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THE SAYULA BASIN
ANCIENT SETTLEMENTS AND RESOURCES

The art of ancient West Mexico has traditionally been treated in terms of a group of beautiful but enigmatic objects. Because of insufficient knowledge, however, the various regional styles have generally been classified according to their geographical location.[1] In spite of the unquestionable aesthetic quality inherent in these works, few specialists have attempted to trace the origins of their social, cultural, and symbolic functions, or of the societies that created this art. The lack of archaeological information on cultural contexts has made it difficult to distinguish regional boundaries or to determine the eras during which different groups flourished. While enormous progress has been made in Mesoamerican archaeology as a whole, relatively little attention has been paid to West Mexico, which is frequently seen as a region marginal to the cultural processes that took place elsewhere in central and southern Mexico. Fortunately, this situation has been gradually changing. For the past thirty years, regional studies have established a basis for defining the archaeological characteristics of West Mexican societies at different historical periods.

It has been many years since Isabel Kelly, the grande dame of West Mexican archaeology, proposed the existence of fourteen ceramic provinces extending from Sinaloa into Jalisco, Colima, Nayarit, and Michoacán.[2] Among these provinces, she identified one of particular interest where interactions apparently took place among the peoples of the interior of Nayarit, the uplands of Jalisco, and adjacent areas of Colima. She defined this intermediate area as the marshy lake basin between Sayula and Zacoalco, located in southern Jalisco. Despite Kelly's efforts, however, archaeological examinations of the surface of this intermediate zone did not produce the evidence necessary to identify interregional contacts during the early periods. Kelly herself pointed out the apparent absence of surface evidence of early dwellings, and, therefore, affirmed that the Sayula region was the weakest link in the assumed cultural chain that joined the neighboring provinces of Ameca in Jalisco in the north with Colima to the south.[3] Now, fifty years after Kelly placed the Sayula basin on the archaeological map, the Sayula Basin Archaeological Project has been able to identify and excavate residential areas that date to what we believe is the early horizon of civilization in this region, by which we mean that period of time during which the archaeological cultures across a broad region appeared to share certain defining characteristics, ranging from architecture and other material remains to identifiable economic, religious, and political concerns.

In the following pages, I will outline new data regarding the type of society that inhabited the Sayula region. Recent archaeological findings enable us to trace certain phases in the lives of these people, leading towards a more developed understanding of certain aspects of the social and economic organization of settlements in this area. The Sayula basin begins to emerge as a distinct area, differing in several important respects from the core Teuchitlán tradition area in the Ameca-Magdalena basins to the north.

Fig. 1 The Sayula basi
Agricultural fields bor-
dered by mesquite an
acacias lead into the
shallow lake bed at th
height of the Decemb
June dry season. Volca
de Colima rises in the
distance.

Fig. 2 By the end of July, rains have covered the lake bed with a thin sheet of water and the fields in the southern part of the basin have dramatically turned green.

The Natural Environment

The Sayula basin is located approximately 70 kilometers (42 miles) south of the city of Guadalajara, between latitudes 19°8' and 20°11' north and longitudes 103°20' and 103°40' west (see the maps on pp. 12–13). It is indeed part of a natural corridor that joins the southern coast of Colima with the central highlands of Jalisco, and it has played a strategic role in the interaction between these two regions. The archaeological records of this basin offer abundant evidence of long, continuous settlements. The earliest sedentary occupations found to date can be traced back more than 2,000 years (see the essay by Joseph Mountjoy in this volume). The latest settlements thus far examined reveal the presence of the Tarascan state, which had its seat further south around Lake Pátzcuaro in Michoacán, dating from the end of the fifteenth century. Native history, of course, ends in the year 1528 with the arrival of the Spaniards. Yet, between these two chronological poles, there was a long sequence of interactions between the area and the neighboring regions. This is the evidence that Kelly had been looking for when she sought to identify the Sayula basin as a zone of interaction.[4]

The particular character of Sayula is revealed by three complementary factors: 1) a richness of natural resources found in its different ecological strata; 2) the seasonal presence of a mineral element, salt, which is scarce, valuable, and strategic for the development of any society; and 3) a stable population that completely occupied the territory sharing the same sociocultural identity. The ability to function as a coherent, articulated social system is characteristic of groups that have developed a broad political organizatio such as that of a chiefdom. Perhaps at first, regional authority among scattered groups was carried out in an almost inconspicuous manner, promoting an exchange and reciprocity of locally available products and resources. A varied and abundant natural environment brought about the developmer of a village life in which small, autonomous groups gradually began interacting until they became organized into a broader socie sharing the same cultural traits—though never submitting fully to a centralized powe until roughly A.D. 200–400, the beginning (the Classic period.

Throughout West Mexico, vegetation changes drastically according to the amoun of available moisture and the differences in elevation. These variations give rise to a diversity of complementary environments, each of which offers a wide range of resources. The distribution of human settlements over a given territory reflects the

ganization of the productive skills of a group and, eventually, the success with which they are able to adapt to a hostile environment.

In the Sayula basin, such differences are apparent as soon as one leaves the low-lying marshlands and gains elevation in the surrounding hillsides. Fertile lands are found on the first natural terraces on both sides of the lake. Around the southern half of the basin, a high water table provides constant moisture to the subsoil and allows for stable agriculture throughout almost the entire year (see fig. 2). During the rainy season, the lake bed overflows and many of the first terraces become completely flooded or turn into seasonal marshes (see fig. 3). The early inhabitants knew how to take advantage of this situation, however, and they transformed their environment accordingly. In certain places one can still find traces of ancient drainage systems that were built in order to send excess amounts of water out into the lake. Even during the dry season, these areas maintain enough moisture to be cultivated. At higher elevations, the mountainsides have permanent or seasonal streams at different elevations, allowing scattered settlements of small populations. Given these environmental conditions, it is not surprising to find that the region has been continuously populated for more than 2,000 years.

A cross-section of the basin reveals three zones (see fig. 4), each characterized by a distinctive soil type and vegetation—differences that produced a corresponding variety of activities in ancient times.[5] In the highest zone, between approximately 2,700 and 1,700 meters above sea level (8,900 and 5,600 feet), the ground is very steep, frequently forming rugged slopes. Mountain forests of pine (*Pinus* sp.) and oak (*Quercus* sp.) predominate. The variety of fauna includes deer, wild boar, coyotes, and a large diversity of rodents. There is an abundance of rocks and minerals that were used for making tools and ornaments. In spite of the few traces of human settlements found in this area, the types of vegetation indicate that agriculture was once practiced on the less steep hillsides, probably in a very marginal manner. This area may very well have been designated for hunting and gathering, and obtaining raw materials and minerals.

The middle area, located between 1,700 and 1,450 meters, has natural terraces, covered with low mountainous forest with various types of trees such as the *iguamuchil* (*Phitecebollium dulce*), guavas (*Psidium guajaba*), plums (*Spondias* and *Prunus* sp.),

Fig. 3 Seasonal rains bring out smaller organisms, shellfish, and small fish, attracting flocks of birds to the shallow basin. Cultivated fields are seen on alluvial slopes in the distance.

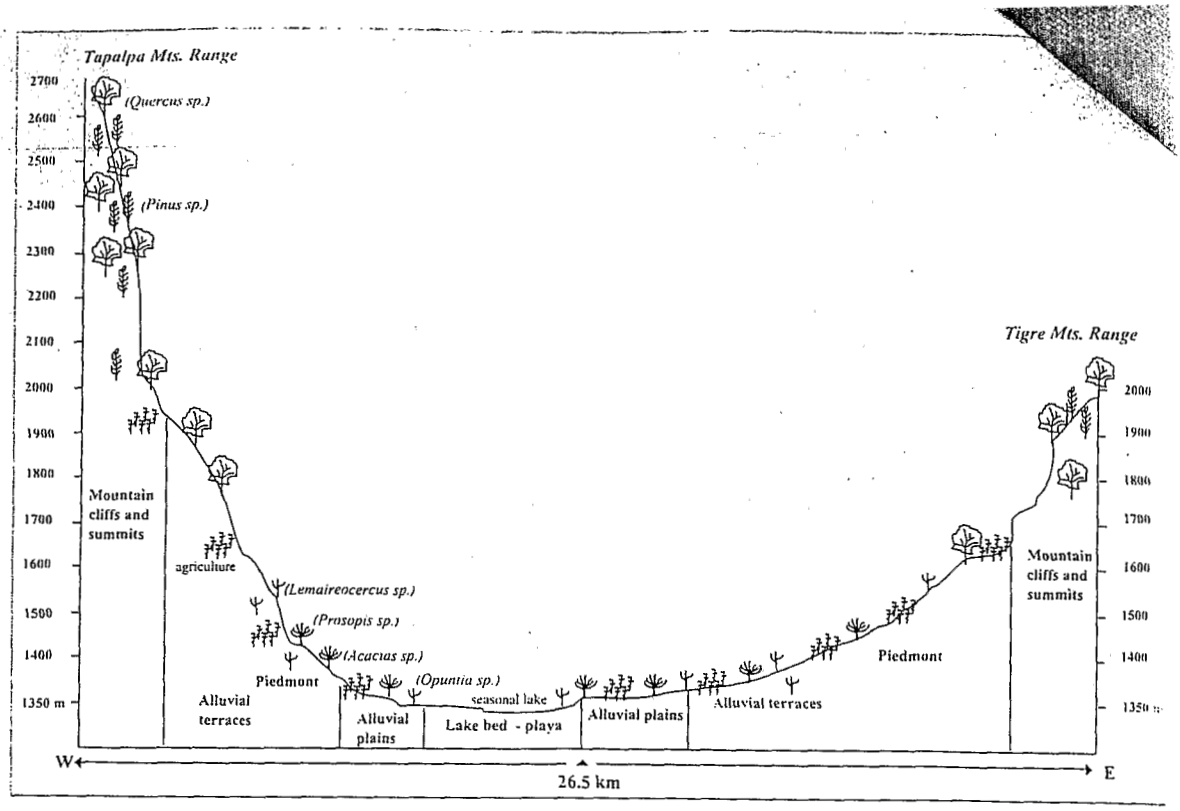


Fig. 4 From the surrounding hillsides to the lake bed, three distinct ecological zones are seen in the Sayula basin.

icamichinesî, and figs (*Ficus* sp.), and obviously cacti, mesquites (*Prosopis* sp.), and *ihuizachesî* (*Acacias* sp.). The fauna include armadillos (see fig. 5), badgers, opossums, rabbits, and game fowl such as quails and *ichachalacasî* (a crowlike bird). This area is especially suitable for human settlements. Here, agricultural soil combines with undulating terrain, traditionally providing seasonal food for the great majority of the populations. Abundant clay deposits were used for manufacturing pottery. Some cliffs have copper and tin deposits, but it is archaeologically unclear whether these were exploited during the periods in question. Brooks and springs from the mountainsides were used for partial irrigation of the land on this middle level.

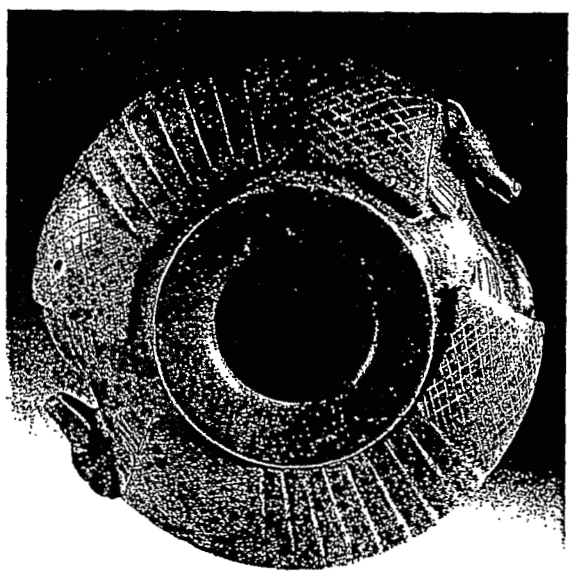
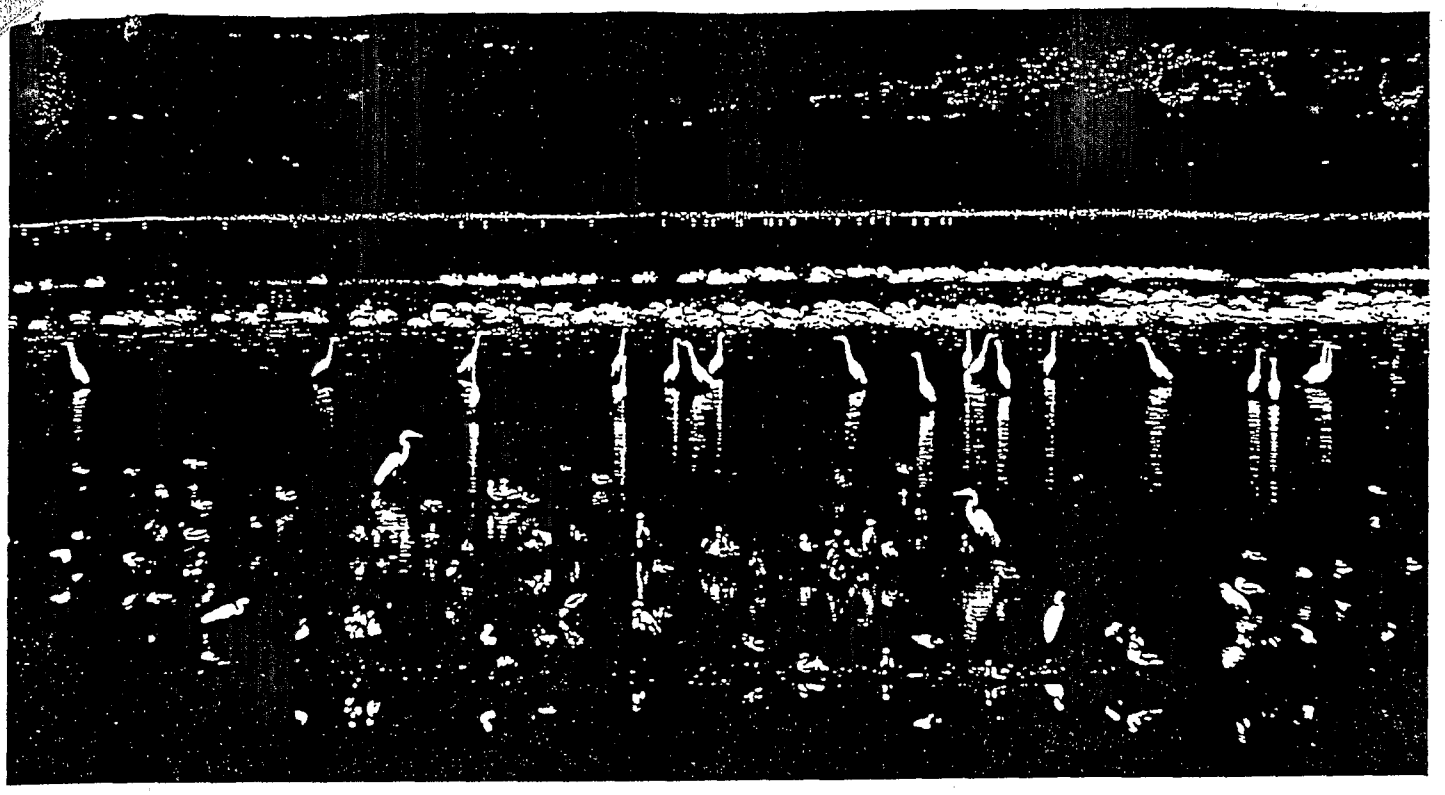


Fig. 5 Vessel with armadillos; Comala style; Colima; earthenware. The Saint Louis Art Museum, gift of Morton D. May. Cat. no. 68.

The third area, from 1,450 down to 1,340 meters, is also covered with a low mountainous forest, with many of the same species of flora and fauna found in the previous area. The terraces next to the lake have abundant cacti, mesquites, *ihuizachesî*, and a variety of thorn bushes. Cattails and grassy plants grow on the moist banks of the lake, attracting multiple species of local birds. These sites also shelter various migrant bird species, such as geese, ducks, and pelicans. The first marshy terraces comprise the most fertile sector of the basin, with humus rich in organic components.

The lake basin receives water from mountainside drainage, increasing and diminishing according to the seasons. The rainy season begins during the first summer months (June–July) and the giant shallow basin is gradually filled, reaching an average water level of 50 to 70 cm. Vegetation becomes lush and the lake fills with fish and shellfish, becoming a noisy home for a great number of birds (see figs. 6–8). Towards the end of October, the rain diminishes and a



gradual transformation of the landscape begins. The basin loses its green color, until the brown and barren soil shows through the dry vegetation (see fig. 1). Little by little, the sides of the mountains lose their foliage and xerophytic vegetation prevails. The change is not as drastic in the far southern part of the basin or around some of the central sectors on the east side, which receive perennial spring water. The contrast with the barrenness of the exposed lake bed is striking. What was formerly an expanse of water becomes a harsh, dry plain, where reverberating heat produces local whirlwinds and dust-storms. Years of this cycle have formed sand dunes in various places around the lakeshore.

From a cultural point of view, this seasonal change in the environment had a great impact on the development of the early societies that settled on the basin. As

Fig. 6 Flocks appearing during the height of the rainy season suggest the teeming wildlife that once populated the entire Jalisco lake-basin region.

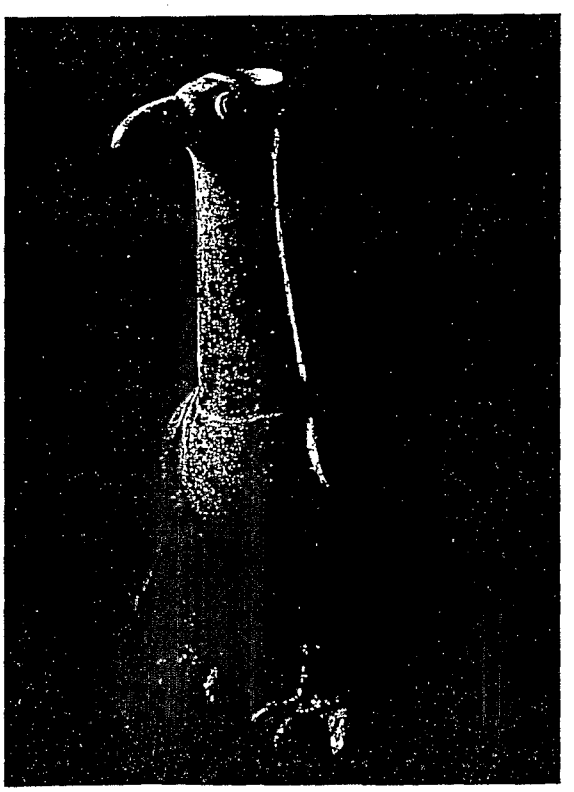


Fig. 7 Duck; Comala style; Colima; earthenware. Fowler Museum of Cultural History. University of California, Los Angeles. Cat. no. 60.

Fig. 8 Heron; Comala style; Colima; earthenware. Los Angeles County Museum of Art, the Proctor Stafford Collection, museum purchase with funds provided by Mr. and Mrs. Allan C. Balch. Cat. no. 59.

water evaporates and the lake bed becomes exposed, nitrous mineral sediments *(tequesquite)* that can be transformed into salt begin to rise to the surface by capillary action. This phenomenon was understood in early times. Along the swampy banks of the lake, traces can be found of ancient exploitation of this strategic resource. Today, as the lake seasonally dries up, hundreds of ancient salt-extraction sites appear (see fig. 9). The extraordinary number of these sites, made in the long course of perfecting the techniques of salt extraction, reveal the importance of salt in the local and regional economy.

For several miles along the shore, workshops, platforms, small dikes, and causeways—all built to connect the various production sites—can be archaeologically uncovered. The exploitation of salt reached its peak in the seventh century A.D., at which time the society was probably ruled by an elite class controlling its production and monopolizing its distribution at a regional level. It seems that the most important site during this period was a saltworks with a civic and ceremonial center, located at the far northern end of the basin. This site, presently known as Cerritos Colorados (Red Mounds), is composed of various platforms covered with heaped fragments of broken ceramic vessels.[6] Several sectors have been identified at this site: some appear to have ceremonial architecture; others are more clearly associated with the practical activity of salt extraction.[7] Although the main constructions for the salt deposits belong to the Classic period, evidence of earlier occupations, also related to salt extraction, have been found as well.[8]

Settlement Patterns in the Sayula Basin

Archaeological exploration has revealed a very clear pattern in which residential sites alternate with activity areas throughout the basin. The earliest residential sites are rather small and are scattered over the lower terraces of the mountains, close to well-irrigated fertile lands. It is only toward the end of the Postclassic period that we see evidence of dense, nuclear settlements on the lakeshore. We can, in fact, recognize three basic types of inhabited or utilized spaces: 1) residential areas; 2) areas for specific activities; and 3) places for gatherings and social interaction. As part of the first category we have identified isolated residential units as well as villages with large numbers of residences scattered in the fields over a broad area. Areas for specific activities include quarries or workshops where raw materials were transformed. Most sites within this category are located in marshlands used for extracting salt. The civic and ceremonial centers are characterized by the presence of mounds, platforms, or terraces that served as foundations for minor constructions, or that delimited interior boundaries and plazas. These structures are not monumental, but it is obvious that they required a type of collective work reflecting a shared communal life. These sites are generally associated with the residential areas.

Within these three types of sites it is possible to identify diverse functions that took place in certain spaces. First, there are sites used for gatherings or social interaction, such as the civic and ceremonial center of Cerritos Colorados, which displays a distinctive archi

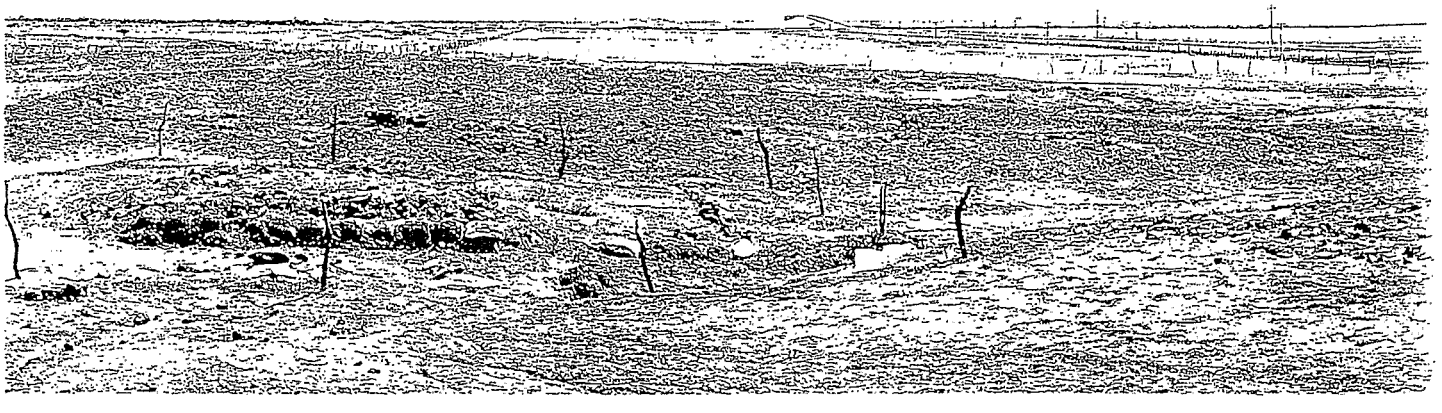


Fig. 9. At Cerritos Colorados, foundations of ancient buildings appear amid heaps of broken pottery remaining from the dry-season saltworks

tectural complexity and a well-planned structure within the larger saltworks complex. Next, there are smaller sites that seem to have had a more local function. The great majority of sites, however, are residential areas, indicative of a type of village life with the primary seasonal activities that alternated between agriculture and salt production. These patterns appear to have been established from the earliest periods of occupation and were apparently maintained until the Spanish conquest.

Chronology

The accompanying chronological chart, based on seven years of excavation, indicates the main cultural transformations that took place within the Sayula basin, part of the larger archaeological picture of the Jalisco-Colima region (see fig. 10). With information obtained from research published on the southern part of Jalisco and adjacent areas of Colima, this chronology is built upon the ceramic sequence first presented by Isabel Kelly during the 1940s. Kelly based her own pioneering study on surface materials she collected during her initial survey of the Sayula area, strengthened with proven stratigraphic evidence from the neighboring Autlán-Tuxcacuesco region.[9] Kelly identified three ceramic groups that demonstrate the qualities of work from the Sayula basin; unfortunately, having described these ceramics, Kelly never published her study.[10]

Nevertheless, research carried out during the 1990s has confirmed the validity of Kelly's sequence, and has also refined certain subdivisions she made within each archaeological phase. The main contribution of our present project has been to explain the chronology of these ceramic groups, especially the earliest one, originally named Verdía, and now renamed Usmajac, which Kelly's study of surface material had only partially identified.[11] Stratigraphic excavations carried out at five different sites within the basin have allowed us to obtain a series of twenty-seven radiocarbon dates that clearly show how long each defined ceramic phase lasted and how these phases reflect a pattern of cultural change. To establish these phases, we took into account not only the presence or absence of a predominant ceramic unit, but also the shifts revealed in settlement patterns, the use of space, and, above all, the possible changes in social organization inferred from all the evidence present in the archaeological record. Thus, the three phases not only concern ceramics, they also reflect a sociocultural dimension. The chronology is based on the stratigraphic sequence of well-defined archaeological assemblages in their contexts, and it has all been confirmed by radiocarbon dates.

PHASES OF CERAMIC PROVINCES			
DATE—PERIOD	TEUCHITLAN TRADITION (WEIGAND 1985)	SAYULA BASIN (KELLY 1948 REVISED 1996)	COLIMA/JALISCO (KELLY 1949, MEIGHAN 1972, MOUNTJOY 1996)
1500–800—Early Formative	El Opeño		Capacha
800	San Felipe		
300—Late Formative	Arenal	Usmajac	
200			Morett
100			
0			Tuxcacuesco (Jal./Col.)
100		Verdía	Ortices
200—Early Classic	Ahualulco		
300			Comala
400—Middle Classic	Teuchitlán I	Early Sayula	
500			
600			
700—Late Classic	Teuchitlán II		
800			
900—Early Postclassic		Late Sayula	
1000			
1100	Santa Cruz de Barcenas	Early Amacueca	
1200—Late Postclassic			
1300	Etzatlán	Late Amacueca	
1400			
1528–32	Spanish Conquest		

Fig. 10 Chronology of the Sayula basin in relation to the Teuchitlán area and the Colima/southern Jalisco sequences.

Evidence reveals that the region has been continuously occupied for 2,300 years. To date, no trace of an occupation prior to the Late Formative period (300 B.C.–A.D. 200) has been detected, but, given the environmental conditions of the basin, the area was most likely settled before this time, and evidence for this will doubtless appear someday under a deep layer not yet disturbed by modern agricultural activity. Until then, we will have to be satisfied with the clear evidence of village life of an incipient complex society.

The first defined cultural phase is called Usmajac, after the name of the location where we clearly identified it for the first time (see fig. 10). The radiocarbon dates

place this phase between 1,990 (+/-60) and 2,060 (+/-70) years ago (or approximately 180 B.C.–A.D. 20), although it probably began around the year 400 B.C. Changes are detected in the archaeological record around the beginning of the first millennium A.D., revealing certain transformations in this society. Among other new things, ceramic forms and attributes defined by Isabel Kelly for the Verdía ceramic group appear. These are still found in contexts dated approximately A.D. 180–320. The refinement that our project has brought to this sequence has demonstrated that the Verdía is in reality only the last part of the earlier Usmajac phase. During the Verdía era, the construction of shaft tombs as a major form of mortuary practice began to lose popularity in the region. This generally corresponds to the slow decline of shaft-tomb burials charted in the Ahualulco phase of the Teuchitlán tradition north of the Sayula basin (A.D. 200–400).

The first centuries A.D. may be considered as an era of transition into the Sayula phase that followed, beginning around A.D. 380–480. The chronology of the transition between both phases roughly coincides with the beginning of the Classic period, and, in fact, the changes noted in the new phase are symptomatic of deep transformations within the nucleus of the society. Probably, influences from the north brought about the new social order that characterizes the region. The Sayula phase lasted approximately seven centuries, with two possible subphases: the Early Sayula (A.D. 500–800) and the Late Sayula (A.D. 900–1100). The researcher Jean Guffroy has proposed a division of the subphases based on the differences perceived in the ceramic body of the Cerritos Colorados site.[12]

The last phase of the pre-Hispanic period, labeled the Amacueca, is fully contained in the Postclassic period. The dates obtained for sites associated with this stage place its beginnings close to the eleventh century A.D. Cultural materials characteristic of this phase prevail until the end of the sixteenth century, in spite of the Spanish presence in the region. As in the previous stages, a division can be made between an early (1150–1350) and a late subphase (1450–1625). During the last part of the Amacueca phase, various Tarascan garrisons from Michoacán were established in the region. Evidence of their presence usually appears in late archaeological contexts, close to the towns of Teocuitatlán, Atoyac, Sayula, and Techaluta. These traces usually consist of body ornaments denoting rank, or of fine ceramic vessels, probably imported by the elite of the area.[13] The material culture of the indigenous people of the region maintains its recognizable characteristics during a couple of centuries after the conquest. It could therefore be said that the Amacueca phase lasted almost until the year 1600.

Having described the natural environment, the settlement patterns, and the chronology of the Sayula Basin, we may now outline salient aspects of the cultural, political, and economic history of the area.

Early evidence

The history of human occupation of the Sayula region probably began in the Paleo-Indian period (i.e., by approximately 7000 B.C.), when groups of hunters and gatherers crossed through the marshland in search of game and seasonal foods. In the neighboring lake of San Marcos, the discovery of two grooved projectiles offers unquestionable proof of the presence of early hunters.[14] Not surprisingly, however, the earliest reliable evidence of sedentary settlements consistently appears much later, toward the end of the Formative period. Well-established archaeological remains in the region of Sayula can be placed between 300 B.C. and A.D. 400—the era identified above as the Usmajac phase, which belongs to the same broadly based manifestation of culture that joined, at that moment, the populations of Colima, Jalisco, Nayarit, Michoacán, and possibly Zacatecas.

Isabel Kelly was the first to identify this cultural horizon, close to the Armería River, over a wide area located between the Tuxcacuesco region in Jalisco, and central Colima, as well as the valley of the Coahuayana River, on the Michoacán border. In Colima, the sites were associated with the Ortices–Comala phase, and in Jalisco with the Tuxcacuesco phase.[15] Clement Meighan also identified this horizon in the deepest deposits of the Morett site on the coast of Jalisco and Colima.[16] Recently, Joseph Mountjoy has been able to isolate at least two components of this same archaeological status in various locations on the coast of Jalisco.[17] Similarly, in the central part of the Jalisco highlands, the Tabachines, Colorines, and Arroyo Seco

complexes also belong to it, as do the San Felipe, Arenal, and Ahualulco phases of the Teuchitlán tradition.[18]

All the ceramics of this period share formal, stylistic, and technological traits. These traits, along with a variety of mortuary paraphernalia including shells, greenstones, and obsidian, form part of the funerary ensembles and serve as a common denominator to the so-called shaft-tomb cultures. Local variations in the aesthetic decoration of ceramics have allowed us to identify the different regional styles.[19] These variations are especially noted in the anthropomorphic hollow tomb sculptures that are the universal hallmarks of West Mexican cultures.[20]

Similarities in the material culture of this horizon almost certainly reflect a sphere of interaction linking the majority of the West Mexican peoples.[21] Very little has been done, however, to understand the specific character of this close regional interaction. The fieldwork carried out by Phil Weigand constitutes the only serious effort to widen the limited interpretations that have been presented by ceramic typologies, offering instead an inclusive outlook on the dynamic process of cultural exchange in West Mexico.[22] Indeed, Weigand rejects the notion of an archaeological horizon for this phase, preferring instead the concept of "tradition." He employs this concept in characterizing the pre-Hispanic society of the Etzatlán-Ahualulco-Magdalena lake basin, embracing it with the generic name of the Teuchitlán tradition. He has proposed the existence of a ruling group, established in the nuclear area of Teuchitlán, that politically controlled the rest of the neighboring populations and established spheres of interaction over a broad territory. Although we may find the general scheme of Weigand's hypothesis seductive, the idea of including *all* the cultural manifestations of West Mexico within the same sociopolitical system still requires archaeological verification with evidence found in the areas presumably involved. The support or rejection of an all-encompassing hypothesis must be based on detailed study of the complete archaeological evidence from each specific region.

The following synthesis of our archaeological findings from the early horizon in the Sayula basin presents concrete evidence, allowing us to question the validity of Weigand's hypothesis within a local context. The evidence has been collected by systematically prospecting the region, and by excavating at numerous sites located in various sectors of the basin over a seven-year period. The territory covered in this archaeological examination extends over approximately 700 square kilometers, within which more than seventy sites that show signs of early occupation have been detected. The present description gives priority to the first stage of the established sequence, since it corresponds to a time in the cultural history of western Mexico about which we still know much too little. This era, lasting approximately 700 years, has generically been called the shaft-tomb period.[23] Our research in the Sayula region now offers a perspective on the dominant settlement pattern.

The regional survey undertaken by the Sayula Basin Archaeological Project has thus far located more than seventy sites from the Usmajac phase, the majority corresponding to small residential areas, exhibiting no remaining architectural evidence, but with traces of how residential spaces were used and transformed. The extent and density of the traces found on the surface indicate scattered domestic units or hamlets of no more than ten or twelve families. In three sites, various types of funerary structures were also found, including a type of shaft tomb that had never been reported in the archaeological literature.

Residential sites are mainly located on the first marshy terraces found in the southern half of the basin (see fig. 11). The hillsides of both mountain ranges exhibit a pattern of scattered settlements, at an altitude between 1,350 and 1,650 meters. The majority of the sites identified are no larger than 300 square meters—a space possibly occupied by a few domestic units. The surrounding area frequently displays evidence of land leveling, and the sites usually occupy positions close to seasonal mountain streams that flow from higher elevations. Concentrations of scattered sites are most often separated by distances of not more than a few kilometers. The areas in between could reflect the existence of zones used for domestic orchards, or forest areas kept as reserves for wood and for hunting small game. Partial excavations of two village sites now give us a view of daily life during the Usmajac phase.

A detailed study of one of these residential areas has revealed distinct features characteristic of villages during this time. The site

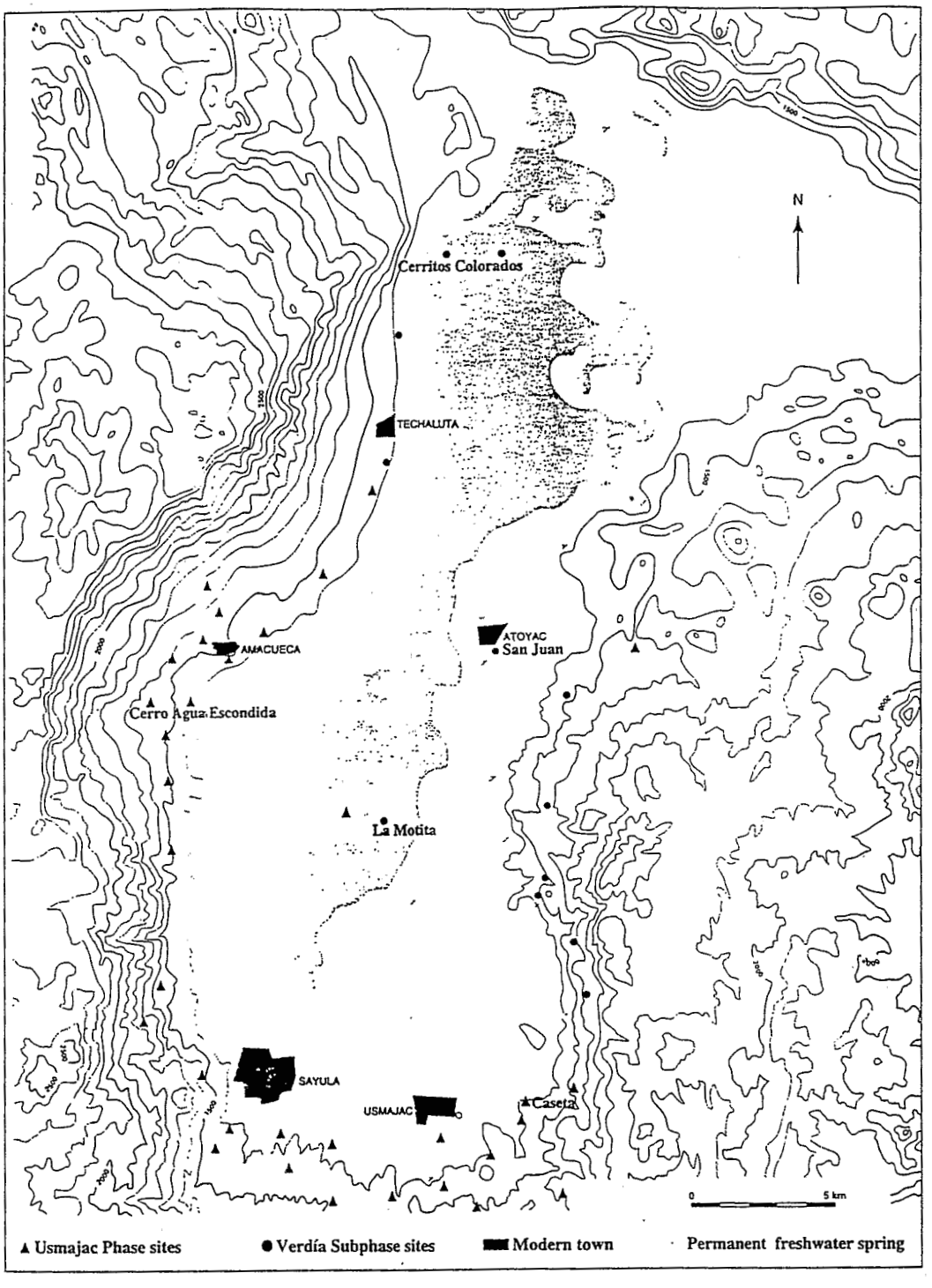


Fig. 11 Map of the Sayula basin showing Usmajac phase and Verdía subphase site locations.

known as Cerro del Agua Escondida (Hill of the Hidden Water), located on the first group of terraces a short distance from the lake bed, displays evidence of occupation over an expanse larger than one square kilometer (see fig. 13). The density of such vestiges, however, is not homogeneous, though they tend to be concentrated in at least four well-defined sectors. Each sector displays artificial rearrangements of the natural topography: steep terraces have been graded and small headlands have been leveled. On the hillsides, flat spaces can be seen where partially buried stone alignments suggesting ancient structures are frequently found.

Shaft tombs have been found in three sectors of the site, and they all follow a similar architectural plan (fig. 12). To prepare the tomb, a deep pit was first excavated. At its bottom, a chamber was built with stone walls held together by a mortar of soil, plant matter, and fragments of ceramics to plug the gaps. A roof was then erected over the chamber by means of an ingenious system of stone

slabs placed as a type of self-supporting corbeled dome. At the entrance to the chamber, a rectangular foundation was made with small stones, so that the walls of the shaft could be built up to the surface level. Once the construction was finished, the space between the corbeled dome and the ground above was filled, leaving the burial chamber at a depth between 2.5 and 3 meters. Corpses would be lowered through the shaft and the entrance sealed with small stones and large slabs. The dimensions of these chambers fluctuate between 2 and 3 meters long, and 1.8 to 2.5 meters wide. The height of the dome could reach 1.3 meters.

This type of funerary construction is a variation on the type of tomb usually reported in West Mexico (see the essays by Phil Weigand and Christopher Beekman and by López and Ramos in this volume). Its distinctiveness is interpreted as an adaptation required by the characteristics of the local soil, where a loose conglomerate of volcanic tuff and gravel is not sufficiently solid to support the larger cavities that may be found elsewhere, especially in the core of the Teuchitlán area. The three tombs studied in the Sayula basin reveal the mastery of construction techniques that the early villagers possessed. This knowledge is also expressed on the ground. Although the dwellings themselves no longer survive, the foundations can sometimes be seen, coinciding with areas that have a high density of cultural remains.

Our archaeological excavation was concentrated on one part of sector 3 of the site, because it showed signs of residences and contained a partially looted funerary structure (see fig. 13). Sector 3 is located on a hillside with a very irregular topography. The ground drops sharply and then gradually flattens to form a rolling plateau. Three terraces have been graded, gradually descending toward the lake bed. A small, seasonal stream, now diverted to irrigate adjacent lands, descends on the far southern part of the site. To the north, the hillside is more abrupt with a rugged surface reaching down to the edge of the marshland. No surface cultural material was found on this side.

We began excavating in the central part of the highest terrace, situated at 1,430 meters above sea level. The area excavated, covering a surface of 160 square meters, revealed part of the occupational contexts of an early village. The work centered on a small patio, delimited by a semi-oval-shaped wall. Areas for specific activities were exposed on the periphery. Vestiges of domestic architecture were marked with stones and small fragments of a mud wall. These constructions became more striking as we surveyed and explored the surrounding terrain. Underneath the occupation level of the excavated area, clear evidence of the rearrangement of natural topography was found. We discovered that, to grade the terraces, retaining walls had been built at intervals and various layers of fill had been used.

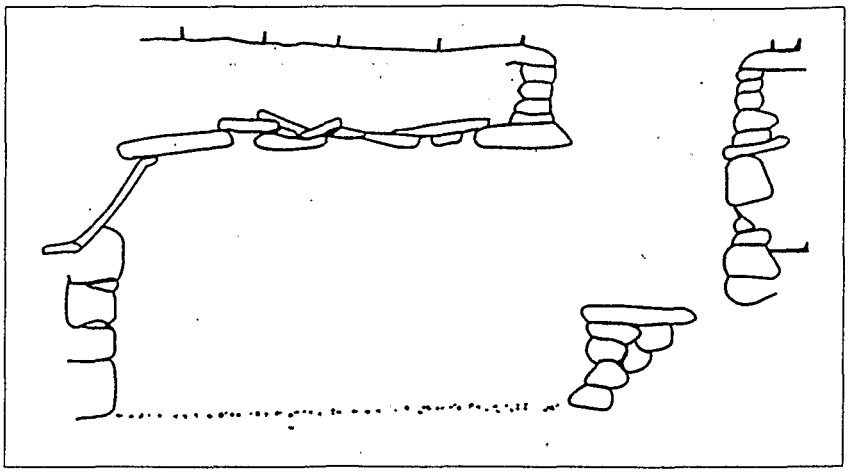


Fig. 12 Typical Usmajac-phase shaft tomb of the type found at the Cerro del Agua Escondida site.

The organization of the habitational space is evident in the patio that lies at the center of the terrace. This patio distinctly marks the separation of three complexes:

1. a residential area distributed over both flat and steep parts of the ground;

2. a zone for communal activity toward the northern end of the patio; and

3. an apparently sacred space, located in the middle of the patio, where the entrance to the shaft tomb was found.

The patio itself is marked by a line of carefully chosen stones with regular shapes that served as a foundation. At one time, these stones, placed on top of one another, were part of a small wall at least four rows high, delimiting a surface of compacted soil. In its present state, the foundation has an ovoid shape, running eight meters from east to west, before curving north to south, finally extending eleven meters on this north-south axis. A buried ceramic vessel was found under one of the curves where the wall turns, fifty-six centimeters below

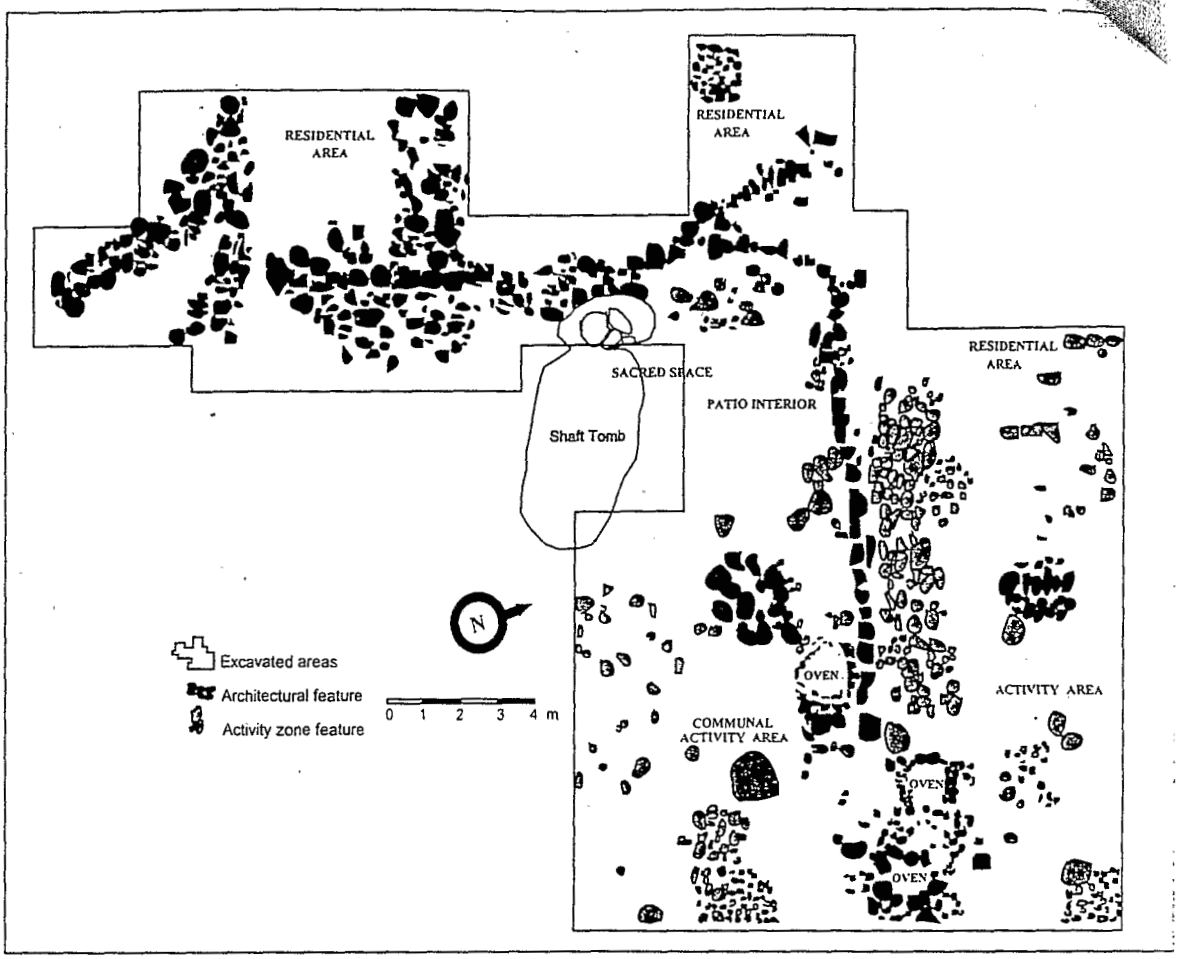


Fig. 13 Plan of sector 3 of the Cerro del Agua Escondida site.

the present surface. As in the case of the offerings from the funerary chamber, the small earthenware bowl must have contained some type of organic material protected with an inverted plate placed as a cover. The floor of the interior patio showed no archaeological remains, in contrast to the exterior of the wall where the floors were covered with debris. The absence of material could be an indication of the restricted character of this space, or it could perhaps denote a concern in keeping the area clean in order to carry out a particular activity. The possible sacred nature of this sector is suggested by the presence of the tomb, the offering beneath the corner, and the contrast between the absence and presence of debris in the interior patio and exterior floors, respectively.

Lying beneath the patio, the tomb is oriented on the same east-west axis. The entrance to the shaft is fixed to the base of a wall in the central part of the patio, and was sealed by four large stone slabs. The diameter of the shaft measures one meter and it descends slightly more than two meters to the door of the burial chamber. Two stone slabs blocked the entrance to the interior where the bodies were placed.

Although the tomb had been partially looted several years before, excavation of the remaining debris allowed us to recover valuable first-hand information. One sector of the chamber had not been touched by the looters, and therefore, a general plan of how the bodies were laid out could be sketched and part of the offerings rescued. At least five people (four adults and one child) were laid out on the major axis of the chamber, their heads towards the entrance. The offerings surrounded the skulls in the space between the wall and the door of the tomb. These objects, found in situ, were decorated earthenware bowls and jars, some of which still had covers made from plates or inverted small wide bowls. Among the bones were various ornaments such as nose rings, necklaces, and bracelets made from worked seashells. Some pendants and beads for necklaces were made from polished, cut greenstones, and others from obsidian. The raw material for all these objects came from places far from the Sayula basin: they serve

as testimony to the importance of commercial contacts maintained among the inhabitants of the various regions in West Mexico.

On the exterior, an activity area found on the other side of the wall that delimits the patio is notable for the manner in which its large space is organized. It contains three ovens placed around a rectangular walkway made from flat stones. Between the ovens, various concentrations of small stones that could have served as bases or supports were cleared. The ground displayed an important density of debris, including ceramic sherds, stone fragments, and bones.

The ovens are cone-shaped structures, excavated in the subsoil, to a depth of one meter. The diameter of the opening of the oven varies between 90 and 150 cm. Inside, a thick stone filling mixed with abundant ashes and charcoal was found. The form and size of the structures remind one of the ovens currently used in this region to roast the heart of the maguey or mescal cactus. The nutritional importance of this plant among societies in northwestern Mexico has recently been emphasized by Ben Nelson. Its presence in an area for communal activity is, therefore, fully understandable.[24] Various fragments of a broken ceramic vessel, probably from some domestic activity, were recovered from one of the ovens in an adjacent area. These fragments support the idea that different areas of the site were in use at the same time. Carbon samples for dating the time of occupation of this site were also taken from the ovens.

A similar spatial organization was found at another excavated village, located at the extreme southeastern end of the basin (see fig. 11). On the edge of a hillside at this site, known as Caseta, Usmajac-phase archaeological remains were also found. In addition, there is an early cemetery associated with the other evidence of ovens and the levels of domestic occupation.[25] Unfortunately, the stratigraphy of this site was greatly mixed with materials from later occupations, and it was not possible to obtain a clear idea of the original layout of the early levels. Nevertheless, a comparison between the structures and the materials recovered allowed us to mark the similarities and particularities of the different early sites.

From these sites, three basic types of diagnostic ceramic vessels have been identified, all of the Usmajac phase. The first is an ordinary monochromatic buff or red ware, with fairly thin walls, and a carefully burnished surface. The second type, characteristic of the early archaeological horizon, is a fine ware with a cream-colored slip, varying between buff and dark gray. The sides are always burnished and usually display some type of linear decoration painted red or a combination of red and white. The third type, which is less common, is also monochromatic, dark brown or black, with an incised or engraved zonal decoration, similar to certain decorative Capacha motifs.[26] As Mountjoy has argued in regard to his finds of such wares on the coast of Jalisco, these ceramics may be a continuation of the tradition in the Sayula region from the Middle Formative period.[27] The predominant forms in the three types of vessels are the shallow plate, the hemispheric earthenware bowl, the jar, and the medium-sized pot. Composite contours predominate among jars and bowls used as offerings, their shape resembling that of a gourd. In addition to these diagnostic vessels, we find solid anthropomorphic figurines, of the type defined by Isabel Kelly as the "Ortices-Tuxcacuesco" (see also the essay by Jane Day in this volume).[28] Fragments of these figurines abound in domestic contexts that characterize this early archaeological horizon in various states of West Mexico.

Usually, the distance between the residential sites and the lake bed is less than four kilometers. Easy access between both areas made it possible for various groups to keep permanent agricultural fields in the rich alluvial lands next to the water. This can explain the presence of ceramic fragments in flooded areas that seem little suitable for human settlements. Not far from these areas, on the swampy shore, we find salt-extraction stations that were exploited during the dry season. Ceramics from the Usmajac phase have been found in many of these stations, suggesting that salt was exploited as early as the first centuries B.C. In her work, Catherine Liot has identified various steps in the ancient method of salt extraction.[29] Several pertain to the early phase; these appear most often in the southern half of the basin.

At the La Motita site in the center of the basin, Liot studied various circular structures, buried at the bottom of the dry lake, that were used for concentrating and decanting the brine. She also identified the vessels used for inducing evaporation of nitrate liquid at

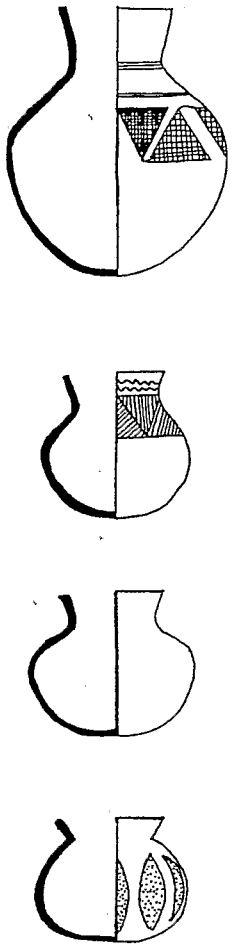


Fig. 14 Representative selection of Usmajac-phase pottery.

low heat to produce salt crystals. During the Usmajac phase, such vessels have a characteristic form, distinguishing them from those used in later phases. One group of vessels containing various forms related to salt production includes the following: 1) semispherical bowls, with a diameter between 35 and 50 cm, often decorated—inside or outside the bowl—with one or more red bands close to the edge or in the upper middle part of the vessel; 2) thick, well-fired cylindrical vessels; and 3) ordinary pots (see fig. 14).[30] Usually, this type of specialized, utilitarian ware is the only one found at the stations, although some finer well-decorated fragments, as well as pieces of solid anthropomorphic figurines, have also been found. Utilitarian material related to salt production rarely appears in domestic contexts. Some fragments of decorated vessels with red bands, however, have been recorded in a few early sites located on the alluvial terraces along the western border of the basin.

Toward the beginnings of the first millennium A.D., a new type of fine ceramic material—Kelly's Verdía—made its appearance, associated with certain stations on the northern part of the Sayula basin. Compared to the utilitarian material used for salt production, this finer example is relatively rare, its distribution throughout the area much more fragmented. The distinctiveness of this type lies in its having been found also accompanying surface burials from the Verdía subphase at sites on the shore.[31] These human burials, accompanied by ceramic non-utilitarian offerings at sites considered as specialized saltworks, may indicate the presence of a distinct group of people who began to control production and distribution of salt within the basin. The new group apparently no longer made use of shaft tombs and preferred to have their burials next to their sources of wealth, without any need for a complex funerary architecture. Another, alternative interpretation of this evidence is that those who were buried in the saltworks might have been sacrificed for propitiatory purposes and that their elegant offerings may simply represent implements used for the ritual. Whatever the case may be, from this phase on, the stations at the northern end of the basin increased significantly and became the hallmark of a new cultural phase—the Sayula phase—that appeared in the basin in the sixth century A.D.

Conclusions

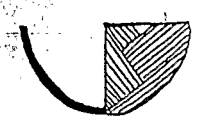
The perspective presented by new regional information allows us to distinguish certain aspects of daily life during the Late Formative period in southern Jalisco. Within the Sayula basin, the settlement pattern recorded during the Usmajac phase suggests a social organization of clans, who may have been related and were spread around the lake. Each group, led by a cacique, was dedicated to exploiting its local environment in a relatively autonomous manner. Their livelihood was based on growing corn, beans, squash, and probably maguey from the hillside (wild or cultivated), but the population dedicated part of its time to activities related to salt extraction. The technology they employed and the organization of their work—as suggested by the evidence of this first phase—do not support the hypothesis of a centralized control of production, but rather suggest artisan-type activities possibly carried out by various members of a domestic unit. Specialization of labor and control of processes for extraction seem to have emerged toward the end of the phase, when shaft tombs were abandoned in the basin. The transition to the Verdía subphase clearly marks this new arrangement in the region.

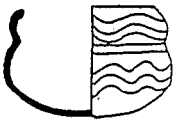
The evidence obtained from the residential contexts of the Cerro del Agua Escondida site suggest a village life, centered around communal activity areas, which included rituals in an internal sacred space. The materials found at the site, above all the funerary paraphernalia, suggest the existence of various spheres of regional interaction. The presence of seashells, obsidian, and exotic greenstones reveals connections to groups established in the central regions with others farther south and east of Jalisco and Colima. Traces have not yet been found, however, of any extra-regional sociopolitical organization. In the Sayula region, there is no evidence found to date of the circular architecture that characterizes the Teuchitlán tradition in the neighboring Ameca and Magdalena basins. There is also no evidence of a decrease in the local population that would suggest a demographic implosion towards the nuclear Teuchitlán area as Weigand has posited for this period.[32] Whatever ideological inclinations may have existed are probably manifested in the organization of space and in the symbolic representations present in the cultural material. Furthermore, nothing of what

has been discovered in the iconographic sphere reveals any particular influence upon or from the Teuchitlán tradition. The problem may lie in the lack of information concerning the sphere of interaction between these areas. In Weigand's outlook, it is generally supposed that there should be centers with circular architecture that represent a macroregional sociopolitical order in all areas surrounding the nuclear zone of Teuchitlán. But this has not been demonstrated in the Sayula basin, and it may not actually be a necessary requirement even if we are to maintain the notion of a network of regional interaction. As a strategic resource, salt was undoubtedly important in the global economy of West Mexico. Nevertheless, we should bear in mind that we are dealing with a seasonal resource that is present during the dry season and is literally washed away with the first rain. At present, we do not know much about the ways in which salt was stored during the Usmajac phase, but we can assume from the lack of evidence that they were not very significant. We must remember that the Teuchitlán core area had no local salt sources. If salt seasonally appears and disappears in Sayula as "a gift from the gods," then we could infer that Teuchitlán's interaction in the basin fluctuated correspondingly. If this were the case, permanent administrative centers were not needed. During periods of production, the interested communities renewed their contacts and exchanged salt in the usual manner. On the other hand, we have not yet found any indication showing that during this period salt distribution was specifically directed toward the Teuchitlán region. Hypothetically, we might postulate that during the first centuries A.D. (in the Verdía subphase) a change occurred and, with it, a significant increase in production. Perhaps, from then on, a new collective system for storing the product was established. This change might thus have permitted a stable circulation throughout the year. Following our hypothetical reasoning, we might assume that there was an external influence that produced this change, and that it may have issued from Teuchitlán. What we do know is that by the sixth century A.D., when massive salt production began in the basin, during the Sayula phase, the height of the nuclear area in Teuchitlán seems to have begun its decline. The new architectural and ceramic styles that characterize this new stage seem to be closer to those of the northern highlands of Jalisco and the neighboring Bajío.[33]

For several years, various authors have questioned the apparent lack of social complexity in western Mesoamerica and have proposed to change the "rural image" of the early populations of this region. In this regard, the work carried out by Weigand has established a solid basis in northwest-central Jalisco and in Nayarit. Nonetheless, the information recently obtained in Sayula does not always correspond with the guidelines of his proposed model. Social complexity has various faces and not all correspond, at a given moment, to the exact notion of a center and periphery at a macroregional level. Sociopolitical systems operate in ways that adjust themselves to the particular conditions of each group. Often, interaction does not lead to dominance, but rather to complementarity among entities that are considered equal. In spite of the fact that evidence of settlements during the Usmajac phase does not reveal a centralized social structure of a Teuchitlán type, there is nothing to keep us from assuming that the chieftainships in Sayula might have participated in an independent manner within the network of regional interaction prevailing during this period. A similar distribution of wealth among the different groups may be seen in the distribution of sites with equivalent shaft tombs in the central and southern part of the basin. Although this information may be incomplete, it suggests a society based on relations of equity among the different groups of the region. The absence of major architectural vestiges in the series of sites also tends to underscore this point.

The strategic importance of Sayula during the Late Formative period is documented by the number of sites found in the survey, although it is obvious that there should be many more. Although much remains to be discerned regarding this phase, detailed studies of residential contexts are beginning to bear their first fruit. Only from the evidence obtained from the various regions may we be able to confirm any hypotheses regarding the social development of the cultures of West Mexico.

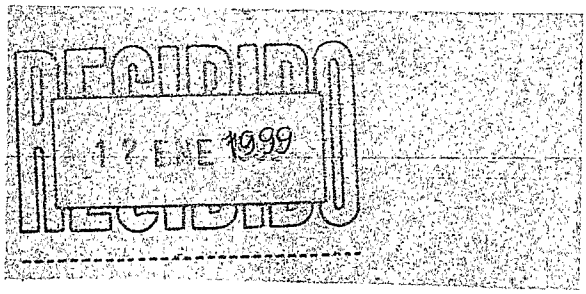





ANCIENT WEST MEXICO

ART AND ARCHAEOLOGY OF THE UNKNOWN PAST

RICHARD F. TOWNSEND
GENERAL EDITOR



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