Arthur A. Joyce, Andrew Workinger, Byron Hamann and Marc N. Levine

The Archaeology and Codical History of Tututepec

The site of Tututepec (Yucu Dzaa in Mixtec) has long been know from ethnohistoric sources as the capital of a powerful Late Postclassic (AD 1100-1522) imperial center in the lower Río Verde region on the Pacific coast of Oaxaca (Barlow 1949; Davies 1968; Smith 1973). Tututepec was one of several polities independent of the Aztec Empire and just prior to the Spanish Conquest was raiding towns as distant as Mitla, Achiutla, and Tehuantepec. The polity was ruled by a Mixtec dynasty, but controlled an empire extending over 25,000 km^2 (Figure 1) that included speakers of at least five other languages: Amuzgo, Chatino, Zapotec, Chontal, and Nahuatl (Spores 1993). The documentary record of Tututepec extends back to the late eleventh century as recorded in the Mixtec codices (Joyce et al. 2004a; Smith 1973).

Despite the recognized importance of Tututepec in the ethnohistoric record, until recently, little has been known of the archaeology of the site with its very location the subject of debate (Joyce et al. 2004a: 275-276; O'Mack 1990). This paper discusses the founding, extent, chronology, and aspects of the internal organization and external relations of Tututepec based on the results of a regional full-coverage survey, horizontal and test excavations, and a reanalysis of ethnohistoric documents (Joyce et al. 2004a, 2004b; Workinger 2002). We find a strong concordance between the archaeological and codical records that deal with Tututepec. The archaeological data indicate that the cacicazgo of Tututepec was founded early in the Late Postclassic by a highland Mixtec group. The foundation of Tututepec is further depicted in the heroic history of Lord 8 Deer 'Jaguar Claw.' While Tututepec disappears from the codical record after the death of Lord 8 Deer, the archaeological data as well as Early Colonial documents show that the city continued to expand as its leaders came to control an empire that extended over much of southern Oaxaca.

The Founding of Tututepec: History from Archaeology

Over the past 20 years the lower Río Verde Valley has been the focus of research that has begun to clarify the archaeology of Tututepec (Joyce 1991; 1993, 1999; Joyce et al. 2001, 2004a; Urcid and Joyce 2001; Workinger 2002). This research has included large-scale archaeological excavations at six sites as well as test excavations at 13 other sites
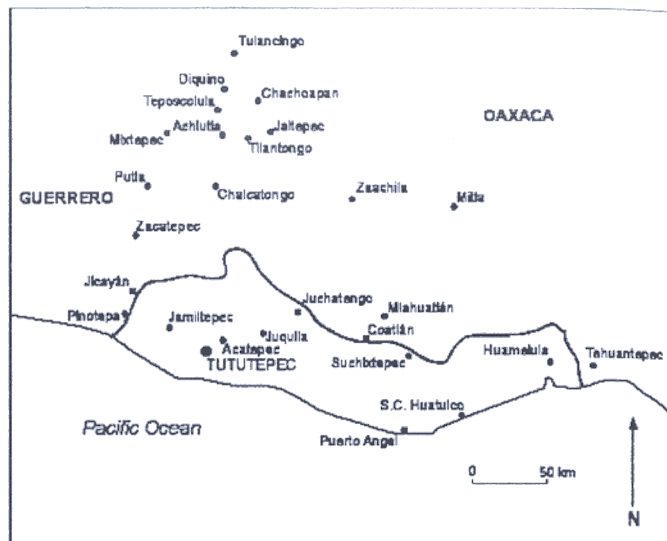
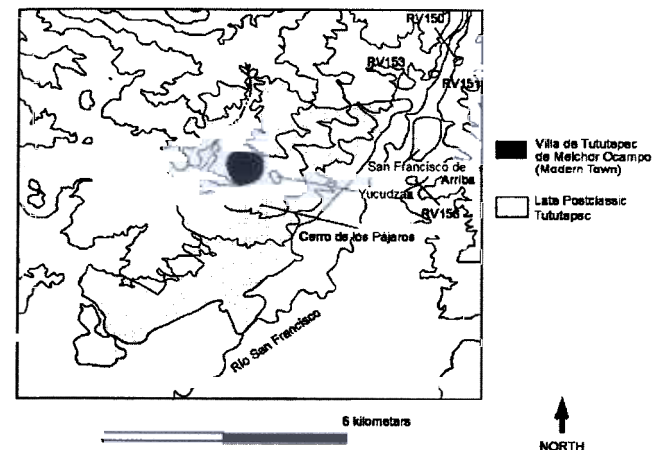Figure 1. Map of the Tututepec Empire showing Sites Mentioned in the Text

and a full-coverage survey over 152 km². The survey zone included transects extending from the coast to the piedmont and covered most of ancient Tututepec, although due to time constraints a 1.5 km² area of the northeastern end of the site was not completely surveyed. Field methods followed general procedures used in other full-coverage surveys in Mesoamerica (e.g., Blanton 1978; Sanders et al. 1979).

The full-coverage survey in the lower Río Verde Valley found that the Late Postclassic site of Tututepec covers 21.3 km², making it one of the largest prehispanic sites by area in Mexico (Figure 2). The Late Postclassic component of San Francisco de Arriba is separated from Tututepec by only a 600 m strip that has been washed out by the Río San Francisco. Since the San Francisco drainage would not have been appropriate for settlement and because sites in the floodplain would not have been preserved, we suspect that the Late Postclassic component of San Francisco de Arriba was also part of Tututepec, which would bring the overall area of the site to 21.85 km². Three other sites clustered near the northeastern tip of Tututepec (RV150, RV151, RV153) may also represent outlying settlements, but were not included as part of Tututepec. A total of 168 surface collections were made at Tututepec proper with an additional 43 surface collections at the Late Postclassic component of San Francisco de Arriba. Workinger (2002) carried out large-scale excavations at San Francisco de Arriba and, in 2005 Marc Levine directed horizontal excavations of two Late Postclassic residences at Tututepec. The results of the full-coverage surveys and excavations as well as a reanalysis of the Mixtec codices provide a clearer picture of the origins and development of ancient Tututepec.

Figure 2. Survey map of ancient Tututepec and associated sites

The survey results show that settlement at Tututepec began in the Middle Formative (700-400 BC.) and continued through the Late Classic (AD 500-800). By the Early Postclassic (AD 800-1100), however, the site was nearly uninhabited with only 1 ha of settlement in the area that would become the Late Postclassic city. Elsewhere in the region, the Early Postclassic witnessed the collapse of the ruling institutions of the Classic Period Río Viejo state, the fragmentation of political centers, and warfare (Joyce et al. 2001). The period immediately preceding the rise of the Tututepec Empire was therefore characterized by political instability and conflict.

The almost complete absence of Early Postclassic settlement at Tututepec indicates that the Late Postclassic city did not develop out of an earlier community, but was founded instead as a new political center (Joyce et al. 2004a, 2004b). Ethnohistoric and linguistic sources indicate that the founding of Tututepec was the result of the immigration of Mixtec speaking peoples into the lower Verde at about AD 1100. At the time of the Spanish Conquest most people of the lower Río Verde were speakers of Mixtec as are most indigenous people in the region today. Linguistic studies by Josserand and her colleagues (1984: 154) suggest that the coastal Mixtec dialect probably originated in the highland region of San Juan Mixtepec. Glottochronological estimates suggest the coastal and highland dialects diverged around AD 900-1000 (Josserand et al. 1984: 154). Prior to the Postclassic relatively few cultural similarities are apparent between the lower Río Verde region and the Mixteca Alta and Baja regions (Joyce 1993; Winter 1989). This has led Joyce and Winter (1989) to suggest that before the Postclassic people in the lower Verde were not Mixtec, but may instead have been Chatino speakers. By the Late Postclassic, however, archaeological and ethnohistoric data indicate that Mixtecs were present in the lower Río Verde. Late Postclassic Yucudzaa Phase ceramic

and architectural styles in the lower Verde are very similar to those of the Mixteca Alta (Hutson 1996; O'Mack 1990). In addition, the Mixtec codices describe Tututepec as ruled by a Mixtec dynasty dating back to the late eleventh century (Smith 1973). Settlement data are consistent with massive immigration as the total occupational area in the survey zone increases from 452 ha in the Early Postclassic to 2315 ha by the Late Postclassic – a 512% increase.

The archaeological data therefore reveal a number of concurrent social changes taking place on the coast of Oaxaca during the Postclassic (Joyce et al. 2001, 2004a). These changes include the collapse of old social orders, an escalation of militarism, a reorganization of settlement patterns, the expansion of Tututepec from a small hamlet to a major urban center, population expansion possibly linked to the immigration of Mixtecs, and an increase in highland-lowland interactions. Intriguingly, all of these transformations are also attested in retrospective indigenous accounts of the same era. Painted around AD 1500, the Codices Nuttall, Bodley, and Colombino-Becker provide Mixtec perspectives on the social transformations of the early Late Postclassic Period on the Oaxaca coast. As is typical for Mixtec codical history – indeed, for genres of 'heroic history' in general – broad processes of social transformation are embodied in, and viewed as having been instigated by, a specific elite individual, in this case, Lord 8 Deer 'Jaguar Claw.' We now turn from archaeology to ethnohistory. We hope to show the ways in which these histories represent, and personify, broad social transformations that are registered in the archaeological record; these include, Mixtec immigration, coastal militarism, the expansion of Tututepec, and increased highland-lowland interactions.

The Founding of Tututepec: History from Codices

In arguing for a link between the textually-recorded actions of Lord 8 Deer and archaeologically-registered social transformations in the lower Río Verde Valley, we argue that the codical record can be read not simply as esoteric elite biography, but rather as 'heroic history' (Joyce et al. 2004a). Marshall Sahlins (1985: 35, 1991, 1994) argues that 'heroic history' is an 'anthropomorphic' mode of interpreting social process, in which the actions of structurally-central individuals (e.g., divine kings) are interpreted as having massive implications for their society as a whole. Such heroic agents are 'socio-historical individuals,' who reciprocally link a larger system with individual action. On the one hand, heroic agents are understood to embody larger social orders (Sahlins' instantiation). On the other, the actions of those agents are understood to have massive implications for the social system in which they are embedded (Sahlins' totalization). Our Oaxacan use of heroic history is focused on questions of instantiation: that is, how broad social transformations were understood through the actions of Lord 8 Deer. Since we are working with documents painted four centuries after the events they depict, it is difficult to make arguments about the actual totalizing effects of Lord 8 Deer's actions. For example, we cannot determine if his expedition to the coast was really what trig-

gered massive Mixtec migration. But such focused claims about the totalization of Lord 8 Deer's agency are not necessary for our argument. What is important is that sixteenth century Mixtecs understood the history of their presence on the coast as personified in an elite hero – and that we, now, can see how these biographical claims instantiate archaeologically-registered transformations. First, we consider the arrival of Lord 8 Deer and his followers on the coast (the instantiation of large-scale highland-to-lowland migration) and his foundation of Tututepec (the instantiation of the sudden expansion of the site). Then, we consider the implications of Lord 8 Deer's new position of rulership: his many conquests (the instantiation of increased coastal militarism) and his access to coastal tribute, his alliance with Lord 4 Jaguar, and his return to the highlands to become ruler of Tilantongo (the instantiation of increased highland-lowland trade interactions).

According to the codices, Lord 8 Deer 'Jaguar Claw' was born in the highland town of Tilantongo on the Day 8 Deer in the Year 12 Reed (AD 1063). He was the son of Lady 11 Water 'Blue Parrot' and Lord 5 Alligator 'Rain-Sun.' Although Lord 8 Deer would eventually become the ruler of both Tilantongo and Tututepec, neither of his parents had genealogical ties to the ruling families of either polity (contra Caso 1977: 147; see Joyce et al. 2004a: note 2). Instead, we argue that Lord 8 Deer's rulership at Tututepec was based not on the inheritance of an existing polity, but on the foundation of a new one. The fact that Lord 8 Deer was not eligible to inherit a kingdom of his own set the stage for his journey to the south coast of Oaxaca. When he was eighteen, Lord 8 Deer set out for the coast, a journey that the codices present as undertaken with the specific goal of founding a kingdom.

The Codices Nuttall, Bodley, and Colombino-Becker record somewhat different versions of this journey (Joyce et al. 2004a, 2004b). By comparing these accounts with polity-foundation stories from other codices, Lord 8 Deer's journey can be seen as part of a genre of 'foundation narratives' (Joyce et al. 2004a: 283). In other words, the codices present Lord 8 Deer as founding the city of Tututepec. The codices date this event to AD 1083, which closely parallels the archaeological record for the period of expansions of both Tututepec and the coastal population as a whole.

All three codical accounts of Lord 8 Deer's travel to the coast record an event, which occurred in AD 1083, on the Day 6 Serpent in the Year 6 Reed (Caso 1966: 123; Jansen and Pérez Jiménez 2005: 62). On this date, Lord 8 Deer consulted with the oracle Lady 9 Grass at her Chalcatongo shrine (Figure 3). The 'foundational' events that follow this meeting vary from codex to codex, but all three narratives come into alignment again with Lord 8 Deer's arrival at Tututepec. As the following discussion illustrates, Lord 8 Deer and his followers undertake three basic types of 'foundational' activities in their journey from the highlands to the coast. These are: 1) peregrinations with 'objects of authority and rulership;' 2) visitations of local places and local authorities on a 'journey of rulership recognition' (Furst 1986: 62; cf. García-Zambrano 1994: 219); and 3) demarcations of polity boundaries through ballcourt rituals (cf. García-Zambrano 1994: 219).

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tribute offering of cacao · tribute offering of feathers · tribute offering of a jaguar · conquered sites · Lord 9 Wind · "Toltecs" · Lord 8 Deer in cave · Lord 8 Deer and Lord 12 Motion · Lord 8 Deer at Chalcatongo

47 · 46 · 45 · 44

conquered sites · tribute offering of cacao · conquered sites · Tututepec · Lord 8 Deer and "Toltec" at ballcourt · Lord 8 Deer at Hill of the Tree of the Sun · Lady 9 Grass at Chalcatongo
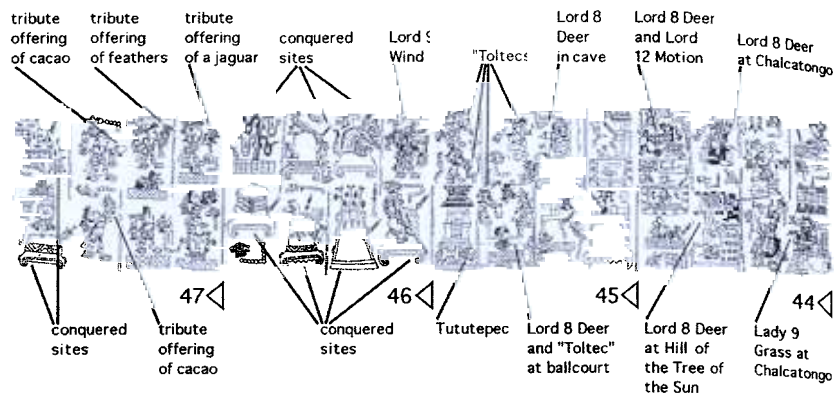
Figure 3. Codex Nuttall, Pages 44-47 (the sequence begins at the lower right hand corner of page 44 and then proceeds right to left; from Codex Zouche Nuttall 1987).

Year 6 Reed, Day 6 Serpent · Chalcatongo · sacred objects · Lord 8 Deer and Lord 5 Rain · Tututepec-Juquila · Lord 8 Deer and Lord 12 Motion · conquests begin · procession with sacred objects

3 · 4 · 5 · 6

Hill of the Tree of the Sun · Lord 8 Deer and Lord 5 Rain · Lord 8 Deer at Malinalli Hill · Four Directions · Malinalli Hill · Lord 8 Deer at Hill of the Tobacco Bundles · Lord 8 Deer in ballcourt
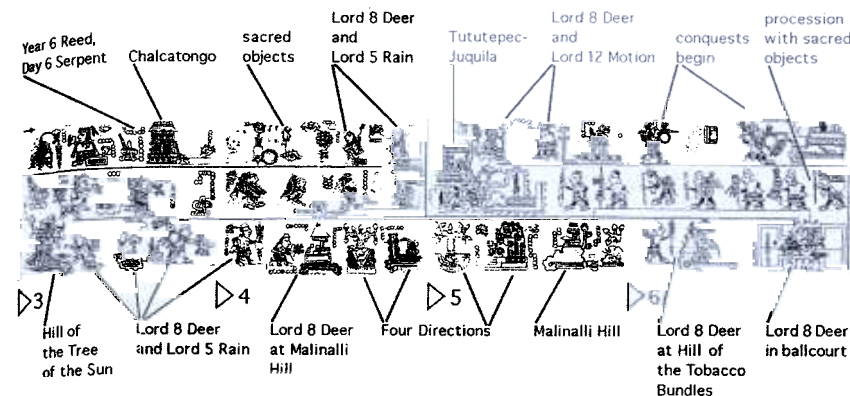
Figure 4. Codex Colombino-Becker, Pages 3-6 (the sequence begins at the upper left hand corner of page 3, and then travels back and forth across two-page spans; from Codex Colombino 1893).

In the Nuttall account, Lord 8 Deer follows his meeting at Chalcatongo by performing a series of sacrifices and conquests (Figure 3). Then in an event, which looks ahead to Lord 8 Deer's future political career, he meets in a cave and in a ballcourt with a group of men wearing diagnostically 'Toltec' costumes. Following these meetings, the place sign of Tututepec, a bird's beak emerging from a stone hill, appears in the Codex Nuttall for the first time.

In the Bodley, Lord 8 Deer's meeting at Chalcatongo is followed by the conquest of River of the Mouth. Lord 8 Deer then presents himself before the rulers of the lowland site of Juquila located 35 kilometers northeast of Tututepec, which is indicated in the codices by a frieze with a hand holding a knot of feathers (Smith 1973: 75-76). After this visit, Lord 8 Deer is enthroned at the bird-headed-stone place sign of Tututepec.

In the Colombino-Becker account, Lord 8 Deer begins his journey to the coast by receiving a series of objects at Chalcatongo: an owl spear, a shield decorated with a skull, a fish, a conch shell, a vessel containing a bloody heart, and a warty tobacco gourd (Figure 4; Caso 1966: 124; Troike 1974: 130). Lord 8 Deer and his followers carry these objects along with a flint staff and a sacred bundle on their journey to the coast. They soon arrive at a series of six place signs, where Lord 8 Deer offers powdered tobacco. The first and last signs in this series are of the same location: Malinalli Hill (Caso 1966: 123). We argue that the remaining four signs (Hill Where the Ñuhu Emerges, Split Hill Dark Hill, River, and Temple of the Skull) represent the four corners of the Mixtec World since they correlate to the Mixtec cardinal points (Jansen 1982). After these directional offerings, Lord 8 Deer burns incense inside a ballcourt, perhaps a cognate to the ballcourt scene on page 45 of the Nuttall (Troike 1974; Figure 3). The ballcourt scene is followed by a procession of seven individuals, each carrying a sacred

object. The seven arrive at the compound place sign of Tututepec-Juquila. Four of the objects carried from the highlands are then placed within the site's temple at the polity's symbolic center.

The codices, therefore, present Lord 8 Deer as an individual who performs rituals of foundation in the process of coming to the lower Verde region. Lord 8 Deer is presented as the founder of Tututepec and arrives on the coast as a political figure rather than as a priest like his father. Immediately following his arrival, the codices depict Lord 8 Deer conquering a series of places apparently to consolidate his power on the coast (Figures 3 and 4).

Lord 8 Deer was able to found a kingdom at Tututepec because of a combination of advantageous historical, political, economic, and ecological circumstances (Joyce et al. 2004a, 2004b). The archaeological record shows that at the end of the eleventh century the lower Verde region would have been vulnerable to outside conquest following the collapse of the Río Viejo state and the ensuing political fragmentation and unrest (Joyce et al. 2001).

Lord 8 Deer may have been pursuing a strategy designed to take advantage of the ecological verticality of a highlands-to-coastal corridor (Monaghan 1994). The lower Verde region was characterized by great agricultural productivity as well as a diversity of lowland resources that were valued by highland populations such as cacao, salt, quetzal feathers, cotton, and fish. The richness of the coast is specifically referenced in the Nuttall. Among the list of 25 places conquered by Lord 8 Deer in the Nuttall are four sites that may show places that, through compliance, became tributaries of Lord 8 Deer. These four place glyphs are not pierced by the spear of conquest, and they are accompanied by full-bodied human figures (Figure 3). Four of the six individuals associated with

Figure 5. Codex Nuttal, Pages 49-52 (the sequence begins at the upper right hand corner of page 49, and then proceeds right to left; from Codex Zouche Nuttall 1987).
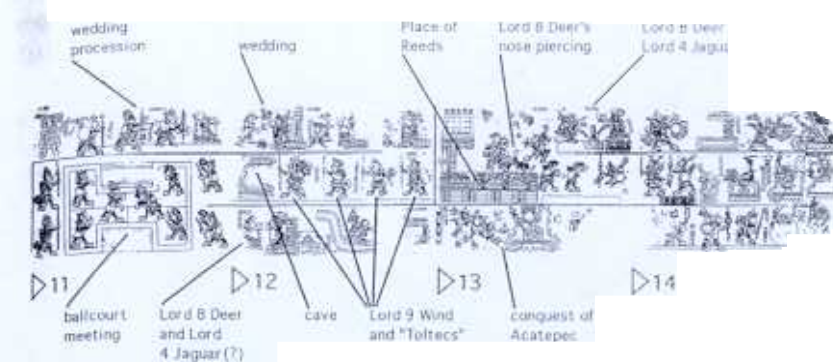

Figure 6. Codex Colombino-Becker, Pages 11-14 (the sequence begins at the upper left hand corner of page 11, and then travels back and forth across two-page spans; from Codex Colombino 1893).

these places are shown holding objects specifically coded as the products of lowland tropical environments, including a jaguar, tropical feathers and two different forms of cacao. By gaining control over coastal resources, Lord 8 Deer would have become an attractive alliance and exchange partner for highland nobles. Access to coastal resources may have been a factor in Lord 8 Deer's establishment of an alliance with a powerful highland polity that contributed to his success in founding Tututepec and defeating local competitors.

This alliance was with a group of foreign travelers shown in the codices carrying fans and staves, the insignia of merchants, and wearing a distinctive black facemask that marks these individuals and their leader, Lord 4 Jaguar, as Tolteca-Chichimeca (Pohl 1994: 83-108). Versions of the alliance between Lord 8 Deer and Lord 4 Jaguar are recorded in the codices Nuttall, Colombino-Becker, and Bodley. For example, on page 45 of the Nuttall, a representative of Lord 4 Jaguar assists Lord 8 Deer in the ballcourt ritual he performs before founding Tututepec (Figure 3). The ballcourt scene is followed by the Tututepec place glyph, which is in turn approached by three men. The first two men are dressed as Toltecs, while the third man wears the full regalia of the Mixtec supernatural Lord 9 Wind. Lord 9 Wind is followed by a series of conquests. Following these events, on page 52 of the Nuttall, Lord 8 Deer and Lord 4 Jaguar are shown performing a sacrifice before a sacred bundle (Figure 5).

In all three codices the alliance is sealed by what is perhaps the most famous event depicted in the Mixtec codices, Lord 8 Deer's nose-piercing rite in AD 1097 (Figures 5 and 6). In this scene, Lord 4 Jaguar oversees a ritual where Lord 8 Deer's nasal septum is pierced and a turquoise jewel is placed in it, thereby investing Lord 8 Deer with the title of tecuhtli, designating membership in the Tolteca-Chichimeca royal house. Gaining

the title of tecuhtli was also part of a strategy by which Lord 8 Deer was able to claim rulership of Tilantongo, his birthplace, and establish that polity's second dynasty in AD 1098. The alliance between Lord 8 Deer and Lord 4 Jaguar would therefore have been mutually beneficial. Lord 8 Deer would have gained a powerful military ally as well as a means of legitimating his claim to the thrones of both Tututepec and Tilantongo. Lord 4 Jaguar, as well as the broader Tolteca-Chichimeca alliance, would in turn have gained access to highly valued coastal goods.

Surprisingly, Tututepec disappears from the codical record after Lord 8 Deer's ascendancy at Tilantongo. Despite numerous claims that Lord 8 Deer created a kingdom that united the Mixteca Alta and coast (e.g., Caso 1979: 390; Smith 1973: 68; Spores 1993: 169), this is never explicitly shown in the codices. To understand coastal history for the remainder of the Postclassic, it is necessary to turn away from heroic histories and return to the archaeological record.

The Late Postclassic Imperial Center of Tututepec

Recent archaeological survey and excavation in the lower Río Verde Valley indicates that during the Late Postclassic Tututepec became one of the most powerful political centers in Mesoamerica (Joyce et al. 2004a, 2004b). Settlement in the region as a whole was nucleated with Tututepec accounting for 94% of the occupational area in the survey. The results of the full-coverage survey show that during the Late Postclassic, Tututepec grew to become the largest site in Mesoamerica covering approximately 2185 ha. In comparison, Smith (2001) estimates the Aztec capital of Tenochtitlán at 1350 ha, although population sizes of Central Mexican cities were much greater than at Tututepec.

Population estimates of Late Postclassic Tututepec range from 11,000 to 22,000 people, while Tenochtitlán's population is estimated to have been about 150,000-200,000 (Joyce et al. 2004a: 288).

Regionally, Tututepec was the first-order center in a five-tiered settlement hierarchy. There was a continuation of the Early Postclassic trend of people moving into higher elevations with piedmont settlement increasing from 62% in the Early Postclassic to 93% by the Late Postclassic with almost all of Tututepec located in the foothills. The settlement shift to higher elevations in the lower Verde is in marked contrast to Late Postclassic settlement in the Mixteca Alta where people move to lower elevations adjacent to the valley floors (Byland and Pohl 1994: 61; Spores 1972: 190; Stiver 2001). An even more curious shift involved the almost complete abandonment of the floodplain west of the Río Verde. During the Late Postclassic only two sites have been found on the west side of the river. These sites cover a total of 3 ha, which constitutes 0.1% of the total occupational area in the full-coverage survey. It is not clear why people were moving off the floodplain, especially west of the river, although conflict, agricultural intensification, or changes in land tenure are possible explanations.

While Tututepec was covered with a nearly continuous scatter of domestic debris, the overall density of settlement appeared generally lower, although more variable, than at earlier sites on the floodplain. Artifact densities and counts of prehispanic residential terraces tended to be higher in the northern end of the site. A total of 386 terraces was recorded. Of course, artifact densities and terrace visibility are both significantly affected by site formation processes so that these patterns should be considered tentative. Detailed mapping of terraces in the northern part of the site, where residential excavations were carried out in 2005, indicates that the terrace count during the regional survey significantly underestimated the actual number. Terrace mapping in 2005 was conducted immediately following the burning of vegetation by local people in preparation for planting so that surface visibility was ideal.

The survey data suggest a complex internal organization at Tututepec with multiple zones of public architecture, high status residences, specialized craft production, and ritual activities (Joyce et al. 2004a, 2004b). Surface artifacts provided evidence for domestic activities, including food procurement and processing, pottery production, working of lithics, textile production, and household rituals. Mixtec polychrome pottery was common as was obsidian. The most common type of obsidian found during survey was from Pachuca in the Basin of Mexico, indicating trade with pochteca merchants. Evidence for the intensive production or consumption of obsidian tools was found on a ridge approximately 1 kilometer southeast of the Yucudzaa hill. The ridgetop was covered with obsidian debitage as well as blade fragments and cores. Densities were estimated as high as 100 obsidian artifacts/m². Recent excavations of two Late Postclassic houses show greater access to prestigious polychrome ceramics, obsidian, and copper artifacts than has been found in excavated non-royal residences in the highlands (see below).

Architectural remains included residential terraces, mounded architecture, and structure foundations along with frequent examples of building materials including cut stone and clay bricks. Most of the terraces and structure foundations visible on the surface appeared to be relatively modest in architectural elaboration and were presumably from commoner residences. There were five separate areas with mounded architecture, however. The areas with mounded architecture might correspond to aspects of the internal organization of the site, perhaps reflecting elite residences and/or public buildings associated with particular barrios. Early Colonial Period communities in the Mixteca Alta were divided into barrios or Siqui in Mixtec, as is modern Tututepec, although the composition and function of these barrios has been debated (Dahlgren 1990; Spores 1984: 168; Stiver 2001; Terraciano 2000).

A possible location of Lord 8 Deer's ballcourt ritual as depicted in the Codex Nuttall and Codex Colombino-Becker is at the site of San Francisco de Arriba, which contains a Late Postclassic ballcourt (Workinger 2002). San Francisco de Arriba would have been an outlying barrio on the city's northeastern boundary during the Late Postclassic. Another possible ballcourt has also been identified near Tututepec's center, on the hill known as Cerro de los Pájaros.

The civic-ceremonial core of the site appears to be the large prehispanic platform on which the Colonial Period church is located. The platform is about 10 m high and covers 2.9 ha. It is not clear how much of the platform was constructed with fill and how much contains a bedrock core. Oral histories suggest that the Church Platform supported the Late Postclassic and Early Colonial Period ruler's palace (Tibón 1961: 72). This claim is supported by the presence of four Disc Friezes that were placed into the walls of the church. The Disc Frieze is an architectural decoration depicted on Late Postclassic palaces in the codices. A dramatic example of the use of the Disc Frieze is found at the Casa de la Cacica, a sixteenth century royal residence that still stands in San Pedro y San Pablo Teposcolula in the Mixteca Alta.

Located until recently on the southeastern end of the Church Platform, and now moved into the community museum, is a group of eight carved stones (Joyce et al. 2004a; O'Mack 1990). The original proveniences of the carved stones are not certain, although Maler (1883: 158-159) reports that Monument 6 was intentionally buried near the church and was excavated by the local priest in 1830 (also see Tibón 1961: 72). Monument 6 is the most significant of the carved stones because of its resemblance to Tolteca-Chichimeca iconography (Figure 7). Many researchers have compared this monument to the Atlantid Warriors from Pyramid B at Tula (Jorrín 1974: 68; Piña Chan 1960: 72; Pohl 1999: 184), the original Tolteca-Chichimeca capital. Monument 6 is probably a representation of the Central Mexican deity Itzpapalotl, the Obsidian Butterfly, based on the stiff pose, *tezcacuitlapilli* back mirror, and her quechquemitl lined with what may be an obsidian knife border, all are characteristic of the Central Mexican Goddess (Pohl 1999: 184). The monument provides archaeological support for Lord 8 Deer's alliance with the Tolteca-Chichimeca as shown in the codices. Early Colonial

Figure 7. Tututepec, Monument 6

documents (Acuña 1984 I: 188, 193, 1985; Alva Ixtlilxochitl 1975[ca. 1600]: 1: 283; Pohl 1999: 183-184) as well as oral histories of Tututepec (Tibón 1961: 71) also record that people of Tututepec and its subject communities claimed to be Tolteca-Chichimeca and worshipped Itzpapalotl as a goddess (Acuña 1984 I: 188, 193). The other carved stones on the Church Platform include three zoomorphic tenoned-heads, a feline sculpture, and a small sculpture of an individual with his arms crossed on his chest that was removed from Tututepec for display in the Museo Nacional de México (see Piña Chan 1960: Foto 8). If the Church Platform was the original location of the majority of these stone monuments, the buildings on the platform would have been some of the most architecturally elaborate structures in Late Postclassic Oaxaca.

Excavations by Marc Levine in the northern part of the site in an area overlooking the Yutañaña stream approximately 1.25 kilometers northwest of the Church Platform has provided data on two Late Postclassic residences. Excavations were carried out at one relatively higher status residence (Operation A) and a second lower status residence (Operation B). A major objective was to recover data that would help us evaluate Tututepec's participation in interregional interaction networks linking this center with other areas of Late Postclassic Mesoamerica. The excavations were designed to examine variation in production, consumption and distribution in relation to status differences so as to explore Tututepec's political economy.

The Operation A residence was located on a high ridge top with a view of the Pacific Ocean and Tututepec's Church Platform to the south. An artificial platform measuring roughly 20 × 20 meters created a flattened area on the ridge and supported four low mounds surrounding a central patio. Of the four structures, the western one was the largest and displayed the most elaborate masonry construction.

The Operation B residence was located approximately 200 meters southwest of Operation A on a lower hilltop. A stone retaining wall ringed the hilltop, limiting erosion and creating a flat surface for the dwelling area. The primary structure sat atop a low mound that was flanked by two or three structures built on the ground surface. In comparison to Operation A, the patio areas were less clearly defined.

There were broad similarities in the architectural elements and form observed at Operations A and B. However, there are important differences suggesting that the Operation A residence was of a somewhat higher status. Most striking is the presence of the large platform that supported the house mounds at Operation A. In addition, the walls associated with the main structure at Operation A displayed finer masonry compared to the primary structure at Operation B. A few fragments of painted stucco were also recovered at Operation A, suggesting that some of the structure walls may have been adorned with colorful plaster. Finally, a 'Z-shaped' architectural element, possibly part of an exterior facade, was found at Operation A.

The artifact assemblages recovered from the two residences reflect the range of activities commonly associated with domestic areas. There was an abundance of utilitarian and fine decorated pottery, spindle whorls, animal bone, copper bells (cascabeles) and 'axes,' obsidian and chert tools and debitage, hammerstones, ceramic figurines, stone axes, and groundstone (manos and metates). The majority of artifacts were recovered in middens located directly adjacent to the dwelling areas.

Although a similar range of artifact classes were present at both residences, preliminary results indicate variability in artifact frequencies. For example, Mixteca-Puebla style polychrome pottery comprised approximately 8.6% of all rim sherds at Operation A and 4.9% at Operation B. The higher frequency of polychromes at Operation A strengthens the argument that this was a higher status residence. The frequency of Mixteca-Puebla polychromes from Operation B, however, is significantly higher than that found in low status residences excavated in the Mixteca Alta region (see Lind 1987: Table 29; Perez 2003: Table 4.4), indicating that Tututepec's commoners had greater access to these prestigious vessels. An analysis of fauna also lends support to the assertion that Operation A was a relatively higher ranked residence. While people at the residences were utilizing deer, dog, rabbit, and to a lesser extent, fish, raptorial birds and terrestrial turtle, it appears that a greater amount and variety of animals were available to the inhabitants of the Operation A household.

Ceramic spindle whorls were common at Operations A and B, demonstrating that residents produced thread in both residences. Over a thousand obsidian tools and fragments were recovered from the residential excavations. At Operation A, the presence of exhausted obsidian cores and core platform rejuvenation flakes suggests that the inhabitants were manufacturing obsidian blades. No evidence of blade production was present at Operation B. Preliminary visual analysis demonstrates that nearly half (44.5%) of all obsidian was translucent and green in color, recognizable as obsidian from Pachuca, Hidalgo.[1]

The preliminary results of the excavations indicate that Tututepec maintained exchange relations with other parts of Oaxaca and central Mexico, but future sourcing analyses of ceramic and obsidian artifacts will clarify these interregional connections. The comparative analysis of architectural features and artifact assemblages indicates that the inhabitants of Operation A enjoyed a somewhat higher status compared to their

[1] The remaining obsidian could not be clearly distinguished visually and will be determined through elemental analysis in the near future.

Operation B counterparts. Nonetheless, it appears that both households had access to a similar variety of artifact classes. Ongoing analyses are considering the implications of relatively equal access to commodities among commoners and higher status individuals for interpretations of Tututepec's political economy, including the nature of market exchange and role of prestige goods.

The size, wealth, and complexity of ancient Tututepec as shown by the survey and excavation data are consistent with Early Colonial documents that describe the site as the center of an expansionistic empire that dominated much of southern Oaxaca (Acuña 1984; Barlow 1949; Berlin 1947; Davies 1968; Spores 1993). Early Colonial records indicate that at its maximum extent Tututepec controlled an empire extending from the modern Oaxaca-Guerrero border east to Huamelula and the Isthmus of Tehuantepec, south to the Pacific Ocean, and north approximately 80 km to towns such as Zacatepec, Juchatengo, and Suchixtepec (Figure 1). Tututepec threatened towns as distant as Achiutla, 125 km to the north, and Tehuantepec, 250 km east. The extent of Tututepec's empire, ranging from the semi-tropical coastal plain to towns like Suchixtepec at 2500 m above sea level indicates that the polity continued to pursue a strategy of verticality to gain access to resources from the different environmental zones of the macro-region. Tribute ranged from gold, copper, feathers, textiles, and cacao from lowland communities to cochineal and cotton mantas from highland towns. The rulers of Tututepec also used their control over coastal resources to establish exchange ties with highland centers, including Tenochtitlán as indicated by the abundance of Pachuca obsidian recorded by the survey and excavations (Workinger 2002). While Tututepec seems to have had exchange relations with Aztec Tenochtitlán, political relations between the two empires were tense (Davies 1987: 208-209).

The wealth and power of Tututepec also attracted the attention of Hernán Cortés shortly after his conquest of Tenochtitlán on August 13, 1521. In January 1522, Cortés dispatched his lieutenant Pedro de Alvarado and 200 Spanish soldiers to the Pacific coast where they were joined by a Zapotec army from Tehuantepec, Tututepec's enemy to the east (Cortés 1971: 276; Díaz del Castillo 1955: 101). Alvarado arrived in Tututepec in February of 1522 and conquered Tututepec by March 4 of that year (Cortés 1971: 276). Oppression and epidemics rapidly decimated the coastal population. The population of the Tututepec Empire at the time of the conquest has been estimated as more than 250,000 (Greenberg 1981: 65), yet only an estimated 4500 people were recorded at Tututepec in the census of 1544 (Dahlgren 1990: 42). Our survey results are consistent with the Early Colonial census records as we recorded colonial pottery from only about 1.5 km² in the area of the modern town, although this figure could be deceptive since prehispanic pottery types probably continued to be used for decades after the conquest.

Conclusions

Our research demonstrates that the archaeological record of Late Postclassic Tututepec is consistent with the ethnohistorical depiction of the site as an urban center and the political capital of a powerful empire. By integrating the codical and archaeological records, our research indicates that the city was founded early in the Late Postclassic. A model of 'heroic history,' Lord 8 Deer 'Jaguar Claw' was able to found a new dynasty because of a combination of advantageous historical, political, economic, and ecological circumstances. The archaeological record shows that at the end of the eleventh century the lower Verde region would have been vulnerable to outside conquest following the collapse of the Río Viejo state and the ensuing political fragmentation and unrest (Joyce et al. 2001). We argue that Lord 8 Deer took advantage of these circumstances to found a new Mixtec dynasty at Tututepec. The huge increase in population inferred from the settlement data along with the shift in ceramics and architecture to highland Mixtec styles, are consistent with the codical record of a Mixtec intrusion into the lower Verde region at ca. AD 1100.

The archaeological data recorded in our full-coverage surveys are consistent with Early Colonial documents, which show that Tututepec continued as a powerful polity until the Spanish Conquest. At 21.85 km², Tututepec was far larger and more complex than typical highland Mixtec cacicazgos of the Late Postclassic. The data suggest a complex internal organization with multiple zones of public architecture, high status residences, specialized craft production, and ritual activities. Early Colonial ethnohistory indicates that Tututepec eventually dominated an area of approximately 25,000 km² and threatened towns well into the Oaxacan interior. While much research remains to be done on ancient Tututepec and its empire, for the first time we can see a correspondence between the ethnohistoric and archaeological records, which demonstrates that Tututepec was indeed a powerful imperial center and a key player in the Late Postclassic world.

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