2.1: Subsistence Strategies

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.

Food Gathering

Foraging

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.

Figure (PageIndex{1}) - Haida village, Wrangel, Alaska circa 1902

General Characteristics: Foraging

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

- **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.

Food Production

**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: Pastoralists**

- 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.

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: Horticulturists

- 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 be 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 5000 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.
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.

### References