

Platform Mounds of the Arizona Desert

An Experiment in Organizational Complexity

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In the fall of 1989 we began an eight-year project to investigate platform mound communities in the Tonto Basin of central Arizona. The project is being funded by the Bureau of Recla-

mation as part of an overall plan to study sites that may be affected by proposed modifications to Theodore Roosevelt Dam (Fig. 2; see box). We are particularly interested in how the societies that built the platform mounds were organized, and how this organization might have been related to developments either within or beyond

Figure 1. One or two families lived in the four rooms and three courtyards of this 13th century Salado compound. Two rooms are located at the corners of the compound (including the nearest corner) and two rooms are located side by side in the middle of the compound. The backhoe is assisting the archaeologist by removing the dirt that has been blown and washed over the area.

Photo courtesy of Bureau of Reclamation, U.S. Dept. of the Interior



the local area. We began the project believing that the platform mounds of the Arizona desert were pretty much part of a single historic movement that swept the region, but as our work has progressed, we have had to rethink our models for the development and organization of the mound-building societies of Arizona.

Platform mounds were built by the prehistoric Salado and Hohokam people of southern Arizona from the 13th through the 15th century A.D., the Classic period. They are basically artificial, flat-topped hills on which the ruling families of the day built their homes. Additional residences and storage rooms were built around the base of a mound, and the whole was enclosed within a compound wall (Fig. 3).

Each mound was the administrative, ceremonial, and economic center for a small-scale political system, or polity, whose settlements were scattered over 5 to 25 square miles (Fish 1989; Rice et al. 1990). At their maximum extent there were probably about 100 of these little political systems scattered across the Sonoran Desert of Arizona.

Platform mound polities were not evenly distributed across the desert floor nor did they completely "fill" the region. They occurred in groups of as few as four to as many as two dozen, and the groups were limited to the floors of the major valleys and low basins (Fig. 4) where agriculture, combined with the gathering of abundant wild foods, allowed for the growth of large populations. Distances of up to 25 miles might separate one cluster from the next, and much of the Sonoran Desert of central and southern Arizona remained uninvolved in the platform mound polities. There is little doubt that some people continued to live in relatively independent and self-sufficient villages in the areas between the polities, but probably in far fewer numbers than were associated with the platform mounds.

These platform mound polities scarcely compare to the Mesoamerican empires controlled by the Toltecs, Aztecs, or Maya, yet it is their lilliputian scale that we find most interesting. Although the Salado had not formed states, their societies were organized on

a scale larger and more complex than the individual village unit. The elites living on top of the platform mounds, who organized the large labor forces needed to construct and maintain the mounds, were much more than tribal elders with temporary authority over a ceremony or a task group. These were full-time leaders who had the authority and power to make demands on the local population for services and for prod-

ucts. In exchange, they provided the organizational structure needed to protect the community, maintain public facilities, and ensure that people were fed.

The large sites in the Chaco Canyon area might indicate another example of a complex society in the prehistoric Southwest. However, some of the researchers working in the area feel that the environment of the Colorado plateau simply could not have generated the levels of surplus food needed to support a complex society (Vivian 1990; Johnson 1989).

On the other hand, the production of a food surplus would not have been a problem for the platform mound people living in the well-watered valleys of the Sonoran Desert (Rice et al. 1990:31-34). The desert climate provides a long growing season, with opportunities for two or more planting cycles per year. To agricultural produce could be added the rich harvests of natural foods such as cacti fruits, agave (see article by Minnis and Whalen, this issue), and tree legumes. The abundance of the desert is attested by Catholic priests writing in the 18th century who found that the Pima (desert descendants of the Hohokam) frequently left surplus harvests rotting in the fields, having planted far more than they could possibly use. In bad years the extra acreage planted in fields would have come in handy. During the era of the platform mounds, such surpluses could have been harvested and accumulated in central locations for use by the leaders living on the mounds.

The peoples of the platform mounds had taken the first step towards the kind of organizational complexity that functions today throughout much of our industrialized world. Over and over again human societies have taken this road to complexity, and within the last century, human societies have almost completely abandoned the tribal forms

of life that had served us so well since the end of the last ice age. As archaeologists we would like to know why and how human societies make these changes, but many of the first (or pristine) transitions to complexity took place thousands of years ago, and evidence of them has been obscured, if not eradicated, by the subsequent development of even more complex societies. This is the case for many of the original "cradles" of complex societies, like Mesoamerica, the Middle East, and Asia.

But in southern Arizona, prehistoric peoples of the platform mounds took a small step towards complexity, experimented with it for the relatively brief span of two centuries, then nearly completely disappeared. Small pockets of population remained, but they lacked the size to maintain, much less require, a complex organization. The evidence of this early experiment with complexity has not been clouded by a long archaeological record of subsequent states and empires (Rice 1990:157-58). With the arrival of European American settlers in the last part of the 19th century, however, complex society once again began to spread across the Arizona desert, and true to historical precedence, our own growth is rapidly destroying the evidence of that first experiment in complexity. Even working at a distance of 100 miles from the nearest city, we find our investiga-

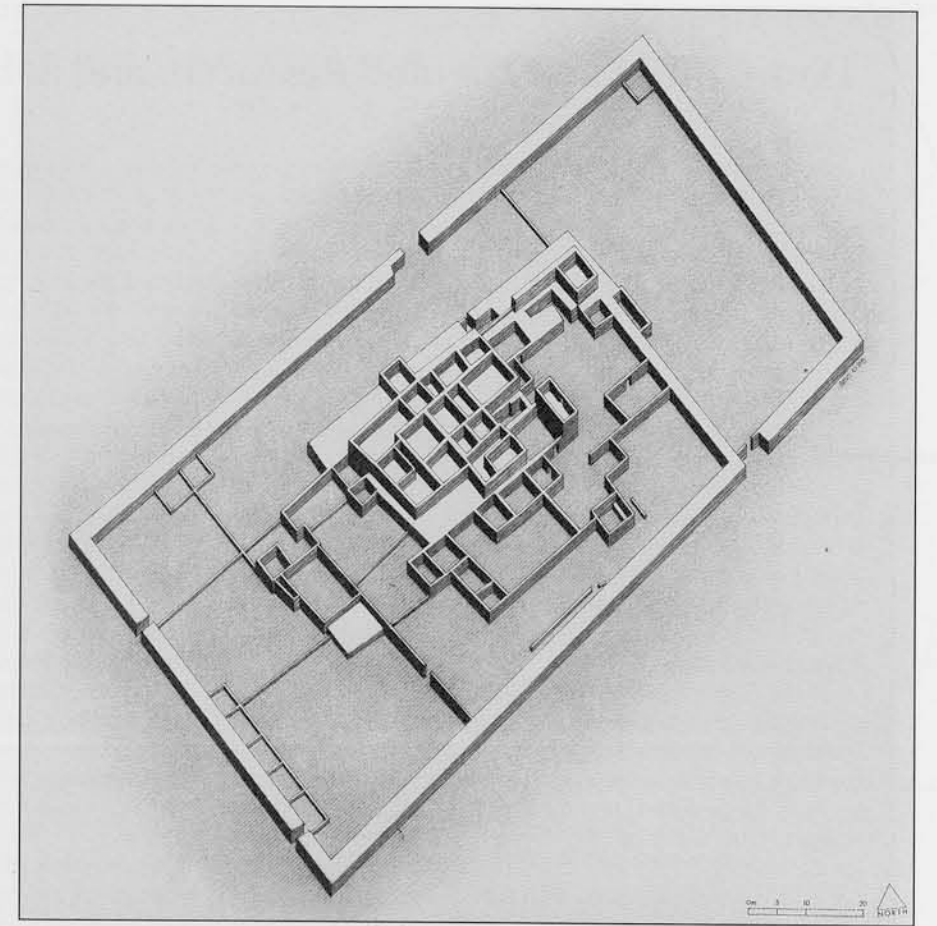


Figure 3. The Cline Terrace mound in the Tonto Basin is actually a combination of a big and small mound within a single walled compound. The rooms on top of the mounds are thought to have been used both as residences for the ruling elite and as ceremonial rooms.

Drawing by Glenna Cain

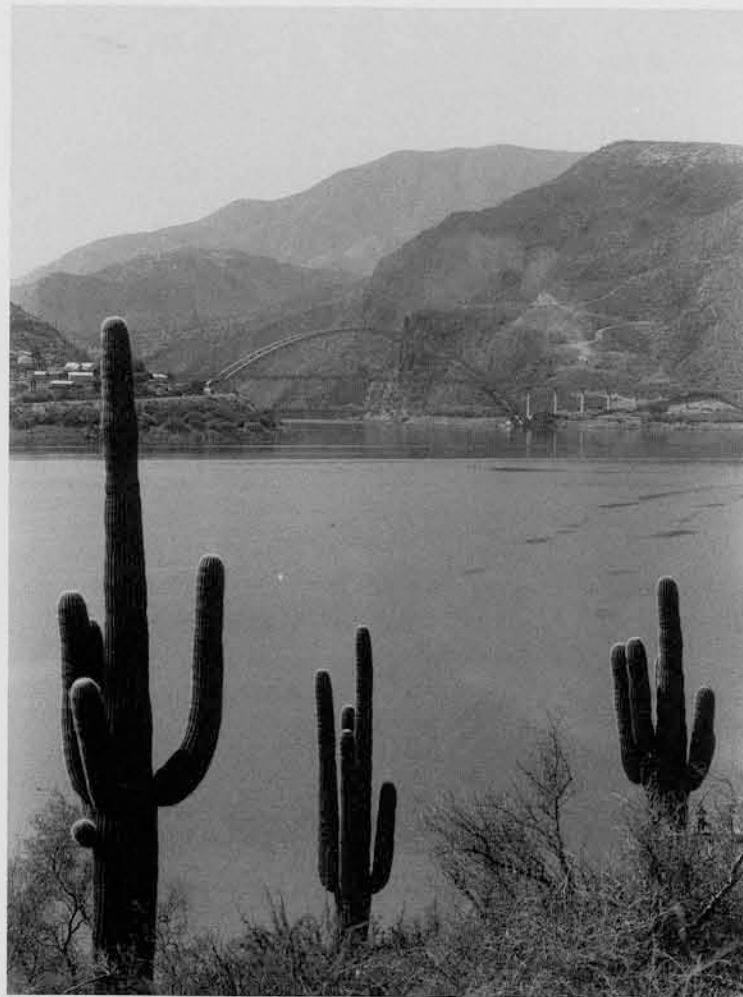
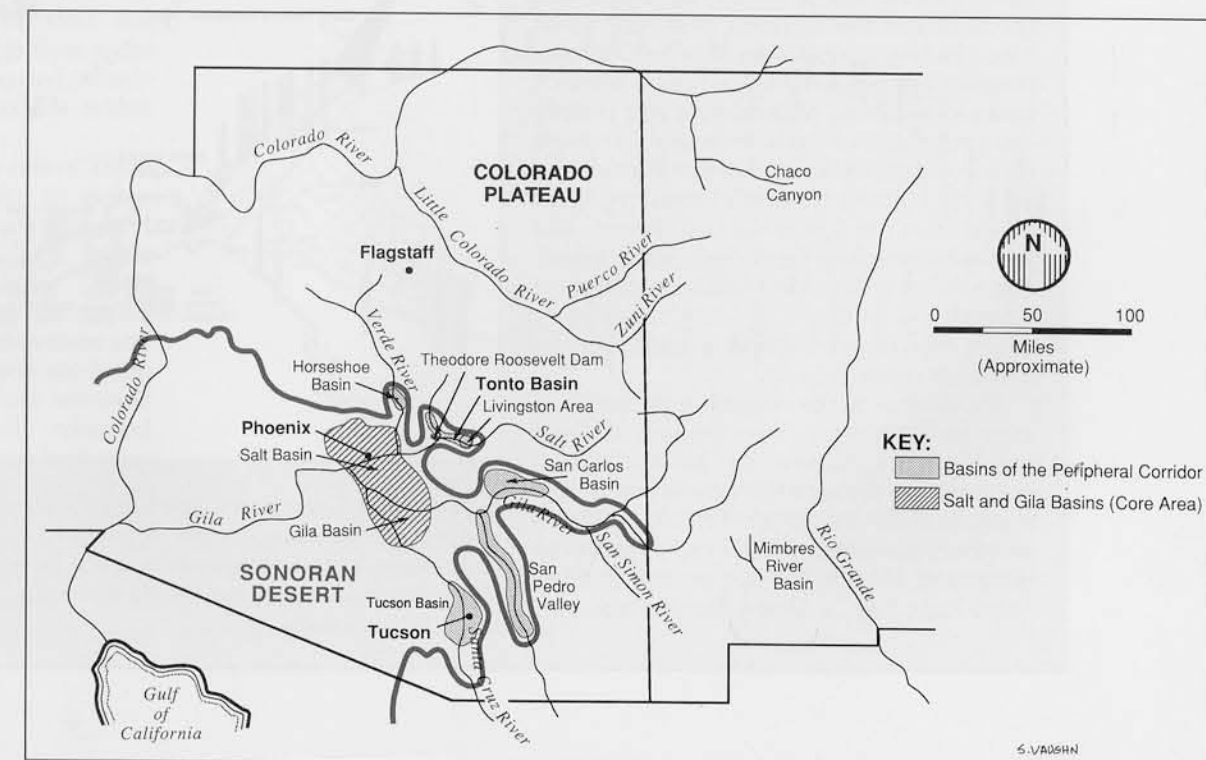


Figure 2. The Roosevelt Dam reservoir now covers the valley floor where the Salado would have had their irrigated fields. Ceremonies were held in mid summer to celebrate the ripening of the fruit of the saguaro cactus. The pulp can be made into a wine, while the highly nutritious seeds are stored for use later in the season.

Photo by Brenda Shears

Figure 4. Tonto Basin is one of several river valleys in the Sonoran Desert containing platform mounds. In the Salt and Gila Basins such mounds developed from an earlier form of dance mound, while in the peripheral basins platform mounds appear to have been preceded by special ceremonial buildings called big houses.

Drawn by Shearon Vaughn



Dams, Problem-Oriented Research, and Salado Platform Mounds

In the first decade of this century Theodore Roosevelt laid out a vision for the development of the abundant natural resources of the western United States, a vision that had as much to do with the creation of the Yellowstone National Park as it did with the construction of the Theodore Roosevelt Dam, the nation's first major hydroelectric and water conservation dam at the confluence of the Salt River and Tonto Creek in Arizona. By storing water, generating electricity, and controlling the unpredictable floods of the Salt River, the dam made possible the phenomenal growth of modern Phoenix.

The building of the dam took nearly a decade, and brought together Italian stone masons, Irish construction workers, and Apache laborers in what was at that time the largest project ever to have been undertaken by the United States government. The project gave birth to a new agency, the United States Reclamation Service, known today as the Bureau of Reclamation.

In the last decade of this century the Bureau of Reclamation has returned to the Roosevelt Dam. The height of the dam will be increased and larger spillways will be constructed. Ironical as it may seem to people not accustomed to life in the Sonoran Desert, the dam is being modified not to store more water but to provide an improved capability for controlling floods that might threaten the Phoenix metropolitan area. These planned modifications will result in a larger reservoir, and could potentially involve the inundation of more than 600 archaeological sites in the Salt and Tonto River valleys.

To deal with the impact to these sites, the archaeological staff of the Bureau of Reclamation sought to develop a program that fulfilled the spirit of the laws on historic preservation. Kathy Pedrick, one of the archaeologists with the Bureau of Reclamation, remembers that "the challenge was to develop a mitigation program that would embrace critical research issues for the area." After nearly a year of study and preparation, a study team of government archaeologists (including Kathryn Pedrick and Thomas Lincoln from Reclamation, Scott Wood from the Tonto National Forest, and representatives from the Arizona State Historic Preservation Office) identified a set of distinct research efforts, each of which was to be undertaken by a different research group.

Those of us on the research team from Arizona State University have the task of documenting the nature of Salado social organization through the excavation of five platform mound communities (i.e., mounds and their associated sites in the surrounding hinterland) located in three areas within the Tonto Basin (Fig. 5). Desert Archaeology, Inc.,

a private firm directed by William Doelle, is examining two platform mound communities with a slightly different emphasis, to detail the changes in social organization that took place as the platform mound communities developed from the earlier period of pithouse villages. A research team from Statistical Research, headed by Jeff Alschul, has studied a series of small compounds, field houses, and terrace systems in order to document the relationships between "rural" sites and the populations living at the platform mounds. Richard Ahlstrom of SWCA, Inc., has conducted a sample survey in the upper reaches of the *bajadas* (alluvial fans) that surround the valley, and has provided valuable information about the contemporaneous populations living in the upland areas. In the spring of 1993 Arizona State University will excavate some of the bajada sites in order to establish the relationship of the upland populations to those living at the platform mounds. Finally, far to the south, Paul and Suzanne Fish of the Arizona State Museum are mapping and excavating a platform mound community in the northern Tucson Basin. Some of their research was supported by the Bureau of Reclamation (a large aqueduct was constructed by Reclamation through a portion of the 15 square mile community complex).

By the close of this decade the archaeologists working on these various teams will have developed the first comprehensive views of the community systems that envelop platform mounds.

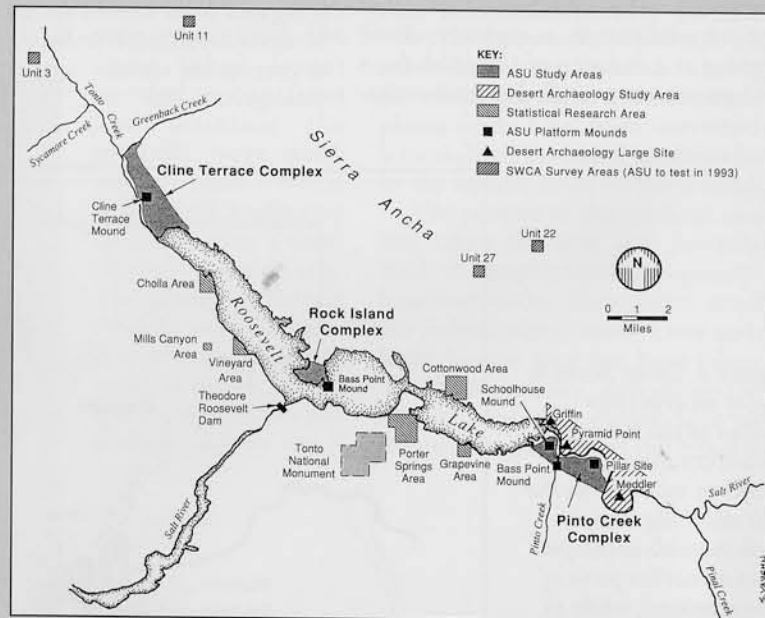


Figure 5. The Tonto Basin. The United States Bureau of Reclamation has provided funding for three different excavation projects focused on sites around the valley bottom, and a survey by a fourth team which has found numerous Salado sites in the surrounding foothills.

Drawing by Shearon Vaughn

tions into the Tonto Basin platform mounds constantly beset by problems caused by vandalism and modern construction.

Life During the Early Classic Period (A.D. 1200-1325)

For the first two years of the Roosevelt Archaeological Project, our research focused on the excavation of several platform mound communities and a larger number of residential compounds in a portion of the Tonto Basin called Livingston (Fig. 6). Most of the sites in the Livingston area date to the Roosevelt phase (A.D. 1200-1325) and only a few settlements were occupied in the later Gila phase (A.D. 1325-1450). We found a number of surprises in the Livingston area that have forced us to continue to rethink our models of Classic period society (A.D. 1200-1450).

During the Roosevelt phase the people of the Livingston area lived in about 40 small compounds and 5 platform mounds dispersed along a 3-mile stretch of the Salt River valley. We had pored over maps showing similar kinds of dispersed community patterns in the nearby Phoenix basin, but the only extensive excavation of multiple sites (that is, both mounds and compounds) in such a grouping of settlements had taken place more than a century earlier (see Haury's 1945 report on the Hemenway Expedition of 1887 and 1888). Excavation coverage from more recent projects usually focused on only a few compounds or mounds within much larger groupings.

Here in the Livingston area of Tonto Basin was an opportunity to gather fresh data using modern methods and current research orientations. Along with our colleagues from Desert Archaeology (see box), we are paying particular attention to architecture and associated features. Artifacts are being systematically collected from screened samples or from carefully recorded locations on the house floors and compound plazas. We are collecting flotation samples (soil from which burned seeds and plant pieces are extracted), pollen samples, charcoal fragments, and archaeomagnetic samples (clay samples taken from hearths for dating)

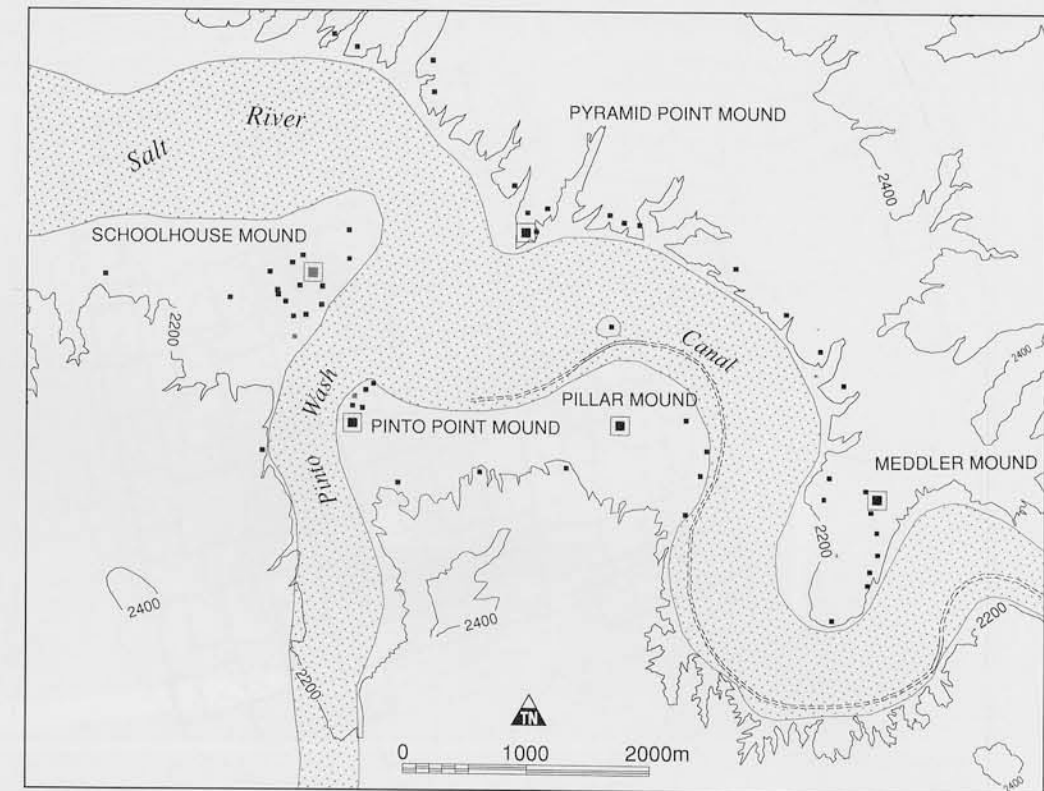


Figure 6. Livingston area. During the Roosevelt phase (ca. A.D. 1200-1325) this part of the Salt River valley contained over 40 small residential compounds (indicated by the small squares). Five platform mounds were built around A.D. 1280. By the Gila phase (A.D. 1325 to about 1450) most of the Salado population in the Tonto basin had moved into a few very large sites, such as the Schoolhouse Mound. The size of the Schoolhouse Site grew considerably during this later period as people of the Livingston area flocked to it. Some people continued to live at a few small sites near Schoolhouse (shown in color).

Drawing by Lynn Simon

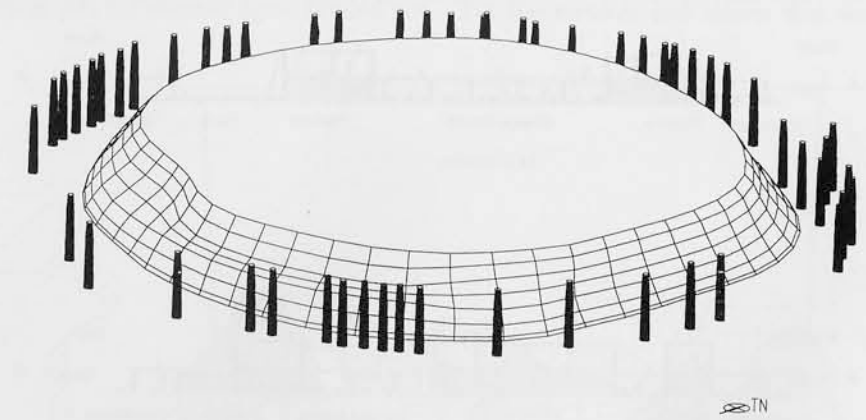


Figure 7. This pre-classic dance mound at Snaketown was constructed of compacted dirt and was approximately 1 meter in height. Emil Haury suggests that such mounds were used for ceremonial dances. In the Salt and Gila Basins, these dance mounds are frequently the stratigraphic precursors to Classic period platform mounds.

Drawing by Greg Phillips

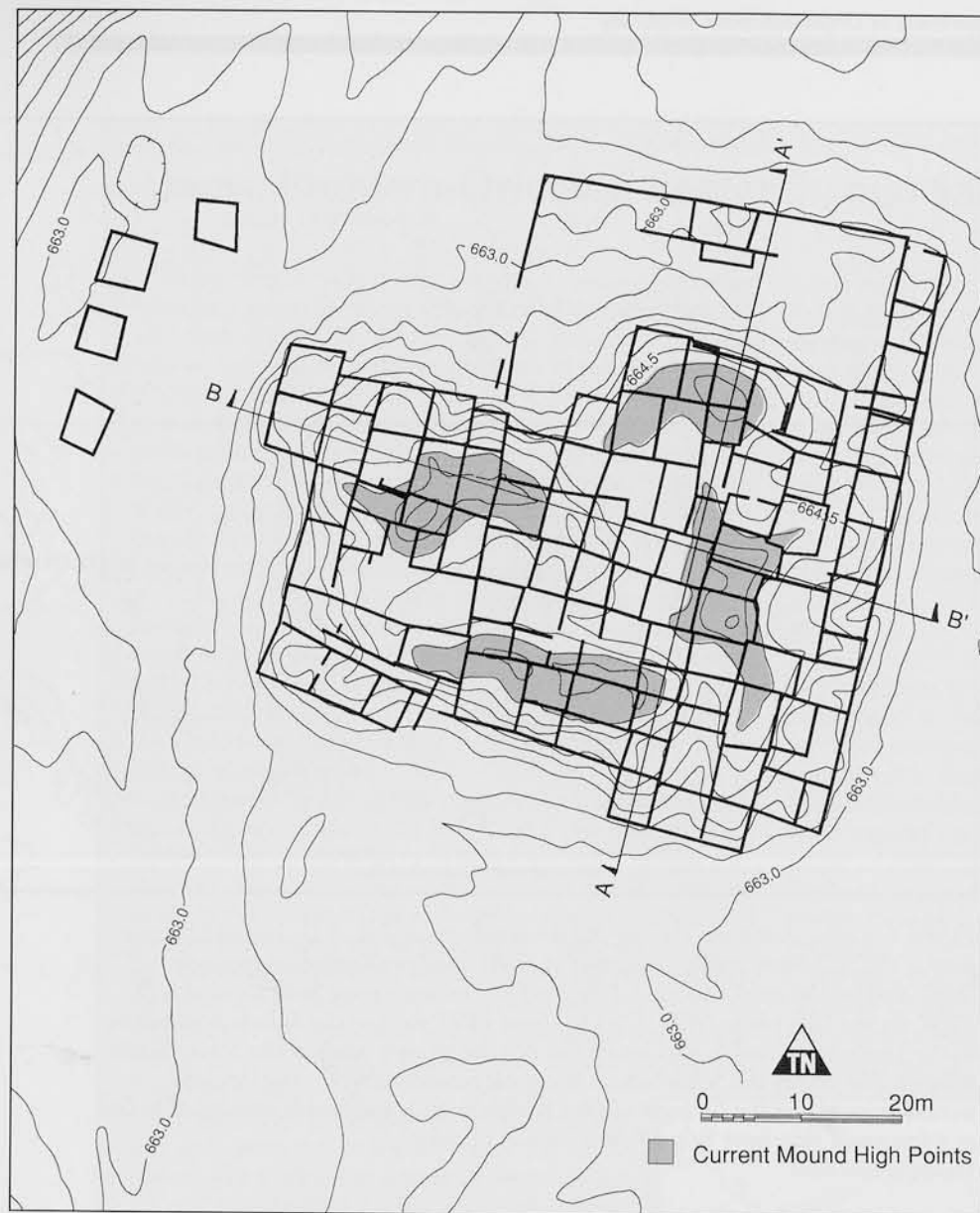


Figure 8a. The four high areas on the Schoolhouse Mound mark the locations of four clusters of rooms built on a raised platform. The northern mound is the earliest, and is probably the only one of the four that was constructed during the Roosevelt phase. Preliminary analyses suggest that the other three mounds were added during the succeeding Gila phase.

Drawing by Lynn Simon

Figure 8b (below). Cross-sections (AA' and BB' on Fig. 9a) through the Schoolhouse Mound. The elevated portion of the mound was built as a "hollow" square. At the center of the ruin 25 or more rooms were built at ground level and used for storage. Encircling these rooms was an irregularly shaped, elevated mound supporting about 40 rooms and several small courtyards. Around the edges of the ruin were 25 to 30 rooms built at ground level and used as residences.

Drawing by Lynn Simon



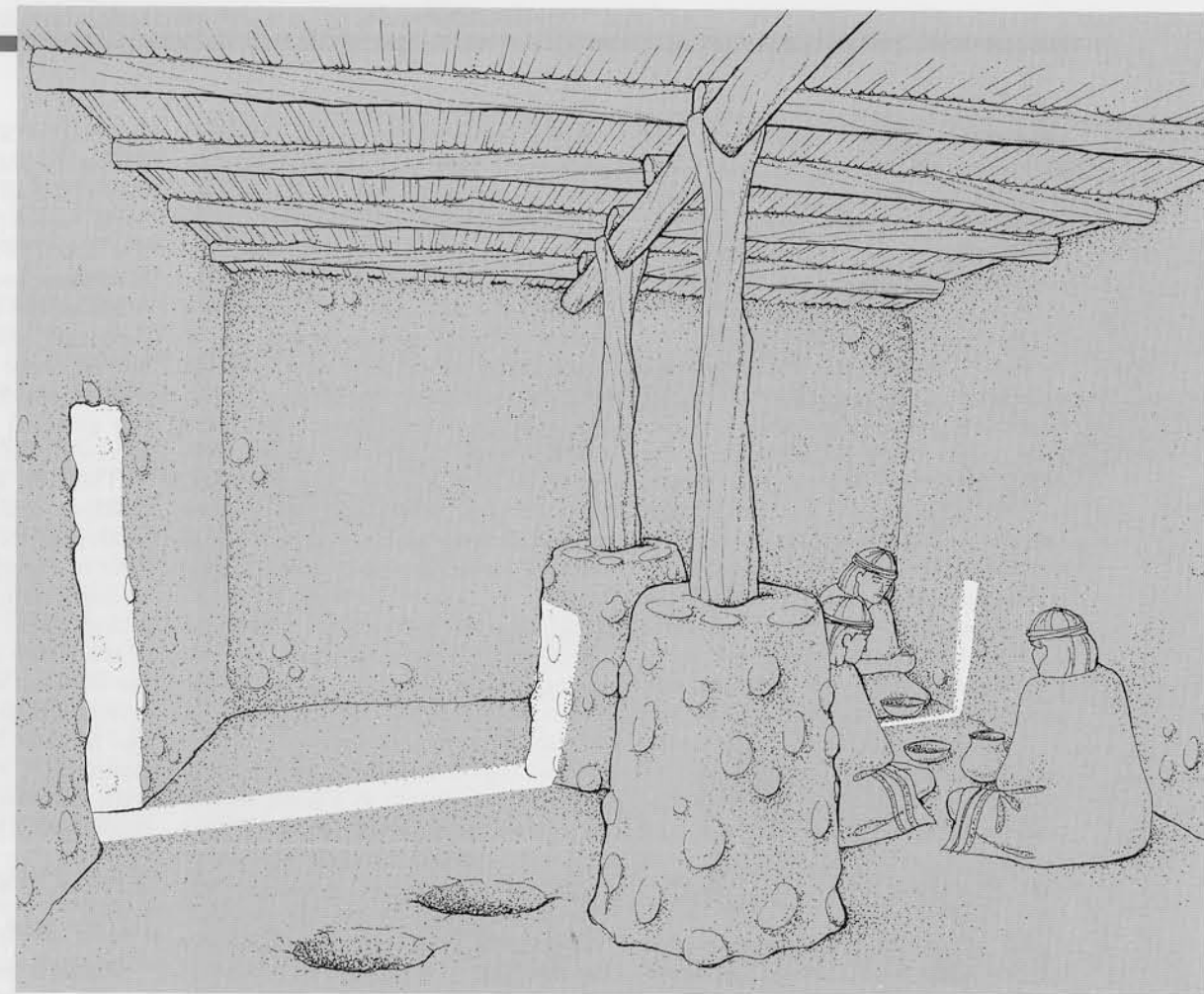
needed to resolve archaeological questions concerning subsistence, chronology, trade, and craft production.

The level of detail in this new information has been gratifying. Inside the walled compounds (Fig. 1) we found the circular bases of granaries, open-air hearths, and small pits for mixing the adobe needed for the regular replastering of the adobe walls. Pollen studies indicate that the granaries were used for the storage of corn and squash. Pine pollen, usually found at higher elevations, was recovered from the plaza areas, suggesting that pine boughs were used in ceremonial processions through the compounds. Fragments of a local form of barley were found clinging to the walls of storage vessels on the house floors. Outside some of the compounds were large roasting pits that our flotation studies showed were used for the baking of agave. We found that many of the compounds were divided in half by a wall, suggesting that perhaps two closely related families, or two generations of the same family, resided within each site.

In a typical residential compound about a third of the rooms contained

Figure 9. Pillar Site. During a ten-day period around the summer solstice, the doorways and columns of the original two rooms block the rising sun so that only a sliver of light extends to the back wall. Although adobe columns also occur in a third room added to the building later, the alignments necessary for this phenomenon exist only in the original rooms.

Drawing by Glenna Cain



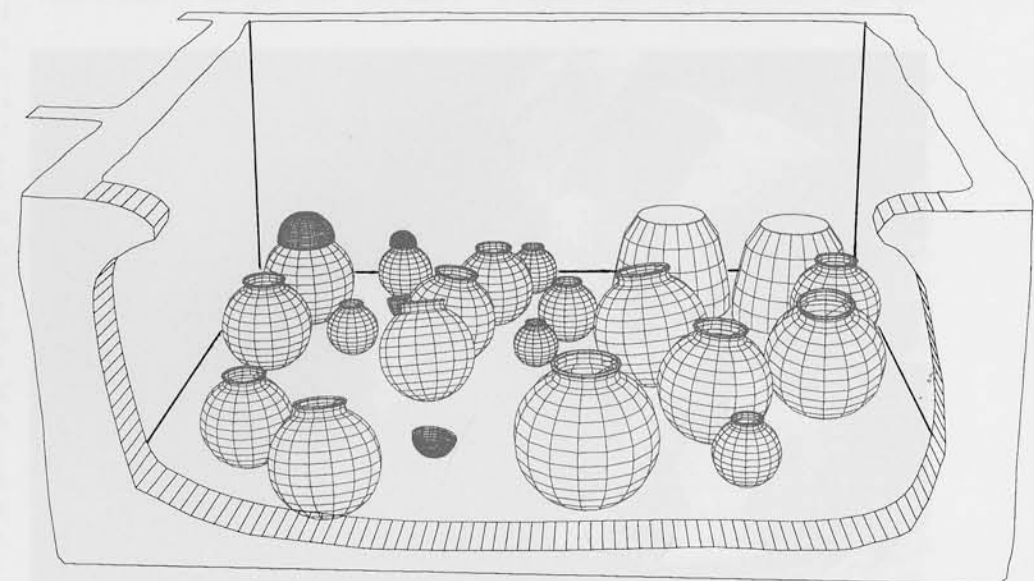
hearths and were used as residences; other rooms were used as workshops or for storage. One room might contain small flakes and pieces of shattered stone indicating it had been used as a lithic workshop. Other rooms contained polishing stones and chunks of pigments used for pottery manufacture,

along with hardened pieces of raw clay that had never been worked. Just as the rooms within a compound had different functions, so did the compounds within the local area. For example, team member David Jacobs found that compounds that had large pits for roasting agave tended not

to have granaries for the storage of corn. Large knives made from polished slabs of schist and used for harvesting agave occurred with great frequency at some compounds, while projectile points and obsidian were found in unusual concentrations at others. Yet the metates and manos that were

Figure 10. The floor of this storage room at the center of the Schoolhouse Mound was covered with large vessels, most of them jars, several baskets, and two wattle and daub granaries. The storage rooms at the center of the mound contained from three to five times more food than was needed for the members of the elite families living on top of the mound. After the site was abandoned, the rooms gradually filled in with layers of water-deposited silt and mud washed down from the surrounding walls and roofs.

Drawing by Greg Phillips



needed to prepare corn and other grains for cooking were found in all of the sites, as were fragments of agave fibers and the bones of deer and rabbit. The individual sites may have been economically specialized, but the fruit of each family's labor was made available to other families within the polity.

This evidence for the economic diversity and specialization of households was one of the things we had expected to find if our ideas about the complexity of Classic period society were correct. One of the benefits for individuals living in a complex society is that the elite rulers provide an administrative framework and the facilities to ensure regular trade and exchange. This made it possible for the families who concentrated on planting and harvesting agave, for instance, to rely on exchange with those families who concentrated on growing corn or specialized in making the projectile points needed to bring down game.

An Unusual Building

While our research was beginning to provide answers to some of our questions, it was producing highly unexpected results in other areas. Based on what was known about platform mounds in the Salt and Gila Basins, we had expected to find buried beneath many of our platform mounds evidence of an earlier and much simpler kind of structure called a dance mound. Dance mounds were frequently circular, although some tended towards the rectangular. They contained no rooms on top and were little more than a slightly

raised stage on which ceremonies could have been held. Emil Haury drew on comparisons with the 19th century Pima culture to suggest that these early mounds might have been used for dances celebrating military victories (1976). He excavated a particularly elaborate dance mound at the site of Snaketown that included steps, but was no more than a meter in height (Fig. 7). A circular arrangement of post holes probably represents an adobe wall, reinforced by internal upright posts, that formed the facing of a later mound. It eroded but left a covering of dirt to preserve the earlier dance mound.

As we excavated into the interior of our first platform mound in the Livingston area, however, we found not a dance mound but the remains of a very special kind of ceremonial building that we called a "little Casa Grande." The structure began as a series of two very large rooms (about 38 sq m each) that were entered from a long, narrow courtyard (see figure accompanying "Introduction," p. 3). The doorways of the rooms and the courtyard opened to the east.

Within each room were a pair of adobe columns measuring nearly a meter in diameter and rising to a height of a little over a meter. A socket at the top of each mound held a post used to support the main beam in the ceiling. Neither room had a hearth, and the site had practically no trash.

During the excavation the director, David Jacobs, realized that the columns and doorways in the two rooms of the Pillar Site were aligned in such a man-

ner that for a period of about 10 days during the winter and summer solstices they block all but a thin sliver of light from reaching the back wall of the room (Fig. 9). Modern Native Americans such as the Hopi and Zuni celebrate the winter solstice in a 16-day ceremony, and the builders of the Pillar Site may have been similarly concerned with identifying a span of days around the general event rather than the precise day of the solstice.

This was, and still is, an impressive building. It was not, however, an elite residence, nor was it necessarily an indicator of a complex society. It was a ceremonial facility, but it was constructed by a large group of people for the benefit of the entire group. The rooms within the building were very likely used for ceremonial meetings. No other building like this has been found in the Tonto Basin, but a very similar set of rooms with columns was found beneath a small mound in the Tucson Basin.

The First Platform Mounds

Platform mounds appeared throughout Tonto Basin during a very short time span around A.D. 1280; five different platform mounds were constructed within the Livingston area alone. Many of the mounds were built by removing the roofs from the rooms of pre-existing buildings, and filling the rooms with cobbles and dirt to create the platform. Some of the buildings that were modified into platform mounds were large ceremonial structures, such as the one at the Pillar



Figure 11. One of the wattle and daub granaries was preserved when the occupants of the site decided to transform this ground level room into part of the raised platform. They filled the interior of the room with dirt and cobbles and constructed a new room on top of the resulting platform. This modification helped to fill in a gap in the elevated area encircling the storage rooms.

Mound, but others were residential rooms within small compounds. Where some pre-existing building was not conveniently available, a grid-like structure of walled cells was first constructed and then filled to create the platform mound. The use of rooms or cells served a useful purpose in the construction of large mounds by helping to stabilize lateral movements of fill within the mound.

At the Pillar Mound, the large rooms of the building were filled with dirt and cobbles to a height of about 1.2 meters, and new rooms were constructed on top of the resulting platform. The construction of the platform was halted at intervals during which layers of brushy plants were laid over the soil. The purpose of these layers is not known, but radiocarbon analyses of samples of these materials have helped date the construction of the mound. Similar layers have been found in other Roosevelt phase platform mounds. Adobe columns and (for the first time) hearths were built in the elevated rooms, but doorways were omitted in favor of entrance through openings in the roof. If the columns continued to be used as solstitial markers, it was with the aid of windows that have long since disappeared as the walls of the elevated rooms collapsed. In its final form, the entire building had been transformed into an elevated platform mound with four rooms and a small plaza on top.

Although five platform mounds existed within the Livingston area at the same time, the relationships between mounds may have been more cooperative than competitive. Cooperation was needed, for instance, to build and maintain the canal system that traversed the Livingston area. The mounds imply that society had begun to develop important leaders, but as yet there was no single commonly recognized leader for the whole polity. Instead, the Livingston polity was composed of five loosely linked groups, each probably representing closely related kinfolk, and each group constructed a platform mound for its own leader. The Livingston area as a whole, however, was still led by a committee of at least five representatives, one from each of the family groups.

This stage in the development of the society was extremely short-lived. It is exciting to actually have captured it in

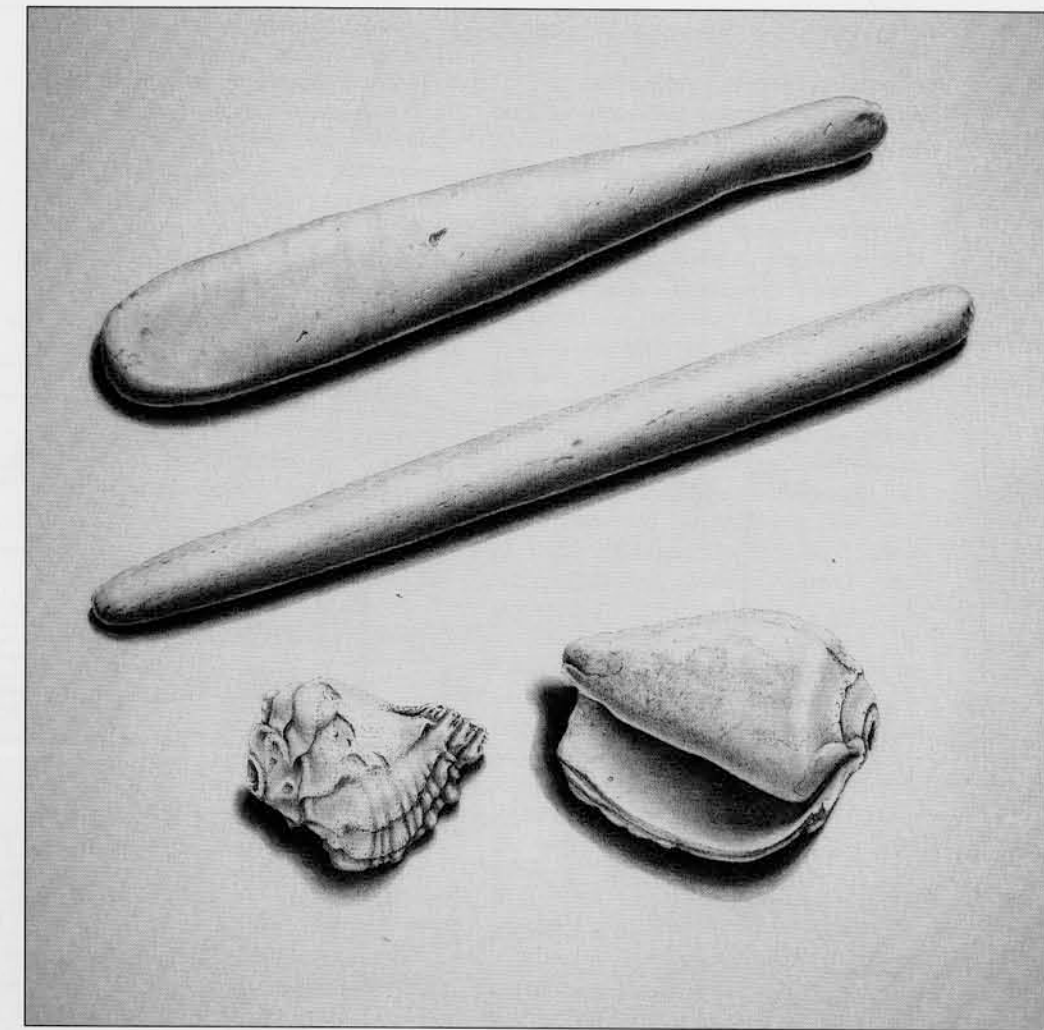


Figure 12. These shell trumpets and stone batons were found in a ceremonial cache in an abandoned room at the Schoolhouse Mound. During the Classic period, shell trumpets occur only at platform mounds. Ethnographers report that similar kinds of trumpets are still used by the Hopi and Zuni peoples as part of their ceremonies.

Drawing by Glenna Cain

the archaeological record, for in little more than a generation four of the five Livingston platform mounds were abandoned and apparently rebuilt around the mound at the Schoolhouse Site.

A Late Platform Mound at the Schoolhouse Site

The Schoolhouse Mound, one of the largest in the Tonto Basin, was excavated under the direction of Owen Lindauer in 1990 and 1991. The architecture of the Schoolhouse Mound con-

tains a striking record of the changes that took place during the Gila phase. The site was first occupied in the Roosevelt phase, and our current thinking is that it had a small mound at that time. Three additional mounds may have been added at the start of the Gila phase (Fig. 8a). Through time the mounds expanded and additional rooms were built at ground level. More than a century later, at the end of the Gila phase (A.D. 1450), the mounds had been linked into a nearly continuous unit of rooms and raised patio-like areas. The additional mounds and rooms at the Schoolhouse Mound were built by people who moved in from

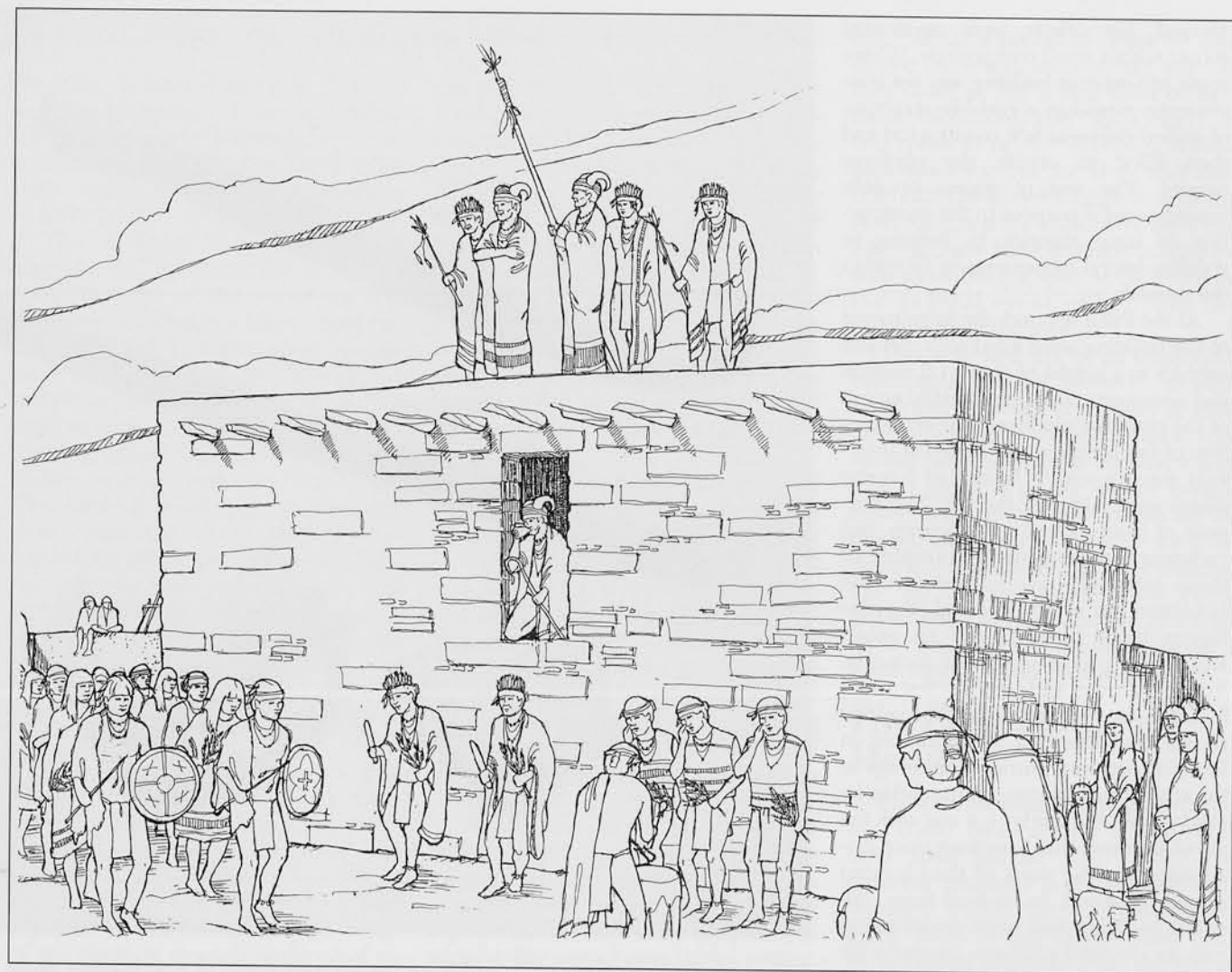


Figure 13. While this scene does not represent any specific ceremony, it does illustrate how some of the artifacts (shell trumpets, stone batons, horn cores from mountain sheep, pollen from pine boughs) and architectural features of the Salado Mounds may have been used. The location is a plaza in front of a tower-like feature at the Cline Terrace site.

Drawing by Glenna Cain

the other sites and mounds of the Livingston area.

Thus, the small dispersed compounds of the Roosevelt phase disappeared. Only a few continued to be occupied during the growth and expansion of the Schoolhouse Mound. As the people of the Livingston area collected at Schoolhouse, they effectively abandoned nearly all of the area that lay upstream (to the east; see Fig. 6).

As it grew, the Schoolhouse Mound became segregated into very distinct areas (see Fig. 8b). There were three concentric zones within the site, with accessibility decreasing toward the

center. Much of the population resided in the rooms at the outside base of the mound. These rooms contained cooking as well as storage vessels, decorated bowls, tools, and frequently one or more granaries. Within this was a second zone consisting of the platform itself. The rooms on the platform were also residences, and while they contained many highly decorated vessels in addition to the various utilitarian artifacts needed for households, very little space was devoted to storage.

At the absolute center of the platform mound, but at ground level, were rooms with massive quantities of stored

food and supplies. The central storage rooms were entered through openings in the ceilings, and contained granaries, large storage jars (Fig. 10), and a variety of more portable artifacts including axes, agave knives, serving bowls, and decorated vessels. One of the great mysteries of the Schoolhouse Site is why these rooms were not emptied as the site was vacated. The completeness of the assemblages suggests that Schoolhouse may well have been one of the very last sites in the basin to be abandoned.

An intact granary (Fig. 11) was found buried beneath part of the

Schoolhouse Mound. This find provided us with badly needed data on the size and construction of these structures. The base of the granary was a circular pedestal of adobe and cobbles, designed to prevent rodents from burrowing into it. The upper part was made of branches coarsely woven into a shape roughly like a bee hive. Both the outside and inside walls were then plastered with mud. Slabs of rock were laid across the opening at the top to seal the granary. It was about 70 centimeters high, with a diameter of 1.14 meters at the base, and had a capacity of 560 liters (about 15.5 bushels).

Assuming that the people living on top of the mound controlled the food amassed in the central storage rooms, Lindauer estimates that the granaries in those rooms alone contained as much as five years' worth of surplus food. This surplus would be increased by approximately another 80 percent if the storage volume of the large vessels were also included. The granaries in the rooms of the peripheral residential zone might have contained three years' worth of surplus food. Both of these figures are considerably higher than the maximum estimate of one year's surplus for the small domestic compounds of the preceding Roosevelt phase. The central storage rooms thus contained the surplus "capital" that would be needed by the leaders in order to feed people while they were involved in construction activities or services on behalf of the entire polity.

Arleyn Simon, the laboratory director for the project, has determined that the Schoolhouse Mound was one of a few pottery-producing communities in the valley. The residents of this site also

had a disproportionate amount of turquoise, obsidian tools, pigments, projectile points, and even deer meat. A total of four shell trumpets, five stone "batons," horn cores of mountain sheep, and unusual burial accompaniments suggests the presence of particularly prestigious individuals living at the mound (Figs. 12, 13). Shell trumpets and elaborate headdresses are still used for important ceremonial occasions by present-day Native American groups in the Southwest.

All of this suggests to us that the platform mound leaders had intensified the extent of their control over the economy of the polity. The architecture

*"the relationship
between mounds may
have been more
cooperative than
competitive."*

of the Schoolhouse Mound reflects this concern with economic matters; ritual was undoubtedly still an important function of the platform mounds, but it was no longer as dominant. The emphasis on amassing considerable surpluses, the control exercised over the production of craft items such as ceramic vessels, and the concentration of prestige items (including prestige foods such as deer meat) reflect a far greater level of centralization than we saw at platform mounds during the Roosevelt phase.

Some Closing Thoughts

The archaeology of the Livingston area has provided new insights into the phenomena of platform mounds. It has shown in surprising detail how a centralized, powerful leadership emerged through a process of gradual amalgamation. The importance of family leaders in the early Roosevelt phase was replaced in the late Roosevelt by a smaller number of important lineage leaders, and in the Gila phase by the authority of a single clan chief. The lower-level leaders did not disappear from the society; every family still had a family head, and every lineage still had their respected elders. But a new level of hierarchy developed, with leaders who assumed greater power and authority.

The amalgamation process in Livingston also exhibited an interesting progression from ceremonial authority toward economic authority. Public buildings at the beginning of the Roosevelt phase were devoted completely to large communal meeting rooms. By the end of the Gila phase, the platform mounds functioned primarily as elite residences and as storehouses for the society's wealth.

Unexpectedly, we found that the mounds in the Livingston group developed from a previous architectural tradition of big houses, rather than from the dance mounds found in the Salt and Gila Basins. We will continue to expand our ideas about platform mounds in the next two years of research, and to think about the powerful forces that were shaping the societies of the Southwest during the 14th and 15th centuries.

Acknowledgments

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