VOLUME 9

Southwest

ALFONSO ORTIZ
Volume Editor

SMITHSONIAN INSTITUTION
WASHINGTON
1979

HP019916

Hopi Economy and Subsistence

EDWARD A. KENNARD

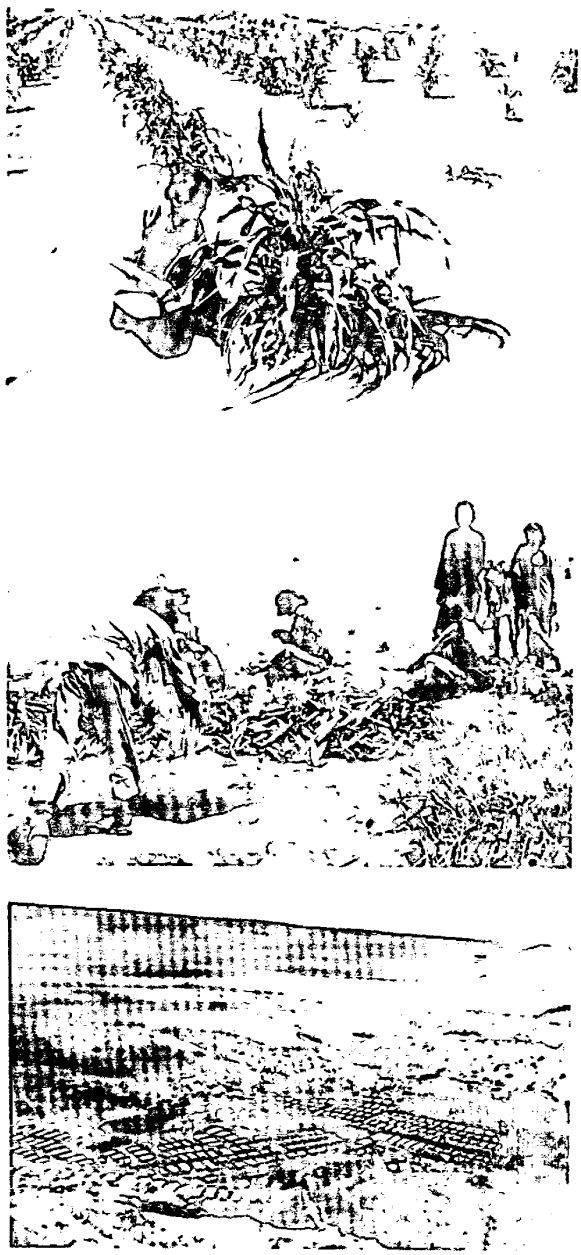
The economy of the Hopi can be best understood historically. The prehistoric foundation was an agriculture based upon the cultivation of corn, beans, squash, gourds, and cotton. During the sixteenth and seventeenth centuries Hopis acquired from the Spaniards domesticated animals—horses, mules, burros, sheep, and cattle. From the same source they derived peaches and apricots. Chili peppers from Mexico were also introduced during this time. The period of American contact, which dates from 1848, has been marked by gradual but accelerating additions of a wide variety of consumption goods, new skills, and a cash economy first supplementing and later displacing the traditional subsistence economy.

Agriculture

Land Tenure

Each village is autonomous and has its own land. The cultivated fields of one are separated from another by sight lines and geographic features, projected southward from the mesas. Along the water courses below the mesas, the fields of each village are divided into large sections assigned to the various matrilineal clans of the village. Formerly, each clan allotment was marked by boundary stones, set up at the corners of the fields, with symbols of the clans painted on them (Forde 1931:368). The clan land system of the First and Second Mesa villages and the boundaries between villages are shown in Forde (1931: maps 2, 3, 4).

Within each clan allotment, fields are assigned to women of the clan, and they are planted and cultivated by the men of the household—husbands, brothers, or sons (fig. 1). With the pattern of matrilineal inheritance and matrilocal residence, fields tend to become associated with specific households. Each clan has land in more than one location so that if one fails, either through lack of rain or from sudden flooding that destroys the crop, the other may still be productive.



middle, Calif. Histl. Soc., Los Angeles: Title Insurance Coll.; bottom, Smithsonian, NAA.
Fig. 1. Hopi farming. top, Corn plants in dune field below Hotevilla, photograph by Cradoc Bagshaw, July or Aug. 1975; middle, men roasting unhusked corn in a field near Oraibi, photograph possibly by G. Wharton James or C.C. Pierce, probably about 1900; bottom, terraced gardens at Hotevilla, photograph by O.C. Havens, 1924.

HP019917

Crops

Hopis plant several varieties of corn, classified by color, but most of the fields are devoted to blue and white. Whiting (1939:67-70) lists 24 varieties of Hopi corn. They also cultivate a short-eared variety of sweet corn.

The first planting occurs in April, usually on dune fields close to the mesas, so that it will be mature by the time of the Niman ceremony in mid-July. The main planting, which is announced by the Crier, usually begins in the middle of May and frequently extends through the month of June. Some men plant their fields by themselves, but others have a work party for planting. The men all assemble at the host's field and complete it in a day. In the evening when they return to the village, the host's wife feeds them all an evening meal in payment.

Sweet corn is baked in field pits (fig. 1) and then stored for future use. Most of the corn crop is harvested in October—picked, husked, and hauled to the village in wagons and trucks. It is sorted by color and stored in the rear room of the house, stacked like cordwood.

Hopis grow 23 varieties of beans, some quite old but many recently introduced (Whiting 1939:80-83). Several species of squash, pumpkins, and melons are regularly cultivated. The squash is dried and preserved, but melons are eaten when they are ripe in August and September. They plant gourds in the same fields as squash. They are used as spoons, dippers, cups, rattles, pottery scrapers, medicine containers, and as decorations on kachina masks such as snouts and horns (fig. 2).

Fruit trees do not yield a crop every year. Frequently, late frosts when the trees are in blossom destroy the potential for fruit; however, in good years they yield bountifully and most of the fruit is preserved by drying. The peaches and apricots are pitted, split in halves, and spread out on the roof to dry (fig. 3). Orchards or even individual trees are owned by men. It is the tree and not the land on which it grows that is conceived to be property, and it is inherited by men, usually sons of the previous owner.

The estimated agricultural figures for 1893 show the proportionate production at various communities. At First Mesa, 1,200 acres were planted in corn; at Second Mesa, 800; at Oraibi, 1,600. Of the total corn crop of about 2,500,000 pounds, 1,150,000 pounds were consumed, 100,000 were sold to traders, 150,000 were otherwise traded, 500,000 were bartered to Navajos for sheep, and 600,000 were stored as surplus. In addition, 2,000 acres were sowed with vegetables (beans, melons, squash, pumpkin, chili, onions, gourds), sunflowers, and cotton. Peach and apricot orchards accounted for another 1,000 acres (Stephen 1936, 2:954-955).

Wild Plants

The Hopis make extensive use of the wild plants in their habitat. The roots of yucca (soapweed) are used in hair washing, which is an essential part of every ceremony—naming, initiations, girl's puberty grinding, marriage. The leaves are split and sewed around a core in making coiled basketry and in making sifting baskets and trays. The Hopi brush, which is an essential tool in every house, is made from the culms of purple hair grass (Whiting 1939:65). A handful is tied with a piece of string near the butt end. The lower end serves as a hair brush, while the upper is used to sweep the meal from the grinding stones, as well as to sweep the floor of houses with adobe floors.

Of 150 plant species identified in their habitat, the Hopi utilized 134: for agriculture and forage, 11 species; art materials, 16; house building, 4; domestic life, 10; dress and ornament, 6; food, 40; medicine, 29; and religious purposes, for example, prayer sticks and kiva fuel, 18 (Hough 1897:43-44).

Hunting

Hunting has not been important as an economic activity since the sixteenth century when the Hopis acquired domesticated animals. The area is not rich in large game, although deer and antelope were reported to have grazed in the area between the Hopi Buttes and the Little Colorado River. They were formerly hunted by men in pairs, and it was regarded more as a sport than a subsistence quest (Beaglehole 1936).

Rabbit hunting is a regular fall and winter sport (fig. 4). Announcement of the hunt is made in the evening before the hunt. The place of assembly, the direction in which they are going to hunt, the place-names along the route of the hunt, and the route of return are all included in the announcement. In the morning the men assemble with their throwing sticks. They form a surround a mile to a mile and one-half in area, and those at the rear close up the circle. When a rabbit is raised the hunters throw their sticks with a side arm motion at it. When a man hits and stuns one, he runs to it and kills it.

Livestock

The major forms of men's property are sheep and cattle (fig. 5). Horses, burros, and wagons become important as the distance one has to travel to his fields or to cut and haul firewood increases. The size of the flocks and herds has always been limited by the amount of browse and the availability of water.

From the earliest days of the agency at Keams Canyon the government made systematic efforts to aid Hopi stockmen. Drilling deep wells with windmills, storage tanks, and watering troughs has been one of the most effective ways aiding the growth of the Hopi herds. Efforts were also made to improve the quality by assisting in the purchase of pure bred rams and bulls, but the benefits were limited since the Hopi did nothing to control the breeding. It was not until 1944, when a fenced

HP019918