010: 462, 158).

Pleistocene: "Epoch of Homo's appearance and evolution; began 2 million years ago; divided into Lower, Middle, and Upper" (Kottak 2010: 458, 149).

The First Farmers

Neolithic ""New Stone Age," coined to describe techniques of grinding and polishing stone tools; the first cultural period in a region in which the first signs of domestication are present" (Kottak 2010: 457, 166).

The First Cities and States

Origin of the State Theories:

Hydraulic (Wittfogel): "In certain arid areas, such as ancient Egypt and Mesopotamia, states have emerged to manage systems of irrigation, drainage, and flood control" (Kottak 2010: 187). (Read page 187 for more details)

Multivariate Theory (Robert Carneiro): "Wherever and whenever environmental circumscription (or resource concentration), increasing population, and warfare exist, suggested Carneiro, state formation will begin" (Kottak 2010: 187). (see pages 187-188).

XCultural Materialism explanation of origin of the state (Marvin Harris):
Infrastructure

- Mode of production: Consists of the environment, forms of technology used to make a living, and Exchange systems. Agricultural societies are linked to state formation, and the technology needed is complex irrigation systems (like Wittfogel's theory). This theory also draws on Carneiro's idea of circumscription (the environment).
- Mode of Reproduction (Increase Birthrates + Decrease in Death Rates +Warfare-expansion of territory /Migration = increase in population size). Population increase contributes to state formation.

The forces of infrastructure impact other aspects of society that lead to state formation.

Language and Communication

Three Branches of Linguistics:

1) Descriptive Linguistics: "The scientific study of a spoken language, including its phonology, morphology, lexicon, and syntax" (Kottak 2010: 452, 216).
2) Historical Linguistics: "studies languages over time" (Kottak 2010: 455, 229).
3) Sociolinguistics: "Study of relationships between social and linguistic variation; study of language in its social context" (Kottak 2010: 461, 17, 223).

Call systems: "Systems of communication among nonhuman primates, composed of a limited number of sounds that vary in intensity and duration. Tied to environmental stimuli" (Kottak 2010 451, 211).

Phoneme: "Significant sound contrast in a language that serves to distinguish meaning, as in minimal pairs" (Kottak 2010: 458, 217).

Phonemics: "The study of sound contrasts (phonemes) of a particular language" (Kottak 2010: 458, 218).

Phonetics: "The study of speech sounds in general; what people actually say in various languages" (Kottak 2010: 458, 218).

Phonology: "The study of sounds used in speech" (Kottak 2010: 458, 216).

Sapir-Whorf hypothesis: "Theory that different languages produce different ways of thinking" (Kottak 2010: 460, 220).

Sociolinguistics: "Study of relationships between social and linguistic variation, study of language in its social context" (Kottak 2010: 461, 17, 223).

What is Culture?

Culture: "Traditions and customs that govern behavior and beliefs; distinctly human; transmitted through learning (Kottak 2010: 452, 2).

Cultural Relativism: "The position that the values and standards of cultures differ and deserve respect. Anthropology is characterized by methodological rather than moral relativism: In order to understand another culture fully, anthropologists try to understand its members' beliefs and motivations. Methodological relativism does not preclude making moral judgments or taking action" (Kottak 2010: 452, 37).

Emic " The research strategy that focuses on native explanations and criteria of significance" (Kottak 2010: 253, 62).
Etic: "The research strategy that emphasizes the observer's rather than the natives' explanations, categories, and criteria of significance" (Kottak 2010: 453, 63).

Ethnocentrism: The tendency to view one's own culture as the best and to judge the behavior and beliefs of culturally different people by one's own standards" (Kottak 2010: 453, 37).

Acculturation: "The exchange of cultural features that results when groups come into continuous firsthand contact; the original cultural patterns of either or both groups may be altered, but the groups remain distinct" (Kottak 2010: 449, 39).

Diffusion: "Borrowing between cultures either directly or through intermediaries" (Kottak 2010: 452, 39).

Enculturation: "The social process by which culture is learned and transmitted across the generations" (Kottak 2010: 453, 23).

Globalization: "The accelerating interdependence of nations in a world system linked economically and through mass media and modern transportation systems" (Kottak 2010: 454, 40).

Symbol: "Something, verbal or nonverbal, that arbitrarily and by convention stands for something else, with which it has no necessary or natural connection" (Kottak 2010: 461, 24).

Cultural materialism is a 1) theory, used to explain 2) cultural similarities & differences, putting theoretical emphasis on 3) material constraints (the infrastructure). It is explained by the "the universal pattern."

Methodology: (how anthropologists collect data/information for analysis in their research):

1.Working in the Field/ Source of Subjects and Selection Criteria:
(site & subject selection, rapport, gift exchange, microculture, culture shock)
2. Fieldwork Techniques/ Description of Procedures
(Participant observation, Interviews, Life Histories, Tools & technology, etc.)
Recording culture:
(Fieldnotes, tape recording, photography, videos, Visual anthropology, etc.)
3.Ethics:
(Informed Consent, Method of confidentiality: pseudonym, Potential Harm or benefit to research subject, Danger in the field, Collaborative research, etc.)

Microculture/Multicultural Worlds (class, race, ethnicity, sex, gender, age)

INFRASTRUCTURE:

Making a Living

(Infrastructure: Mode of Production – Environment, Technology, Forms of Exchange)

Mode of Production: "Way of organizing production – a set of social relations through which labor is deployed to wrest energy from nature by means of tools, skills and knowledge" (Kottak 2010: 457, 245).

Types of Societies/Economic strategies:

Foragers: Rely on natural environment, to hunt or gather food. Oldest form of mode of production.

Pastoral nomads: "People who use a food producing strategy of adaptation based on care of herds of domesticated animals" (Kottak 2010: 458, 243).

Horticulture: "Nonindustrial system of plant cultivation in which plots lie fallow for varying lengths of time" (Kottak 2010: 455, 239)

Agriculture: "Nonindustrial system of plant cultivation characterized by continuous and intensive use of land and labor" (Kottak 2010: 449, 241).

Economic systems:

Reciprocity "One of the three principles of exchanges. Governs exchange between social equals; major exchange mode in band and tribal societies" (Kottak 2010: 460, 251). EX. Trobriand Islander's Kula Exchange, Dobe Ju'Hoansi's Hxaro exchange.

Balanced reciprocity/Generalized reciprocity/Negative reciprocity: "Principle that characterizes exchanges between closely related individuals; as social distance increases, reciprocity becomes balanced and finally negative" (Kottak 2010: 454, 252).

Redistribution: "Major exchange mode of chiefdoms, many archaic states, and some states with managed economics" (Kottak 2010: 460, 251). Resources are collected by a central source and then distributed again through another – EX. Bigman societies (The Moka), Pacific South West Tribes (Potlatch).

Market principle: "Profit-oriented principle of exchange that dominates in states, particularly industrial states. Goods and services are bought and sold, and values are determined by supply and demand" (Kottak 2010: 456, 250).

Mode of exchange (Reciprocity, Redistribution, Market exchange)

Foragers (subsistence economy) -- Reciprocity (sharing)
Pastoralists (subsistence economy) -- Reciprocity (trade)
Horticulturists (subsistence economy) -- Reciprocity (Trade), Redistribution (feasts)
Agriculture (market economy) -- Reciprocity, Redistribution (taxes), Market Exchange(trade).
Industrial Society (market economy/global economy) -- Reciprocity, Redistribution (Taxes), Market Exchange, Global Exchange

Cultural Examples of Exchange

Hxaro Exchange (Dobe Ju'Hoansi/ Kung San from Kalahari Desert, Africa)
Moka (Kawelka of Papua New Guinea):
Potlatch (Pacific North West Coast Native Americans) (See Kottak 253-255).
Kula Exchange (Trobriand Islanders)

DEMOGRAPHY (MODE OF REPRODUCTION –Birth rates, Death rates, Migration)

http://en.wikibooks.org/wiki/Introduction_to_Sociology/Demography

"**Demography** is the study of human population dynamics. It encompasses the study of the size, structure and distribution of populations, and how populations change over time due to births, deaths, migration, and aging. Demographic analysis can relate to whole societies or to smaller groups defined by criteria such as education, religion, or ethnicity" (http://en.wikibooks.org/wiki/Introduction_to_Sociology/Demography).

"**Demographic Indicators:** Two of the most important indicators are birth and death rates, which are also referred to as *fertility* (see also fecundity) and *mortality*. Additionally, demographers are interested in migration trends or the movement of people from one location to another" (http://en.wikibooks.org/wiki/Introduction_to_Sociology/Demography).

demographic transition is a model and theory describing the transition from high birth rates and death rates to low birth and death rates that occurs as part of the economic development of a country" (http://en.wikibooks.org/wiki/Introduction_to_Sociology/Demography)

Summary Outline of Chapter

UNIT THREE: Infrastructure:

Mode of Production: Environment, Technology, Forms of Exchange

3.1 What is Cultural Materialism?

3.2 Brief overview of forms of societies

Source: Cultural Anthropology, "Economic Organization" Tracy Evans.
Subsistence Strategies (Economic Organization, Mode of Production)

Foraging (Hunters and Gatherers)
Pastoralists
Horticulturalists
Intensive Agriculture

Source: Cultural Anthropology, "Economic Organization" Tracy Evans.
Subsistence Strategies (Economic Organization, Mode of Production)

3.3 Forms of Exchange

3.3a Reciprocity (!Kung txaro exchange)
3.3b Redistribution (Big men society – Moka exchange, Pacific Northwest – potlatch, US Taxes)
3.3c Market Principle (supply & demand, unbalanced)

Watch short video "What is a gift Economy?" Alex Gendler (4:05), TED Lessons worth sharing,2014.

Mode of Reproduction: Demography, Birth Rates, Death Rates, Migration

Read Wikibooks: "Demography"

Demographic indicators: Fertility (Birth rates), Mortality (Death Rates)
Demographic Transition Theory
Migration

3.4 Cultural Example: A look at Forager Society: Dobe Ju'Hoansi
A look at a Forager Society: Dobe Ju'Hoansi

We will be watching a film by John Marshall, “A Kalahari Family: A Far Country,” in class and you will need to describe examples from the film that illustrate your understanding of the Infrastructure of Forager societies on the first test. You can also explore the Smithsonian National Museum of Natural History research and collections about John Marshall’s work:

Review of Forager society in terms of the Theory Cultural Materialism within the “universal pattern” (Infrastructure, Structure, Superstructure).

Film Questions for Forager Society

First Test:
List of concepts and Terms for first test

References by Section

Source: Cultural Anthropology, "Economic Organization" Tracy Evans.
Subsistence Strategies (Economic Organization, Mode of Production)
https://courses.candelalearning.com/anthropologyx15x1/chapter/cultural-materialism/

BRIEF OVERVIEW OF FORMS OF SOCIETIES
Economic Organization -- References

3.2 Brief overview of forms of societies
Source: Evans, Tracy Cultural Anthropology: Complete Chapter 7: Economic Organization Lumen Publishing: 2017. (Candela Open Courses)
https://courses.candelalearning.com/anthropologyx15x1/part/unit-6/

3.2a Foragers
https://courses.candelalearning.com/anthropologyx15x1/chapter/foraging/

3.2b Pastoralists
https://courses.candelalearning.com/anthropologyx15x1/chapter/pastoralists/

3.2c Horticultural Society
https://courses.candelalearning.com/anthropologyx15x1/chapter/horticulturists/

3.2d Agricultural society
https://courses.candelalearning.com/anthropologyx15x1/chapter/intensive-agriculture/

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- Population Association of America (PAA) Professional organization for demographers, which also keeps running material lists and news bulletins of latest demographic findings, data sources, conferences, and projects.

- The U.S. Census Bureau recently released two maps that show change over time. The first, County Population Growth Between 2012 and 2013 allows you to see change and the cause of change. The second, Comparing Metro and Micro Area Population Change, shows the percentage change for all metro and micro areas for two time periods, 2002-03 and 2012-13.

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External Links[edit]

- Brief Review of World Population Trends: Summary. Summary of trends in population, births, deaths, migration, total fertility, infant mortality, age distributions.
- Population Association of America (PAA) Professional organization for demographers, which also keeps running material lists and news bulletins of latest demographic findings, data sources, conferences, and projects.
- The U.S. Census Bureau recently released two maps that show change over time. The first, County Population Growth Between 2012 and 2013 allows you to see change and the cause of change. The second, Comparing Metro and Micro Area Population Change, shows the percentage change for all metro and micro areas for two time periods, 2002-03 and 2012-13.

CULTURAL EXAMPLE: FORAGER SOCIETY -- References