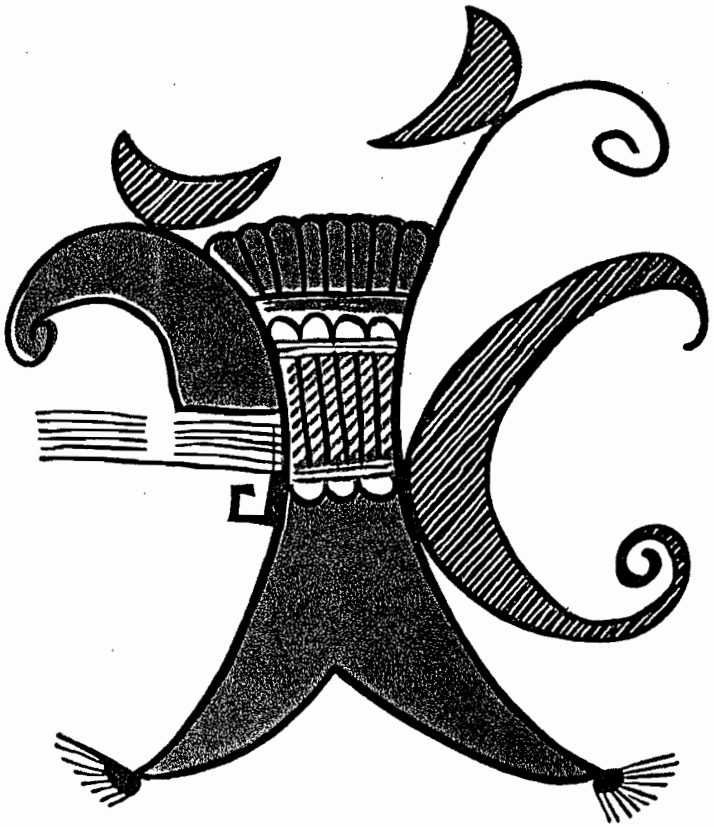

CULTURE IN CRISIS

A STUDY OF THE HOPI INDIANS BY LAURA THOMPSON, WITH A FOREWORD BY JOHN COLLIER & A CHAPTER FROM THE WRITINGS OF BENJAMIN LEE WHORF

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CULTURE IN CRISIS: A STUDY OF THE HOPI INDIANS

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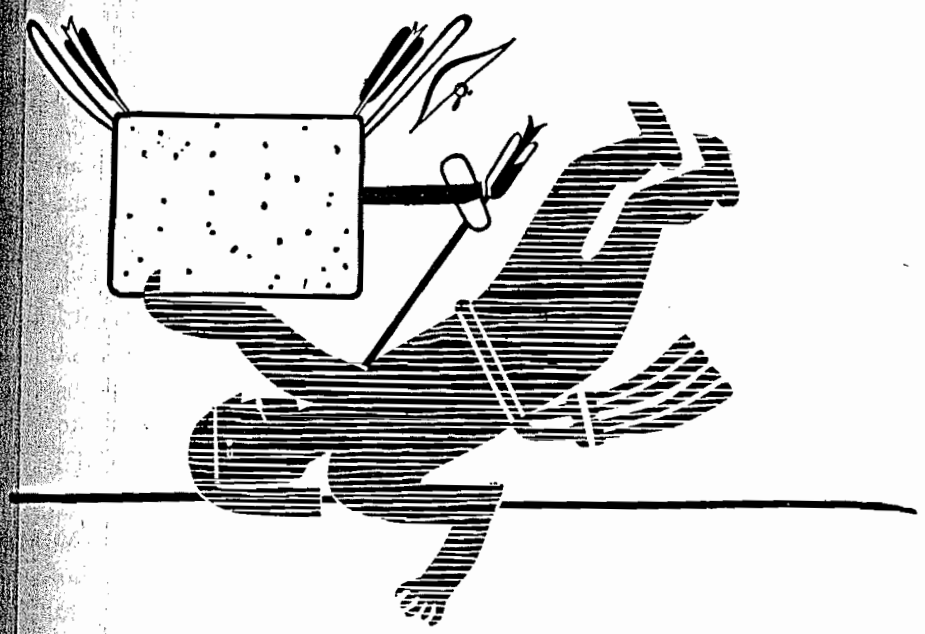
Conclusion

The problem of the present inquiry has been stated and some key hypotheses, concepts, and assumptions underlying the inquiry have been formulated. In the following chapters, facts relevant to the solution of the problem are examined according to the method of five-dimensional structural analysis designated by the theoretical approach. Chapter 2 deals with the ecologic dimension of the Hopi crisis so far as the available data permit. Chapter 3 attempts to survey the available facts concerning the somatic dimension; because of a dearth of reliable data, the analysis of this dimension is incomplete. We turn to the sociologic dimension in Chapter 4. Fortunately for the inquiry, most of the Hopi mesa pueblos are still organized on the basis of indigenous socio-religious patterns. A comparison of the social system of a traditionally organized community with that of one wherein the ancient structure has broken down yields structural insight regarding this dimension of the crisis. In analyzing the psychologic dimension of the Hopi crisis in Chapter 5, we rely mainly on findings from the present project. Next, the symbolic dimension of the crisis is treated in three chapters as follows: Chapter 6—the traditional Hopi outlook on life abstracted from the mythology, attitudes, and values, social and religious organization, ritual and art forms; Chapter 7—major relevant ideologies which are pressing on the tribe from the outside world; and Chapter 8 by Benjamin Lee Whorf—relevant traditional thought patterns implicit in Hopi language and their reflection in Hopi behavior patterns. Finally, in Chapter 9—the findings of the inquiry are summarized and some significant generalizations emerging therefrom are formulated. A note suggesting how the results of the research may be applied by administrators to practical day-by-day problems forms a concluding chapter to the book.



Chapter 2

THE EARTH MOTHER AND HER CHILDREN

When Coronado, traveling northward from Mexico City, reached the seven cities of Cibola (Zuni) in 1540, he was told of the province of Tusayan (Hopiland) with its seven terraced villages twenty-five leagues (200 miles) to the northwest. Accordingly he sent one of his officers, Pedro de Tovar, to those villages with seventeen horsemen and three or four footmen. With them went a Franciscan friar "who had been a fighting man in his youth." Of the expedition Pedro de Castañeda wrote,[1] "Our men arrived after nightfall and were able to conceal themselves under the edge of the village where they heard the

[1] Winship, 488.

¶ The figure at the head of this chapter shows a falling warrior pierced by an arrow—a prehistoric mural painting from Kawaiokuh. (Adapted from Douglas and d'Harnoncourt, III, courtesy of the Museum of Modern Art and Peabody Museum.)

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natives talking in their houses." This was one of the Hopi villages, now in ruins on the edge of Antelope Mesa, probably Awatovi.[2] When the Hopi discovered the Spaniards in the morning they sent out a force of men and, although "given due warning" by the Spaniards through an interpreter, they made hostile demonstrations and drew a line on the ground over which the newcomers were not to cross. But apparently one of the horses put his nose over the line and a Hopi struck him with his club, at which the friar, "fretted by the time that was being wasted in talking with them said to the Captain: 'To tell the truth, I do not know why we came here.' " When the mounted Spaniards heard this they suddenly charged, running down many Indians. Others fled to the village but "some did not have a chance to do this, so quickly did the people of the village come out with presents, asking for peace." The Spanish captain ordered his force to assemble at a place near the village which he chose for headquarters and when the group had dismounted "the natives came peacefully, saying that they had come to give in the submission of the whole province, and to accept the presents which they gave him. This was some cotton cloth, dressed skins, corn meal, pine nuts and birds of the country. Afterwards they presented some turquoise but not much. The people of the whole district came together that day and submitted themselves, and they allowed him to enter their villages freely, to visit, buy, sell and barter with them."[3]

At the Time of "Discovery"

Thus did the Hopi Indians, high on their arid Arizona plateau, first meet the fateful Whiteman, over four hundred years ago. At that time as now, these Indians built three-storied, stone house-villages, all of a piece, near springs cropping out of the southern escarpments of Black Mesa, a great table-like formation some sixty miles square, which rises abruptly out of the plateau floor to a height of several hundred feet and distinguishes Hopiland from the surrounding desert. The Black

[2] Brew in Montgomery *et al.*, 6.
[3] *Ibid.*, 488–89.

Mesa drainage waters the springs, arroyos, and sand dunes which make possible the existence of sedentary horticulturalists in this arid region. With great industry and skill the Hopi, then as now, farmed the sand dunes on the mesa tops and also the areas below which were watered at time of flood by the ephemeral streams of the Tusayan Washes. Then as now they cultivated by ingenious and arduous methods the special varieties of maize bred by their ancestors over generations to withstand the rigors of the environment: the scant rainfall (at present averaging ten to thirteen inches a year), the altitude (5000 to 6500 feet above sea level), the temperature (mean annual—51 degrees F.). They also raised beans, squash, sunflower seeds, and a good deal of cotton, which they wove into clothing and blankets. They made beautiful decorated pottery, fired with the soft coal which they discovered in the vicinity and mined with hand tools. They used coal also to heat their houses and semisubterranean ceremonial chambers (*kivas*).[4] Then as now their planting and ceremonial activities were controlled by a sky calendar depending on the seasonal movements of the rising sun, precisely sighted along the horizon between two points which marked the winter and summer solstices.[5] This Path of the Sun also guided their celebration of an annual ceremonial cycle—a series of tribal mystery dramas reënacted each year, then as now, to aid the crops, to ensure fertility, growth, and development of all living things, and to keep the world in order. And their village life then as now was minutely but flexibly regulated by a complex, organic type of religio-social organization.

While the Hopi at the time of "discovery" had no domesticated animals[6] except the dog and the turkey, they hunted antelope, deer, mountain sheep, and small animals such as rabbits, as well as an occa-

[4] Hack 1942a, H. S. Colton 1936.
[5] Titiev 1938, 40.
[6] Fewkes wrote that although chickens were unknown, "eagles were confined in small corrals made of sticks tied together. These eagles were kept for their feathers and the albumen of their eggs was used for glazing masks and not for consumption. They were regarded as sacred, and after death they were deposited in a special graveyard" (Cushing *et al.*, 272).

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sional mountain lion, grizzly bear, or gray wolf—wild game which, with the exception of rabbits and a few deer, has since disappeared from the vicinity. They also collected many wild and semicultivated plants. Indeed they identified and named most of some 200 wild plant species found in the neighborhood.[7] Thus the Hopi used the rather meager resources of their semidesert environment with skill, industry, and inventiveness, and they took great care to avoid waste and needless destruction. Although they traded their craft goods with neighboring Indian tribes in prehistoric times—with Zuni, Acoma, and other pueblos as far east as the Rio Grande, with the Havasupai and Walapai to the west and even with the Papago on the border of Mexico—they did not depend on trade for subsistence. Rather they depended mainly on farming. This was possible because the policy of the Hopi has long been to accumulate a surplus in times of plenty in order to tide over years of scarcity. By dint of great toil and foresight they tried to keep on hand a three years' supply of corn so that they could still survive when the crops failed, as they did every three or four years through drought, frost, sand storms, or pests.

A Close Fit

The exceedingly close adjustment of the Hopi communities to their natural environment at the time of "discovery" apparently was the end result of a long period of development and experimentation. Archeological records suggest that the Hopi are cultural and physical descendants of a Pueblo people who once occupied a much larger area of the Southwest. Just when these people came into the region and where they came from is not clear, but it must have been some time after 2000 B.C., since during the previous three millennia (i.e., 5000 to 2000 B.C.) the climate was too dry and hot to be suitable for settlement.[8] By the first millennium A.D. the climate had become slightly wetter and cooler, although the rainfall was apparently less than the minimum of sixteen to twenty inches needed for modern farming without irrigation.[9] During this time apparently ancestors of the Hopi moved into Hopiland and developed the ingenious dry and arroyo flood farming complex characteristic of their subsistence pattern, with crop types coming from the east and Mexico via the east Mexican corridor.[10]

[7] Whiting 1939, 48–51.

[8] Hack 1942b, 76.

Recent research has revealed that Hopiland presents extremely difficult farming conditions. According to Carter:

> The average date for the last killing frost is May 19, and thereafter the Hopi has on the average 133 days before the next frost. However, the first rains sufficient for wetting the ground do not come before the first part of July and killing frost is expectable 90 days later. The bulk of the Hopi crops need 120 days or more for maturation. Seemingly the Hopi has an impossible agricultural situation, but by planting as early as possible, even at great risk of frost damage, and by utilizing the moisture in the soil from the winter rains to start his crops six weeks before rain is expected the Hopi manages a precarious agricultural existence.[11]

Successful arroyo flood farming demands foresight and precision, for the crop is planted on the flood plains and at the mouths of the arroyos where it is liable to destruction either by floods or silt coverage. Both the fields and the seed to be planted are chosen each year with care. A Hopi plants several plots varying in location and soil type, rather than a single field, so that even if the crop is ruined in one locality it may ripen in another. He is thus protected as far as possible against the loss of his entire harvest. As a rule only about half of the available fields are under cultivation at any one time. Indeed, this flexibility of farmland use is imperative to the success of Hopi farming and, as the Hopi well know, any system of fixed individual allotments would spell disaster.

The Hopi corn crop is menaced not merely by frost, drought, floods,

[9] *Ibid.*

[10] Carter, 105–08; 123–24; 132.

[11] Arroyo flood farming has been defined by Carter as "utilization of land naturally flooded by arroyos but without canals for distributing the water." See Carter 101–03, 114; Hack 1942b, 20; Gregory 1916, 103–04; Forde 1931; Whiting 1937; Beaglehole 1937, 33 *et seq.*

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and silt coverage. As the crop matures many plants are likely to be destroyed by wind, sand storms, field mice, cut worms, and other pests so that only about half the seeds bear fruit. Usually, in planting, holes are dug two or three times as deep as usual and ten to twenty seeds are dropped into each hole. The mature corn plants are only three or four feet high and have strong root systems, thus taking advantage of the scant moisture available.

About 20 percent of the corn and beans cultivated by the Hopi today are planted on the high moisture-bearing sand dunes where they grow without surface flooding or irrigation.[12] Every individual clump on the exposed sand dunes, however, must be protected by a windbreak, at least in the early stages of growth. Such windbreaks are usually made of brush secured by stones.

The Hopi also plant seepage areas at the foot of the mesas, devoted mainly to fruit trees. Peaches, apricots, pears, and apples have become Hopi staples since their introduction by the Spaniards, and orchards now cover about 813 acres in Hopiland. Furthermore, patches of land around the springs in the mesa cliffs are terraced, irrigated, and planted to vegetables. But land and water available for spring-irrigated gardens is very limited—there are only about eleven acres of such gardens.

Early Agriculturalists

The first sites in Hopiland occupied by a definitely agricultural people (apparently the ancestors of the Hopi) show what archeologists call a Basketmaker III type of culture, dated 500 to 700 A.D.[13] These people dug themselves pit houses in the ground, made crude pottery and basketry, and cultivated maize, beans, and cotton. At least six such sites have been found at First Mesa alone and some of them show, by an improvement in pottery type, evidence of continued occupation into the so-called Pueblo I period. A settlement was also found near the present site of Walpi (at Kuchaptuvela), made probably by ancestors of the present Walpians. In time the pit houses grew into

[12] See Hack 1942b, 70–71; U.S. Soil Conservation Service.

[13] See Colton and Baxter; Hargrave 1931a, 1931b, 1932, 1935, 1937.

small stone dwellings characteristic of the so-called Pueblo II period, found at First Mesa, Third Mesa near the present site of Oraibi, and elsewhere in Hopiland.

Beginning at about 1000 A.D. there was a period of optimum conditions for arroyo flood farming in the Southwest and many pueblos and cliff dwellings grew up along the water courses. In Hopiland the main washes—Jeddito, Polacca, Wepo, and Oraibi—flowed level with the valley floor, which meant that arroyo flood farm lands were relatively extensive.[14] At this time (1050 to 1300 A.D., called Pueblo III or Classic), large pueblos grew up in Hopiland at First Mesa (Kuchaptuvela and Sikyatki), at Second Mesa (Shungopovi below its present site), at Third Mesa (Oraibi, apparently occupied continuously ever since), and at Antelope Mesa (Awatovi and Kawaiokuh). Thus two centuries before Columbus discovered America practically all the important Hopi communities, together with others now in ruins, had been established, Oraibi being the only one to occupy its present site.

Effects of the Great Drought

The Great Drought of 1276 to 1299, which, it should be noted, lasted twenty-three years according to tree-ring chronology, changed the face of the whole San Juan-Little Colorado basin, abruptly terminating the Pueblo III period. Springs dried up which had supplied the villages with a small but permanent water supply, arroyos shifted and deepened their courses, the water table was lowered, and lands which had been used for flood water farming became desiccated.[15] Apparently the whole San Juan, Chaco, and Kayenta areas became unsuitable for sedentary occupation and their inhabitants either perished or moved to more favorable regions, such as the Rio Grande Valley. Although Hopiland suffered greatly from the long, unprecedented drought and subsequent erosion epicycle, it was relatively better off than the surrounding areas because of the width of its alluvial floor, its superior intake area, and the presence of large numbers of moisture-

[14] Hack 1942b, 79.

[15] *Ibid.*

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bearing sand dunes absent in the north.[16] Consequently it attracted northern Pueblo peoples displaced by the desiccation of their farm lands and its pueblos grew into cities covering twenty or more acres.

At this time all the Tusayan Washes deepened their courses and flood farming was equally poor in all Hopi regions. The presence of abandoned lines of stones indicating windbreaks on sand dunes in the Jeddito Valley attest to the extensive use of sand-dune fields.[17] It should be noted also that sand-dune dry farming requires more labor than flood water farming. Although apparently during Pueblo IV (1300 to 1540) the Polacca, Wepo, and Oraibi Washes spread out again, watering the valley floors, and did not begin to cut deep channels again until the present epicycle of erosion which commenced fifty years ago, Jeddito Valley has not yet regained its former flood area.[18] Gradual reduction of the Jeddito farming areas coincides with the abandonment of the pueblos on Antelope Mesa. This fact suggests that desiccation of farm lands played a role in the movement of peoples away from Antelope Mesa which, since the destruction of Awatovi around 1700, has not been inhabited.

Franciscan Missions

The destruction of Awatovi culminated an important epoch in Hopi history—the half-century of Franciscan missions. For eighty years after the visit of Coronado's men, the Hopi were in little direct contact with the Whiteman, although of course many rumors, tales, and other evidences of the expansion of the Spaniards in the Rio Grande Valley must have reached them. For example, two Hopi, visiting Acoma

[16] According to Hack (1942b, 80), because of the narrowness of the alluvial floor to the north, an epicycle of erosion quickly destroys every available farming space. In Hopi, dissection of the valley floor is not so complete or so disastrous. Even when the main streams are incised, tributaries still supply akchim fields with water, and may continue to for a long time. Unusual quantities of dune sand enables sand dune agriculture not possible in other areas. Thus a substitute for the destroyed flood-water fields is available. Also abundant sand provides better intake areas for springs, alleviating the effect of drought which presumably accompanies and is the prime cause of an epicycle of erosion.

[17] Hack 1942b, 70–72.

[18] *Ibid.*, 29, 74.

pueblo in 1599, were apprehended along with several hundred Acomans who were rounded up by the Spaniards for conspiracy and tried at Santo Domingo. It is reported that the Acomans were found guilty and sentenced to have one foot cut off and to perform twenty years of forced labor and that the two Hopi were sentenced to lose the right hand and to be sent home as a warning to others.[19] Such incidents would not have inspired the Hopi with confidence in the newcomers.

Direct pressures of a new and disturbing kind began, however, in 1629 with the arrival at Awatovi of two Franciscan priests and a lay brother with military escort. The priests immediately began their mission to convert the heathen.

> The Religious constrained them [the Hopi] with lively and efficacious reasoning, to the adoration of one God and Lord, Creator of all things, and who for our Redemption had died upon a Cross like that [one] which they were under obligation to adore likewise, and not their idols with which the Demon had them so deceived—at this the sorcerers were irritated; and seeing that they were being deprived of their jurisdiction which as infernal ministers they had over those souls, they persuaded all the people that the Religious and all those who accompanied him were so many liars who were going to fool them, and that therefore they should kill them. . . .[20]

Actually one of the friars was poisoned by the Hopi four years later, but not before he had established the mission of San Bernardo, with its monastic discipline, within the confines of Awatovi. Shortly thereafter the missions of San Miguel at Oraibi and San Bartolomé at Shungopovi were founded. In time Awatovi had a *visita* at Walpi and Shungopovi had one at Mishongnovi.

Seeds of Dissension

It is important to note, in view of future events, that Spanish law and jails, schools, and a Spanish colonial village organization probably also came to the three mission villages.[21] The friars probably also pre-

[19] Brew in Montgomery *et al.*, 8.

[20] Quoted in *Ibid.*, 10.

[21] See *Ibid.*, 199.

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group also took some. Oraibi did not lose out on the land redistribution without a struggle and even today some of her clans claim lands in the Awatovi area. However, of the Hopi pueblos Oraibi alone remained not only on the same site but also with practically the same soil and water resources as in prehistoric times. Although of apparent unimportance, this fact is vital to our understanding of the events which followed, for, as a result of the historic pueblo destruction and land redistribution, the ancient balance of natural resources between the mesa groups was disturbed, First Mesa getting the largest share in relation to her population, Second Mesa the next largest, and Third Mesa the smallest (see Table 1). When wild game disappeared from the Hopi range and stock raising increased, the size of each mesa group's range took on more and more importance.

TABLE 1. Distribution of Population, Farm Land, Range Land, and Range-Carrying Capacity by Mesas—Hopi Jurisdiction

	First Mesa	Second Mesa	Third Mesa	Sire Pastures	Total
Population[a]	1,184	850	1,418		3,452
Farm land[b] (acres)	1,886	1,538	3,706		7,130
Rangeland (acres)	235,889	179,508	196,781	11,886	624,064
Carrying capacity in sheep units[c]	10,192	6,560	6,375	500	23,627

[a] By actual count (not verified) in summer, 1943 (from Hopi Agency 1944, 6, 8).
[b] Compiled by E. Vance Day, March, 1945.
[c] One sheep unit is the equivalent of one sheep grazing for one year. Four sheep units equal one cow unit and five sheet units equal one horse unit.

Navaho Encroachment

As the power of Spain over New Mexico waned, the Hopi were more and more troubled by predatory Navaho Indians who plundered their fields, stole their livestock, and took their women and children.

Coming from the north, the Navaho were comparatively recent migrants to the Southwest. The earliest known Navaho archeological site in the region (located at Governador, New Mexico) dates no further back than 1540, and the earliest historical reference to these Indians appears in 1626.[29] Their acquisition of the horse in historic times, however, greatly increased their mobility. After 1823, when Mexican rule replaced Spanish rule in the Southwest, Navaho raiders, no longer held in check by Spanish soldiers, increased their activities, but while they harassed the Hopi they also unwittingly protected the tribe for another half-century from further White encroachment.[30] Navaho raids did not cease until after the tribe had been conquered by American troops under Kit Carson in 1864, the Southwest having meanwhile become a part of the United States as a result of the Mexican War.

But Navaho herders continued to disturb the Hopi, gradually encircling them, preëmpting most of the Hopi range and crowding the Hopi into a very small area in the immediate vicinity of their mesa villages. Persistent and increasing pressure of the rapidly expanding, aggressive Navaho on the sedentary Hopi, who since time immemorial had claimed all the land surrounding their mesas, is one of the key factors precipitating the present crisis. The establishment of a 3920-square-mile reservation by Executive Order in 1882 for the Hopi and other Indians whom the Interior Secretary should "see fit to settle thereon" had no appreciable effect on Navaho encroachment and the Navaho-Hopi land dispute was not legally settled until 1943, when the Navaho were confirmed in the use of three-quarters of the original Hopi reservation which they had usurped and were occupying, leaving the Hopi the use of only 986 square miles of desert and semidesert land. This decision, together with the stock-reduction program which immediately followed it, was probably the greatest blow which the Hopi economy has experienced in recent years. To compensate for their loss, the Hopi have been granted the use of a substantial tract of irrigated fertile land on the Colorado River reservation in southwestern

[29] Kluckhohn and Leighton 1946, 4.
[30] Bartlett 1937.

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Arizona. Nevertheless, the boundary settlement was a major precipitating event in the current crisis.

Land Problems Become Acute

Navaho usurpation of the limited Third Mesa lands must also be considered as a factor, usually overlooked, underlying the 1906 break-up of the ancient Oraibi pueblo. Indeed, Oraibi's land and water dispute, which grew with her subsistence problem during the eighteenth and nineteenth centuries, was quite complex. It involved (1) Oraibi clans versus clans from the other mesas over lands formerly used by Awatovi; (2) Oraibi clans versus Navaho herders over lands claimed by the Hopi of Third Mesa; and (3) clans versus other clans within the pueblo over Oraibi lands.

Certainly the pressure of Oraibi's large population[31] on her relatively meager land base was in part responsible for her stiff resistance to the subdivision of Hopi lands in severalty under the Indian Allotment Act. We have already noted that the success of the Hopi's traditional method of arroyo flood farming depends on the communal ownership of farm land. Despite this fact, and pursuant to fiat, government officials made persistent attempts from 1892 to 1894 and from 1907 to 1911 to allot the Hopi lands. The Hopi were very much disturbed when government surveyors arrived at the reservation in 1891. The First Mesa chiefs sent a petition to Washington requesting that the Indian Bureau respect their ancient land divisions but the Oraibi chiefs removed the surveyors' marks and threatened to destroy the government school. A group of officials were sent to arrest the Oraibi chiefs and this led Oraibi to a formal declaration of war against the government. Finally two armed companies of cavalry arrived, threatened the pueblo, took the Oraibi chiefs into custody, and sent them to prison at Fort Wingate.[32] However, the strong opposition of the Third Mesa Hopi to the government's land allotment plan was to a large extent responsible for its abandonment by the authorities in 1911 and

[31] According to 1890 Indian Bureau census, Oraibi had a population of 1200 compared to a total of 2200 for the entire tribe (Donaldson).

[32] Thompson and Joseph 1944, 29.

for the fact that the Hopi have retained their ancient land ownership system to the present. It is noteworthy also that after the Hopi victory, land allotment was not pressed among other tribes of the Southwest—the Pueblo, the Navaho, the Mescalero Apache, the White River Apache, the San Carlos Apache, and the Papago.[33]

Crisis at Oraibi

Viewed in the context of the total tribal situation at the end of the nineteenth century, it is not surprising that these disturbances should have assumed acute form at Third Mesa. Key precipitating factors, however, seem to have been: (1) the arrival of H. R. Voth, a Mennonite missionary, who in 1893 took up residence at Oraibi; and (2) the building of the Oraibi federal school in 1894.[34] Before this time no Protestant evangelists had settled on or near the mesas, although about 1870 a Protestant mission had been established at Keams Canyon, twelve miles from the nearest mesa pueblo. Moreover, as yet there were no schools in the vicinity of the Hopi pueblos, the only school in Hopiland having been opened by the government at Keams Canyon in 1887, a year after several Hopi leaders from the First and Second Mesas had formally requested a school for their children. Since the people of Oraibi refused to send their children away from home, a compulsory quota of children to be filled by each village was established, and the government attempted to force Oraibi to give up her youth. However, this attempt proved unsuccessful and a day school was built within walking distance of Oraibi during the year after the Mennonite missionary arrived. About the same time a day school and a Baptist mission were established at Polacca below First Mesa. A day school was not built below the rim of Second Mesa until 1897, and not until 1907 was a Baptist mission set up there. Moreover, the Second Mesa mission was located not on top of the mesa but below it (as at First Mesa). With missions and schools came traders, and enterprising Hopi began to acquire horse-drawn farm implements from the government, which since 1870 had had its Agency at Keams Canyon.

[33] *Ibid.*, 136.

[34] See Board of Indian Commissioners.

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These changes served to intensify a feud which had evidently been developing at Oraibi for a long time. The whole pueblo was drawn into one or the other of the rival factions: the Hostiles who were against the government, the schools, and the missions; and the Friendlies who were willing to compromise. The feud came to a head over the pivotal Winter Solstice ceremony, and from 1889 to 1906 each faction conducted its own ceremony. A critical point was reached when, invited by the leader of the Hostile faction, a conservative group from Shungopovi moved to Oraibi in 1904. This, in a time of severe drought, put a serious drain on the Oraibi water supply and the Village Chief, who was the leader of the Friendlies, insisted that the Shungopovians return to their own pueblo. Neither side would yield, and since violence was not sanctioned by tradition, the two sides agreed to settle the issue by a contest. A goal line[35] was drawn just outside of Oraibi, and the two factions lined up on either side of it, the Friendlies with their backs toward the pueblo, the Hostiles facing it. The Friendlies won by pushing the Hostiles over the line away from the village.[36] Thus the Hostiles were forced to leave Oraibi.

It is instructive to note the action of the federal government in regard to the Oraibi split. Having held off interference just to the point when the Hopi had settled the issue in their own way and the conservative component was about to settle and reconstitute itself on a new Third Mesa site at Hotevilla spring, the government agent arrested the leaders of both sides, as well as most of the conservative men, and removed them from Hopiland for a period of three months to four years. This arbitrary action left the Hotevilla women and children to withstand the oncoming winter without shelter or food, and it greatly intensified the hostility of the people toward the American government, even to the point where the Oraibi chief who had been "friendly" toward Americans reversed his position and insisted that all converts

[35] Note the parallel to the line drawn by the Hopi at the time of Coronado's expedition.

[36] See Titiev 1944, Chap. 6; Cushing, Fewkes, Parsons 1922, 258–68; U.S. Department of the Interior 1907, 84–87.

to Christianity leave the pueblo. Oraibi's population was further diminished by migration to the foot of the mesa, where New Oraibi was founded, and to Moencopi, a summer colony on the Moencopi Wash (some forty miles northwest of Third Mesa on the Navaho reservation) where an abundant water supply is available.

Present Problems

Today some 4000 Hopi inhabit twelve villages on or near the First, Second, and Third Mesas (three flat, fingerlike projections of the great Black Mesa) and two colonies. The Moencopi colony has grown to a population of about fifty families[37] and the Colorado River colony has some twenty-seven families.[38] Although the population is increasing (see p. 60), the tribe is now faced with the problem of subsisting on a land base which has been not only severely curtailed in recent years but also has progressively deteriorated. For Hopiland is now in an epicycle of erosion, similar to that which desiccated the area in the thirteenth and fourteenth centuries. Now as then, there is a cumulative decrease in the amount of land available for arroyo flood farming, but the present epicycle is complicated by the fact that the range has been seriously overgrazed by the recent growth of the herding industry introduced by the whites. Some idea of the extent of erosion in Hopiland at present will be gained by noting that the Oraibi Wash has cut its channel to a depth of some eighty feet in the last fifty years.[39]

Thus, through a combination of circumstances, the Hopi have suffered in the last half century substantial losses both of precious arroyo farm lands and of range lands. The official act of settling the Navaho boundary dispute, although it prevented further Navaho encroachment of Hopi lands and was followed by the opening of new irrigated lands to Hopi colonists, crystallized the tribe's sense of deprivation. The Hopi's most seriously felt need is for more land. "At each meeting

[37] Hopi Agency 1942.

[38] The Colorado River colony was established in 1945 by Hopi families, mainly from First and Second Mesas, on the irrigated tract which the Secretary of the Interior granted for Hopi tribal use on the Colorado River reservation.

[39] Hack 1942b, 58.

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with the people," said the Agency Superintendent, "they request the exclusive use of the Executive Order Reservation."[40]

Stock Reduction

The present situation is still further complicated by government's stock-reduction program which was pressed immediately after the boundary settlement because of a severe drought. Reduction to the approved carrying capacity of the range (i.e., from a total of 31,189 sheep units in 1942 to 23,627 sheep units in 1943)[41] necessitated the selling of about 24 percent of the total Hopi livestock. Because of the unequal distribution of stock on the range in relation to range capacity, the program called for an average reduction of about 20 percent of the stock of each owner on First Mesa, 22 percent on Second Mesa, and 44 percent on Third Mesa. Thus again Third Mesa was hardest hit, indeed over twice as hard as First Mesa. Whereas the First and Second Mesa groups accepted the program and appointed local committees to carry it out, the Third Mesa stockmen, incited by off-reservation cattle interests, created some disturbance. When economic pressures from outside were reduced, however, the Third Mesa group was persuaded to accept reduction.

Adjustment of livestock to range carrying capacity should start a rehabilitation of the range which may be expected to respond more rapidly in First and Second Mesa areas than in the more critically eroded Third Mesa area.[42] But the drastic reduction has engendered a good deal of bitterness, especially among Third Mesa leaders. As one of the Oraibians angrily exclaimed in a meeting with the Indian Commissioner, "Tell me, how can I raise five children on nine cows?" The program was resented both because of immediate losses in economic assets and because, by limiting the number of stock permitted any one owner, it put a lid on the new trend toward upward mobility through individual ownership of livestock and prevented a concentration of individually owned wealth, in the form of stock, in the hands of a few relatively prosperous owners.

[40] Hopi Agency 1944, 45.

[41] The reduced stock was distributed as follows:

Stock	*S.U.*
1,000 Cattle	4,000
1,200 Horses	6,000
1,000 Goats	1,000
12,627 Sheep	12,627
Total	23,627

[42] Hopi Agency 1944, 21–22.

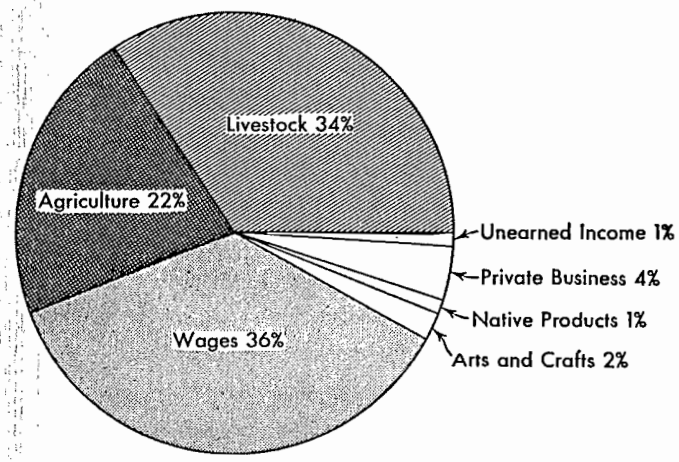

Figure 2. Hopi Income Source, 1942. (From Hopi Agency 1944, 31.)

Low Income

Some idea of the economic importance that their land base and natural resources have for the Hopi may be gained from a glance at the tribal income sources (Figure 2). In 1942, a year which for our purposes may be regarded as normal, farming provided 22 percent of the Hopi income while grazing was responsible for 34 percent. Thirty-six percent came from wages, largely for federal government jobs.[43] The mean income per family in 1942 was $439.82, but more than half of the Hopi families earned less than $300 a year, only five families

[43] Hopi Agency 1944.

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earning $2000 or over (Table 2). At the same time it should be noted that only 1.4 percent of the Hopi income was derived from government allotments and relief, an extremely low percentage compared to the all-reservation Indian average.

TABLE 2. Hopi Family Income, 1942[a]

Total Number of Families	645
Income Class	
Under $100	107
$100–199	175
$200–299	102
$300–399	72
$400–499	60
$500–749	49
$750–999	37
$1000–1499	22
$1500–1999	16
$2000 plus	5

[a] *Ibid.*

The Hopi are an unusually industrious and thrifty people who solicit neither charity nor financial credit. They prefer to do business on a cash basis and in general use only a small fraction of the credit funds available to them through the new Indian Service policy. They still make a practice of storing up food from the good years to tide over the lean, and each house has its storage room where ears of dried corn are carefully placed row on row, frequently to the height of the ceiling. Such low income figures, despite outstanding habits of industry and foresightedness, point up the hazardous nature of life in Hopiland and the diminishing natural resources of the tribe.

After 1942 the tribal income shot up because of the substantial increase in wages which came with World War II. Many Hopi left the reservation to join the armed services or to become industrial workers, with the result that most Hopi families had an unprecedented amount of cash. With higher incomes came more material goods—food, clothing, and "gadgets" that could be bought from reservation traders. But this short period of relative prosperity for the Hopi has already come to an end. Veterans and industrial workers have returned. Family incomes are shrinking. And the Hopi are entering an era of readjustment made particularly difficult by the contrast between life on the jurisdiction and life on the battlefronts and in factory towns where so many young Hopi spent the war years.

The Herding Industry

The Hopi jurisdiction now contains about 624,064 acres of range land[44] divided between the three mesa groups as shown in Table 1. Out of a total of 645 Hopi families a little more than half own sheep or cattle. While grazing is usually subsidiary to farming, in some households, especially at First Mesa, the men spend much of their time in sheep camps away from home and derive most of their income from herding. The custom is for a number of owners to pool their sheep, taking turns at shepherding the flock.[45] Since the entire range is in use there is little moving about of herds, a situation which, correlated with successive drought years, has brought about excessive overgrazing.

Besides the stock-reduction program, attempts have been made by the Indian Service to foster sound stock management. These attempts include branding, sheep dipping, breed improvement through purebred Rambouillet rams and registered Herefords, ram segregation, fodder raising, corral construction, improvement of stock water supply, and the organization of stock coöperatives. By means of government credits, the Hopi have developed three coöperative stock associations.[46] However, herding, in that it demands a certain mobility, does not fit well into the sedentary life of the pueblo dwellers. The

[44] The Hopi range is classified as follows (Hopi Agency 1944):

Grasslands	208,134 acres
Sagebrush	5,639
Browse	309,062
Pinyon and juniper	78,411
Waste	22,818

[45] Thompson and Joseph 1944, 24.
[46] Thompson and Joseph 1944, 24–25.

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Hopi do not make especially good stockmen despite strenuous efforts on the part of the government to raise their standard of animal industry. The success of the government's grazing program depends partly on the appropriation of funds for construction and water development, partly on the education of the Hopi stockmen in better herding practices and in their coöperative organization for grazing, breeding, and marketing efficiency.

Farming

In contrast to herding, practically every Hopi man is a farmer, still relying mainly on ancient arroyo flood and dry farming methods adapted to the high, difficult terrain and the arid climate. There are about 7130 acres of cropland on the Hopi jurisdiction,[47] but these may be used mainly for dry and arroyo flood farming since irrigation possibilities in Hopiland are extremely limited in both number and size. There are no permanent streams except a few seeps in the bottoms of the deep arroyos and a few small springs. The diversion of arroyo floods from the large, deep washes is an expensive and precarious undertaking and the ground water supply is limited.

As a result of Indian Service irrigation construction, 110 acres have been brought under modern irrigation systems.[48] An additional 274 irrigated acres are available to members of the Hopi tribe at Moencopi and an irrigated tract at Colorado River. It is estimated by Agency technicians that another 280 acres in Hopiland are irrigable with additional federal construction.[49] But since the total estimated irrigable area on the jurisdiction is less than 400 acres, even were the facilities

[47] In 1942 the approximate acreage yield of the principal crops was as follows (Hopi Agency 1944, 16):

Crop	*Percentage Farm Land Acreage*	*Yield per Acre*
Corn	75	5 bu.
Orchard fruit	13	no data
Melons	9	2½ tons
Beans	3	5 bu.
Potatoes	1	50 bu.
Irrigated garden produce	½	no data

[48] Hopi Agency 1944, 16, 19, 20, 42, xxiv–xxix.

[49] It was estimated in 1944 that this construction would cost about $22,150 (*Ibid.* 21). Irrigation works completed or under construction in the vicinity of Moencopi, off the Hopi jurisdiction, are not included in these estimates.

available a substantial part of Hopi subsistence would still depend on arroyo flood and dry farming.

With the help and encouragement of the Indian Service, the Hopi are gradually improving their farming techniques. They try out new methods and new varieties of plants, accepting those that are found useful by experience and rejecting the impractical or obsolete. Some of the ancient varieties of corn and other useful plants have been abandoned for new varieties that are more useful or palatable.[50] The ancient wooden dibble, weed cutter, and rake are slowly being supplanted by modern agricultural tools. At New Oraibi, for example, the most modern community in this respect, it is estimated that three-quarters of the households have plows and scrapers, many also owning teams and wagons.[51] Through agricultural extension work, the Indian Service is trying to increase farm production by teaching irrigation farming and to improve the orchards by bringing in new seedlings and trees suitable to the climate. However, the high semidesert environment remains the dominant factor in the tribe's acceptance or rejection of new technological traits. For this reason, while improving in details, the farming technology of the Hopi has changed little since prehistoric times.[52]

Other Resources

The Hopi have few other presently available natural resources. The jurisdiction's timber, which covers an area of 78,411 acres, is now on a sustained-yield basis and provides the Hopi with firewood, pinyon nuts and posts.[53] Seams of good coal underlie much of the area, and two mines are operated for Agency use, but the commercial development of coal depends on the building of good roads, for the mesas are seventy-five miles from the railroad. Several oil structures have been reported in the area, but there are as yet no oil developments in Hopiland.[54]

A human resource which could easily be developed, however, is

[50] Whiting 1937, 13.

[51] Watson *MS.* 72, 73.

[52] Whiting 1939, 52; Carter, 102.

[53] Hopi Agency 1944, 17, 43.

[54] *Ibid.*, 17–18, 22, 44.

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craftwork. From time immemorial the Hopi have been skilled craftsmen. Practically all the ancient methods persist although, with the introduction of inferior material and the commercial market, workmanship has somewhat deteriorated.[55] The Indian Service encourages the production of arts and crafts and for the past few years a considerable quantity of these products has been made, but they have been chiefly of inferior quality and sold at low prices to traders and tourists who have happened along.[56] Most of the traders on the jurisdiction are Hopi Indians who are not in a position to market craftwork on a large scale. It has been suggested by Agency personnel, however, that the Hopi's aptitude for design, together with their traditional skill in craftwork, might be organized into an arts and crafts industry under the Indian Arts and Crafts Act, with patent commercial possibilities.

Conclusion

From an analysis of Hopi ecology we conclude that spatially the tribe has been confined mainly to a relatively limited geographical area of such nature as to allow a narrow range of choice in regard to a town-dwelling, agricultural group's adjustment to it. The geographic area wherein the Hopi tribe has played its relatively isolated life drama for many centuries is a desert and semidesert highland with an elevation of 5000 to 6500 feet, a present average rainfall of 10–13 inches, an average growing season of 133 days, and a mean temperature of 51 degrees Fahrenheit.

Ever since the Hopi first settled here their existence has depended directly on their water supply, particularly on the presence of semipermanent springs (near the southern base of Black Mesa, close to which they built their pueblos), on flood water, and on moisture-holding sand dunes. They have subsisted on farming by means of ancient, laborious, and exceedingly precarious arroyo flood and dry farming methods, supplemented by hunting. Their main crops for over fifteen centuries have been corn and beans, cultivated with ancient

[55] M. R. F. Colton, 4; Adair, 177–78.

[56] Whiting estimated that the Hopi gross income from arts and crafts for 1941–42 was $8,300–$11,000 (Whiting *MS.*).

wooden implements. Farming against great odds, they have had to cope with drought, floods, killing frosts, sand storms, and pests, all of which constantly threaten the crops.

This environment imposes rigorous limitations on a sedentary, agricultural tribe's choice of a life-way. It lays down unyielding imperatives which must be met habitually and unerringly if the group is to survive and reproduce itself generation after generation. Although the Hopi villages traded extensively with neighboring Indian tribes in prehistoric times, they did not depend on trade for subsistence and survival. On the contrary, except in extended periods of drought, they depended mainly on farming. Indeed, until recently, when contacts with the outside world increased to the point where the economy of the Hopi was significantly affected, imperatives imposed on the tribal life-way by the environment were well-nigh absolute. Thus the Hopi's narrow range of choice at the geographical level forced them to develop a culture nicely adjusted to the ecological arrangement of the region.

Disturbance in Ecological Adjustment

The arrival of the Whiteman in the Southwest was responsible both directly and indirectly for a disturbance in the Hopi's ancient and deeply rooted ecological adjustment. The destruction of wild life and the introduction and increase of domestic animals especially disturbed the balance, not only of the Hopi but also of the Navaho and other adjacent Indian tribes. All these interacting factors plus a recent natural erosion epicycle have played a role in bringing about the denuding of the Hopi range of its plant cover and the rapid, cumulative spread of soil erosion, the deepening of the washes, and subsequent diminution in arroyo flood farm lands.

Despite the many-faceted, constructive program of the present administration to improve Hopi economy, the picture which emerges from a survey of the Hopi's land-base and subsistence problems is one of growing distress and conflict. Four thousand industrious and thrifty Indians are trying to eke out a living, mainly by arroyo flood farming and herding, on a few square miles of high arid land. Their ancient land holdings have dwindled to a fraction of their former size and

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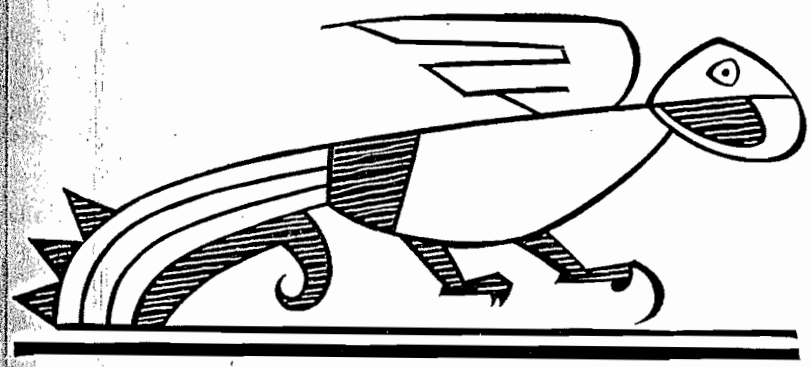
their land-use area has been fixed by federal regulation. The Hopi are now crowded on an area of 631,194 semidesert acres, of which only about 7130 acres may be used for crops, the remainder being range land and waste. Irrigation developments are severely limited at present and the water shortage limits future possibilities. Big game, formerly an important source of food, has disappeared from the vicinity. Herding is officially curtailed by the dearth and poor condition of the range, much of which is critically eroded. Other natural resources are few and undeveloped, and living standards are low. A short period of relative prosperity, due to World War II, has come to an end. Veterans and industrial workers, after several years off the reservation, are accentuating the already acute economic problems of the tribe.

Finally, of the two Hopi communities selected for special investigation, several factors have combined to render the present crisis more acute at Oraibi than at First Mesa. These include: (1) internal disturbances aggravated by the presence on the mesa top first of a Franciscan mission and two centuries later of a Mennonite mission; (2) a land-base shortage in relation to the size of the population resulting from Oraibi's failure to get a sizable share in the redistribution of land after the destruction of Awatovi, and from her relatively serious loss of lands because of Navaho encroachment; and (3) a more critically eroded land base and consequently much more drastic stock-reduction program.



Chapter 3

ANCIENT AMERICANS

"The people are very healthy. The men cover their privy parts with a blanket similar to a hand towel, painted and with tassels. When they feel cold they wear cotton blankets. The women are always well dressed and have their hair done up in puffs."[1] So wrote Luxán on the second visit of the Whiteman to Hopiland, forty-two years after Coronado's expedition. The "puffs" refer to side whorls symbolizing the squash blossom, emblem of fertility, worn by marriageable girls, and seen occasionally even today in conservative Hopi communities. The Spaniards were impressed with the qualities of hand-woven cotton blankets and other clothing which the Hopi presented to them: at Awatovi "six hundred widths of blankets small and large, white and painted [dyed], so that it was a pleasant sight to behold; at Walpi six hundred more; and at Oraibi over eight hundred."[2]

Mention should be made also of the Hopi man's traditional hair

[1] Luxán, 100.

[2] *Ibid.*, 98, 100, 102.

¶ The figure at the head of this chapter shows a prehistoric pottery design from Sikyatki. (Adapted from Vaillant, Plate 33, from a specimen in the U.S. National Museum.)

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In contrast to early Greek religious beliefs, Hopi institutions express faith in an harmonious universe in which nature, the gods, plants, animals, and men are interdependent and work together systematically and reciprocally for the mutual welfare of all.

Female-Centered Kinship System[3]

The Hopi's pueblo theocracy is a complicated structure closely integrated with the tribal religion and world view. In it the primary kinship unit is not the family, with descent through the male line, as it is in the general American population. The basic kinship unit among the Hopi is the clan with descent through the female line.

Each clan is made up of one or more matrilineal lineages descending in theory from a common ancestor. The core of the lineage is a group of related females, consisting of a senior member (an elder, active woman in the group, called its "real head") and her sisters with their female descendants. The brothers of the "real head" (an elder of whom is the "ceremonial head") and all the male descendants of the females in the lineage also belong to the lineage but relatives by marriage do not.

A Hopi considers himself most closely related to the members of three different matrilineal lineages: his mother's, his father's, and his mother's father's. He may not marry into any of the three or their associated clans and phratries (see p. 69). These three lineages form the nexus of the Hopi kinship system. Indeed, "in Hopi theory they are timeless, stretching back to the Emergence [from the Lower World] and continuing into the future.[4]

[3] See Eggan 1936, 1949, *MS.*, Titiev 1944.

[4] For details see Eggan 1949, 127–30, who states: "The Hopi . . . divide consanguineal relatives in terms of three lineages: the mother's (ego's), father's, and mother's father's matrilineal lineages. In ego's own lineage we find a considerable differentiation of relatives, but with reference to individuals marrying into the lineage we note that they are classed together in terminological usage. Generation distinctions are important only within one's own lineage. With reference to outsiders related by marriage the lineage is conceived as a unit. For a male ego there is some tendency to organize male lineage relationships in terms of alternate generations, but this tendency is not standardized in social usage at present. The father's and mother's father's lineages, on the other hand, are treated as units, both with regard to their members and with reference to persons marrying into the lineage. The lineage diagrams suggest that the father's and mother's lineages are related to ego's in conceptually similar ways; each is attached through marriage of a man to a woman of the lineage, either mother or mother's mother. The father's father's lineage, on the other hand, is a whole lineage farther removed, and is not recognized by the Hopi, though the father's father's sister's descendants are just as close genealogically as the mother's father's sister's children."

[5] See Beaglehole 1937; Eggan *MS.*; Lowie; Forde.

When a Hopi girl marries, customarily she does not leave her mother's household to go to her husband's village, nor does she set up an independent household of her own. She remains under the maternal roof or close to it, her husband leaving his mother's home and kin to join her. Although they live in the households of their wives, the married men of a lineage look upon the households of their mothers and sisters as their real homes. There they return often to participate in their own clan ceremonies. If they lose their wives through death or divorce they take up residence in the maternal home.[5] The Hopi household, therefore, usually consists of a woman, her husband, her unmarried daughters and sons, her married daughters and their husbands and children. This group customarily occupies a set of adjoining flat-roofed rooms, placed side by side or one atop the other, and facing the pueblo court. The Hopi household tends to be virtually an independent economic unit, each member working with the others for the common good. Women and girls care for the children, grind the corn between stone slabs, prepare and cook the household food, haul water from the spring, care for the vegetable garden, and make pottery or baskets. The men and boys farm, herd, hunt, and collect fuel and timber for the group. They also spin, weave, and tan leather. A good deal of their time is spent in ceremonial activities. They contribute food and other gifts to the households of their mothers, fathers, and fathers' sisters.

Springs, gardens, and farm lands are owned collectively by the clan group and are distributed for use to the household groups. The house and its furnishings, the crops, food stores, and seeds belong to the women of the household in charge of its female head. The children are considered also to belong to this group. On the other hand, besides their personal effects, tools, and ceremonial paraphernalia, men individually own most of the livestock and fruit trees. Thus, through own-

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ership of practically all property of value in Hopiland except livestock, the matrilineal kinship group gives a Hopi woman economic and social security quite independent of her marital status. Indeed, it might have raised women to a position of dominance in Hopi life were it not for the male-centered system of religious associations, discussed below, which balances the basic female-centered kinship system and gives a significant, biologically rooted equipoise to the Hopi social order.

Clan Houses, Fetishes, and Partners

In each clan one house is considered to be the permanent, traditional ancestral home of the clan, and is the focus of interest of the clan members.[6] The female and male heads of this household are the accepted leaders of the clan, the woman being the Clan Mother or "real" clan head and her brother (not, it should be emphasized, her husband) being the "ceremonial" clan head. The sacred property of the clan, its fetishes and ceremonial paraphernalia, are kept in the traditional clan house in the custody of the Clan Mother (not, it should be noted, of the clan ceremonial head). It is the Clan Mother who is entrusted with the sacred rite of "feeding" the clan fetishes.

The clan fetish represents the clan's primary nonhuman partners. These nonhuman partners may be a species of animals or of plants (such as Bear or Reed) or a class of natural or supernatural phenomena (such as Cloud or Sun's Forehead) believed to give the clan its special quality, its power or "medicine," and its name. Clan members refer to their nonhuman partners by kinship terms, such as father, mother, or mother's brother.[7]

A clan also acknowledges relationship to a number of other classes of nonhuman partners and secondary fetishes which belong primarily to other clans. Those clans acknowledging the same nonhuman partners, either through primary or secondary ownership, are considered to be related and their members, referring to one another by brother-sister kinship terms, are not allowed to intermarry. They share one

[6] Parsons 1936; Titiev 1944, Chap. 8; Kroeber 1928.

[7] Eggan 1949, 131.

another's clan names and they take responsibility in one another's ceremonies.

Such clan groups form non-intermarrying, nameless units known as phratries. The phratries are the largest groups in Hopi society based directly on kinship.[8] Much about them is still unclear but apparently the Hopi phratry system, consisting of human orders (clans) associated with their nonhuman partners (classes of animals, plants, natural and supernatural phenomena), theoretically forms a supersociety which logically relates the human social order to the order of nature. In this man-nature supersociety the component parts are believed to work together on the basis of *correlative*[9] totemic relationships, for the good of all (see p. 133).

Male-Centered Ceremonial System

The ceremonies belonging to a clan are controlled not by the clan's "real head" but by her brother, who is the "ceremonial head" of the clan. An important fact, usually overlooked by Hopi administrators, is that the clan's "ceremonial head" conducts the major clan ceremonies, not with the help of the members of the clan, as might be expected, but with an entirely different group, a secret religious association consisting of initiates who have chosen voluntarily to join the association.

These secret societies number about twelve, not all being found in every Hopi village.[10] Nine societies, including all those controlling major ceremonies, are open only to men and youths, and three of them, controlling minor ceremonies, are open to women and girls. Any individual in the tribe who fulfills a society's requirements regarding sex and age may be initiated into the society if he is willing to undertake the responsibilities of membership. Thus, except for its chief priest, a

[8] *Ibid.* See also Titiev 1944, Chap. 4; Eggan *MS*.

[9] The term "correlative" is used in this inquiry to denote relationships of mutual dependency expressed by an interchange of equivalent but not identical values. It should be distinguished clearly from the "reciprocity" concept which, for purposes of this inquiry, denotes relationships of mutual dependency expressed by an interchange of identical values. The correlative relationship is basic to the Hopi social system and the correlativity concept is basic to the Hopi world view.

[10] See Stephen 1936, xxxviii; Thompson and Joseph 1944, 45.

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society draws its membership, irrespective of clan affiliations, from both the pueblo which is its base and from other pueblos.

Ceremonies controlled by the nine societies which exclude women are performed by men and youths, with the exception of a few minor roles performed by women. But ceremonies controlled by the three women's societies require male performers for several major roles. Thus the ceremonial responsibilities of a pueblo fall mainly on the men.

The chiefs of the leading societies of each pueblo form a ceremonial council (Chief's Talk), headed by the Village Chief. This council meets once a year at the end of the Winter Solstice ceremony. Although its function is mainly ritual planning, the group acts at times in a judiciary capacity, enforcing traditional procedures if necessary through members who belong to the societies formerly associated with war, especially the War Chief. This dignitary is aided if need be by several *kachina* impersonators of a disciplinary character (such as the Giant Kachina) who function, for example, as supervisors of village work groups and have been known to enforce their role on occasion with whatever weapons they bore.[11]

It is significant that major Hopi ceremonies are conducted by voluntary secret religious associations, not by clans, each society being led by a chief priest who usually is the "ceremonial head" of an important clan and the brother of the Clan Mother. This removes Hopi traditional religious leadership and responsibility from the hereditary, female-centered kinship system and fixes them in the voluntary, male-centered, religious association system. The relationship between the kinship and the ceremonial systems gives a unique organic balance to Hopi social organization and tends to equilibrate the status of men and women in Hopi society. Each sex has its own unique and indispensable place and role. The complementary biological functions of male and female are institutionalized in a complex, correlatively balanced social order.[12]

[11] *Ibid.*, 47.

[12] The effects on Hopi personality of this female-centered but biologically balanced social order and of its disorganization are discussed in Chap. 5. Here is noted the fact that the Hopi, in placing women at the center of their social system, have institutionalized a psychobiological concept which is accepted theoretically by many leading scientists, especially psychiatrists and psychoanalyists. For example, according to Karl Menninger, M.D.: "To place the major responsibility for the formation of the child's personality upon the mother is to put women in the center of the universe, psychologically. This is not in contradiction to biological concept; in many of the lower forms of life, there are no males but only females. Recently it has been demonstrated that even in mammals fertilization of the female ova may be accomplished artificially without either the mechanical or the chemical assistance of the male; he could, so to speak, just as well not exist. Our social order, on the other hand, our economic order, our religious concepts, our legal codes, all make a quite different assumption, a historic assumption. Man is the more important figure; woman is born to serve him, love him, be protected by him, and assist in reproducing him. In the English language the word 'man' is used synonymously with 'human being.' It is important to emphasize this contradiction between the psychobiological and the prevalent social concept. . . ." (Menninger, 41).

Biologically Balanced Social Order

In brief, the findings of the present research, based on investigation of a representative sample of Hopi communities, indicate clearly that the unifying principle in Hopi society is not the clan or the clan system, as inferred by Mischa Titiev.[13] On the contrary, it is a subtly balanced, correlative relationship between an hereditary kinship system and a voluntary secret-association system. As will be demonstrated below, only when this dynamic relationship is critically disturbed do we get a structurally significant crisis in Hopi village organization. Titiev's conclusion seems to be based on an investigation into the organization of atypical villages only, where a breakdown in traditional social and ceremonial structure has apparently obscured the traditional unifying principle and dynamics of the system. Thus it well illustrates one type of unrealism of findings to be expected when the social scientist neglects the use of sampling principles and procedures.

Leadership

The status of each ceremonial association, its chief, and the clan to which the chief belongs depends on the importance of the ceremony or ceremonies which the association conducts in the annual cycle, and therefore on the degree of *responsibility for tribal welfare* with which

[13] Titiev 1944, 58, 69, 99. Compare to Eggan 1949, 143. Both Titiev and Eggan apparently confuse the concept of *centralization* with that of *integration*, concluding that since they have strong clans which are not highly centralized politically, the Hopi pueblos are not and cannot be closely knit and highly integrated sociologically.

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