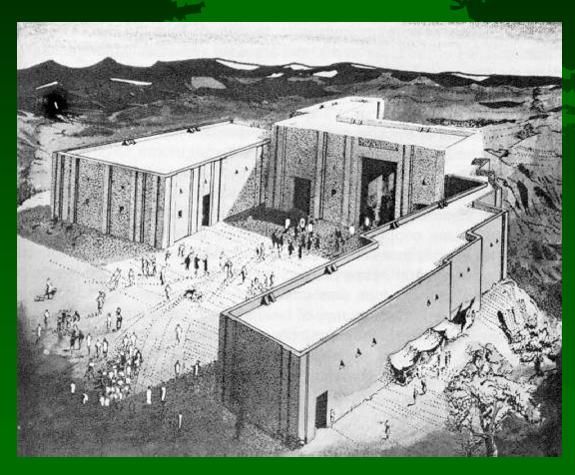
Advanced Horticultural Societies



By Dr. Frank Elwell

MANY OF THE SIMPLE
HORTICULTURAL SOCIETIES IN DUE
TIME EVOLVED INTO INTENSIVE
HORTICULTURAL SOCIETIES.

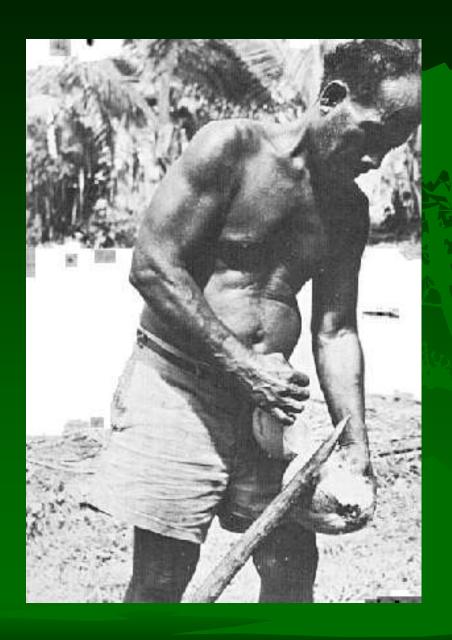
NO DOUBT HUNDREDS OF INTENSIVE HORTICULTURAL SOCIETIES HAVE EXISTED DURING THE PAST SEVERAL THOUSAND YEARS OF HUMAN HISTORY.

- PRIOR TO THE END OF THE 19th CENTURY, THEY FLOURISHED THROUGHOUT LARGE ARTS OF SUB-SAHARAN AFRICA, SOUTH AMERICA, AND SOUTHEAST ASIA.
- TODAY ONLY A FEW REMAIN.



Sacsahuaman, the principal fortress of the Inca Empire near Cuzco, Peru.

LIKE THE SIMPLE
HORTICULTURALISTS, ADVANCED
HORTICULTRUALISTS ARE
DEPENDENT UPON CULTIVATED
GARDEN PRODUCTS FOR THE BULK
OF THEIR FOOD SUPPLY.



Micronesian male, Marshall Islands in the Pacific, husking a coconut with a sharpened stake set in the ground.

THEY OFTEN CULTIVATE BY THE SLASH AND BURN METHOD. SOME KEEP DOMESTICATED ANIMALS, AND THOSE THAT DO NOT DO SO ENGAGE IN HUNTING OR FISHING FOR THEIR SUPPLY OF MEAT.

YET INTENSIVE HORTICULTURE
DIFFERS IN SIGNIFICANT WAYS
FROM SIMPLE HORTICULTURE.

ONE PRINCIPAL DIFFERENCE
INVOLVES THE LENGTH OF TIME
THAT LAND IS ALLOWED TO REMAIN
FALLOW. INTENSIVE'S SHORTEN
THE FALLOW PERIOD TO AS LITTLE
AS FIVE YEARS.

SIMPLE HORTICULTURE, YOU WILL RECALL, PERMITS THE LAND TO LIE FALLOW FOR 20 OR 30 YEARS BEFORE USING IT AGAIN.

TO COMPENSATE FOR THE DECREASE IN SOIL FERTILITY THAT ACCOMPANIES MORE FREQUENT CROPPING, INTENSIVES COMMONLY FERTILIZE THE SOIL FURTHER BY ADDING SUCH THINGS AS HUMUS OR ANIMAL MANURE.

INTENSIVE HORTICULTURE OFTEN EMPLOYS TECHNOLOGICAL DEVELOPMENTS, SUCH AS HOES, TERRACING, AND IRRIGATION OF THE LAND.

PREPARING THE LAND BY HOEING AND TERRACING AND IRRIGATION ARE ALL DEMANDING AND TIME-CONSUMING ACTIVITIES.

SINCE PEOPLE WORK HARDER AND LONGER, AND SINCE ANY GIVEN AREA OF LAND IS CULTIVATED MORE FREQUENTLY, IT IS OBVIOUS WHY THIS MODE OF PRODUCTION IS REFERRED TO AS INTENSIVE.

COMPARED TO SIMPLE
HORTICULTURE, INTENSIVE
HORTICULTURE IS CONSIDERABLY
MORE PRODUCTIVE PER UNIT OF
LAND--IN FACT IT PRODUCES
SIZABLE SURPLUSES.

THESE SURPLUSES ARE USED TO SUPPORT A CLASS OF PERSONS WHO ARE FREED FROM DIRECT INVOLVEMENT IN AGRICULTURAL PRODUCTION.

THE MEMBERS OF THIS CLASS ARE REGARDED, THEORETICALLY AT LEAST, AS THE OWNERS OF ALL THE LAND, AND IN ALL SUCH SOCIETIES THEY DIRECT MANY ECONOMIC ACTIVITIES.

IN MANY INTENSIVE HORTICULTURAL SOCIETIES THIS CLASSES' STANDARD OF LIVING IS HIGHER THAN THAT OF EVERYONE ELSE.

THE STANDARD OF LIVING OF MOST OF THE MEMBERS OF INTENSIVE HORTICULTURAL SOCIETIES DIFFERS LITTLE FROM THAT TYPICALLY FOUND AMONG SIMPLE HORTICULTRUALISTS.

YET IT SHOULD NOT BE FORGOTTEN THAT INTENSIVE HORTICULTURALISTS WORK SIGNIFICANTLY HARDER JUST TO ACHIEVE APPROXIMATELY THE SAME MATERIAL RESULTS.

IMPORTANT DIFFERENCES BETWEEN PURE AND PARTIAL REDISTRIBUTION CAN BE SEEN BY COMPARING THE DISTRIBUTIONAL SYSTEMS OF MELANESIAN AND POLYNESIAN SOCIETIES.

MARSHALL SAHLINS (1963) NOTES THAT MOST MELANESIAN SOCIETIES HAVE HAD SMALL SCALE HORTICULTURE AND BIG MAN SYSTEMS, WHEREAS MOST POLYNESIAN SOCIETIES HAVE BEEN CHARACTERIZED BY MORE INTENSIVE HORTICULTURE AND PARTIAL REDISTRIBUTION.

MELANESIAN BIG MEN ARE PERSONS
WHO SEEK PRESTIGE AND
RENOWN THROUGH THE HOLDING
OF ELABORATE FEASTS.

THEY HAVE LITTLE REAL POWER
OVER THEIR CONSTITUENTS,
HOWEVER, AND THEIR PRESTIGE
AND RENOWN QUICKLY DISAPPEAR
WHEN THEIR ELABORATE FEAST
GIVING DELCINES.

POLYNESIAN CHIEFS ARE INSTALLED IN OFFICE THROUGH A SYSTEM OF HEREDITARY SUCCESSION. THESE CHIEFS EXERCISE CONSIDERABLE POWER OVER THEIR FOLLOWERS.

THEY HOLD SUBSTANTIAL ECONOMIC LEVERAGE OVER THE LARGE MASS OF ORDINARY FOLK. ONE OF THEIR PRIMARY AIMS IS THE PRODUCTION AND MAINTENANCE OF A CONSTANT ECOMIC SURPLUS.

THEY ACCOMPLISH THIS BY
COMPELLING THE PEOPLE TO GIVE
UP A SUBSTANTIAL PORTION OF
THEIR HARVESTS.

THIS SURPLUS LEADS TO THE FORMATION OF A "PUBLIC TREASURY," A GREAT STOREHOUSE OVER WHICH THE CHIEF EXERCISES CONTROL.

THE USES TO WHICH THIS
STOREHOUSE IS PUT ARE MANY.
CHIEFS SUPPORT THEMSELVES
AND THEIR FAMILIES FROM IT.

THEY ALSO USE IT FOR SUCH THINGS AS ENTERTAINMENTS FOR VISITING DIGNITARIES, INITIATING MAJOR PUBLIC PROJECTS, MILITARY CAMPAIGNS, AND SUPPORTING A VAST RANGE OF POLITICAL FUNCTIONARIES.

IN ADDITION, PORTIONS OF THE STOREHOUSE ARE REDISTRIBUTED TO THE PEOPLE AS THE NEED ARISES, AND CHIEFS ARE EXPECTED TO BE GENEROUS WITH IT.

THOSE WHO ARE NOT SUFFICIENTLY GENEROUS OR WHO MAKE EXCESSIVE DEMANDS ON THE PEOPLE'S HARVESTS ARE SOMETIMES PUT TO DEATH.

PARTIAL REDISTRIBUTION SYSTEMS
ARE REDISTRIBUTIVE IN THE
SENSE THAT THEY INVOLVE A
CONTINUAL FLOW OF GOODS
BETWEEN THE CHIEF AND THE
PEOPLE.

BUT THEY ARE PARTIAL IN THAT THE FLOW IS UNEQUAL; THE PEOPLE CLEARLY GIVE MORE THAN THEY RECEIVE IN RETURN. THESE SYSTEM SERVE TO ROMOTE A SYSTEM OF ECONOMIC INEQULITY.

AS SUCH THEY CONSTITUTE A
NOTABLE EVOLUTIONARY
DEVELOPMENT BEYOND THE PURE
REDISTRIBUTIVE LEVEL.

ACCORDING TO MICHAEL HARNER (1975) THE KEY FACTOR BEHIND THIS SIGNIFICANT EVOLUTIONARY OUTOME IS LAND SCARCITY.

WHEN POPULATION PRESSURE
FORCES SMALL-SCALE
HORTICULTURAL GROUPS TO
ADOPT MORE INTENSIVE METHODS
OF CULTIVATION, IT IS CLEAR THAT
LAND IS BECOMING A SCARCE
RESOURCE.

INDEED, THAT IS PRECISELY WHY EACH PARTICULAR UNIT OF LAND MUST BE CULTIVATED MORE INTENSIVELY.

LAND SCARCITY RESULTS IN INCREASED COMPETITION OVER VALUABLE LAND, AND SOME PERSONS END UP WITH GREATER ACCESS TO LAND THAN OTHERS.

FORMER BIG MEN, WITH A RELATIVELY WEAK POWER BASE RESTING ON THEIR OWN EFFORTS AND THE VOLUNTARY ASSISTANCE OF THEIR FOLLOWERS, TURN INTO CHIEFS, PERSONS WHOSE POWER BASE IS MADE MUCH STRONGER BY THEIR CONTROL OVER LAND.

SOCIAL STRATIFICATION GENERALLY EMERGES WITH THE TRANSITION TO INTENSIVE HORTICULTURAL SOCIEITIES.

THESE SOCIETIES FREQUENTLY
EXHIBIT HEREDITARY SOCIAL
STRATA OR CLASSES, THE TRUE
MARK OF STRATIFIED SOCIETY.

- THREE MAIN SOCIAL STRATA:
 - CHIEFS
 - SUBCHIEFS
 - COMMONERS

THUS WHAT APPEAR ONLY AS DIFFERENCES OF RANK OR STATUS **AMONG SIMPLE** HORTICULTURALISTS ARE TRANSFORMED INTO GENUINE INEQUALITIES INVOLVING DIFFERENTIAL ACCESS TO THE BASIC RESOURCES OF NATURE.

APPEARING ON THE SCENE ARE SEPARATE GROUPS OF PERSONS DISTINGUISHED BY THEIR DIFFERENCES IN SOCIAL RANK, POWER, DRESS AND ORNAMENTATION, PATTERNS OF CONSUMPTION. . .



A reconstructed view of the Aztec capital, Tenochtitlan, with its numerous temple-topped pyramids. The Aztecs were a very intensive horticultural society with an elaborate system of stratification.

ACCESS TO LUXURY GOODS, INVOLVEMENT IN ECONOMIC PRODUCTION, AVAILABILITY OF LEISURE TIME, AND GENERAL STYLES OF LIFE.

MEMBERSHIP IN SUCH GROUPS IS HEREDITARY, AND THE PLACEMENT OF INDIVIDUALS IN THE STRATIFIED ORDER IS LARGELY UNRELATED TO INDIVIDUAL TALENTS OR EFFORTS. SOCIAL STATUS IS DETERMINED BY A PERSON'S GENEALOGICAL RELATIONSHIP TO THE CHIEF OR KING.

YET BECAUSE CHIEFS AND COMMONERS ARE RELATED THROUGH KINSHIP TIES, THE STRATIFICATION SYSTEM HAS DEFINITE RESTRAINTS PLACED UPON IT.



Tribal chiefs in Dahomey, Africa.

KINSHIP TIES FUNCTION TO SOFTEN THE NATURE AND COSEQUENCES OF INEQUALTIY, AND CHIEFS ARE STILL EXPECTED TO BE GENEROUS WITH THEIR WEALTH AND TO HAVE A CONCERN FOR THE COMMON GOOD.

ALTHOUGH MEMBERS OF THE
CHIEFLY CLASS ENJOY
SUBSTANTIAL PRIVILEGE, CHIEFS
ARE STILL REGARDED AS "GREAT PROVIDERS."

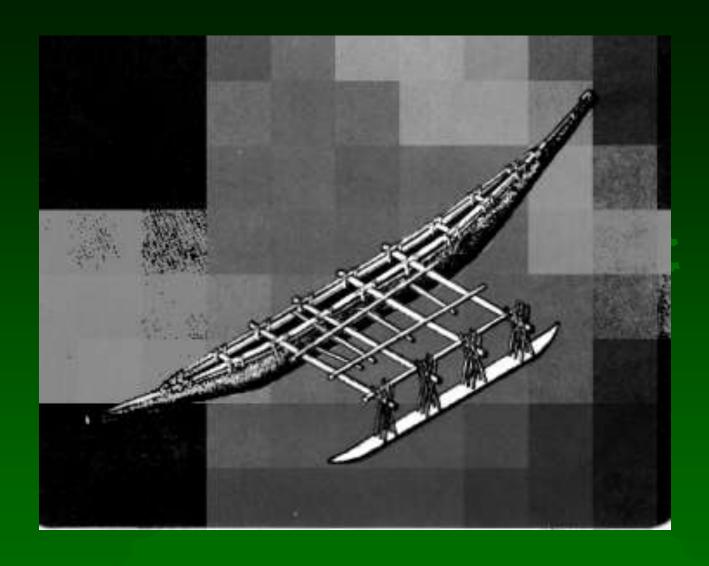
THE REDISTRIBUTIVE ETHIC STILL PREVAILS IN SUCH SOCIETIES, PREVENTING TOO GREAT A USE OF THE SURPLUS FOR THE CHIEF'S OWN ENDS. THEY STILL MUST CONSTANTLY CONSIDER THE NEEDS AND WISHES OF THEIR DISTANT KINSMEN IN THE COMMONER CLASS.

THE NEXT MAJOR EVOLUTIONARY
STAGE BEYOND THE TRIBAL LEVEL
OF POLITICAL SOCIETY IS THE
CHIEFDOM, A FORM OF POLITICAL
ORGANIZATION FOUND AMONG
INTENSIVE HORTICULTURAL AND
PASTORAL SOCIETIES.

THE CHIEFDOM ACHIEVES A POLITCAL UNIFICATION AND CENTRALIZATION ABSENT IN TRIBES.

THE CHIEFDOM IS MARKED BY THE INTEGRATION OF MANY SEPARATE VILLAGES INTO A CENTRALLY COORDINATED COMPLEX WHOLE GOVERNED FROM THE TOP DOWN.

THE CLASSICAL POLYNESIAN
CHIEFDOM WAS A PYRAMIDAL
ARRANGEMENT OF HIGHER AND
LOWER CHIEFS. THESE CHIEFS
WERE REGULAR AND OFFICAL
HOLDERS OF TITLE.



A Polynesian outrigger canoe.

THEY CLAIMED AUTHORITY OVER PERMANENTLY ESTABLISHED GROUPS OF FOLLOWERS. **AUTHORITY RESIDED IN THE** OFFICE ITSELF, AND NOT MERELY IN THE PERSON HOLDING THE POSITION. CHIEFS GAINED ACCESS TO THEIR POSITIONS THROUGH A LINE OF HEREDITARY SUCCESSION.

POLYNESIAN CHIEFS HAD RIGHT OF CALL ON THE LABOR AND AGRICULTURAL PRODUCE WITHIN THEIR DOMAIN, WHICH GAVE THEM CONSIDERABLE ECONOMIC LEVERAGE OVER A LARGE NUMBER OF PEOPLE.

THROUGH EXTRACTION OF ECONOMIC SURPLUS, THEY ESTABLISHED AND CONTROLLED LARGE STOREHOUSES THAT WERE USED FOR SUCH THINGS AS LAVISH ENTERTAINMENT OF VISITING CHIEFS, SUSIDINZING CRAFT PRODUCTION, AND MILITARY CAMPAIGNS.

Mayan temple at Tikal, Guatemala. Several horticultural societies in the New World achieved a level of technology and population approaching that of early agrarian societies.



WHILE A PORTION OF THE STOREHOUSES WAS REDISTRIBUTED TO THE PEOPLE, A SUBSTANTIAL PART OF IT WAS **USED TO SUPPORT A PERMANENT** ADMINISTRATIVE APPARATUS CREATED TO CARRY OUT A VARIETY OF POLITICAL FUNCTIONS.

SUCH ADMINISTRATIVE OFICIALS AS SUPERVISORS OF THE STORES, TALKING CHIEFS, CEREMONIAL ATTENDANTS, HIGH PRIESTS, AS WELL AS SOME WARRIORS WERE SUPPORTED FROM THE SURPLUS.



Tikal, one of the largest of the Maya temple centers, serving a population estimated at over twenty thousand people.

THE CHIEFDOM MARKS THE
BEGINNING OF THE
INSTITUTIONALIZATION OF
POLITICAL POWER AND AUTHORITY
IN SOCIAL LIFE.

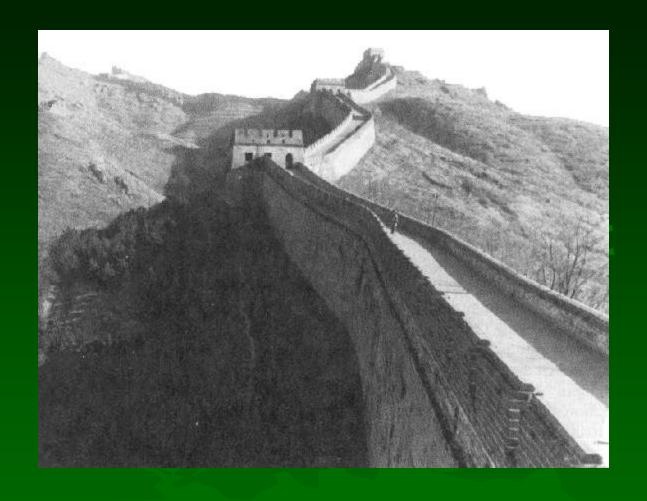
CHIEFS DEVELOPED THE POWERS
OF GOVERNMENT TO THE POINT
WHERE THEY NO LONGER HAD TO
DEPEND UON THE VOLUNTARY
COMPLIANCE OF THEIR FOLLWERS
IN ORDER TO MAKE AND
IMPLEMENT DECISIONS.



In almost every politically advanced society of horticultural Africa there was a sharp cleavage between nobles and commoners: early bronze casting of Dahomean chief and his entourage of relatives and retainers.

THEIR FOLLOWERS WERE NOW DEPENDENT ON THEM, A COMPLETE REVERSAL OF THE POLITICAL ARRANGEMENTS IN TRIBAL SOCIETY.

CHIEFS COULD NOT ONLY ISSUE COMMANDS, BUT COULD BACK THEM UP AS WELL. WHEN THAT IS POSSIBLE, GENUINE POWER HAS BECOME A SIGNIFICANT SOCIAL FORCE.



The Great Wall of China: this 1,500-mile-long fortification, begun late in China's horticultural era, illustrates the growing power of political elites and their ability to mobilize labor on a massive scale.

THE REAL BEGINNINGS OF POWER AND AUTHORITY EMERGE WITH THE CHIEFDOM BECAUSE IT IS THERE THAT THE NECESSARY ADMINISTRATIVE MACHINERY NEEDED TO COMPEL COMPLIANCE IS CREATED.



The Pyramid of the Sun, Teotihucan.

YET THERE ARE DEFINITE LIMITATIONS PLACED UPON THE POWER OF CHIEFS. CHIEFS ARE STILL RELATED TO THE COMMON PEOPLE THROUGH KINSHIP TIES, AND THEY ARE EXPECTED TO BE GENEROUS AND BENEVOLENT AND SERVE THE COMMON GOOD.

THE BASSERI CLEARLY ANTICIPATE THAT A CHIEF WILL SHOW HIS FOLLOWERS THE UTMOST CONSIDERATION. THERE IS MUCH CONCERN THAT HE BE HOSPITABLE BY PROVIDING SUCH GIFTS AS WEAPONS AND HORSES TO HIS MOST PROMINENT FOLLWERS.

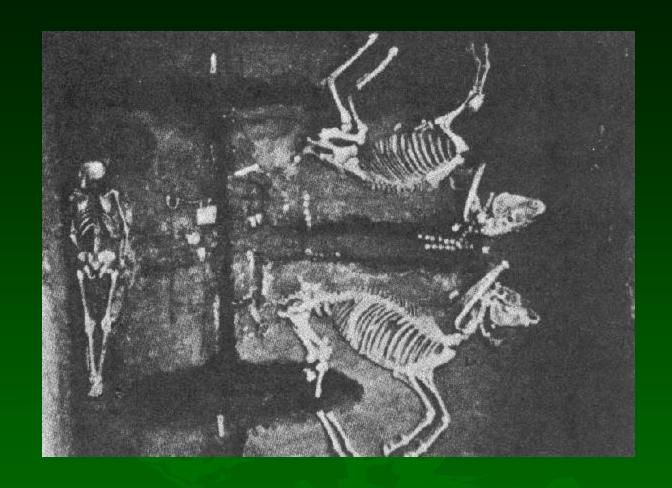


Olmec head, San Lorenzo, Mexico.

- CHIEFS WHO FAIL TO MEET THESE EXPECTATIONS FREQUENTLY FIND THEMSLEVES INTHE MIDST OF A POPULAR REVOLT.
- IN POLYNESIA MANY A CHIEF WHO "ATE THE POWERS OF GOVERNMENT TOO MUCH" WAS DETHRONED AND PUT TO DEATH.

THUS, WHILE CHIEFDOMS HAVE
BEEN ABLE TO INSTITUTIONALIZE
GENUINE POWER AND AUTHORITY,
THERE ARE CLEAR RESTRAINTS ON
THEIR COERCIVE CAPACITIES.

LACKING A GENUINE MONOPOLY OF FORCE, AND TIED TO THE PEOPLE THROUGH KINSHIP AND EXPECTATIONS OF GENEROSITY, CHIEFS HAVE NOT BEEN ALLOWED TO BECOME TRUE TYRANTS.



Chariots, together with bronze weapons gave the advanced horticulturists of China a great advantage over their simple horticultural neighbors. Burial remains of a warrior with his horses and chariot, eleventh century B.C.

WOMEN GENERALLY CONTINUE
THEIR IMPORTANT ROLE IN
ECONOMIC PRODUCTION AMONG
HORTICULTURALISTS.

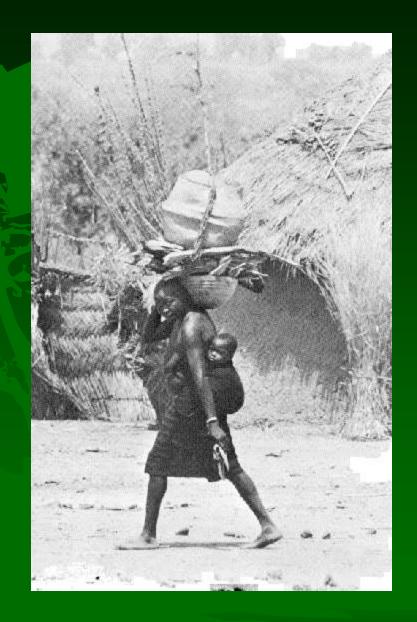


Girl's puberty ceremony. The pubescent girl is anointed with coconut oil by her paternal grandmother. Melanesia. Relatives usually play an important part in rituals inducting the young into new status positions.

IN ANALYZING A SAMPLE OF 515
HORTICULTURAL SOCIETIES, MARTIN
AND VOORHIES (1975) NOTE THAT
WOMEN DOMINATE CULTIVATION IN 41%,
MEN DOMINATE CULTIVATION IN 22%,
AND IN 37% MEN AND WOMEN SHARE IN
THE PERFORMANCE OF CULTIVATION
TASKS.

THE GREATER THE IMPORTANCE OF CROPS IN THE TOTAL DIET, THE MORE LIKELY MALES ARE TO BE INVOLVED IN CULTIVATION.

In many cultures women are expected to carry infants plus heavy loads. This woman is returning to her home near Agwarro, Northern Nigeria.



IN GENERAL, THE STATUS OF WOMEN IS HIGHER AMONG THOSE HORTICULTURALISTS PRACTICING MATRILINEAL DESCENT.



A wedding showing the bride standing on carved wooden bed on the platform of a large canoe. Admiralty Islands, Melanesia.

USING A SAMPLE OF 104
HORTICULTURAL SOCIETIES,
MARTIN AND VOORHIES FOUND
THAT 56% HAD PATRILINEAL
DESCENT AND ANOTHER 24% HAD
MATRILINEAL.

KINSHIP LINKS ARE TRACED
THROUGH WOMEN, AND MEN
TRACE THEIR GENEALOGICAL
CONNECTIONS THROUGH THEIR
MOTHERS AND SISTERS RATHER
THAN THROUGH THEIR FATHERS.

FEMALES ARE CENTRAL TO THE CONDUCT OF ECONOMIC ACTIVITY. LAND IS OWNED MATRILINEALLY AND WOMEN CULTIVATE IT ON BEHALF OF THEIR OWN MATRILINEAGES.

- THIS MEANS THAT WOMEN OFTEN WIELD CONSIDERABLE INFLUENCE OVER POLITICAL AFFAIRS.
- HOWEVER, POLITCS IS STILL IN THE HANDS OF MEN. MEN EXERCISE AUTHORITY IN THEIR ROLES AS BROTHERS OF WOMEN RATHER THAN AS HUSBANDS.

THUS, ALTHOUGH MATRILINEAL SOCIETIES GENERALLY HOLD WOMEN IN FAIRLY HIGH REGARD, WOMEN ARE STILL POLITICALLY SUBORDINATED TO MEN, AND THEIR GENERAL STATUS RANKS BELOW THAT OF MEN.

MATRILINEAL DESCENT REDUCES, BUT DOES NOT ELIMINATE, MALE DOMINANCE.

LAND IS OWNED AND INHERITED
THROUGH MALES. FEMALES HOLD
A MORE PERIPHERAL
RELATIONSHIP TO ECONOMIC
RESOURCES.

WOMEN ARE ECONOMIC
PRODUCERS FOR KIN GROUPS
ORGANIZED THROUGH AND
DOMINATED BY THEIR HUSBANDS.
THE STATUS OF WOMEN IN THESE
SOCIEITES IS GENERALLY QUITE
LOW.

WOMEN FREQUENTLY TRANSFER
THEIR KIN GROUP MEMBERSHIP AT
MARRIAGE FROM THEIR FATHER'S
TO THEIR HUSBAND'S
PATRILINEAGE, MEANING THEY
ENTER A WORLD OF STRANGERS.

WOMEN ORDINARILY HOLD VERY LOW STATUS IN THIS NEW WORLD. THEY TYPICALLY DO NOT ACHIEVE RESPECT AND INFLUENCE UNTIL THEY REACH OLD AGE, IF THEN.

A GREAT RANGE OF VARIATION IN THE STATUS OF WOMEN IS FOUND AMONG HORTICULTURALISTS. IN GENERAL, THEY HOLD LOWER STATUS THAN AMONG H&Gs.

AT ONE EXTREME ARE GROUPS LIKE THE IROQUOIS IN WHICH WOMEN HAD UNUSUALLY HIGH STATUS AND INFLUENCE. AT THE OTHER EXTREME, WE FIND SOCIEITIES LIKE THE YANOMAMO, WHERE FEMALE SUBORDINATION IS INTENSE AND WHERE SOCIAL LIFE IS OVERWHELMINGLY MALE-CENTERED.

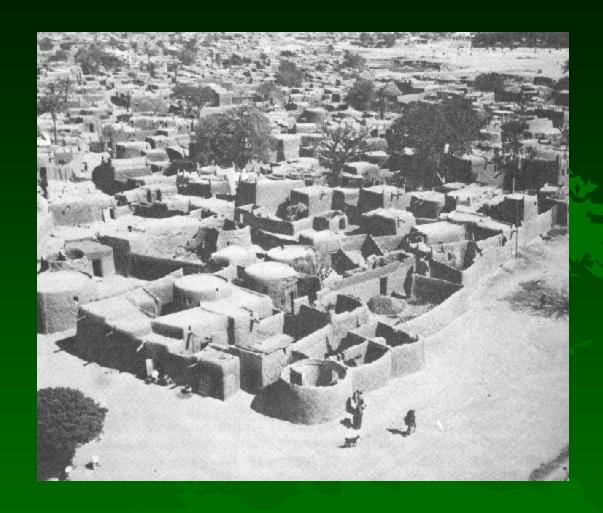
- ON BALANCE, WOMEN TEND TO HAVE A VERY LOW STATUS.
- BUT IT IS IN AGRARIAN SOCIETIES THAT FEMALE STATUS REACHES ITS DEPTHS.



Trade and commerce are much more important in horticultural societies than in hunting and gathering societies: the marketplace in Ougadougou, Burkina Faso.



Ubaid settlement (Mesopotamia) about 4000 B.C. Note the large temple in the center of the community.



Kano, a city in northern Nigeria, has been an important commercial and political center for more than 500 years. The style of architecture remains much as it was centuries ago.