Making a living: agriculture, pastoralism, and agropastoralism

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- Last time, we looked at a foraging subsistence strategy
- This time, we will continue with
  - **Agriculture** = farming  
    - Activities to artificially increase plant food yields (sowing seeds, clearing forest, weeding, diverting water, fertilizing, etc.)
  - **Pastoralism**  
    - depending primarily on herds of domesticated animals  
    - pastoralists travel with their herds to pasture areas, rather than bringing food to them
  - **Agropastoralism**  
    - depending on a mix of agriculture and pastoralism  
    - typically with one or more fixed settlements  
    - plus pastures to which the animals are sent with some group members seasonally

- **Agriculture** = farming  
  - **shifting agriculture** = slash and burn = swidden  
    - clear, usually burn off an area  
    - plant amid the debris  
    - grow one or several crops until productivity declines due to soil exhaustion, pests, entrenched weeds, etc.
    - abandon the field, leave it to regenerate for many years
  - **fallow**: the resting period between periods of agricultural use of a plot of land  
    - fallow is very long in swidden agriculture
  - **intensification**: putting more labor into a plot of land to get more crop production out  
    - plowing, weeding, irrigating, fertilizing, fencing, etc.
    - reducing the fallow period is another way to pump more labor into the land during a given span of years; this is intensification, too
    - the opposite of “intensive” is **extensive**  
      - using more land less intensively  
      - typically with less labor input  
      - typically with longer fallows
      - so swidden agriculture an extensive approach, compared to irrigating fields
  - Example: Pospisil extracts about the Kapauku Papuans of Papua New Guinea
    - sweet potato is the staple: 90% of total farmland
    - pigs are essential for wealth, marriage, status, political and legal power  
      - and are fed on sweet potatoes, too
      - we will look at the exchange of pigs in this region of the world in a later class
    - two types of farmland: steep slopes and valley floor  
      - steep slopes: forested  
      - shifting agriculture  
      - clear brush, cut trees, build fence
- remove debris, burn
- plant sweet potato shoots
- weed
- dig up harvest as needed
- abandon for 8-12 years
- valley floor: cleared grassland
  - intensive shifting ag
    - pull up grass, burn, fence, dig drainage ditches, weed
    - sweet potatoes, sugar cane, taro, banana, greens, cucumbers, gourds, beans
    - crop several times before abandoning to fallow
  - intensive complex cultivation
    - dig rectangular beds separated by drainage ditches
    - fertilize with plant material and mud from ditches
    - crop almost indefinitely without fallowing
    - sweet potato, manioc, white potato, greens
- complementary tasks of women and men
  - men see wives as an investment
  - but have to work in order to provide them with the complementary tasks to do
  - pig breeding and multiple wives
  - pig-breeding contracts as an alternative to more wives
  - hunting in distant forests
  - fishing for crayfish, larvae, etc. by women
  - gathering insects and plants in wild areas and fallow fields

- Pastoralism
  - depending primarily on herds of domesticated animals
  - pastoralists move their herds to pasture areas, rather than bringing food to them
  - typically, some or all of the pastoralists move with the herds
  - thus, pastoralists are not sedentary
  - terms for degrees of mobility (applicable to all people, not just pastoralists)
    - sedentary: having one permanent place of residence, year-round
      - that is, not mobile at all
      - pastoralists are rarely sedentary
    - semi-sedentary: various partially settled schemes
      - typically means a fair amount of investment in each location
      - a house, farmstead, village, town
      - often resembling year-round, permanent residences, even if often empty
      - stay in a settlement for years, then move on and establish a new one
      - more permanent than camps, but still not really permanent
      - have one fairly permanent settlement, but often leave it for extended periods
      - usually seasonal
      - as in having a permanent winter village, from which people disperse in the summer to temporary hunting and gathering camps
      - have several established residences, and shift between them
– again, usually seasonal
– as in having a winter house in a valley and a summer house near high pastures
– reality is often a mix of these, often varies from year to year
– **nomadic**: having no permanent place of residence
– always living in temporary camps
– terms for *patterns* of mobility (again, not only for pastoralists)
– **transhumant** (practicing transhumance): moving through a set seasonal round
– may have fixed settlements that are revisited every year in a certain season
– in which case they are semi-sedentary and transhumant
– or may cycle through the same general areas each year, but not to established settlements in each area
– in which case they are nomadic and transhumant (transhumant nomads)
– **purely nomadic**: no set route or stopping places at all
– always on the move, not in any routine pattern
– this extreme form of nomadism is rare or maybe even non-existent
– it may really be just a theoretical concept that serves to define a range of variation from strict transhumance to pure nomadism
– so that we can place real cases somewhere along this continuum
– these are not sharply defined categories
– they overlap and blend from one to the next
– different scholars define them differently
– and they oversimplify, since in most societies there is actually a range of ways in which individuals and families live, depending on how wealthy they are, what land they own, family history, etc.
– semi-sedentary or nomadic pastoralists may practice transhumance
– note that foragers may be transhumant, too
– or pastoralists may be "pure" nomads, at least in theory
– "pure" nomads have no permanent settlements, and are not transhumant, either
– they have no fixed route, choosing different paths, stopping in different places each year
– nevertheless, most nomads move around in a particular region
– and have favored areas that they know and return to when they wish
– some people argue that pastoralists can only exist because they trade with agriculturalists for plant foods
– that is, some argue that pastoralism is always part of a larger system that includes exchange between pastoralist meat and animal-product specialists and agricultural crop specialists
– thus even though some pastoralists are or have developed very complex social organization (kings, aristocracy, armies, specialists of all kinds), it may be that this can only happen alongside farmers with whom they trade, fight, or otherwise interact
– Example: Fratkin extracts about the Ariaal pastoralists of Kenya
– pastoralists have had a wide range of social organizations, from simple to complex
– pastoralists use animals to convert patchy, seasonal forage into steady supplies of food: milk, meat, blood, and a surplus to trade for grains, tea, and sugar
– two key Ariaal pastoral strategies: species diversity and mobility
- species diversity
  - allows use of various different environments
  - insures against losses caused by diseases or conditions that affect just one species
  - provides a variety of resources
    - camels: milk and transport
    - goats and sheep: meat and trade
    - cattle: needed for marriage and age-set rituals and market sale for cash
- mobility
  - move to follow brief periods of good pasture depending on local rains
  - limited mostly by availability of drinking water
  - but semi-sedentary
    - live near water holes and towns
    - but stay 10 km away from them to avoid overgrazing
- different animals have different needs
  - cattle: need water every 2-3 days, thus must be herded in the wetter highlands
  - camels: go for 10 days without water, graze on dry desert scrub
  - goats and sheep: eat desert scrub, but need water every 2-3 days, thus near mountain springs and wells
  - so Ariaal divide their herds
  - domestic herds: keep milk and male transport camels, and goats and sheep, in settlements
  - camp herds:
    - cattle: non-milk cattle (adolescent, male, and non-lactating female) sent to mountains for long stays
    - camels: same subset sent to desert for long stays
  - dry season: camp herds tended by male warriors
    - Spartan, dangerous camps
  - in settlements, camels used to fetch water, tended by girls
  - division of labor by age and gender: p. 91
  - time allocation study of leisure time
    - married males rested 52% of time
    - women rested on 35% of the time, and even then, were usually doing some task
  - occasionally sell animals to buy grains, tea, sugar
    - in 1976, sold 13% of cattle, 16% of small stock, no camels annually
    - in 1996, sold 25% of cattle, 21% of small stock, 6% of camels annually
  - due to quadrupling of price of maize meal due to deregulation required by World Bank Structural Adjustment Loans p. 95
  - explaining this shift into the market economy by referring to the World Bank is an example of Middleton’s “culture as system” approach

- Agropastoralism
  - depending on a mix of agriculture and pastoralism
    - most typically with one or more fixed settlements
    - plus pastures to which the animals are sent with some group members seasonally
- **Wage labor system**
  - people work for pay, rather than producing their own subsistence goods
  - then exchange that income for subsistence goods produced by others for exchange

- Each subsistence system affects the rest of the culture
  - foragers tend to be
    - mobile
    - live in small groups
    - have few possessions, and thus only minor differences in wealth
    - division of labor mostly by age and sex
    - little occupational specialization
    - minimal social hierarchy (no one has much power over anyone else)
    - "simple" social organization based primarily on kinship
    - example: !Kung
    - but foragers in particularly good environments may not fit these generalizations
      - ex: northwest coast of North America: rich salmon runs allowed for sedentary, complex societies based on foraging
      - ex: Central California: reliable, productive acorns allowed for semi-sedentary foragers
  - pastoralists tend to be
    - mobile or semi-sedentary
    - live in fairly small groups, but often bigger than foragers
    - have more possessions than foragers, especially herds
      - since they can become wealthy through successful animal husbandry
      - and have animals to carry additional goods
    - may have large differences in wealth among individuals and families
      - since some peoples’ herds will typically do better than others
    - division of labor may be more complex and specialized
      - including traders, slaves, military, etc.
    - their mobility often allows them to profit from trading
    - may develop great social hierarchy of status and power
    - so pastoralists tend to have more complex social and economic organization
      - often still based on kinship
      - but also involving rank, such as inherited chiefships
      - class, wealth, age-sets, etc.
    - example: Ariaal pastoralists
  - farmers and agropastoralists tend to be
    - sedentary
    - larger groups
    - can accumulate more possessions, including land (which produces further wealth)
      - sedentism allows them to store possessions easily
      - may have considerable differences in wealth
    - division of labor may be more complex
      - with some people specializing in craft production, ritual services, military service, etc.
      - supported by surplus food produced by others
more socially complex or hierarchical
− due to the larger numbers of people in contact with each other, and the more varied roles they may have, farmers and agropastoralists typically have additional forms of social organization beyond kinship
− rank
− class
− wealth (in case of Kapauku)
− example: Kapauku Papuans
− not a very socially stratified or specialized case, though