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OFFICE OF ARCHAEOLOGICAL STUDIES

**THE HAKATAYA CONCEPT
AND
ORIGIN OF ITS GROUPS**

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FOREWORD

The Research Section of the Museum of New Mexico has initiated a policy of publishing outside reports that we believe would be of interest to scholars and the general public. Research Section funding is not available for the publication of these reports; therefore, we are making them available just as they have been received. They have not been edited or amended. Our hope is that, by making them public, they will increase our existing knowledge of various aspects of New Mexico prehistory and history. This report is one of those unpublished documents that we are making available to the interested public.

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PREFACE

In my paper on the Hohokam, Sinagua, and the Hakataya (1960), I remarked that I used an approach of a "scheme of patterns, which considers traits both in time and space" to form "a historical basis on which to work." I also noted that "patterns in time and space must be distinguished before folk and complex cultures can be separated." A major concern of the manuscript was with folk cultures (Schroeder 1960:55).

My paper was relegated to oblivion in the Society for American Archaeology microcard series. When the opportunity arose to publish it in 1975, I chose not to update it since it represented thoughts and data of the late 1950s. It has since been revised in part by a series of later articles. More data also have been recovered on which I have not commented in print, and I apologize for the delay. Because of the subject area of interest to the participants at this meeting, my remarks will be restricted primarily to events relating to central Arizona, with little or no reference to the Laquish or the southern California region.

INTRODUCTION

By way of a brief background, the Hakataya concept as originally outlined (Schroeder 1957) still holds as does most of the presentation of 1960. The tradition seems to have grown out of the Preceramic period Amargosa (Schroeder 1985a) with the introduction of ceramics by unregulated diffusion via Preclassic Mesoamerican contacts. Because of the now known earlier appearance of Hakataya ceramics north of the Gila-Salt, the similarity of the Pioneer period Hakataya traits to those of the post-A.D. 700 to A.D. 1100 middle Verde and Flagstaff areas, noted in 1960, is now more easily explained by their near contemporaneity or overlap in time. Throughout the pre-A.D. 700 period and into the 1100s, most of the Hakataya probably followed a seasonal cycle that was water tethered except for those of the Gila-Salt Pioneer period and the Laquish of the lower Colorado River (who probably were farm tethered, but still somewhat mobile in their subsistence practices).

The Hohokam and Later Hakataya

At the end of the Pioneer period, the Hohokam (derived from Classic period Mesoamerica) introduced many ideas into southern Arizona but not many material items. The culture base already was present among the Pioneer period Hakataya floodwater farmers who probably lived on the lower edge of the first terrace just above the bottomlands, using the lower part for their fields (as did their relatives in the Gila Bend area, where the Hohokam selected residential sites on the middle or upper part of the terrace [Schroeder 1961c]).

When the first small group of Hohokam came into the Gila-Salt, perhaps as a result of previous reports by traders or pochtecas from the south who realized its potential, the Hohokam may well have convinced some of the scattered Hakataya nuclear families living in round to oval wickiup to rectangular jacal structures or pithouses to band together in a "construction camp" to build a canal. On the basis of its success, the Hohokam remained and the camp grew into a village with loaf-shaped jacal dwellings introduced by the Hohokam. Other canals and villages followed during the Gila Butte phase, perhaps augmented by a few more Hohokam immigrants. Some of the Hakataya hamlets grew to become key or regional centers in which the Hohokam congregated and introduced their large east-west solar path oriented ball court. They also formalized disposal of trash, developed the local Amargosa and later Hakataya shell industry (previously based on minimal alteration), elaborated on the Hakataya practice of cremation, expanded or controlled the already developed Hakataya network of trails with their own pochteca-like system, and introduced Hakataya potters (who had used residual clays) to the manufacture of red-on-buff pottery from alluvial clays. Of interest in regard to this last is Rogers' (1928:22) statement concerning the controversy on Pioneer period red-on-grey pottery and Colonial period and later red-on-buff pottery: "These are two distinct types fashioned from different clays."

In Gila Butte times, the Hohokam set up a colony among the Hakataya on the upper Agua Fria (Weed and Ward 1970) to the northwest and near Globe (Vickery 1945; Brandes 1957) to the east (where they introduced small northwest-southeast, solar path oriented courts [Schroeder 1963a], perhaps smaller because these were not major area centers). The court also was adopted by non-Hohokam Ootam during the Colonial period in southeastern Arizona and by the Laquish below Painted Rocks (Schroeder 1967; 1985a) at the Rock Ball Court Site (Wasley and Johnson 1965), but their orientations seldom were consistent with those of the Hohokam for the periods in question (Schroeder 1985a). In the following Sedentary period, a few other colonies were established among Hakataya in the Verde Valley north to the Flagstaff area, where the Hohokam now introduced their new small north-south, Polaris (?) oriented ball court.

By the beginning of the Classic period, there no longer is evidence of Hohokam colonies to the north, the Hohokam region of the Gila-Salt shrank, and the architectural pattern of the towns changed along with abandonments of old trash mounds for new ones (Schroeder 1940, 1952a, 1953). The Gila Bend area (abandoned by the Hohokam) was taken over by the Laquish, and the Verde Valley-Flagstaff region underwent considerable change with the adoption of a Pueblo-like way of life. Some of the more western Hakataya (such as those of the Prescott and Agua Fria districts, who adopted some of these changes) failed in their attempt at a Pueblo-like existence and seem to have returned to their horticultural band type of existence by about A.D. 1200. In the more eastern Hakataya areas, adaptive measures ensured survival for another two centuries. By historic times, occupants of the Hakataya region returned to their early ceramic period life way of mostly Patayan horticultural bands or Laquish rancherias with a distribution as depicted on the linguistic map of the Yuman languages compiled by Kendall (1983:8).

Historical Development of the Concept

The Hakataya concept began in 1940, though I did not know it at the time. In summarizing the transition between the Snaketown and Gila Butte phases in the Gila-Salt, I remarked that

...many differences are noted which suggest that other groups of a similar culture, having traits foreign to those of the local natives, came into the valley. Through cultural shuffling, the combined groups adopted, rejected, and developed traits that went to make up the Gila Butte phase (Schroeder 1940:141).

In 1948, a similar problem arose as a result of examining sites near Mayer, Arizona (Schroeder 1954). A combination of Hohokam-like and Patayan traits at some of the sites, plus similarities to the historic period Yavapai, suggested that the complex might represent what I called (at the time) a new focus. Additional observations in the Verde Valley at this time revealed blends or mixtures of traditions (Schroeder 1960), as did excavation in 1950 at Willow Beach where stratigraphically different traditions were recorded (Schroeder 1961a).

The survey of the lower Colorado River in 1951 provided data for the separation of the riverine Laquish groups from the Patayans (Schroeder 1952b). Everything gave the impression that people were moving around either seasonally or periodically or were sharing certain territorial areas at one time or another.

Having accumulated available data within and along the borders of central Arizona, and noting that certain similar items or pattern of traits occurred beyond into southern California, I began to discuss the situation with others having similar interests in the areas involved. This resulted in a meeting at the 1956 Pecos Conference, and the tradition of the Hakataya was outlined (Schroeder 1957). In putting the 1960 paper together, I purposely concentrated on the Gila-Salt-middle Verde-Flagstaff alignment so adjacent patterns could be compared. The results indicated a close agreement between the pre-A.D. 700 Pioneer period and middle Verde-Sinagua A.D. 700-1100 patterns.

Other relevant data that could have been included was the 1957 survey of the Painted Rocks area near Gila Bend (Schroeder 1961c) which revealed the presence of both Hohokam and Hakataya sites, and a treatment on the pre-eruptive and post-eruptive patterns of the Sinagua of the Flagstaff area (Schroeder 1961b), both of which were tangent to the north-south alignment under study in the 1960 paper. A broader coverage was presented in two later papers (Schroeder 1965; 1966). One pointed to Preclassic Mesoamerican influence which through unregulated diffusion introduced ceramics and a few other traits to the local Amargosans, resulting in the Pioneer period tradition of the Hakataya. The other involved pattern diffusion through entry of the Hohokam (a group influenced by Classic period Mesoamerica) about A.D. 600.

Regarding Figure 1 in the latter article, I now would change it in several respects. The southward projecting arrows should be narrow arrows indicating diffusion of some complexes but not a pattern. The arrow north of Tonto Creek should be eliminated. The arrow from the Humbolt area should be extended as a narrow arrow to the Camp Verde area and from there north to the Sinagua. A narrow arrow should replace the wide one extending to the Cohonina, and a similar one should extend east from Camp Verde to below the Mogollon Rim. The arrow from the Cohonina to the Sinagua can be deleted. The narrow arrows extending northeast to the Four Corners area remain as is, representing the regulated diffusion of ballcourt-inspired big kivas and great kivas (Schroeder 1963a). All dates in accompanying texts of the above articles should be revised in line with current dating.

Following these publications, little effort was devoted to the subject due to other demands on my time. However, material prepared prior to my retirement in 1976 resulted in two publications--a popular booklet on the Sinagua of the Flagstaff area (Schroeder 1977), in which the Hakataya concept was deleted by request of the Museum of Northern Arizona, and a summary of the Hakataya that appeared two years later in the *Handbook of North American Indians* (Schroeder 1979).

In more recent years, I wrote two additional papers (Schroeder 1980, 1981) as a discussant at symposia related to the Hakataya. The 1980 paper dealt with the area immediately to the north of the Hohokam and that of 1981 with prehistoric aspects of areas

to the west and north of the Hohokam. The most recent article, a presentation at the 1983 Hohokam symposium (Schroeder 1985a), delves primarily into the late Archaic-early ceramic period of southern Arizona which summarized thoughts on the relationships of the Hakataya, Ootam, and Hohokam. Other comments as a discussant at the 1987 unpublished Hohokam symposium on the late Archaic-early Ceramic period transition includes, among other aspects brought out by participants, additional interpretations concerning the Hakataya tradition.

THE PRE A.D.-1100 HAKATAYA

The Hakataya tradition had its origins in the late Preceramic Amargosa tradition (Rogers 1945:173-174; Schroeder 1985a:159, Figs. 1 and 2), which was a mobile society judging by the widely scattered origins of lithic materials recovered from single sites of the late Archaic period (Shackley 1986). The Stricklin Site, a late Archaic camp 35 miles north of Phoenix, contains lithic material dominated by northern Arizona sources (Kenny 1987). Long distance trade of shell from the Gulf of California into southeastern Arizona (Howard 1987) and as far east as Pratt Cave in the Carlsbad Caverns area (Schroeder 1983) indicate widespread movement or contact in Archaic times. The presence of a cremation dating to 225 B.C. at Pratt Cave underscores the presence of this practice considerably east of Haury's (1957) earlier find in eastern Arizona. Both cremations predate the Hohokam. Abalone shell from the Pacific coast at Basketmaker II sites in the Zuni country (Roberts 1931) reflects similar activity across the Amargosa bridge extending over southern and central Arizona (Bartlett 1943; Rogers 1945, 1958; Shutler 1950; Breternitz 1960:19, 26; Schroeder 1983). These activities continued into the early ceramic period.

Ceramics

The introduction of paddle-and-anvil pottery occurs about A.D. 200 in the Gila-Salt about the same time that Mogollon coil-scrape pottery appears in southeastern Arizona and western New Mexico. Wendorf (1953:54) places another paddle-and-anvil type, Adamana Brown, at Petrified Forest in the A.D. 300s on the basis of its association with Mogollon types at the Bluff Site which yielded tree-ring dates in this period (Haury and Sayles 1947). The idea of paddle-and-anvil pottery probably diffused up the Agua Fria Valley over the mountains into the Verde Valley and then up on the Mogollon Rim, down Clear Creek and to Petrified Forest. This is the same route across which Little Colorado White Ware was traded into the Verde Valley in the 1200s (Schroeder 1960). This route would suggest that paddle-and-anvil pottery also should be as early in the intervening area.

Similar thinned pottery is present very early in the form of Gila Plain in association with Wingfield Plain, Vahki Red, and a grooved sherd near Picacho Mountain southeast of Phoenix (Morris 1986:271, 274-275). Wingfield Plain also occurs with Vahki Red and late Archaic style points at the Stricklin Site midden (separate from the Archaic site) which is estimated to date about A.D. 250 (Kenny 1987). Since Verde Brown is found in association with a grooved Estrella sherd in the middle Verde Valley (Schroeder 1963a), a Pioneer period date, pre-A.D. 700, also seems appropriate for this type. In short, early ceramics (Wingfield Plain and Verde Brown) were present in the intervening area. The Pioneer period middle Verde Valley traits, previously thought to postdate 700, may thus be more or less contemporary with those of the Gila-Salt where, after A.D. 600, the Hohokam entry began to overshadow the local Hakataya Pioneer Period pattern.

Paddle-and-anvil pottery also appears west of the lower Colorado River by A.D. 510 (Moriarity 1966:27). By A.D. 650 or so, possibly earlier, similar pottery appears in the Tonto Basin and Globe-Miami area as Tonto Brown (Vickery 1945) and resembles late Salado plainware (Brandes 1957). It possibly appears later in the East Verde-Payson country (Peck 1956; Redman and Hohmann 1986:271), and by the 600s in northern Arizona from the Flagstaff area west to the bend of the lower Colorado River. This ceramic tradition of the Hakataya rarely exhibits any form of decoration prior to A.D. 1100. However, when decoration is present the local tradition adopted color combinations, decorative treatments, or both from an immediate neighbor--such as Cohonina black-on-gray from the Kayenta Anasazi, lower Colorado red-on-buff from the Hohokam, and Prescott decoration from either the Pioneer period Hakataya or early Laquish.

I agree with Colton and Hargrave's implication (1937:157) that Alameda Brown Ware had its origin in the south. I also agree (1982:312) with Breternitz's (1960:27) and Euler's (1982:56) suggestions that all of the Hakataya plainwares, each now listed as separate wares, be considered as different series within one ware. I recommend that Alameda Brown Ware now include the following existing and projected series: Rio de Flag, Winona, Anderson Mesa, Tonto Basin, Verde, Tuzigoot, Prescott, Gila, San Francisco Mountain, and Tizon. Southern California Hakataya plainware ceramics should be included in this ware. Lower Colorado Buff Ware of the Laquish, with its red-on-buff types and its series, should be maintained as a separate ware because of its use of sedimentary alluvial clays as opposed to the residual clays of Alameda Brown Ware. Lower Colorado Buff Ware in this respect is similar to Hohokam Buff Ware and probably was derived from it after A.D. 600.

Wingfield Plain, Verde Gray, San Francisco Gray, and Tizon Brown all exhibit temper particles on the vessel surface. This grouping is that of the Patayan division of the Hakataya. The similarity of Gila Plain to Verde Brown and the latter to Rio de Flag Brown has been noted by all who have worked with these types of the central Hakataya. Verde Brown and Tonto Brown occur in the Payson country south to Sunflower (Hammack 1969; Kyser 1969; Redman and Hohmann 1986), in which region they are difficult to separate. Tonto Brown is found alone in much of the Tonto Basin. These types, along with Rio de Flag Brown, are those of the Sinagua division of the Hakataya. All of the Hakataya plainwares continued unchanged up to the 1100s or later, with one exception--the Flagstaff area where new types occurred after A.D. 1070 as a result of using new tempers and the introduction of smudging.

Throughout this period Hohokam pottery, from Snaketown Red-on-buff on, was traded into the Hakataya country and was also present in Hohokam colonies in the Verde, upper Agua Fria, and near Globe. However, in all cases where the Hohokam colonists were living side by side with the Hakataya, local Hakataya plainware was used. Other intrusives were primarily Kayenta Anasazi, rarely Mogollon, and local plainwares which crossed into neighboring Hakataya spheres.

Architecture

Also common to the Hakataya prior to the 1100s are surface or shallow wickiup type structures that varied in shape from irregular to mostly circular or oval or C-shaped, to rectangular with rounded corners, with or without a projecting entryway. They were usually outlined with a ring of rocks or a cluster of rocks suggesting a two- to three-course base for a jacal superstructure. They range from 4 by 6 m to 10 by 13 m. Structures may or may not include hearths or burned floor areas; floor storage pits are occasionally present. Post holes may or may not occur; if present they rarely show any pattern (except some of the two-post structures of the Prescott area and the two- or four-post structures of the Flagstaff Sinagua). The post holes represent supplementary posts for roof support, or (if they are around the perimeter) probably indicate a bent pole (dome-shaped or oblong loaf-shaped) structure. Whether these dwellings had their origin in the preceramic sleeping circles found in southern California and western Arizona (Kemrer, Shultz, and Dodge 1977, Figs. 1 and 2) has not been demonstrated.

The earliest Hakataya dwellings probably would be the rock-outlined, more or less rectangular surface structures associated with Vahki Red in Yuma County (Rogers 1958). About 40 miles east, near Gila Bend, is the Rock Ball Court Site which contained two oval rock-outlined structures with Gila Plain; Gila Plain, Gila Bend Variety (which is similar to Lower Colorado Buff Ware); and Gila Butte Red-on-buff associated with one of them (Wasley and Johnson 1965, Fig. 5). Other similar dwellings at the site, without a ring of rock, are roughly rectangular with rounded ends. All are shallow and lack entryways, with few interior features other than non-patterned post holes (and two fire pits in one structure). Associated was a ball court with rock embankments laid out on a northeast-southwest orientation, the reverse of Hohokam courts of this period or any other time. This situation, along with the dominance of the Gila Bend variety plainware and the non-Hohokam dwellings, suggests this was not a Hohokam site (Schroeder 1967).

Similar structures (with or without rock outlines), considered to range in date from A.D. 600 to 1100, occur on the lower Agua Fria (Gumerman, Weed, and Hanson 1976:33, 87), in the Mayer area (Schroeder 1954), on the upper Agua Fria (Spicer and Caywood 1936), west of Prescott (Euler and Dobyms 1962), south of Prescott (Jeter 1977), in the middle Verde Valley (Shutler 1951; Schroeder 1960, Fig. 7), in Gila County near Globe (Brandes 1957; Doyel 1976:247), in Cave Creek area (Henderson and Rodgers 1979), northwest of Prescott (Fewkes 1912:209-210), in Walapai country (Dobyms 1956), along the upper Verde Valley (Spicer and Caywood 1936), in the Cohonina region (McGregor 1951; 1967; Cartledge 1979), near Flagstaff (Colton 1946), at Stoneman Lake (Pilles 1981), and in the Payson country (Redman and Hohmann 1986). Some continue beyond A.D. 1100. All of these sites exhibit local plainwares, the more southern with Hohokam trade pieces and the more northern with Anasazi intrusives.

Another element of architecture that appears early in the Southwest is the community or kin lodge such as those at Snaketown (Gladwin 1957; Schroeder 1965), Pueblo Patricio (Cable and Doyel 1987), Va-Pak (Hoffman 1987), Mogollon sites (Gladwin 1957), Cerro

Colorado (Bullard 1962), and Petrified Forest (Wendorf 1953). To date, this type of structure occurs primarily to the east of the Hakataya where agriculture was practiced, suggesting near sedentary existence in a farm tethered locale. Its appearance in the Hakataya region seems to be restricted to the Gila-Salt, Verde Valley, and Flagstaff alignment (Gladwin 1957; Breternitz 1959, 1960). However, prior to A.D. 1100 some of the large Hakataya structures may have been used for the gathering of several families whose foraging brought them together at certain times of the year.

The earliest Sinagua architecture in the Flagstaff area, NA 3996L with its perimeter outlined with poles (Colton 1946), dated in the late 600s, is similar to the Pioneer period house in a pit (Haury 1976:71) as opposed to a nearby contemporary Anasazi slab-lined pithouse, NA 1293, and an earlier similar pithouse at the Flattop Site (Wendorf 1953, Fig. 9). Because of the association at Petrified Forest with paddle-and-anvil pottery, I had suggested (1961b) that this area might have served as the source for Sinagua architecture and ceramics. Since then, however, I believe the house in a pit and ceramics came north via the Verde Valley where Breternitz (1960) found a similar house in a pit in the pre-A.D. 700 Squaw Peak phase.

The post-A.D. 700 Flagstaff architecture, similar in plan but now a pithouse (NA 1296) with a four-post roof support (a few, however, being houses in pits--for example, NA 1925B), may have been derived from Breternitz's Cloverleaf phase pit house that may have had four posts. In any case, it is similar to the four-post houses of the Henderson Site of the Colonial period (Weed and Ward 1970) and could have been derived from there if not the Verde Valley. This type of dwelling continued in use in the Flagstaff country to about A.D. 1070. A contemporary house (post-A.D. 900), similar in plan, was shallow and rectangular with a four-post support system and had an alcove in place of an entry ramp, the entire dwelling being outlined with a ring of rocks (NA 153). The plan is similar to other alcove houses on the Sinagua frontier with the Cohonina on the west where structures with rock outlines and low stone walls are common.

The western part of the Cohonina country exhibits shallow, single-rock-ringed or scattered-rock-ringed jacal structures. Those near Grand Canyon are similar but somewhat deeper dwellings, the subsurface walls being lined with rock, the lowest of the one to three courses being rocks laid on end. In plan, they are round to rectangular or oddly shaped. Sometimes several rooms are contiguous. Some also have projecting entries like those to the west (McGregor 1951; 1967). In the Sitgreaves Mountain area there are a number of sites with depressions (usually one or two) assumed to be pithouses outlined with a row of stones or scattered stones. Low, fairly wide-walled rock structures are associated with the period from A.D. 700 to 1100. The depressions are more common up to A.D. 950 and the walled ones after (Cartledge 1979). The rock-ringed or rock-outlined Cohonina sites bear a strong resemblance to those of the Prescott region (Jeter 1977) and the Verde Valley (Schroeder 1960:Fig. 7).

Also in the Cohonina country, near the Anasazi border, is a very wide-walled structure known as Medicine Fort built in the 1060s, but not a common type of site. Another large thick-walled building of the same period is the Pittsberg Fort north of Williams (Colton

1946). In Walnut Creek Valley, a large, mortarless, wide-walled, rectangular site on a hill, called a fort, exhibits large rocks on the outer faces of a rubble-cored wall. It encloses a number of circular structures with similar wide walls. Another, to the southeast, contains Prescott Gray and Tizon Brown sherds as compared to Aquarius Orange and intrusive Tusayan Black-on-red at the former (Fewkes 1912; Dobyns 1956:200, 536-537). Sites of similar plan occur in the Prescott country with walls standing three meters high, and north of Phoenix (where they also occur in lowland areas, with low walls). Some of these walls enclose one or more rooms. Those near Phoenix have ceramics from the Sacaton through the Civano phases (Schroeder 1940:61-63, Fig. 2). These structures seem to have their origin in the late 1000s.

Though little excavation has been undertaken in the Payson country under the Mogollon Rim, the pattern of traits and development seems to match that of the other Hakataya west of the central alignment. While a sleeping circle, lithic artifacts (including non-local stone), and some Snaketown and Gila Butte Red-on-buff have been recorded, the earliest recognized ceramic phase, based on surface reconnaissance and some testing, is estimated to date from A.D. 900 to 1000. The period between A.D. 1000 and 1150 is best known by its supposedly seasonally occupied, oval to rectangular, rock-outlined houses in pits with perimeter poles, with or without floors, either lacking fire pits or having single or multiple fire pits, lacking projecting entries, and lacking formalized roof support arrangements. Associated are roasting pits, cremations, and bedrock mortars and metates (Redman and Hohmann 1986).

There appears to be a south to north relationship in rock-outlined architecture from Yuma County north through the upper Agua Fria, Prescott, Walapai, and Cohonina region, representing the Patayan region of the west. A similar connection exists for the house in pit and pithouse diffusion from the Gila-Salt through the Agua Fria-Verde Valley route to Flagstaff, which is the Sinagua division. This route was still operating in post-A.D. 1300 times (Schroeder 1952a:330). The Payson-Tonto region appears to have been strongly affected by the middle Verde via the East Verde (Peck 1956; Redman and Hohmann 1986).

Burials

Where evidence is available, cremation seems to have been the method for the disposal of the dead prior to about A.D. 1100. Present in late Archaic times over a wide area, this practice first occurs in ceramic times in the Southwest in the Pioneer period. Pioneer period cremations are not common and seem to be restricted to trenches with broken pottery and little ash, the implication being that the ashes were placed elsewhere or were scattered. This may explain the general lack of burials of any sort prior to the 1100s in most of the Hakataya territory.

Between A.D. 600 and the 1100s, cremation occurred in other than Hohokam settlements in the Prescott (Jeter 1977:site 48), Walapai (Linford 1977), Cohonina (Schwartz and Wetherill 1957), Flagstaff (King 1949), and Payson areas (Redman and Hohmann

1986:271). Inhumations also have been reported for Cohonina (Euler 1957), Verde (Breternitz 1960), and Prescott sites (Sites 45, 47 [Jeter 1977]), but may relate to post-A.D. 1100 times. In the last locale, a bundle burial (Site 47) was also noted. A historic period reference to tree burial north of the lower Gila escapes me, but it might explain a bundle burial in prehistoric times. Burial goods prior to the A.D. 1100s are rare throughout the Hakataya country, judging from present evidence.

Material Culture

Among the Hakataya sites in the area under discussion, types and varieties of artifacts associated at excavated features dating between A.D. 600 and 1100 are limited. In addition to ceramics, ground stone implements are represented, including slab, basin, and trough metates (one or both ends open), manos (sometimes two-handed, often with battered ends), and bedrock mortars and metates. Chipped stone (mostly crudely worked) includes bifacial, unifacial, and used flakes that are seldom retouched except for points, along with cores, crude scrapers, and choppers. Hammerstones are common.

Animal bones and bone tools appear to be rare, possibly due to poor preservation, but do occur in some numbers at a few sites. Represented are rabbits, coyote, deer, elk in one case, gopher, and a few birds. Shell ornaments also are rare as are occasional rod-shaped clay figurines in the Prescott area.

Aside from outdoor hearths, roasting pits, and rock art, no other features of this period are known. The material culture at some sites in the southern half of the region sometimes exhibit items probably obtained from the Hohokam colonies in the Verde Valley or lower Agua Fria. Most of these show up in the Verde Valley and Prescott region.

Trade, Trails, and Influences

Reference has been made to shell trade in the late Archaic period, some of which probably moved over recorded trails in western Arizona (Rogers 1945; Schroeder 1961c; Brown and Stone 1982). Pottery transport moved in all directions but south during the Pioneer period of the Gila-Salt Hakataya. In post-A.D. 600 times, trade by the Hohokam of the same region moved into the same areas, apparently over the routes developed earlier by the Hakataya (Schroeder 1966). Trade between the Laquish near Parker and the Gila Bend Hohokam of the Colonial and Sedentary periods, using trails across the desert, seems to have continued in the Classic period, judging by associations at Gila Bend Hakataya sites of post-A.D. 1100 (Schroeder 1961c).

This same connection also is evident in historic times when Spaniards mention contacts between the Cocomaricopa in the Gila Bend region and the Cocomaricopa on the Colorado River (Ives 1939:104, 108). The latter appear to have been the Halchidhoma who

joined the Maricopa in the 1820s and 1830s. The former were the historic period Opas and Kaveltcadom (Spier 1933), probable descendants of the prehistoric (post-A.D. 1100) Hakataya occupants of the Gila Bend country (Schroeder 1961c). They may well have been the group called Ozara who lived up the Gila in 1605 east of the Colorado junction (Hammond and Rey 1953:1029). The above remarks, along with others indicating similarities in prehistoric-historic situations (including ceramic types of pre-A.D. 1100 continuing into historic times in the Walapai and Mohave areas [Dobyns 1956; Kroeber and Harner 1955], and possibly in the Verde Valley [Pilles 1981:175, Fig. 3], as well as the similarity of the pre-A.D. 1100 life style to that of the Yavapai), are included to indicate that there was continuity through A.D. 1300, when Rogers (1945) would have the entry of Yuman-speakers into Arizona take place.

The presence of intrusive Hohokam, Anasazi, and lesser amounts of Mogollon sherds on central Arizona Hakataya sites prior to A.D. 1100 suggests obvious contacts, either by local outgoing or foreign incoming traders. Due to elevational differences, Hakataya country provided some flora and fauna not easily available elsewhere and possibly in demand by nearby sedentary people. Mineral wealth (red argillite, salt, pigments for paint, and obsidian) are more obvious resources available in Hakataya areas for trade.

The location of the Hakataya relative to their sedentary neighbors placed them in a favorable position as middlemen for trade items, as various foreign ceramic types (whose points of origin and final deposition were on opposite sides of the Hakataya borders) indicate. The shell trade from the Pacific Coast was still in operation in 1776 (Coues 1900). Trade over Hakataya country covered long distances, and perhaps was successful due to a common language base. Communication certainly was rapid in early historic times, judging by Indians below the mouth of the Gila River in 1540 telling Spaniards coming up the Colorado River about the death of Estevan at Zuni (Hammond and Rey 1940:140-141, 143, 145). The language of the prehistoric communicators and traders must have been that of the Yuman-speaking family.

Subsistence Patterns

All pre-A.D. 1100 Hakataya sites are small and most probably provided for no more than one or two families. The number of people using the Copper Basin south of Prescott at any one time is thought to have ranged between 20 and 25, representing several nuclear families (Jeter 1977:256, 258). Subsistence activities of the Hakataya kept them on the move with little chance to develop larger sites.

Of those rock ringed or non-ringed dwellings excavated, many exhibit multiple floors, multiple fire pits, and remodeling of entryways or other parts of the structure, all of which imply seasonal use as suggested by various investigators in the Walapai (Dobyns 1956), Cohonina (McGregor 1967), Prescott (Jeter 1977), and Payson areas (Redman and Hohmann 1986). The similarity of these structures to those of historic period Walapai, Havasupai, and Yavapai dwellings also is obvious.

Another factor suggesting seasonal or overlapping use of resource areas (or both) by different cultural entities is the area where Tizon Brown, San Francisco Mountain Gray, and Prescott Gray ceramics overlap in northwestern Arizona (Colton 1939, Fig. 2). In the Payson country, Verde Brown and Tonto Brown are commonly found on the same site or are difficult to tell apart. Wingfield Plain occurs throughout the entire Hakataya region in small and varying quantities, except in the upper Agua Fria where it is the dominant utility ware. In most of the sites in the Copper Basin (Prescott region), Verde Brown is dominant over the local Verde Gray (Jeter 1977:77), perhaps suggesting either dual use or non-contemporary use. In another case, different intrusive decorated types and dates associated with two dwellings at one site (Site 47, Jeter 1977) suggest use generations apart.

Sites along the east side of the lower Colorado River north of the Bill Williams River yield both Tizon Brown and Lower Colorado Buff pottery, often together on a single site and sometimes alone at separate sites (Dobyns 1956). Similar mixtures of pottery representing different groups occur in the area north of the Gila west of Gila Bend and east of the lower Colorado River. Here, Lower Colorado Buff, Gila Plain and Wingfield Plain, and Tizon Brown are dominant to the west, east, and north respectively, yet come together in different proportions or combinations on sites near their point of convergence (Brown and Stone 1982:127-128). Similar overlaps are common on the Cerbat-Cohonina (Dobyns 1957), Cohonina-Sinagua, and Sinagua-Anasazi borders (Colton 1946). These mixtures of ceramics as well as multi-house occupations at one site are evidence that foraging groups were involved and territorial borders were not strictly observed.

Most of the pre-A.D. 1100 Hakataya must have been operating on a seasonal cycle, visiting limited activity sites with or without small agricultural plots near springs or in moist soils (Schroeder 1965:297). Others, like the Laquish of the Gila-Salt in Pioneer period times and Colorado River in later times, may have had a pattern like that of the Mohave, planting in floodplains in the spring and then, until harvest times, going into the mountains some 80 kilometers away to hunt and gather, returning to the crops in the fall to gather them for winter use. A reversal of this was reported by Spaniards in the 1540s on the lower Colorado River below the junction with the Gila. The inhabitants planted and remained by the river, but after harvest they moved their camps to the foot of the mountains. The Spaniards also were told that the houses were made of logs covered with mud, and they built a big round room where they all lived together (Hammond and Rey 1940:138, 142). In short, even the Laquish moved around but perhaps not as much as the pre-A.D. 1100 Patayan of northwestern Arizona.

There is little doubt that the mountain Hakataya pattern of architecture, burial practices, roasting pits, bedrock mortars and metates, lack of ceremonial structures, etc. prior to A.D. 1100 or 1150 is easily distinguished from that of the plateau Anasazi, highland Mogollon, and desert Hohokam. Prior to A.D. 1100, the regional identities of the Hakataya are distinguished by minor differences, based primarily on the type of plainware and architecture and an occasional article of culture not found among other Hakataya (such as the Cohonina point or the decorated pottery of a few groups). The developments that follow in post-A.D. 1100 times grew out of these regional entities that were exposed to and accepted new influences in varying degrees.

THE POST-A.D. 1100 HAKATAYA

The Changing Patterns

In late Pueblo II or late A.D. 1000s, the northwestern region of the Southwest appears to have experienced the entry of the Shoshoneans (Schroeder 1956a:17, 1963b, 1965b; Rudy 1956). Many changes followed, especially west of the Continental Divide. By the middle 1100s, the Pueblo culture of southern Nevada, the Arizona Strip, and southern Utah no longer is evident, and the Kayenta Anasazi were withdrawing eastward into the Hopi country. Chaco was undergoing depopulation. The Mimbres seem to have disappeared as did the Hohokam colonies of central Arizona (Schroeder 1960).

Whether by coincidence or otherwise, the catalyst that led to change within the Hakataya country might have been the initial eruption of Sunset Crater in the A.D. 1060s. This had an obvious effect on the Sinagua Hakataya of the Flagstaff area. After the eruption, several influences become apparent in this locale--that of the Mogollon, Anasazi, and Hohokam. These included the adoption of rock-lined houses in pits and smudged redware from the Mogollon, house in a pit or jacal type house and ball court from the Hohokam, and pithouses from the Anasazi (McGregor 1937; Colton 1946; Schroeder 1961b). By A.D. 1125, interaction within the Flagstaff area had combined these various new elements to form a pattern of small surface pueblos, redware, and extended burials. By this time, ball courts were no longer in use (Schroeder 1963a:22), and pithouses and cremations were rare (Colton 1946). Whatever the cause of this new pattern, it appears to have been a socio-economic change of some magnitude. It led to aggregation of population units, replacement of cremation by extended burial, and new architectural development.

This new pattern also replaced that of the Verde Valley at about the same time (Colton 1946; Schroeder 1960), coincident with the disappearance of the Hohokam colonies. It seems that on their withdrawal from the Verde, the Hohokam colonists introduced this pattern of surface structures with contiguous rooms, redware and smudging, and extended burial to the Gila-Salt (Schroeder 1947; 1952a; 1953; 1960). Here, in southern Arizona, the ball court fell out of use (as in Flagstaff and Verde Valley areas) and was replaced by the house or platform mound (Schroeder 1963a:20,22). Cremations, however, continued in the Gila-Salt along with the newly introduced extended burials. Thus, the central alignment of Hakataya and the Hohokam underwent considerable change by the mid-1100s.

Other Hakataya were variously affected by the events of the 1100s. The Cerbat Branch of the northwest seems not to have been touched by the new pattern. The Cohonina exhibit little change after A.D. 1100, constructing low-walled, jacal-topped contiguous or single room dwellings of a few rooms at most. Some sites reflect developments of the late 1000s of influences derived from nearby Anasazi or Sinagua on the eastern Cohonina frontier (NA 192, NA 1608, NA 1765, NA 2460 [Colton 1946]). The same pottery continues and little evidence of burials of any type occurs up to about A.D. 1150 or 1200 (McGregor 1951; Cartledge 1979). It almost appears that at this time Anasazi influence had been reduced in

some manner, possibly due to the Kayenta Anasazi west to east withdrawal of the 1100s (Colton 1939, Figs. 11-12; Schroeder 1985b:107). This in turn may have brought about the postulated Cohonina withdrawal by A.D. 1150-1200 into the Grand Canyon (Schwartz 1956:81-82) or a Cerbat Branch intrusion from the west into the same area (Euler 1982:61), or both.

The Prescott Branch adopted a part of the pattern--small Pueblos and extended burial, but not redware (Spicer and Caywood, 1936). While Prescott contact with the Flagstaff Sinagua is obvious at Nalakihu (King 1949), it appears just as likely that the Verde Valley may have been the prime source for this influence. The western Hakataya of Arizona seem to have been little affected by the new pattern other than the Prescott people who, like the Cohonina, abandoned their Pueblo-like way of life by about A.D. 1200 (Spicer and Caywood 1936; Jeter 1977), as seems also to have been the case in the middle Agua Fria. The Laquish of the Lower Colorado River, however, did adopt redware (though it was not common), probably from post-A.D. 1150 contacts with the Hohokam (Schroeder 1958). Other data are not known due to lack of excavation along the river.

After A.D. 1100, the occupants of the Payson area, like the Cohonina, continued to live as before in small sites of a few isolated rooms with rock-based, jacal walls, sometimes with the addition of a new feature, a compound wall (Redman and Hohmann 1986). The idea of such an enclosure may have come from the Cohonina or Sinagua areas where sites with an enclosing wall surrounding small Pueblo structures and earlier features are estimated to date from A.D. 1070 to 1175 (NA 618 [Smith 1952]; NA 1814 [Colton 1946]).

In the Tonto Basin, rectangular houses with rounded corners in pits or shallow jacal structures with perimeter posts continue into the 1100s. These latter sometimes have upright slabs in the subsurface area of the house or a single row of cobbles around the perimeter for jacal wall bases. Multiple fire pits occur, hammerstones and choppers are present, and the sites appear to be seasonally occupied. "Mescal pits" are present, and Verde and Tonto Brown are associated along with post-A.D. 1100 intrusive pottery (Hammack 1969). In the Globe-Miama area to the southeast, dwellings with cobble wall bases and jacal superstructures, surrounded by a compound wall like those of the Payson country, occur between 1100 and 1300. Floor features are few and extended burials are associated. Other material in these sites reflect contact with the Hohokam (Doyel 1976).

It should be noted that almost all Hakataya sites of A.D. 1100-1200 were small and probably housed no more than one to a few families. Some of these sites may represent nothing more than base camps that were seasonally farm or water tethered or possibly saw year round occupation. However, larger sites developed in the Flagstaff area prior to A.D. 1200, and these appear to have been large enough to house an extended family.

Post-A.D. 1200 Developments

In the 1200s, small contiguous-roomed sites of the central alignment increased in size, and the abandonment of most small sites in the Flagstaff-Anderson Mesa region led to a

concentration within a few large Pueblos by A.D. 1300 (Colton 1946, Fig. 151). A similar development took place in the Verde Valley (Caywood and Spicer 1935; Schroeder 1960:21-23; Pilles 1976; Fish and Fish 1977:15, 17). The latter increase possibly was augmented by an influx from the Flagstaff area, which was undergoing depopulation beginning in the early 1200s. Large rectangular rooms adjacent to or within the Verde Valley pueblos of the 1300s may represent community structures. Sites in the Payson area also grew in size and complexity up to about A.D. 1300, after which only a few large sites seem to have survived (Redman and Hohmann 1986:8).

The pattern of the central alignment entered the Tonto Basin in the 1200s with the appearance of redware, extended burials, and small contiguous-roomed Pueblos (Pilles 1976). It probably came in from the Verde Valley, judging by post-A.D. 1300 architecture that included the Tonto Cliff Dwellings with walls of mud with rock fill, an almost exact replica of those at Montezuma Castle and Tuzigoot. Another wall feature common to many of these areas is the use of vertical standing rocks to form a base of walls on which horizontally laid rocks were placed. The Globe-Miami area changed little during this period of the 1200s, small sites and compound walls continuing. However, larger sites occur, as in the Payson area and Tonto Basin, in the 1300s. It would appear that the adoption of compounds by the Hohokam of the Gila-Salt in the late 1200s (Schroeder 1953:178) was derived from the Globe-Miami country, such compounds being more common east of the Roosevelt Dam area (Gladwin and Gladwin 1935:215).

By A.D. 1400-1450, all use of these Hakataya pueblo type structures ceased, judging by the latest intrusive ceramics. In the 1300s, Gila Polychrome from the south occurs in the Globe-Miami-Tonto Basin country, but is rare elsewhere in the Hakataya region. Late Mogollon types from the east appear in the Payson area as well as in the Tonto Basin and Globe-Miami area. Jeddito Black-on-yellow from Antelope Mesa in the Hopi country occurs along the Verde-Agua Fria-Gila-Salt route. Unfortunately, all of the producers of these types seem to vanish into thin air after A.D. 1400, or at least the manufacture of these ceramics ceased, so that with the exception of the Jeddito types, nothing remained in the way of ceramic chronological indicators to help identify sites used after A.D. 1400 or so. Plainware sites in the Hakataya country may well have been occupied between 1400 and historic times, but to date such occupation, though probable, remains to be demonstrated.

The increase in site size among the Hakataya living in pueblo type structures in the 1200s suggests that a consolidation of nuclear family units took place to form extended family bands or groups at sites with good agricultural potential. The large sites of the 1300s exhibit nearby farm shelters overlooking or adjacent to arable lands (Schroeder 1960; Redman and Hoffman 1986; Doyel 1976). The lack of recognizable ceremonial architecture throughout Hakataya prehistory (aside from possible community houses, and possibly except small kivas on the Anasazi frontier) is probably due to the nature of the society involved. Nuclear family or extended family sites seem to have been the norm in pre-A.D. 1300 times.

While later larger sites lack ceremonial structures, aside from a large room or court for possible communal use, and though the settlement pattern seems to be little different from that of the 1200s, some form of minimal controls comparable to those of a band may have

been in effect. In any case, by A.D. 1400 these controls broke down, or more likely, the local environment (which had supported periodic use by nomadic groups for centuries) was grossly overtaxed by the more short ranging occupants of the larger sites--to the point where the inhabitants were forced to return to a mobile existence in order to survive. Each of the regional entities probably pursued this way of life into historic times, as there is no evidence suggesting replacement of one group by another. One possible emigration is documented in Hopi tradition, which suggests that Sinagua of the Anderson Mesa area and Verde Valley moved into Hopi country by way of the Homolovi area on the Little Colorado River. Another is a Spanish report of the early 1600s that Oñate found ruins, ditches, and ore dumps in the Verde Valley; when the local Indians were asked about the ruins, they replied that many ages before a number of people passed through to settle in new worlds to the south (Milich 1966:90), possibly representing a southern Sinagua dispersal south into the Gila-Salt.

In closing, I believe that with this outline of developments, anyone reading my earlier articles on the subject can easily distinguish those points or areas where I have altered my interpretation of Hakataya events.

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