# THE CONSTRUCTION AND OCCUPATION OF UNIT 11 AT PAQUIMÉ, CHIHUAHUA

DRAFT (February 5, 2009), comments welcomed!

David A. Phillips, Jr.
Maxwell Museum of Anthropology
Department of Anthropology
MSC01 1050, 1 University of New Mexico
Albuquerque, NM 87131 USA

Elizabeth Arwen Bagwell Desert Archaeology, Inc. 509 South 48th Street, Suite 104 Tempe, Arizona 85281 USA

### **Abstract**

Understanding Paquimé's internal development is important to regional prehistory, but the sheer amount of published data deters attempts to interpret the site's construction history. The challenge can be reduced to a workable size by examining individual architectural units within the site. By way of illustration, a re-study of Unit 11 (House of the Serpent) indicates that its construction history may differ somewhat from the original published account. The approach used in the re-study is frankly experimental and is offered in the hope that others will be able to improve on it (or else prove its lack of utility).

Three decades ago, in the most influential report ever prepared on northwest Mexican prehistory, Charles Di Peso and his colleagues described Paquimé (Di Peso 1974; Di Peso et al. 1974; see also Contreras 1985). Since then, the site's construction history has received little detailed attention. Instead, recent discussions have focused on dating the site as a whole (End Note) or on the presence or absence of a multistory "east wing" (Lekson 1999a:80; 1999b; Phillips and Bagwell 2001; Wilcox 1999). In recent years, the most detailed studies of Casas Grandes construction have come from other Casas Grandes sites (Bagwell 2004; Kelley et al. 2004; Whalen and Minnis 2001a).

The problem is not a lack of information. Indeed, the excavation report is so massive as to deter reexamination of the published conclusions. Nonetheless, Paquimé is one of the region's few recognizable centers, so the timing of its internal development has implications reaching beyond the site itself. One way to resume the task of analyzing Paquimé's construction history is to examine a limited portion of the excavated ruins, to derive methodological lessons applicable to the rest of the site. The area selected for this exercise is Unit 11, the House of the Serpent, which was fully excavated but stands apart from other buildings at Paquimé, thus forming a complete and easily defined unit of analysis (Figure 1). By engaging in this exercise, we are emphatically *not* claiming to have found the key to interpreting Paquimé's construction history. Instead, we are suggesting an experimental approach, in the hope that our colleagues will either identify improvements or convince us to discard the approach entirely.

# Paquimé Architectural History: The Published Interpretation

Before turning to Unit 11, we will present the published construction history of the site. According to Di Peso and his colleagues, the occupation of Paquimé corresponded to the Medio period, including three phases: Buena Fé (A.D. 1060–1205), Paquimé (1205–1261), and Diablo (1261–1340) (Di Peso 1974 2; Di Peso et al. 1974 4). Di Peso believed that Paquimé sprang rapidly from the ground: "[S]ometime around the year A.D. 1060 ... Mesoamerican merchants came into the valley of the Casas Grandes and inspired the indigenous Chichimecans to build the city of Paquimé over an older Viejo period village" (Di Peso 1974 2:290). Paquimé "became, in the course of a single generation ... an extensive town of ranch style [i.e., mostly single story] house-clusters" (Di Peso 1974 2:293).

Buena Fé phase construction involved formal planning and included "underground plaza drain systems, formalized plaza, public entries, subterranean ceremonial structures, and staggered outer wall design. The house interiors ... were also patently predesigned, as the doorways, beds, and alcove wall constructions were cast in place as part of the total configuration." Buena Fé phase buildings provided "high-ceilinged, airy living room space" of greater size and more solid construction than before, and included novel features such as "heated sleeping platforms" and "raised platform cooking hearths" (Di Peso 1974 2:370).

The formality of construction increased in the Paquimé phase: "By A.D. 1205, the merchant-priests ... sparked [an] urban renewal program, which lasted almost two generations, or until A.D. 1261" (Di Peso 1974 2:293–294). "Casas Grandes was changed from a conglomerate of

Buena Fé phase, single-storied, ranch style house-clusters to a massive, multistoried, high-rise apartment house.... The former were either razed, remodeled, or abandoned" (Di Peso 1974 2:313). In the Diablo phase, however, "two and a half generations sat idly by and watched the magnificent city of Paquimé fall into disrepair. ... [C]ivil construction and public maintenance all but ceased. ... Were these explicit signs of socio-political disintegration...?" (Di Peso 1974 2:319–320). "The bitter end of the city came *ca*. A.D. 1340.... There is some evidence that the Paquimeans ... were attacked by enemy people who burned the city [and] killed several hundred men, women, and children" (Di Peso 1974 2:320). The Diablo phase and the Medio period ended with the site's abandonment.

In Volume 3 of the excavation report, Di Peso twice singled out Unit 11 in his discussions, as "the best preserved example of Buena Fé phase architecture" (Di Peso 1974 2:372) (Figure 2).

The house of the Serpent ... enclosed almost four-fifths of an acre [0.3 ha; Di Peso 1974 2:674, Note 9] and was marked by a single entry with staggered outer defense walls and a bastion corner. The interior was so designed that some 40 percent of this enclosure was roofed to include 26 contiguous and two subterranean rooms; most of the former were built against the inner faces of the outer walls. The remaining central area was divided by a block of double rooms laid out to face two domestic and two public plazas. Twenty of the rooms were used as living quarters, six as public rooms, and the two subterranean ones as public/ceremonial spaces. Actually, 74 per cent of the enclosure was used to house eight family groups, which may have involved some 77 individuals [Di Peso 1974 2:372–375].

Di Peso tied Unit 11 into the site's general architectural history as follows:

Perhaps the saga of the Medio period great houses can best be told by reconstructing the architectural history of the Buena Fé phase "House of the Serpent," which was built in the southwest corner of the city, ca. A.D. 1060. During the course of this phase, the occupants added an enclosed plaza plus two rooms to the southeast side and, later during this phase, they converted its public areas into domestic sleeping rooms.... Later still it was abandoned, save for a small portion of its southwestern corner. Here, one young adult male continued to occupy, in the Paquimé phase, the only remaining roofed room.... Apparently, his job was to attend to the scarlet and military macaws that were caged on the roof of his adobe. One day during this phase, and while he was in his sleeping quarters, the upright support timbers of his room gave way and crushed him, along with many of his feathered wards, under tons of wall and ceiling debris. Subsequently, other citizens were formally buried in the collapse of this room. Then, ... in the spring of 1340, when the enemy put the sick Diablo phase city to the torch, some of the inhabitants vainly took refuge in the ruins of this house-cluster and attempted to seal the old entryways with stone against the relentless enemy. There they were slaughtered where they hid and were left to be devoured by wild animals which scattered their decaying bones [Di Peso 1974 2:294–295].

The architectural history of Unit 11 is presented in detail in Volume 5 of the report, by Di Peso and Fenner (1974), and is worth quoting at length. This exeges omits the individual family clusters, which are not critical to the current study.

All of the rooms but two and all of the plazas were part of the original construction which took place at the beginning of the Buena Fé phase; the remainder were added later in the same phase. With the exception of the multistory rooms and the house block, the house-cluster was abandoned at the end of this time ...

The rooms were ... one story in height, with the exception of a pair of two story rooms whose ground floors were subterranean. ...

The long wall extending from the NW corner of Plaza 1-11 to the SW corner of Plaza 3-11 was possibly the first wall to be built and served as a guide for the remainder of the construction. Interconnecting doorways indicated the presence of eight family clusters. ... The two-story Rooms 33- and 38-11 opened to Plaza 3-11 and were ceremonial rooms on their ground floors ... The main route of entry into the house-cluster was through Plaza 4-11 and two adobe pillars leading through a Colonnade Hallway which had a pair of wooden central roof support posts, then through a smaller Antechamber, and finally into Plaza 1-11. To reach the southern part of the house-cluster one walked through a long covered hallway to Plaza 3-

11. An alternate entry to Plaza 1-11 was through another long roofed hall consisting of Rooms 20- and 22-11. ...

While the above rooms and plazas continued to be used during the rest of the Buena Fé phase, there were some changes in family clusters; in addition, a large plaza was added along with two rooms to the to the S. The two ceremonial Rooms 33B-38B-11 continued as before, as did the Hallway between Plazas 1- and 3-11. A doorway was built in the E end of Room 22-11 at this time and the other route of entry into the house-cluster was from a doorway at the N end of Plaza 2-11 to Plaza 4-11; the former doorway was later sealed. The roof support posts of the fine Colonnade Hallway were removed and an adobe wall was built down its center and the entry between the adobe columns was sealed off by similar walls, resulting in Rooms 18- and 19-11. The two large public entryways which formerly connected the Antechamber with Plaza 1-11 were also sealed and macaw nesting boxes were built against them along the E wall of Plaza 1-11; the latter were later razed when additional nesting boxes were build in Plaza 3-11, possibly toward the end of the phase when it was decided to abandon the housecluster and convert Rooms 33-B and 38-A-B-11 to avicultural areas. Because of the alterations of the Colonnade Hallway and the Antechamber, access to the remainder of the house-cluster from Plaza 4-11 was through Rooms 22- and 20-11 or through 19- and 18-11 and into 20-11, thence into Plaza 1-11.

With the abandonment of the Unit 11 house-cluster at the end of the Buena Fé phase, roof vigas and central roof support posts, as well as stone seating disks, were removed, probably for reuse in the main part of the city. The roofs of Rooms 33A- and 38A-11 were razed at this time and the upper floor of the latter room was utilized, along with the ground floors of both rooms, for the raising of macaws. Other rooms possibly continued in use. Even this limited occupation came to an end some time during the Paquimé or Diablo phase when the roof of Room 38B-11 collapsed, killing the young aviculturalist who lived there. From then until the end of the Diablo phase the unit was used occasionally as a burial area, indicted by a number of individuals whose bodies were placed in the collapsed remnants of the house-cluster walls. At the very end of this last phase, several inhabitants of the city sought refuge in the ruins and blocked with stones the N doorway of Plaza 2-11, that between Plazas 2- and 4-11 and that between Plaza 3-11 and the entryway to Room 38B-11. Their attempts were futile, however, as indicated by the fact that all barricades were pushed inward by their pursuers and the additional evidence of the unburied and scattered remains of a number of individuals found throughout the house-cluster.

The final habitation of Unit 11 was by a party that cleared the ruins of one of the S rooms (Rooms 24- and 26-11), built a partition wall to make a smaller room, and put in a new floor with a fire hearth. This occupation took place during the Robles phase of the Tardío period, as indicated by a C-14 date from the hearth [Di Peso and Fenner 1974:477–478].

As is noted in the final paragraph of the extended quotation, Unit 11 yielded the latest radiocarbon date on the site, of A.D. 1480, from a hearth in the upper floor of Room 24-11 (Di Peso 1974 3:961, Note 5; Di Peso et al. 1974 4:23). The date falls a century and a half after Di Peso's postulated sack of the city in A.D. 1340, and he interpreted this date as follows: "[A]t Casas Grandes itself ... on the Diablo phase fill of one of the rooms, remains of a fire were found which were dated to A.D. 1480. This suggested that someone had stopped for a time in the abandoned city" (Di Peso 1974 3:758).

To Di Peso, therefore, construction of Unit 11 coincided with the initial development of Paquimé as a series of one-story house clusters during the Buena Fé phase. Most of Unit 11 was then abandoned as part of the Paquimé phase "urban renewal," but for a while one individual lived and worked in the derelict complex. Unit 11 was also used as a burial area, then as a refuge during the attack that ended the site's occupation. Finally, well after abandonment, one room was briefly reused.

### **An Alternative Reconstruction**

Whalen and Minnis (2001a) have shown that Medio period construction in the immediate vicinity of Casas Grandes takes two forms: a thin-walled, less formal style and a thick-walled, more formal style. The latter, the apparent "official" architecture of the Casas Grandes culture, occurs from central Chihuahua (Kelley et al. 1999, 2004) to southern New Mexico (De Atley 1980; Skibo et al. 2002) and west into the Sierra Madre and Sonora (Bagwell 2004; Braniff 1986; Lister 1958), albeit in attenuated form as one moves away from Paquimé. In most of its

range, the thick walls of the "official" Casas Grandes style were probably built using the English cob technique (Bagwell 2004:23–24). The two authors disagree on how such walls were built at Paquimé; Phillips concurs with the excavators' argument that wall construction involved "casting" of still-plastic adobe in forms (Di Peso et al. 1974 4:217 and Figures 147-4 through 149-4; see also Contreras 1985), while Bagwell suspects that a cob technique was used throughout. Either way, wall construction at Paquimé involved unusual techniques and tools, which implies the existence of specialists. Given the involvement of specialists in a ritually charged activity, we can expect a rigidity of approach that might otherwise seem out of place.

One outlet for that rigidity lay in the creation of corners and other wall junctions. As was typical in the region, the builders of Unit 11 did not bond their corners, but simply built one wall against another. At Plaza 1-11, for example, the northwest corner may have been built one of two ways: the west wall may have been butted against an existing north wall, or the north wall may have been lapped against the end of an existing west wall (Figure 2). Given a "ritually rigid" approach to design and construction, we would expect corners to be butted or lapped, but not a random mix of the two. It is therefore possible to examine the wall junctures in Unit 11 to see whether assumptions of "butted" or "lapped" corners lead to a consistent sequence.

The laudably detailed plans and descriptions in Di Peso and Fenner (1974) provide the necessary information, which is graphically summarized in Figure 2. As readers are invited to discover for themselves, an assumption that walls were consistently butted to form corners leads to a coherent construction sequence, while an assumption that walls were consistently lapped does not.

Figure 3 brings out the abutment sequence implicit in Figure 2, by indicating four types of walls. "First order walls" are those whose ends do not abut other walls, so were built free-standing. "Second order walls" were built with one end abutting a wall (and therefore were built after that wall) and the other end free-standing (at least briefly). "Second order interior walls" are walls used to partly divide interior space (most often to create alcoves with raised platforms). Finally, "third order walls" abut other walls at both ends and must have been built to connect two existing walls. In Figure 3, the direction of construction of second order walls is also indicated, by arrows pointing from the butt end to the free-standing end.

If this interpretation is correct, the longest wall in the unit—from the northwest corner of Plaza 1-11 to the southwest corner of Plaza 3-11—was not the first to be built (cf. Di Peso and Fenner 1974:477). Instead, Rooms 29-, 32-, 33-, 37-, and 38-11 were built as a single block. Construction started with the east entrance wall of Room 38-11 (later used as the west wall of Room 36-11) and exterior walls were added widdershins: the south wall shared by the rooms in the east half of the block; the east wall of Room 29-11; the north wall shared by all of the rooms in the block, the west wall of Room 37-11; the south wall shared by Rooms 37- and 38-11; and finally the west entrance wall of Room 38-11. The interior walls were then added.

The room block included two connected subterranean rooms identified by the excavators as ceremonial (Di Peso and Fenner 1974 5:506–514). Lekson (1999a:72 and Figure 3.3) identifies Room 38B-11 as a kiva; if the room was created as part of the initial construction of Unit 11 (as the current analysis indicates), it could mark a transition between traditional Mimbres Mogollon religious practices and those of the Medio period Casas Grandes culture.

At first the room block stood free, with direct access to the kiva-like room from the outside (Figure 3, Access A). Also, any activities in front of the kiva entrance were in the open. The next round of construction reduced both visibility and access. The new work began with the north wall of Plaza 1-11. Second-order walls were extended south from that wall to define a plaza behind the original room block. A third-order wall completed the plaza, leaving a gap between the plaza and the room block. The resulting gap probably served as the access to the expanded unit, in the form of a long, narrow corridor open to the east (Figure 3, Access B).

The west wall of Plaza 1-11 was extended past the original room block to define the west edge of Plaza 3-11. Another second-order wall was extended south from the room block to define the east edge of the plaza. As happened with Plaza 1-11, the south edge of Plaza 3-11 was defined with third-order wall. With Plaza 3-11 completed, the space in front of ceremonial Room 38 was blocked from public view. A narrow passage (Hallway 1-11) on the west side of the original room block connected Plaza 1-11 and 3-11.

All subsequent construction in Unit 11 developed from the pattern defined by the room block and Plazas 1-11 and 3-11. On the east side of the unit, the next step probably included construction of the north wall of Room 13-11 and of the parallel but shorter wall at the southeast corner of Room 14-11. These two second-order walls were then joined with a north-south third-order wall to define the interior space later divided into Rooms 13-11 through 15-11.

To replace the access corridor taken over by those rooms, the occupants created an elaborate entry complex. The north wall of Room 13-11 was extended east, creating the south wall of

Rooms 12-11 and 18/19-11 (at the time, the latter was a single room). A second-order wall was built east from the Plaza 1-11 wall to define the north edge of these rooms and of Plaza 4-11. A free-standing wall was similarly built to define the south edge of Plaza 4-11, and was connected to the southeast corner of Room 18/19-11 and the north plaza wall with third-order walls. Individuals now entered Plaza 4-11 through a door in the west wall of the south half of the plaza (Figure 3, Access C; Di Peso and Fenner 1974:484, 516), meaning that they could not look into the plaza until they entered an alcove formed by Room 13-11 to the west, Room 18/19-11 to the north, and Plaza 4-11 to the east. Even then they would see only the plaza, not the room it served. Only when finally standing in the plaza would individuals see a room with square columns and interior posts, which would have served admirably as Unit 11's "audience area." Honesty compels us to point out the similarity of this space to the contemporary colonnaded public spaces, opening to plazas, in Mesoamerica. Access beyond the "audience area," to Plaza 1-11, was via Room 12.

Later in the unit's occupation, the Plaza 4-11 entry complex was converted to domestic space and a second access route to Plaza 1-11 was built to the north of the first one (Figure 3, Access D; Di Peso and Fenner 1974:478, 482, 514). Construction of the new entry complex began with a short free-standing wall outside and parallel to the east wall of Plaza 1-11. A second-order wall was extended east from the south end of the free-standing wall, while a third-order wall was extended from the north end of the free-standing wall, west to Plaza 1-11. These walls, combined with the Room 12/18/19/Plaza 4-11 wall, define a long corridor (Rooms 20-11 and 22-11) with a dogleg at the west end. The east wall of Room 22-11 was a "later addition" so at first the entry to the complex would have been obvious; traces of a path from foot traffic were observed in the

floors of both rooms forming the corridor (Di Peso and Fenner 1974 5:488). Nonetheless, entry to Plaza 1-11 was through the north half of the west wall of Room 20-11, so individuals could not view the plaza until traveling the length of the corridor and turning at the dogleg.

Once the Room 20-11 and 22-11 corridor was established, Plaza 4-11 was also reached via that corridor. The original entry to Plaza 4-11 was then sealed. The excavation report assumes that the entry was blocked during the final defense of the city (Di Peso and Fenner 1974:484), but a less apocalyptic scenario involves conversion of Plaza 4-11 to the exclusive use of the occupants of Rooms 18 and 19.

The new (Room 20- and 22-11) entry complex preserved the privacy and ambiguity of access provided by the old entry complex but lacked a colonnaded "audience area." This change in the interface between public and private space must also mark a change in the staging of social interaction at Paquimé.

Room 21-11 may have been built at the same time as the east side access complexes; it was in place when Rooms 9-11 and 10-11 were added at the northeast corner of Plaza 1-11. Rooms 2-, 5-, and 6-11 were added after Rooms 9- and 10-11, and also after Rooms 1-11 and 17-11 along the north half of the west side of Plaza 1-11. In turn, Rooms 1-11 and 17-11 were built against and thus after Room 16-11. Turning to the southwest corner of the unit, Room 34-11 could have been added any time after construction of Plaza 3-11. This is also true of Room 36-11, but the excavation report states that it was "Occupied after general abandonment of Unit 11 house-

cluster, probably until collapse of Room 38A-11" (Di Peso and Fenner 1974:506). The basis for assigning a later occupation to Room 36-11 is not provided.

Rooms 28- and 24/26-11 (this latter originally a single room) were built off, and thus postdate, Plaza 2-11, which was built off and thus postdates Plazas 3-11 and 4-11.

## The Rate of Change at Unit 11

The argument that that Unit 11 was built incrementally does not, by itself, invalidate the published argument that most of the unit was built in short order: "The original construction ... included 24 puddled adobe rooms and hallways, three plazas, and probably the serpent mound to the [west]" (Di Peso and Fenner 1974:475). Figure 1-5 of the excavation report (Di Peso and Fenner 4:475) indicates that the only substantial additions during the late Buena Fé phase were Plaza 2-11, Room 24/26-11, and Room 28-11 in the southeast quadrant of the complex. Still following the sequence as provided in the excavation report, substantial remodeling of the Plaza 4-11 entry complex included sealing the colonnaded front of Room 18/19-11 with a wall and dividing that room into two rooms. Macaw bins were built in Plaza 1-11 (but were later razed) and in Plaza 3-11. Late Buena Fé changes were otherwise minor (for example, the addition of raised platforms in rooms). In the Paquimé and Diablo phases, the unit was mostly abandoned and falling into ruin. The only major Tardío period remodeling involved building a wall to split Rooms 24 and 26.

Besides painting a somewhat different construction sequence, re-study of the published data (combined with new data from other sites) allows a modified absolute chronology for Unit 11. In the discussion that follows, the published phase sequence will be dropped in favor of an undivided Medio period dating from A.D. 1200 to 1450. While agreement on this date range is not complete, it is the emerging consensus based on tree-ring, radiocarbon, archaeomagnetic, and obsidian hydration dating, as well as ceramic cross-dating (End Note).

At Paquimé itself (but not at most Medio period sites) it is also possible to speak of "early" (A.D. 1200 to 1300) and "late" (A.D. 1300 to 1450) occupations during the Medio period. The line between the two is marked by the local appearance of Salado polychromes, of a Salado-inspired local type, Escondida Polychrome, and of Tucson Polychrome.

Unit 11 yielded no dated tree-ring samples (Di Peso et al. 1974 4; see also Dean and Ravesloot 1993) but it did yield two radiocarbon dates. Sample CG(d)/262 was obtained from a roof support post in Room 38B-11 (Di Peso et al. 1974 4:24–25) and yields a corrected and calibrated two-sigma high-probability date range of A.D. 1152 to 1290 (0.827 of curve; CALIB 4.4; raw date on wood of  $820 \pm 50$  B.P.). Sample CG(p)/233 was obtained from maize cobs in a fire pit in the upper floor of Room 24-11 (Di Peso et al. 1974 4:25) and yields a corrected and calibrated two-sigma high-probability date range of 1156 to 1423 (0.959 or curve; raw date on cobs of 470  $\pm$  90 B.P.). The Room 38 date reflects construction of the original room block at Unit 11, while Room 24 falls toward the end of the incremental construction, so together the samples are consistent with Unit 11 being built during the revised date range for the Medio period (i.e., 1200 to 1450 or slightly later). In the excavation report the rationale for assigning final construction in

Room 24 to the Tardío period was the date then calculated for Sample CG(p)/223, of A.D. 1480, versus the supposed end of the Medio period in 1340. With the new dates for both the sample and the Medio period, claims of Tardío period reuse of Room 24 may now be discarded.

The question thus becomes: was Unit 11 built, used, and abandoned before A.D. 1300, or did the occupation continue afterwards? Table 1 and Figure 4 provide and illustrate the relevant ceramic counts (from Di Peso and Fenner 1974, with site totals in Di Peso et al. 1974 6, Appendix). The Paquimé excavations recovered 769,163 sherds, of which 33,097 (4.3 percent) are identifiably late polychromes (Roosevelt Red Ware, Escondida Polychrome, and Tucson Polychrome). Given the sitewide occurrence of one "late polychrome" for every 23 sherds on the site as a whole, features with fewer than 100 sherds could easily yield no "late polychromes" by chance alone, while features with 100 or more sherds that lack "late polychromes" are somewhat more likely to have been abandoned before such types were used at Paquimé. Even so, for most Unit 11 features the counts are so low that it is better to examine patterns rather than feature-by-feature results. Figure 3 suggests that by A.D. 1300 much of Unit 11 was abandoned, but that several rooms continued in use. Three candidates for post-1300 rooms (2-, 5-, and 9-11) occur at the north end of Plaza 1-11 but otherwise those rooms were scattered. The connecting plazas (1through 3-11) yielded modest amounts of "late polychromes," as would be expected if Unit 11 was still experiencing minor use.

Interpreting the ceramic data is complicated by the uneven distribution of post-1300 polychromes within the site. Table 2 is derived from the sherd counts in the excavation report's architectural descriptions (Di Peso et al. 1974 4, 5). At Paquimé, the distribution of Salado

polychromes and of Salado-inspired Escondida polychrome appears to be trimodal. (1) The polychromes were deliberately being concentrated in the multistory core of the site (from north to south, Units 19, 8, 16, and 14). The focus of this effort was Unit 8; most of the Salado polychrome vessels, as opposed to scattered sherds, were found in one room of that unit. (2) Smaller amounts of the late polychromes were recovered from other habitation units, suggesting substantial post-1300 use but not the deliberate concentration of Salado and Salado-inspired polychrome types (Units 6, 12, 13, 15, 20 21, and 22). The difference between the high- and low-concentration areas may reflect differences in the internal distribution of members of the cult marked by the Salado polychromes (see Crown 1994). (3) The low percentages at the remaining units suggests partial abandonment (Units 23 and 11) or complete abandonment (Unit 1) by A.D. 1300.

The final line of evidence to be considered is the presence of above-floor human burials, which represent inhumation after an area began to accumulate wall and roof fall. The following is from Di Peso and Fenner (1974) and Di Peso et al. (1974 8:381–383 Table). Unit extensions have been deleted from burial numbers. Plaza 1-11 included a burial (B35) in east side wall fall, indicating that the west wall of Room 12 (and possibly of Room 13) had collapsed. Plaza 2-11 included a burial (B45) in south side wall fall, at a location also suggesting collapse of the north walls of Rooms 24/26 and 28. Plaza 2-11 also included a burial (B39) in an abandoned drain. Two of the three Plaza 3 burials (B54 and B55) were in south side wall fall, indicating that part of that plaza wall had collapsed. (The pit for the third burial, B56, was cut through the plaza's macaw bins, indicating that those had fallen out of use before final abandonment of the site.)

Above-floor burials were found in the following rooms: 1-11 (B1A and B1B), 6-11 (B4 and

B14), 9 (B5A, B5B, B6 through B10, and B11A through B11D), 10-11 (B18 and B19), 17-11 (B22, B23, B24A, B24B), 34-11 (B49 and B50), and 38-11 (B51, B52, B53A, B53B). This list reveals a negative correlation between the portions of the unit with "late" polychrome sherds and the portions with above-floor burials. The picture of Unit 11 that emerges is of a complex that during its second century progressively fell into ruin (with the loose fill being used for burial) but was still occupied—not by the single individual identified in the excavation report, but by the occupants of a half-dozen or so rooms. In time, however, Rooms 9 and 28 may also have been abandoned and converted to burial areas. Rooms with "late polychrome" sherds and lacking above-floor burials (and thus candidates for occupation "to the bitter end") include Rooms 2, 5, 14, 15, 19, and 19/Plaza 4-11.

## **Summary of Revised Construction History**

Based on the discussion thus far, it is possible to propose a modestly revised construction history for Unit 11. Like the original, published history, what follows can be considered a hypothesis subject to modification as data are resifted.

Unit 11 began as a combined residential and ceremonial building. The main ceremonial chamber was one in which users of Mimbres Mogollon kivas would have felt at home. Access to the chamber was straightforward, and any associated outdoor activities took place in public view. Still, the kiva-like chamber was contiguous with residences, so "ownership" of the chamber (more important, of the rituals for which the chamber was needed) was most likely lineage-based rather than communal. Given that Unit 11 was next to a mound shaped like a horned serpent, the

associated rituals may have been oriented toward that supernatural (see VanPool 2003:703–705 and Figures 2 and 3). A graffito of a horned serpent was found on a wall of the ceremonial chamber (Di Peso and Fenner 1974, Figure 30-5).

The unit was transformed by the addition of large walled plazas north and south of the original room block. The north plaza, where construction began, was probably shared domestic space, as in time it was surrounded by residences. This plaza provided residents of the unit with a great deal of privacy. At least at first, the south plaza was primarily ceremonial, "privatizing" outdoor counterparts of activities in the ceremonial chamber.

At first, access to the two plazas was via a narrow, east-facing corridor with a view of a blank wall. Later, however, an elaborate entry complex was built on the east side of the unit. The complex included a colonnaded "audience room" facing an enclosed plaza, reflecting contemporary Mesoamerican architectural tastes for formal interactions between leaders and followers. Still later, the "audience room" was converted to domestic space and the unit entry reverted to a narrow corridor, still facing east, still with a view of a blank wall. The conversion of colonnaded "audience space" to domestic space happened repeatedly in Paquimé (Di Peso et al. 1974 4, 5) so the need (or ability) of those units' residents to behave "just like" Mesoamerican leaders must have been short-lived.

The subsequent history of Unit 11 appears to be that of a domestic area with several shared or private plazas. The formality of space that characterized early Paquimé was lost. The shift to expediency of design and use was again a site-wide process (and was codified in the excavation

report as the Diablo phase). The general loss of architectural formality (including the loss of colonnaded "audience" areas) may have to do with Paquimé's changing relationships at a regional or larger scale. Once the site emerged as the center of the Casas Grandes culture it tended toward a Mesoamerican orbit, but only for a while. Given the upheavals in later Postclassic Mesoamerica, including the retraction of its northern frontier, the short life of Paquimé's attempts to "go Mesoamerican" are understandable.

A different thread of the story involves Room 38B-11. This began life as a private but accessible space resembling a Mimbres Mogollon kiva and possibly associated with public outdoor ceremonial components. With the construction of plaza walls, access to the ceremonial chamber (and the possible outdoor performance space) became more restricted. By the end of the unit's occupation the chamber was falling into ruin, the entrance had been sealed with rocks, and the chamber's upper story and the associated plaza had been used to raise macaws.

A third and related thread runs through the unit's history, from the creation of Plazas 1-11 and 3-11 onward: privacy of internal activities and ambiguity of access. Thus, while attempts to mold leader-follower relationships in explicitly Mesoamerican terms may have been short-lived, the emphasis on exclusivity appears to have lasted. The walling off and subsequent abandonment of Room 38B-11 may be read, if one wishes, as part of a successful re-negotiation of formal leader-follower relationships from ones based on inclusion to ones based on exclusion.

By A.D. 1300, substantial new construction had ceased. The unit progressively fell into ruin, with wall and roof fall being used for expedient burial. A few families hung on, occupying a half-dozen or so rooms surrounding one of the plazas, until the site as a whole was abandoned.

### **Conclusions**

While it is difficult to relate the Medio period chronology in this report ("early" versus "late") to the one used in the excavation report (Buena Fé, Paquimé, and Diablo phases), the original account of Unit 11 posited the following. (1) An initial burst of construction early in the Medio period accounts for most of the unit. (2) The bulk of the remaining modifications were made before the multistory portion of the site was built. (3) Unit 11 was abandoned (except by one person) once the multistory units were established. (4) One room of Unit 11 was reoccupied well after the abandonment of the site as a whole. In place of that sequence, we suggest: (1) Unit 11 was built, used, and abandoned more incrementally. As one consequence, changes in its architecture captured changes in Paquimé's internal and external social relationships. (2) Unit 11 began to fall into ruin after A.D. 1300, but continued to be occupied by several families. (3) Once the site as a whole was abandoned, no part of Unit 11 was reoccupied.

In other words, Paquimé's construction history was as dynamic as proposed by Di Peso and his colleagues, but new attempts to understand the occupation history can yield new perspectives on the site. While the mass of published detail has deterred later archaeologists from taking on the site's construction history, it is possible to reduce the problem to a workable size by examining one part of the site at a time. If this essay proves to have any value, it will not be in the newly

proposed details of Unit 11's history (which will be modified as soon as the next study comes along). Instead, the value will be in encouraging archaeologists to examine the construction histories of individual architectural units within Paquimé, as a key to understanding the history of the site as a whole. The hypothesis that the order of room construction can be "read" from wall abutments may nor may not survive as the effort progresses; indeed, we will be among those attempting to disprove the hypothesis.

# Acknowledgments

This paper would not have been possible without the careful fieldwork and meticulous reporting of the Joint Casas Grandes Expedition. Also, our thanks to Lynn Teague for pointing out to Phillips, long ago, that most of the Salado polychrome vessels from Paquimé were found in a single room.

## **References Cited**

Bagwell, Elizabeth A.

2004 Architectural Patterns along the Rio Taraises, Northern Sierra Madre Occidental, Sonora. *Kiva* 70:7–30.

Braniff C., Beatriz

1986 Ojo de Agua, Sonora and Casas Grandes, Chihuahua: A Suggested Chronology. In *Ripples in the Chichimec Sea: New Considerations of Southwestern-Mesoamerican Interactions*, edited by Frances Joan Mathien and Randall H. McGuire, pp. 70–80. Southern Illinois University Press, Carbondale.

Contreras Sánchez, Eduardo

1985 Antigua Ciudad de Casas Grandes, Chihuahua (Paquimé): Tecnología Aplicada en la Construcción de los Edificios Habitacionales. Dirección de Monumentos Prehispánicos, Instituto Nacional de Antropología e Historia, Mexico.

Crown, Patricia L.

1994 Ceramics and Ideology: Salado Polychrome Pottery. University of New Mexico Press,
Albuquerque.

Cruz Antillón, Rafael, and Timothy D. Maxwell

1999 The Villa Ahumada Site. In *The Casas Grandes World*, edited by Curtis F. Schaafsma and Carroll L. Riley, pp. 43–53. University of Utah Press, Salt Lake City.

Dean, Jeffrey S., and John C. Ravesloot

The Chronology of Cultural Interaction in the Gran Chichimeca. In *Culture and Contact: Charles C. Di Peso's Gran Chichimeca*, edited by Anne I. Woosely and John C.

Ravesloot, pp. 83–104. University of New Mexico Press, Albuquerque.

DeAtley, Suzanne P.

1980 Regional Integration on the Northern Casas Grandes Frontier. Ph.D. dissertation,
University of California, Los Angeles. University Microfilms, Ann Arbor.

Di Peso, Charles C.

1974 Casas Grandes: A Fallen Trading Center of the Gran Chichimeca, Vols. 1–3. Amerind Foundation Series No. 9. Northland Press, Flagstaff.

Di Peso, Charles C., and Gloria J. Fenner

1974 Unit 11—The House of the Serpent—La Casa de la Víbora. In *Casas Grandes: A Fallen Trading Center of the Gran Chichimeca*, Vol. 5, pp. 475–522 Amerind Foundation Series No. 9. Northland Press, Flagstaff.

Di Peso, Charles, C., John B. Rinaldo, and Gloria J. Fenner

1974 Casas Grandes: A Fallen Trading Center of the Gran Chichimeca, Vols. 4–8. Amerind Foundation Series No. 9. Northland Press, Flagstaff.

Kelley, Jane H., Joe D. Stewart, A. C. MacWilliams, and Karen R. Adams

2004 Recent Research in West-central Chihuahua. In *Identity, Feasting, and the Archaeology* of the Greater Southwest: Proceedings of the 2002 Southwest Symposium, pp. 295–310. University Press of Colorado, Boulder.

Kelley, Jane H., Joe D. Stewart, A. C. MacWilliams, and Loy C. Neff

1999 A West Central Chihuahuan Perspective on Chihuahuan Culture. In *The Casas Grandes World*, edited by Curtis F. Schaafsma and Carroll L. Riley, pp. 63–77. University of Utah Press, Salt Lake City.

LeBlanc, Stephen A.

1980 The Dating of Casas Grandes. *American Antiquity* 45:799–806.

Lekson, Stephen H.

1984 Dating Casas Grandes. *The Kiva* 50:55–60.

1999a The Chaco Meridian: Centers of Political Power in the Ancient Southwest. Altamira Press, Walnut Creek, Ca.

1999b Was Casas a Pueblo? In The Casas Grandes World, edited by Curtis F. Schaafsma and Carroll L. Riley, pp. 84–92. University of Utah Press, Salt Lake City.

Lister, Robert H.

1958 Archaeological Investigations in the Northern Sierra Madre Occidental, Chihuahua and Sonora, Mexico. University of Colorado Studies, Series in Anthropology 7. University of Colorado Press, Boulder.

Minnis, Paul E., and Michael E. Whalen

2004 Forty Years after the Joint Casas Grandes Project: An Introduction to Chihuahuan Archaeology. In *Identity, Feasting, and the Archaeology of the Greater Southwest:*\*Proceedings of the 2002 Southwest Symposium, pp. 261–275. University Press of Colorado, Boulder.

Phillips, David A., Jr.

1989 Prehistory of Chihuahua and Sonora, Mexico. *Journal of World Prehistory* 3:373–401.

The Chaco Meridian: A Skeptical Analysis. In *Mogollon Archaeology: Collected Papers* from the Eleventh Mogollon Conference, 20th Anniversary Volume, edited by Patrick H. Beckett, pp. 189–214. COAS Publishing and Research, Las Cruces.

The End of Casas Grandes. Paper presented to the 73rd annual meeting of the Society for American Archaeology, Vancouver. Link at www.unm.edu/~dap.

Phillips, David A., Jr., and Elizabeth Arwen Bagwell

2001 How Big Was Paquimé? Poster presentation, 66th Annual Meeting of the Society for American Archaeology, New Orleans. Link at www.unm.edu/~dap.

Phillips, David A., Jr., and John P. Carpenter

The Robles Phase of the Casas Grandes Culture. In *The Casas Grandes World*, edited by Curtis F. Schaafsma and Carroll L. Riley, pp. 78–83. University of Utah Press, Salt Lake City.

Ravesloot, John C.

1998 Casas Grandes. In *Archaeology of Prehistoric Native America: An Encyclopedia*, edited by Guy Gibbon, pp. 121-122. Garland Publishing, New York.

Ravesloot, John C., Jeffrey S. Dean, Michael S. Foster

1995 New Perspective on the Casas Grandes Tree-Ring Dates. In *The Chichimeca: Essays on the Archaeology and History of Northern Mesoamerica*, edited by J. E. Reyman, pp. 240–251. Ashgate, Brookfield, Vt.

Schaafsma, Curtis F., J. Royce Cox, and Daniel Wolfman

2002 Archaeomagnetic Dating at the Joyce Well Site. In *The Joyce Well Site: On the Frontier of the Casas Grandes World*, by James M. Skibo, Eugene B. McCluney, and William H. Walker, pp. 129–148. University of Utah Press, Salt Lake City.

Skibo, James M., Eugene B. McCluney, and William H. Walker

2002 The Joyce Well Site: On the Frontier of the Casas Grandes World. University of Utah Press, Salt Lake City.

Stevenson, C. M., B. E. Scheetz, and J. Carpenter

1989 Obsidian Dating: Recent Advances in the Experimental Determination and Application of Obsidian Hydration Dates. *Archaeometry* 32:193–206.

VanPool, Christine S.

2003 The Shaman-priests of the Casas Grandes Region, Chihuahua, Mexico. *American Antiquity* 68:696–717.

Whalen, Michael E., and Paul E. Minnis

2001a Architecture and Authority in the Casas Grandes Area, Chihuahua, Mexico. *American Antiquity* 66:651–668.

2001b Casas Grandes and its Hinterland: Prehistoric Regional Integration in Northwest Mexico. University of Arizona Press, Tucson.

Wilcox, David R.

1999 A Preliminary Graph-Theoretic Analysis of Access Relationships at Casas Grande. In The Casas Grandes World, edited by Curtis F. Schaafsma and Carroll L. Riley, pp. 93-104. University of Utah Press, Salt Lake City.

Wilcox, David R., and Lynette O. Shenk

1977 The Architecture of the Casa Grande and its Interpretation. Arizona State Museum Archaeological Series No. 115. University of Arizona, Tucson.

## **End Note**

For the post-1974 debate on the dating of the Medio period, as well as the relevant sample dates, see Braniff (1986), Cruz Antillón and Maxwell (1999), Dean and Ravesloot (1993), DeAtley (1980), Kelley et al. (1999, 2004), LeBlanc (1984), Lekson (1984, 1999a), Minnis and Whalen (2004), Phillips (1989, 2002), Phillips and Carpenter (1999), Ravesloot et al. (1995), Skibo et al. (2002; especially Schaafsma et al. 2002), Whalen and Minnis (2001b:38-42), and Wilcox and Shenk 1977). Since the original excavation report, the single most influential essay on the subject has been Dean and Ravesloot's (1993) estimate of cutting dates for the Paquimé tree-ring samples. Because of the statistical uncertainty involved in those estimates, and the author's appropriately cautious conclusions, a few scholars have argued for pushing the beginning of the Medio period after A.D. 1250 and its end after 1500. In light of such arguments, we wish to point out Ravesloot's own interpretation of the revised results, as dating the Medio period to 1200 to 1450 (Ravesloot 1998:122; see also Phillips 2008). To us, the slowly expanding series of dates further suggests that Medio period style architecture may have appeared later at the south end of the culture area than in the north and that (as Curt Schaafsma argued to Phillips years ago) the Animas phase may have ended by A.D. 1400. To change notions of appearance and disappearance to descriptions of development and decline, finer-grained chronologies are mandatory.

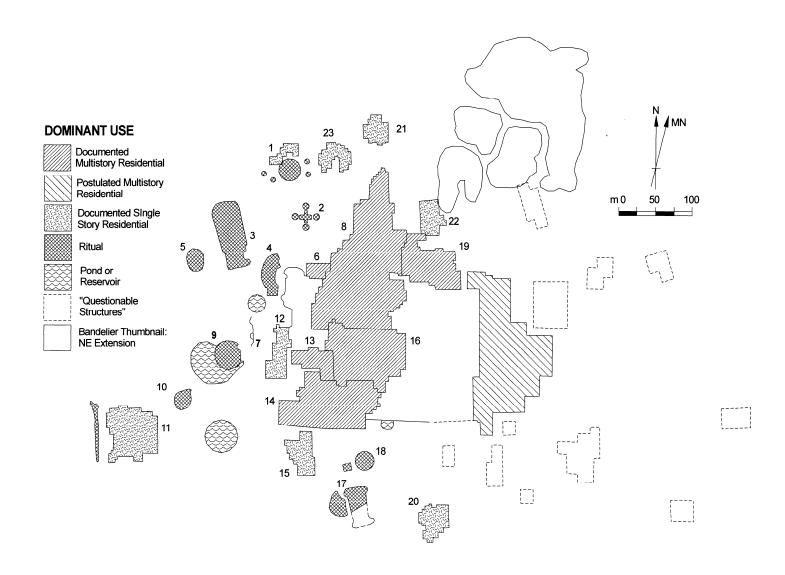


Figure 1. Site of Paquimé at Viejo Casas Grandes in Chihuahua, Mexico. Unit 11 is at the southwest corner of the site, next to the elongated Mound of the Serpent. For a discussion of site structure as presented here, see Phillips and Bagwell (2001).

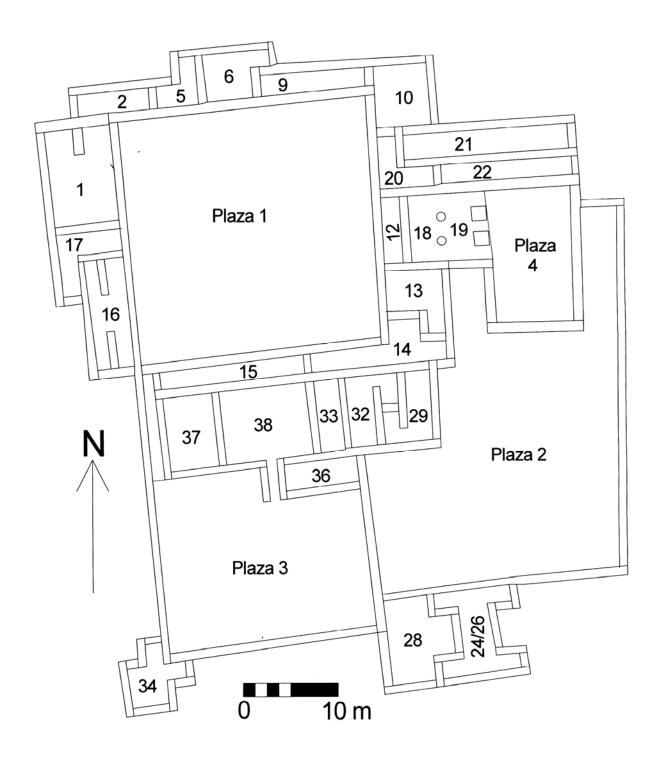


Figure 2. Unit 11, House of the Serpent, showing wall abutments. The designations used by the excavators are abbreviated ("Room 1-11" is shown, for example, as "Room 1"). Doorways are not shown. The Paquimeans apparently shifted their doors at will, cutting through adobe walls like cheese. Based on the figures and wall abutment descriptions in Di Peso and Fenner (1974).

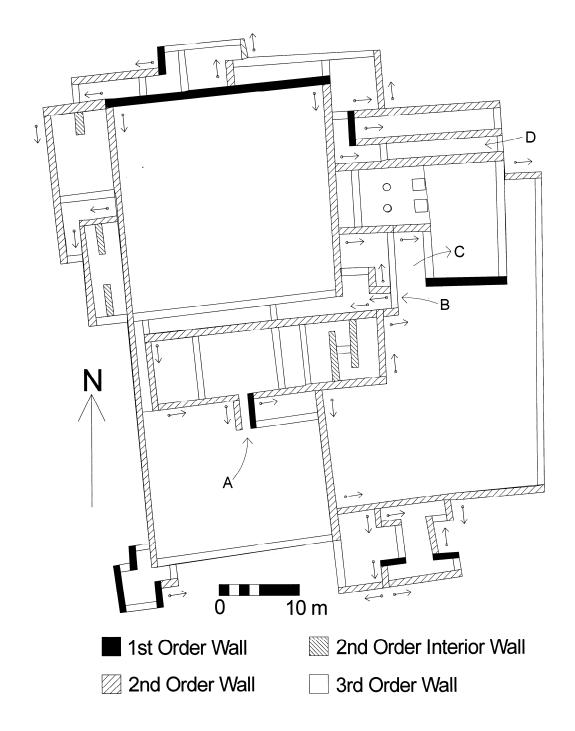


Figure 3. Unit 11, showing postulated wall construction sequence. The unlabeled arrows indicate the directions of construction of second order walls. The labeled arrows indicate changes in public access points. A = initial access to the kiva-like chamber; B = initial access after construction of plaza walls (continuing west in the space just south of Plaza 1-11); C = access after construction of Plaza 4-11 "audience space"; D = access after conversion of the "audience space" to residential space. (Once Plaza 2-11 was built, it had its own access through its northernmost wall.)

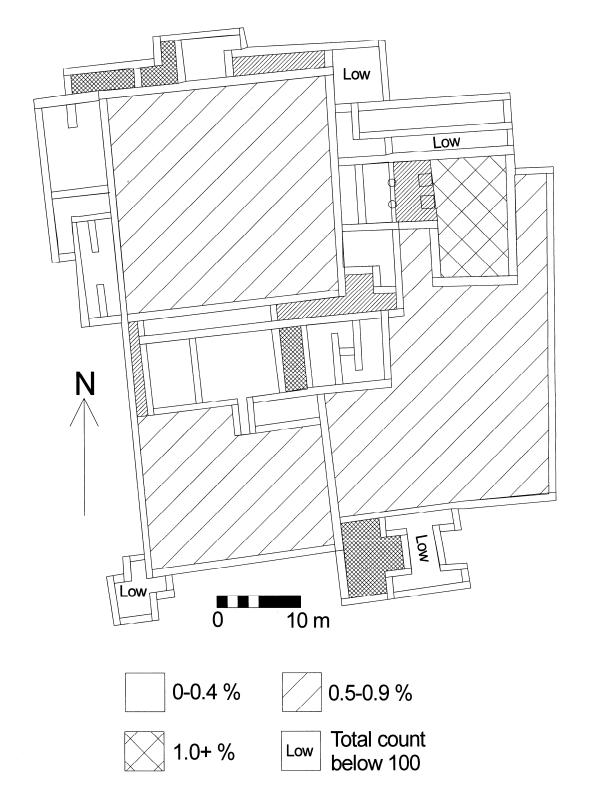


Figure 4. Unit 11, showing concentrations of post-A.D. 1300 polychrome sherds relative to the total numbers of sherds found in individual rooms and plazas. "Low" means that the room counts were too low to consider.

Table 1. "Late" Polychrome Sherds in Unit 11 Contexts.

Feature	Escondi- da Poly.	Gila Poly.	Tonto Poly.	Other	Subtotal	Feature Total	Percent-
Serpent Mound	ua Poly.	Poly.	Poly.		0	57	age 0.0%
Plaza 1-11	4	6			10	1,169	0.9%
Plaza 2-11	3	5			8	1,536	0.5%
Plaza 3-11	5	1	1	1	8	1,238	0.6%
Plaza 4-11	3	1	5	1	5	312	1.6%
Hallway 1-11	1		5		1	155	0.6%
Room 1-11	-				0	104	0.0%
Room 2-11	6				6	301	2.0%
Room 5-11	2	1			3	284	1.1%
Room 6-11					0	411	0.0%
Room 9-11	1				1	193	0.5%
Room 10-11					0	34	0.0%
Room 12-11	1				1	299	0.3%
Room 13-11		1			1	832	0.1%
Room 14-11	1	2			3	433	0.7%
Room 15-11		1			1	269	0.4%
Room 16-11					0	273	0.0%
Room 17-11					0	194	0.0%
Room 18-11					0	601	0.0%
Room 19-11	15				15	1,806	0.8%
Room 20-11					0	183	0.0%
Room 21-11					0	196	0.0%
Room 22-11					0	0	n/a
Room 24/26-11					0	87	0.0%
Room 28-11		3			3	246	1.2%
Room 29/30-11		2			2	1,255	0.2%
Room 32-11			3		3	1,351	0.2%
Room 33-11		27	2		29	636	4.6%
Room 34-11					0	39	0.0%
Room 36-11					0	170	0.0%
Room 37-11					0	425	0.0%
Room 38-11	9	2		1	12	3,599	0.3%
Burials 51-, 53-11					0	13	0.0%
Total	48	51	11	2	112	18,701	0.6%

Source: Di Peso and Fenner 1974. "Other" for Plaza 3-11 is Tucson Polychrome; "other" for Room 38-11 is Gila Black-on-red.

**Table 2.** Ranking of Habitation Units by Percentages of "Late" Polychrome Sherds.

Unit	Number of	Total Number	Percentage of	
	"Late Sherds"	of Sherds	"Late Sherds"	
8 (Well)	19,105	150,890	12.7%	
19	797	17,058	4.7%	
14 (Pillars)	4,662	107,645	4.3%	
16 (Skulls)	2,550	66,510	3.8%	
6	14	1,965	2.5%	
21 (North)	55	2,269	2.4%	
12 (Macaws)	634	39,050	1.6%	
22	264	16,345	1.6%	
20	35	2,382	1.5%	
15	22	1,425	1.5%	
13 (Dead)	616	54,355	1.1%	
23	7	1,063	0.7%	
11 (Serpent)	112	18,701	0.6%	
1 (Ovens)	33	21,161	0.2%	

Note: "Late Sherds" include Escondida Polychrome, Roosevelt Red Ware (includes the Salado polychromes), and Tucson Polychrome.