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Every Maya city in the Classic period has modest settlement in the vicinity, blended with the center into a single surface. The relations between the two, the large poised against the small, remain a central concern of Maya archaeology: were the interactions constant, collaborative, and amiable, or did they follow a path of inconstancy, exploitation, and antagonism? To a notable extent, too, the nature of a larger city and its region requires attention to boundaries. Frontiers and edges are where interactions took place. On them, near them, hostilities flared; flow occurred in people and resources. To examine a boundary is to evaluate its porosity, to ask about control of land and the varied intensity of efforts to ease or impede movement. As a product of boundaries, the Maya kingdom of El Zotz, Guatemala, compels such inquiries. Six seasons of fieldwork, as reported in this book, help to answer them.

As a city and a polity, El Zotz exists because of, even despite, its position near the large dynastic capital of Tikal (figure 1.1). In the central Peten of Guatemala, Tikal is the ineluctable giant. It is mentioned, copied, fought, exalted, and deliberately ignored by other kingdoms near by or farther afield (Martin and Grube 2008:24–53). After decades of research, perhaps the most extensive at any Maya site, Tikal also offers a vast body of comparative evidence for El Zotz, along with growing understanding of a key conflict during the Classic period (e.g., Haviland 2014, on modest remains at Tikal). This was the sustained, often violent

A Fortress in Heaven

*Researching the Long Term
at El Zotz, Guatemala*

STEPHEN HOUSTON,
THOMAS G. GARRISON,
AND EDWIN ROMÁN

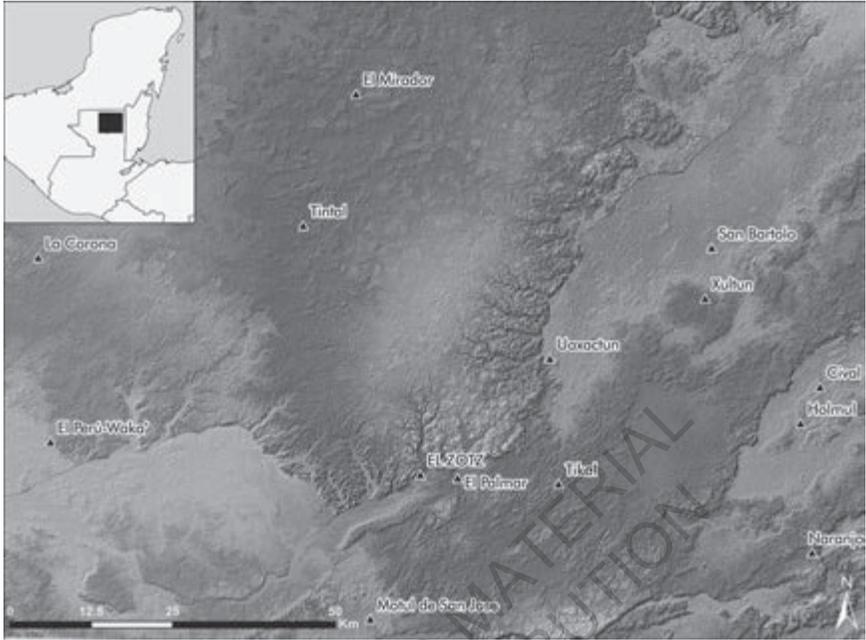


FIGURE 1.1. *El Zotz's regional setting in the Maya Lowlands (map by T. Garrison).*

competition between Tikal and Calakmul, a power of yet larger size to the north, in Campeche, Mexico (Carrasco Vargas and Cordeiro Baqueiro 2012). In this light, research at El Zotz poses oblique questions about Tikal's western frontier, building on similar research of high intensity and duration at the sites of Uaxactun, to the north of Tikal, and Yaxha, a prominent, lakeside city to the southeast (e.g., A. L. Smith 1950; R. Smith 1955; also Gámez 2013; Kováč and Arredondo 2011). To study El Zotz is to ponder Tikal and its other neighbors (Beach et al. 2015:278–279). No isolate, Tikal needs equal framing against El Zotz. Few areas in the neotropical New World offer comparable detail on the tumult of kingdoms and their frontiers; few projects draw regionally on such density of excavation, survey, ecological reconstruction, and history, or on such well-attested lengths of time and solid study of artifacts.

The comparatively small size of El Zotz offers a decided advantage to research. Among its other relevant traits are its limited history of research, its proximity to Tikal athwart a crucial valley, and the savage looting and broad, international dispersal of its thieved material. This destruction is irremediable, yet some evidence of value comes from addressing it. The mapping by Pennsylvania State University of a wall or set of ditches between Tikal and

El Zotz confirmed that the Maya sought definition between the two polities (Webster et al. 2004:figure 25). From these assembled data came, after a planning trip in 2004, a mapping project, sponsored by Brown University and the Instituto de Antropología e Historia de Guatemala (IDAEH), that took to the field for short-term reconnaissance and recording of looter pits in 2006 and 2007. This was followed by more intensive seasons, from 2008 to 2011, of deeper excavation and regional survey. Just as Tikal and Uaxactun had great antiquity, the area of El Zotz now attests to over two millennia of Maya occupation. At times the city was populous, at others leaving only a faint footprint of dedicated visits or low ebb of settlement among the ruins. Earlier hints of agricultural clearance from pollen profiles pushes occupation back at least another millennium (Beach et al., chapter 7, this volume). Only at regional scale, with work by several sub-projects, can long-term developments reveal their sequence.

THE VALLEY OF GOOD VIEWS

El Zotz perches on an elevation to the northern side of the Buenavista Valley (N17.23265 W-89.82425), a feature some 3 km across (figure 1.2). The valley runs for 30 km or so from the area of Tikal to the western flatlands around the San Pedro Martír River. That direction leads eventually to the Tabasco plains and the Gulf of Mexico. During colonial times, the *camino real* to Mérida hugged the edge of this opening on its way from Flores to points north (Jones 1998:map 3). Today, the northerly route coincides in part with the all-weather road passing toward Carmelita in the northern Peten. It serves also as the turnoff to the San Miguel la Palotada Biotope reserve that holds El Zotz. The Buenavista Valley is anomalous for the Peten. Only one other east-west passage of comparable size exists, and that is the south shore of Lake Peten Itza, an area well-populated with substantial ancient settlement, from Ixlu to Tayasal and the fortified peninsula of Nixtun-Ch'ich' (Pugh et al. 2016). The valley, with El Zotz situated halfway through it, represents one of the few routes by which the eastern side of the Maya Lowlands communicated readily with the west and vice versa. Other routes are possible but beset by broken karst and uplands. El Zotz has another attribute. To the north runs a valley (see figure 3.1) funneling contact with the so-called Mirador Basin (in fact an upland plateau) and its cluster of large Preclassic cities and scattered Classic settlement (Hansen et al. 2008).

Explored in 2015, another such valley exists approximately 8 km west of El Zotz. Similar in some respects to El Zotz is a site at the mouth of that

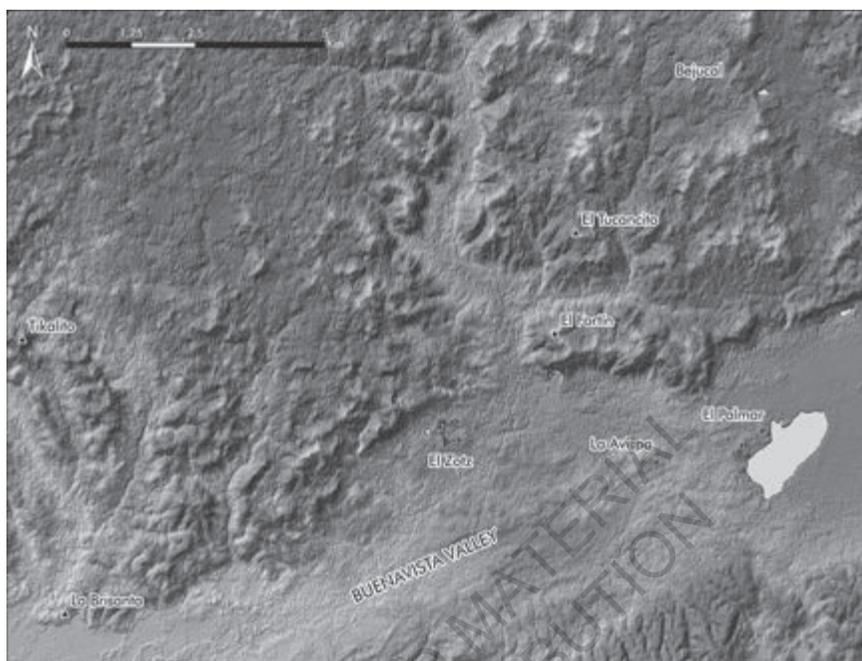


FIGURE 1.2. *Settlements of the Buenavista Valley (map by T. Garrison).*

valley. Our team labeled it “La Brisanta” after the local vegetation, a resilient grass. This ancient community proved to be substantial, with plain stelae and altars, copious quantities of Terminal Classic ceramics spilling out of looter trenches, at least two elevated palace areas, and a scattering of mound groups exposed by removal of the local forest. To the north, 5 km from La Brisanta, lies another site, called “Tikalito” because of its relatively large size and fancied similarity to the temples of Tikal. Tikalito consists of two elevated buildings, one a multiroomed palace with lateral rooms, some still standing. Across an elevated court is a massive platform raised on an outcropping of bedrock. The settlement sits outside the biotope park and, as a result, has been swept by occasional fires from agriculture. Dense regrowth stymies any easy mapping of its core or perimeter. Tikalito is also within an area of disputed ownership. Just prior to our visit, one owner, a purported drug *capo*, had been gunned down and his property markers removed with a chainsaw. But, in the long term, work at La Brisanta and Tikalito would pay a strong dividend. In 2015, survey near El Zotz by Omar Alcover Firpi of Brown University confirmed a general pattern shared by large sites on the northern portion of the Buenavista Valley.

El Zotz and La Brisanta both have settlement on either side of their valley opening, yet the dynastic or elite cores sprawl to one side only. That placement was probably conditioned by access to water in reservoirs or cisterns, cavities known as *chultunes* that in some cases likely held water for the humbler residences (Beach et al. 2015). Alcover Firpi (2016) also mapped a defensive feature east of El Zotz. Most likely, this circular redoubt, El Fortín, monitored movement in the north–south valleys and the low-lying areas beyond. Momentous finds from lidar, a technology to be described in the final chapter, through measurements determined as this book went to press, show that such redoubts encircled the El Diablo sector of El Zotz, and an especially extensive area due north from El Palmar. This last, since named La Cuernavilla, had walls to the north, on a route leading to Bejucal, and what appears to be a double-moated, garrison facility with orderly buildings at the base of the escarpment. At present, this may be one of the largest citadels in the Maya region. Our hunch, too, is that it dates largely to the Early Classic period, by direct analogy with the chronology of El Diablo.

The valley itself presents severe obstacles to vehicular traffic. Depending on the rains, even off-road pickups quickly bog down in the *bajo* mud characteristic of these seasonal swamps. The low-lying *bajos* were probably not a focus of settlement by Classic times, which favored hillsides or prominences. If the flatlands did have settlement, it was mostly of perishable construction. The overriding impression, while atop palace complexes like Las Palmitas or El Diablo, or while viewing from the Str. L7-11 pyramid, is the optical reach of El Zotz and its environs (Doyle et al. 2012). By Late Classic times, those on pyramids or the Buenavista escarpment could see clearly to Tikal, even in stormy conditions. Today, the naked eye can perceive Tikal's Temple IV and, from El Diablo, all major pyramids. Nonetheless, it is well to add that the major features during most of El Zotz's occupation were not those buildings at Tikal but the Mundo Perdido complex or the South Acropolis. They appeared on a far horizon as large, mounded heaps of masonry, not up-thrust architecture with high roofcombs. Bejucal (figure 1.3) to the northeast was also visible from the El Diablo hill, at least hypothetically. For much of its existence, the city of El Zotz and its outliers was a place to see and be seen. When cleared of vegetation, even a casual pedestrian would be glimpsed far below while moving along the valley floor. The intent was more to control a central, dry route through the valley and to position the major settlement, El Palmar (figure 1.4), with respect to the Laguna El Palmar as a water source. There must also have been striking effects of sunrise and sunset on the Laguna. The “E-Group,” solar temple built close to its edge took full advantage of that

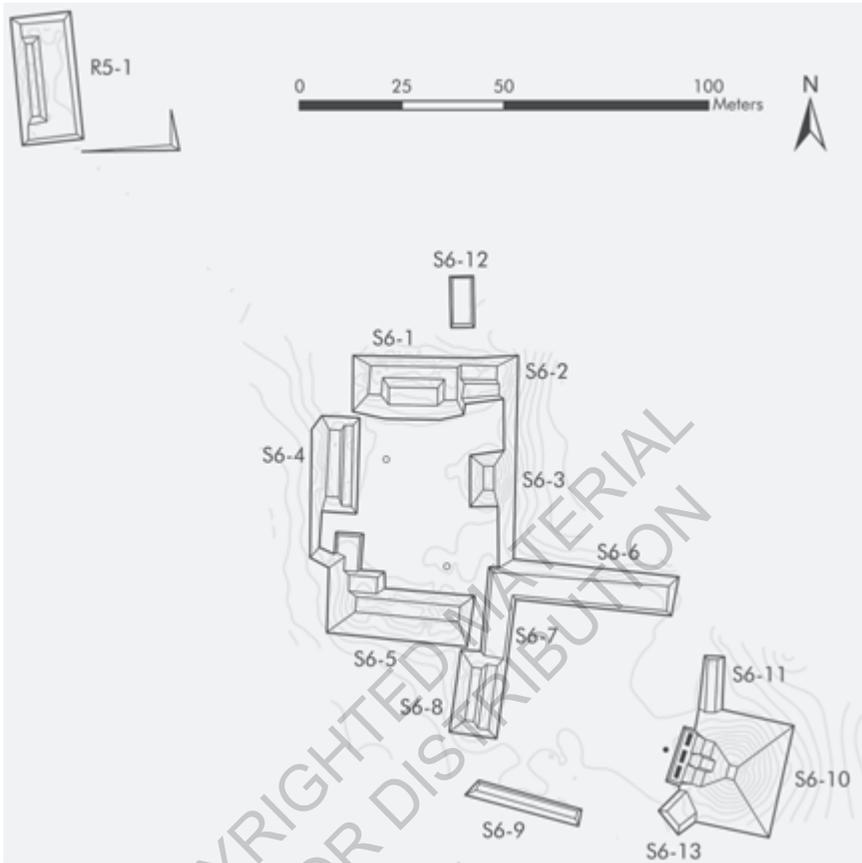


FIGURE 1.3. *Map of Bejucal (map by T. Garrison).*

shimmering view (Doyle 2012, 2013a, 2013b; Doyle and Piedrasanta, chapter 2, this volume).

The site layout of El Zotz is distinctive from other settlements in the central lowlands. At its main pyramid, El Zotz lies 23 km from the main plaza at Tikal, by far the largest settlement in this part of Guatemala (figure 1.5). The known epicenter embraces an area ca. 700 × 700 m, with a major causeway or ceremonial path connecting pyramids to the east and south. A ballcourt lies at the point where the causeway turns to the south. Possibly it aligned with an as-yet-undetected tomb under Str. L7-11 to the north (Houston 2014): energetic excavation by Arredondo cleared out a looter tunnel within but found only a single cache (see Carter et al., chapter 4, this volume). The orientation

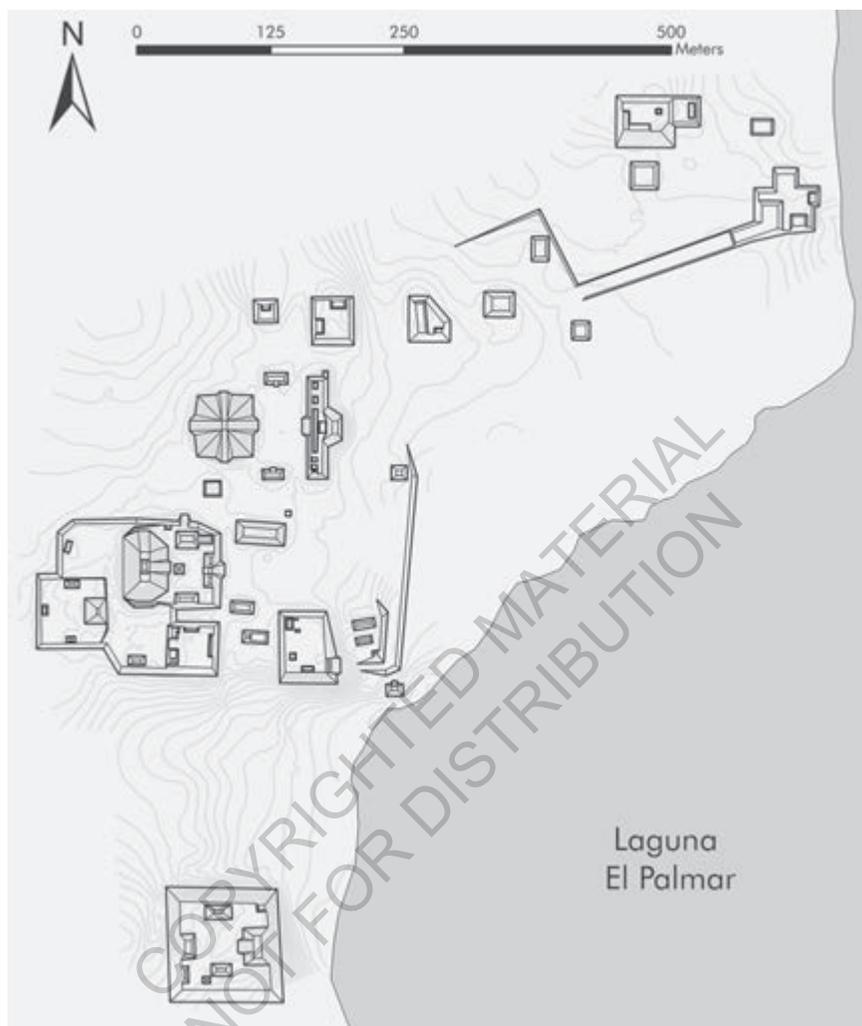


FIGURE 1.4. *Map of El Palmar* (map by J. Doyle, O. Alcover Firpi, and T. Garrison).

of the east–west causeway corresponded to the direction of the sinkhole where El Zotz’s bat population resides as well as the site’s main *aguada* (man-made water source); sight-lines from the Diablo complex to other monumental features of Early Classic El Zotz may also have informed the layout of the city (Houston, Newman, Román and Garrison 2015:figure 1.5). Such causeways went far back indeed. In 2016, Alcover Firpi found a Preclassic road leading northeast from El Palmar, perhaps indicating that the early urban

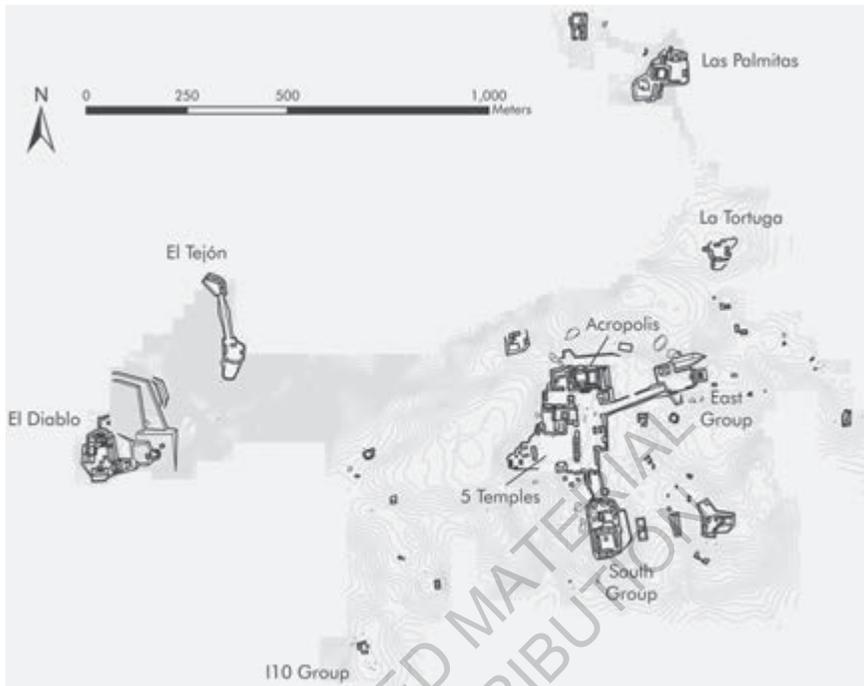


FIGURE 1.5. *Map of El Zotz (map by T. Garrison).*

planners of El Zotz determined to mimic the earlier center. Data from the 2016 PACUNAM LiDAR Initiative showed yet other causeways, revealing that El Palmar was far larger than earlier thought. Preclassic buildings have a distinctive, formal “signature,” with gentle, modulated shapes that come from centuries of added erosion; by contrast, Classic buildings exhibit crisp edges and corners. At El Zotz, several plazas, most likely the setting of civic rituals such as royal dances or processions, occur near its main causeway (Grube 1992; Inomata 2006). Pyramids of considerable size cluster in the northern area of the site, just by the palace complex, or “Acropolis” (Carter et al., chapter 4, this volume). Structure L7-II, for example, reaches at least 27 m in height, with well-preserved room foundations. Its construction greatly changed the visual properties of El Zotz, and its bulk loomed over the Acropolis to dominate the city epicenter. The palace is an area of many courtyards near the juncture where the causeway turns south. It is easily the most massive construction at the site and the probable residence of the local dynasty (see Martin 2001, for comparative examples in the Maya region). A string of palaces atop the

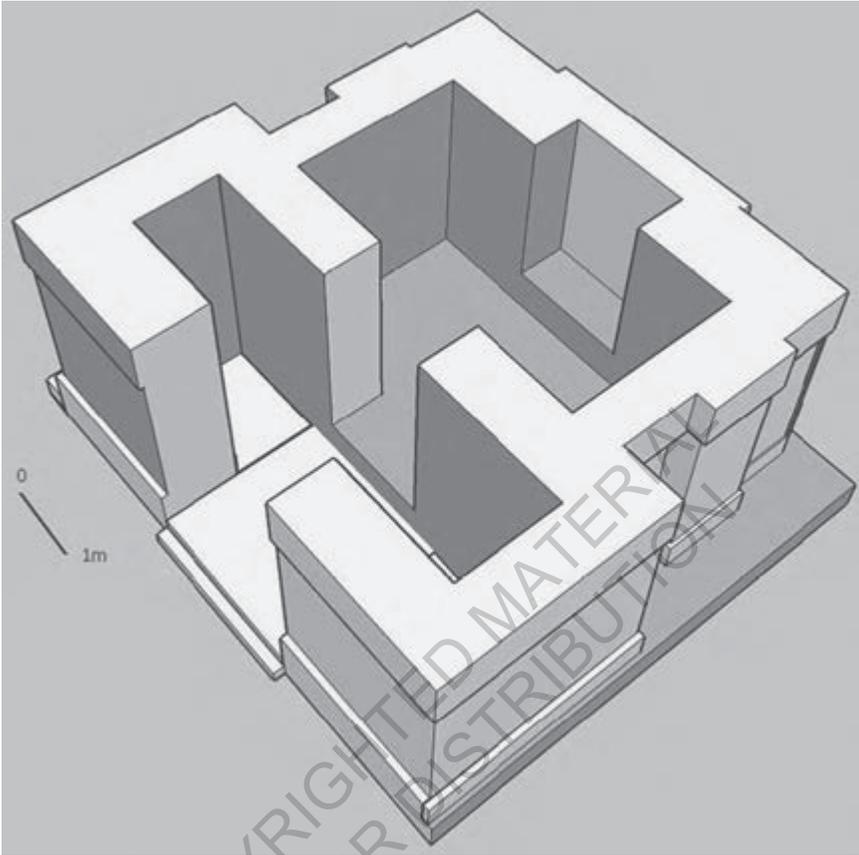


FIGURE 1.6. *Structure L7-II summit (model by S. Houston).*

escarpment was later documented by Edwin Román, Rony Piedrasanta, and Nicholas Carter (see Carter 2014). Possibly these were alternative residences for royalty or the seats of minor members of the dynasty. The lidar campaign in 2016 highlighted even more grandiose buildings to the north of Carter's dissertation work in the Las Palmitas Group.

An important feature of El Zotz is that its pyramids bear close similarities to pyramids built later at Tikal (figure 1.6). That is, El Zotz demonstrates a pattern of local innovation in architecture. The summits display large axial passages and small lateral rooms (Coe 1967:29). Evidently, the vaults over the rooms helped to stabilize the central passage, but they were not themselves very spacious or useful for storage or ritual use. What has become even more

apparent, however, is the role of water supply in founding the community. A team led by Timothy Beach and Sheryl Luzzadder-Beach discovered evidence for the sudden construction of large reservoirs near the South Group at El Zotz, possibly with sequenced pools to filter water by removing sediment (see Beach et al., chapter 7, this volume). Minor settlement too, of the sort to house non-elites and supporting staff for the royal court, were probed in Alyce de Carteret's (2017) doctoral research at Brown. Test pits and focused excavations of the Iro Group to the west of the main reservoirs at El Zotz shows robust occupation in the Late to Terminal Classic periods. The paradox is that monumental construction at El Zotz diminished when such modest settlement went into active phases of building, at limited scale to be sure. The suspicion is strong that El Zotz was, in this sense, inversely related to Tikal. With the decline of the latter city's power, settlement rebounded at El Zotz, albeit in selective ways. De Carteret's dissertation made this pattern eminently clear, with abundant, late settlement across the city. This was also when El Zotz began to re-erect stela, if soon to be broken up and incorporated into masonry (see below; Carter et al., chapter 4, this volume; Newman et al., chapter 5, this volume). Prior research by Houston and his team at Piedras Negras, Guatemala, hinted at a similar trajectory, royalty in active decay but with a surprising degree of trade and humbler construction (e.g., Golden 2002).

THE PLUNDERING OF EL ZOTZ

The first notice of El Zotz and its area comes from the Tikal Project of the University Museum at the University of Pennsylvania. Robert Carr (personal communication, 2012), a mapper of that effort, sent a reliable worker to do a sketch map of rumored ruins to the west of Tikal. This proved to be El Palmar (Doyle and Piedrasanta, chapter 2, this volume). Thereafter, reports became more distressing, from the late 1960s on. Large-scale looting, supposedly sponsored by a brother to the then-president, Kjell Laugerud García, punctured almost every mound or building in the region. Not even El Palmar escaped such damage, which included the violation of an Early Classic royal tomb in its main triadic group (Doyle and Piedrasanta, chapter 2, this volume). This destruction affected all sites from the smallest, such as La Avispa (figure 1.7), to the largest, El Zotz. Direct reports exist from those who stumbled across soldiers massed into platoons for looting. The current tally of such trenches, tunnels, and pits far exceeds 200, leaving, as at Bejucal, an entire pyramid gutted from the inside (Str. S6-3), held together by tree roots and some rubble or fill in between. A conservative tally soon rises to over 100

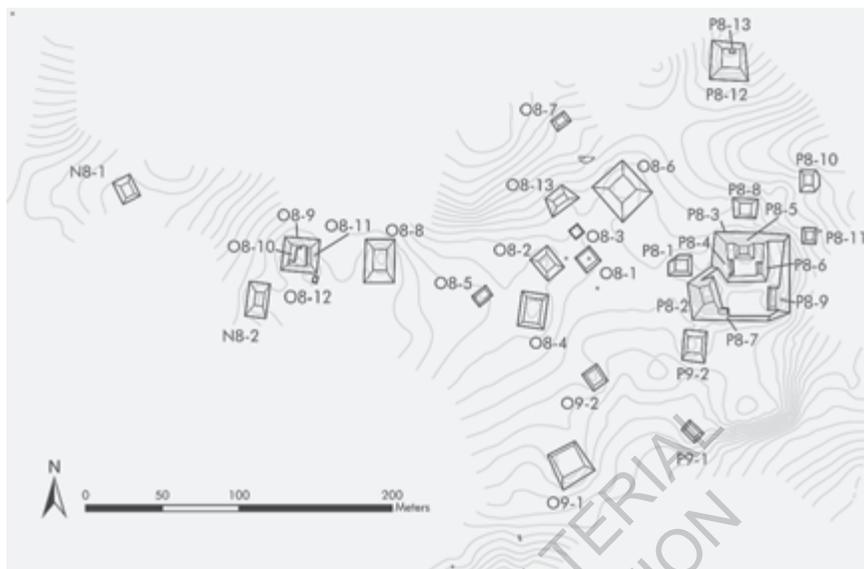


FIGURE 1.7. *Map of La Avispa (map by T. Garrison).*

looter trenches across El Zotz, many more in the region, with well over 1,000 m³ of fill removed.

The looters pillaged at least 10 royal tombs and several elite ones (Román et al., chapter 3, this volume; see also Garrison et al. 2016; Houston, Newman, Román, and Garrison 2015). These yielded pots that were eventually incorporated into private and public collections after their theft from Guatemala. One ceramic of Early Classic date, fully equipped with the titles of a ruler of El Zotz, found its way into the National Gallery of Art in Canberra, Australia (figure 1.8, K8458, NGA 78.1293.A–B). Other bowls possibly from El Zotz also ornament collections around the world (e.g., Berjonneau and Sonnery 1985:plates 339–340; Looper and Polyukhovych 2016:figures 1–3; Villela 2011:145, plate 65; also Denver Art Museum 1998.33A–B, 1998.34A–B; 1998.35A–B). A set of red- or buff-background pots likely came from the region during this wave of destruction. Most date to the beginnings of the Late Classic period, ca. AD 575–625, in “hands” of varying expertise but often sharing a distinctive variant of the **u** sign, “his, hers, its,” as a “split-sky” sign (K679, 2669, 3924, 5350, 5460, 5465, 5509, 6618, 7147, 7220, 7525, 8393, 8418; see Carter et al., chapter 4, this volume). Those in red build on a longstanding, local emphasis on that color (de Carteret 2013). The red-background vessels in particular are noteworthy for presenting



FIGURE 1.8. *Canberra Bowl*, from the area of El Zotz (photo by J. Kerr).

the first depiction of a supernatural being known as the *way*, a co-essence or co-spirit of Maya royalty whose nature is still under discussion (K1743, 3060, 3387). In a few cases, they also show use of the local royal title (see below), along with a set of royal names. A queen, one of three known at El Zotz, appears in both text and image on a pot formerly in the Museu Barbier-Mueller in Barcelona (figure 1.9, Barbier et al. 1997:288–289). Most likely, she also occurs on a vessel now in the San Diego Museum of Man (Looper and Polyukhovych 2016:5–6, figure 8). One stela in the El Zotz plaza is sawn (Stela 3). This would presumably only have been done if there were a carved surface to steal.

A logging road driven through in the 1970s helped remove such objects from El Zotz and furthered invasive settlement to the north of the city and



FIGURE 1.9. *Late Classic vessel, El Zotz region, ca. AD 625, ex-Museu Barbier-Mueller, Barcelona (photo by J. Kerr).*

near El Palmar. These communities were only removed by biotope authorities in the early 2000s. At least one village lay as far north as Pucte, a source of water on the road to Bejucal. But there was one small benefit to such a track. It still affords rugged access to El Zotz, and the logging camp itself, on a terrace bulldozed into the hillside, provides a dry location for archaeological labs and tenting. The camp is maintained today by CECON (Centro de Estudios Conservacionistas, Universidad de San Carlos de Guatemala). For the moment, the San Miguel la Palotada Biotope, at 35,468 ha, set aside by decree of the Guatemalan Congress in 1989, has year-round protection by IDAEH guards, as well as some seasonal rangers with CECON. Yet the biotope is also imperiled by routine, aggressive burning on its margins and into its core. These intrusions are unlikely to be casual, being rather, by common report, the stratagems of drug kingpins wishing to acquire land as part of money-laundering operations. Destroying a biotope, promoting settlements, and suborning a judge for “legal” title are, it seems, quick paths to that aim. Evidently, the process seeks to shift possession from public holdings to private. Patrols by the Guatemalan army, such as those mounted in 2010 and 2011 during the first phase of the El Zotz Project, may prevent further invasion. Tourists trekking from the biotope entrance to Tikal could provide a concrete incentive for preserving the local jungle.

CRAFTING AND COMPLETING A PROJECT

Most Maya sites of any size undergo cycles of research. First there is “discovery,” although, of course, ruined cities are often known long before to farmers and foresters. This stage is followed by occasional forays and, in a few cases, a substantial project of some five years in length. In academic settings, that span is about the time necessary to train graduate students,

Guatemalan and international, and to bring theses and dissertations to fruition. In this, Gordon Willey of Harvard set a useful precedent, starting at Barton Ramie, Belize, then passing on to Altar de Sacrificios and Ceibal (Seibal) in Guatemala, to conclude his career of distinguished fieldwork at Copan, Honduras. On most projects, a generation passes before another, equivalent team returns to work again. The alternative, of continuous work by governments or intellectual “heirs” of the first project, takes place only at the largest sites or those with touristic potential. At El Zotz, the first effort, phase 1, has drawn to a close, succeeded by a phase 2 under two of us (Garrison and Román), with general sponsorship by the University of Southern California. Brown University, the National Endowment for the Humanities, the National Science Foundation, and private sources funded the majority of phase 1. PACUNAM, a research foundation created by generous benefactors in Guatemala, supported most of phase 2. Houston has continued to serve as a special advisor. Some phase 2 results are included here, but this book largely reports on phase 1.

The name of the site, El Zotz, “bat” (the flying mammal) in several Mayan languages, is a modern invention. After its rediscovery in recent times, El Zotz seems to have been called “Dos Aguadas” after the two natural reservoirs (*aguadas*) within a kilometer of the ruins. To avoid confusion with many places of the same name, this was changed in 1977 to “El Zotz,” an epithet alluding to a large population of bats living in a partly collapsed sinkhole nearby (Laporte 2006:878). The first forays into the site involved Ian Graham and, at about the same time, the architect George Andrews (1986:123–124; see also Houston, Newman, Román, and Garrison 2015:figure 2.53) and Marco Antonio Bailey of IDAEH. Graham also recorded texts on the stelae still at El Zotz and urged Houston to investigate the spectacular, exposed stuccos in the El Diablo complex of the city (see also Mayer 1993). Graham showed that a carved lintel of chicozapote wood, at that point in the Denver Art Museum, came originally from Str. M7-1, a fact proved by matching the size, pigment, and carving style of fragments left at El Zotz with the sculpture at Denver. With this compelling evidence, and the enlightened cooperation of the Denver Art Museum, Guatemala secured the return of the lintel in 1998. The monument is now on display in the National Museum (MUNAE), Guatemala City. A crucial addition to Graham’s work was the documentation in 1978 of three stelae and a carved altar at Bejucal, some 7 km to the northeast of El Zotz. In 1977, at Bailey’s initiative, the site entered the rolls of officially registered sites in Guatemala. Later salvage work, by Juan Pedro Laporte (2006) in the early 1980s and, separately, by Oscar Quintana, retrieved

aches and backfilled the acutely threatened summit of Str. M7-1 (Quintana and Wurster 2001:38–40). The final episode of major looting seems to have taken place between 1978, when Andrews took photos of the Diablo complex, and 1980, when the coffee importer Martin Diedrich visited the site, showing considerable damage in between. Diedrich was most generous in sharing his photos from that visit (Houston, Newman, Román, and Garrison 2015:figure 2.54). Small-scale looting continues to be problematic to this day, with fresh pits discovered as recently as 2017.

The Brown Project was designed and executed in cooperation with Héctor Escobedo, with later codirection by Ernesto Arredondo, and from 2009 onward, Román, Garrison, and Beach. Initial mapping and recording of looter tunnels, assisted by Zachary Nelson, was followed by a test-pitting program in all plazas of El Zotz and El Palmar. This was augmented with detailed work in the South Group, a focus of the Postclassic period, the El Diablo and Bejucal loci of the Early Classic, and the Classic constructions of the Str. L7-II pyramid and the adjacent Acropolis, the evident royal palace at El Zotz. In the meantime, Garrison coordinated and directed a program of regional survey. Graduate students from Brown, Brandeis, University College London, the University of Texas at Austin, as well as professionals from the Universidad de San Carlos de Guatemala completed our research in 2011. The endpoint was logical. Funding had come to a close, and all doctoral students had sufficient data for their dissertations, with full coverage of all periods and most categories of artifact. To date, eight doctoral dissertations have resulted from the dig (Carter 2014; Czapiewska-Halliday 2018; de Carteret 2017; Doyle 2013a; Kingsley 2014; Mesick 2012; Newman 2015b; Román 2017). Ten master's theses are also in hand (Alcover Firpi 2016; Blankenship 2012; Cheung 2014; Czapiewska 2011b; de Carteret 2013; Lopez-Finn 2014; Newman 2011b; G. Pérez Robles 2014; Román-Ramírez 2011; Walker 2010), along with a licenciatura thesis on malacology (Gutiérrez Castillo 2015) and a technical thesis on object resoration (E. Pérez Robles 2013).

The overall concerns of the project were themes of longstanding interest in historical and anthropological research: the control of people and land, and how, under certain conditions, that dominion might shift over time. In political theory the more common orientation is to see such control as the result of central decision-making, with two variant forms of hierarchical organization or domination in polities of the past (Weber 1978:53–56, 948–953, 1013–1015, 1055–1059). The first form of organization is *sovereignty*, an arrangement of direct rule that depends on the allegiance of sectional interests, particularly elites (Hansen and Stepputat 2006:298–299). The second might be called

suzerainty, which acknowledges the role of authority as a fluid byproduct of uneven relations between people or groups (Lincoln 1994:4; Smith 2003:106). Sovereignty hints at coercion and command over substantive resources, the so-called objective bases of power (Blanton 1998:table 152) that revolve around production, exchange, and consumption, usually vested in one person and the institution he or she represents (Wolf 1982:97). In contrast, suzerainty tends, in its classic formulation by Max Weber, to involve a variety of supports, including symbolic underpinnings, claims to legitimacy, and perceptions of social contract.

Ideally, the two systems of rule converge in one person or group of people. Despite the apparent contrast between the systems of rule, sovereignty and suzerainty can, in almost every circumstance, exist at the same time, thus creating more effective governance of people and land. But there is a difficulty with such formulations. They rely on abstract concepts that, when applied to actual examples, bear multiple exceptions (Smith 2003:93). This is a common problem in all disciplines that seek to provide terminology for systematic comparisons between societies. An example of this would be a term like *state*, which would seem self-evident in meaning. In point of fact, the term conveys a sense of pervasive, thoroughgoing bureaucratic control that often pertains, not to earlier episodes of rule, but to the modern period; even there, according to Clifford Geertz (2004:580), states can be confused and dysfunctional associations of people and groups that are not easy to reduce to a single logic of organization. Some scholars would go so far as to say that the very terms of political theory do not have much utility away from particular settings viewed at particular moments of time (e.g., Aretxaga 2003:398; see also Migdal 1988 and Yoffee 2005 for further critiques). In response to such criticisms, and to the idea that many societies were organized in a streamlined, top-down fashion, there is another, opposed perspective that seeks to capture the subtlety, even “messiness,” of complex interactions between humans in settled and functionally diverse societies. The aim is to reflect what are, in most instances, unstable balances of sovereignty and suzerainty or, in more extreme cases, settings where such concepts apply weakly, if at all. This opposed perspective involves *heterarchy*, a label that describes simultaneous rule or decision-making by distinct, often cross-cutting groups of people (Crumley 1995, 2003:137; Crumley and Marquardt 1987; Yoffee 2005:179; for Mayanist discussion, see Martin 2016). An important feature of heterarchy is its suggestion that people choose either to cooperate or to clash, in patterns of decision-making that resemble the real complexity of human behavior and its often unexpected consequences. As a concept, heterarchy does another thing: it raises doubts about

the self-descriptions of polities, which tend to perceive or describe themselves as smoothly functioning organizations.

Heterarchy thus emphasizes: (1) the relative autonomy of constituent groups; (2) *self-organization*, a technical term that expresses how non-centralized, non-hierarchical decision-making takes place; (3) multiple frictions between groups; and (4) ruptures between the declared operation of states and their actual performance, which can be both inefficient and ill-informed in dominating land, people, or things (Blanton 1998:167; Scott 1998:352–345; Yoffee 2005:92–94). Heterarchy is a logical offshoot of two intellectual tendencies in scholarship, a Marxist or materialist one that stresses conflict and compromise between groups or classes of people, and a “postmodern” perspective that lays emphasis on multiple interests and points of view. It also has a decided appeal for Maya scholarship. The dispersed nature of resources in the Maya region has been said to be ideal for heterarchical organization, in that multiple interactions of a non-hierarchical sort are necessary to exploit this mosaic of ecological microzones (Scarborough 1998:137). The opposition of hierarchy to heterarchy helps refine thinking about the ancient world. But even proponents of “heterarchy” would acknowledge a central challenge—the difficulty of drawing a strong line between the two kinds of organization. All complex polities display elements of both arrangements—heterarchical components of society (i.e., opposed groups or institutions) seldom exist without their own forms of hierarchical organization; and, with few exceptions, hierarchies consist of multiple, often conflicting elements that can subvert the aims of people at other levels of decision-making (Crumley and Marquardt 1987:618–619; Crumley 2003:144; Yoffee 2005:179). Rather, the pressing question becomes, which tendency—conflictive and consensual (often deliberate and slow in its operation) or top-down (often fast-paced and decisive in application)—comes to dominate ancient polities? And under what kinds of conditions does one system operate more strongly than the other?

The Classic Maya, who lived in the millions across the Yucatan Peninsula and adjacent regions from about AD 250 to 850, have attracted their own set of modern labels, depending on local patterns in the archaeology and scholarly frames of mind. The most cautious terms are *polity* or *kingdom* (Webster 2002:164). Many others make an appearance (Lucero 1999:212–216)—*regional state* (Adams 1990:figure 1), *superstate* (Martin and Grube 1995:45; since modified persuasively to *overkingship* or *hegemony*, Martin and Grube 2008:19–20), *segmentary state* (Houston 1987), *city-state* (Webster 1997), or *territory* (Garrison and Dunning 2009)—all of which savor of diverse opinion, ranging from centralized to non-centralized models of governance (Fox et al. 1996).

Some of the models are doubtful, such as the versions positing a large-scale polity governed from Tikal, Guatemala, during the late first millennium AD (e.g., Adams 1999:17). Fine-grained historical evidence does not support such a view, although hieroglyphic texts confirm the existence of broad and orderly patterns of overlordship and subordinates, some with the highest social rank, that of *k'uhul ajaw*, or “holy lord.” One city in particular, Calakmul, clearly deserves the label of a hegemonic polity, rather like parts of the Aztec empire in that it employed a “grand strategy” of expansive influence over a century or so (Martin and Grube 2008:101; Parker 1998:1). Nonetheless, all models have some validity in capturing the diverse realities of political organization during the Classic period. No polity escapes the interplay of centripetal and centrifugal forces—those that bring together and those that pull apart (for more recent reviews, see Foias 2013; Jackson 2013, offers a court-oriented perspective, as do Houston and Inomata 2009:131–192; also Houston and Martin 2016).

An abstract model is a dry exercise in typology without cultural and historical detail. This is where process, a series of operational principles (e.g., “rulers seek allies,” “elites wish for greater autonomy from rulers,” “non-elites tend to farm,” “giving and taking creates bonds within communities”), becomes refined by sequence, the actual flow of processes over time in certain political and ecological settings. This refinement must be done, however, with good control over evidence and thorough consideration of the social thrust and pull within polities. One exposition has attempted to deal with such forces by crafting a *dynamic model*, a label that seeks to describe the aggregation and decomposition of Maya polities as an almost physical process of ebb and flow (Marcus 1998:59–60). The drawback is that this model does not provide a clear presentation of process and sequence. For example, one chart offered in support of the dynamic model presents a horizontal pattern of specified time and an unspecified vertical dimension of undulating lines that are meant to show “consolidation and breakdown” (Marcus 1998:figure 3.2). Yet, a chart with determined x -axis and undetermined y -axis is neither a useful illustration nor an adequate explanation—it is merely an impression, a graphic imprecision dressed up in spurious exactitude. The purpose of the chart is to show small-scale polities being absorbed into large ones that eventually fracture back into constituent polities. This is not by itself a productive formulation, as it skirts attention to the internal structure of polities or the processes that shape them (e.g., Marcus 1998:figures 3.4, 3.5, 3.8, 3.13, 3.14). Nor does it reveal the actors, values, beliefs, institutions, social distinctions, or physical setting that factor into a sequenced account of how land and people are governed or control of them is relinquished. Each case requires its own

discussion of process and sequence before scholars can address larger questions of comparison.

A second, principal orientation of the project has been a “landscape” approach, one that looks at broad patterns involving many sites against a backdrop of environmental change, human actors, and a range of meanings imputed to that landscape. Since the early 1990s there has been an increased focus on such studies in world archaeology (Tilley 1994), coinciding with the use of Geographic Information Systems (GIS) in regional archaeological investigations (Aldenderfer and Maschner 1996). These tools allow archaeologists to recognize variability in landscapes arising from cultural historical diversity (Wilkinson et al. 2005), natural changes (Schuldenrein et al. 2004), and conditions imposed by local social perspectives (Bauer et al. 2007; Mack 2004). The research at El Zotz places the Maya among the growing number of complex societies being studied for their landscape dynamics. Excellent models include the Mesopotamian research of Wilkinson and colleagues (2005), who have identified landscape “signatures” for different cultural historical phases of the Neo-Assyrian Empire during the eighth and seventh centuries BC or, in south India, the differing class perspectives studied by Mack (2004). Similarly, the El Zotz project sought to identify changes in landscape in the Maya Lowlands over two millennia. Here, a giant loomed, casting its shadow over the Buenavista Valley. The interruptions, bursts of energetic construction, and general oscillations in settlement were surely in part the result of being so close to Tikal. These and other patterns will be brought to a synthetic conclusion in the final chapter.

A SCRIM OF HISTORY

The El Zotz dig not only has its own history. It also extracted accounts of the Classic Maya from a difficult glyphic record (see Carter et al., chapter 4, this volume). The major, now “classic” synthesis of Classic history organizes its chapters by major city, namely, the capitals with full sequences of kings and textured reports of events (Martin and Grube 2008). El Zotz would never deserve a chapter in that volume. It fits instead into a category of sites—most belong to this class—with piecemeal evidence and a need for speculative inference to make sense of its history (e.g., Altar de Sacrificios, Guatemala, Houston 2016). At present, El Zotz and Bejucal have only six texts with moderate-to-good legibility, historical content, and firm provenience. These are (1) El Zotz Stela 1, a fragmentary, mutilated stela dating, probably, to December 6, AD 573; (2) El Zotz Wooden Lintel 1 (figure 3.4), a carving with a style-date in the early



FIGURE 1.10. Text from vessel from El Zotz Burial 30, Str. L8-13 (drawing by S. Houston).

500s; (3) El Zotz Stela 4 (figure 5.2), from March 12, AD 830; (4) a sherd with the local “Emblem Glyph” of El Zotz (figure 4.3), from a tunnel under Str. L7-1 in the Acropolis; (5) a pot excavated from a crypt in front of Str. L8-13 by the Garrison project in 2015 (figure 1.10); and (6) Bejucal Stela 2 (figure 3.2), with dates of July 24, AD 393, and an accession some 12 years before, on, probably, September 3, AD 381. A pot belonging to a ruler of El Zotz has also been found on the outskirts of El Perú-Waka’ by Fabiola Quiroa (Héctor Escobedo, personal communication, 2006); another likely to have come from the region of El Zotz was excavated at Uaxactun, Guatemala (Smith 1955:figure 80k).

Each text contributes a key piece of information. Although damaged, Stela 1 provides the first datable sculptor’s signature in the Classic Maya corpus. With the *way* cult, if it can be termed as such, this spotlights El Zotz as a region of innovation, an attribute that might be expected in border zones. Perhaps they felt the need to reward agility and innovation more than inertia and supine tradition. Found in 2011, Stela 4 confirms that the Emblem of the site continued well into the final years of the Late Classic period, and two pots, excavated in 2010 and 2015 respectively, fix that Emblem on a provenienced piece of pottery (see also the same name on a vessel in the Museo Popol Vuh, Guatemala City, #1140). It is probably no coincidence that use of the “holy” epithet (*k’uhul*) seems only to occur with *pa’k’a’n*, a place name meaning “split” or “fortified sky” (see below), in the later sixth century AD, perhaps signaling a new, more exalted status. Had the newfound ties to the so-called Snake dynasty resulted in an acknowledged elevation in royal status? (To be sure, Emblems with *k’uhul* become more common generally at this time.) Bejucal Stela 2 is crucial for showing the broad reach of the dynasty into the uplands northeast of El Zotz, recording a figure who has precisely the same names as other rulers at El Zotz (Garrison et al. 2016:536–537). At the same time, it reveals the apparent subordination of the dynasty to the enigmatic Sihyaj K’ahk’, an individual associated with Teotihuacan and deeply linked to the regional power of Tikal (Stuart 2000). Neighbors to the west, especially the important city of El Perú-Waka’, refer to the same lord at about the same time (see, e.g., El Perú-Waka’ Stela 9). In fact, the date of this reference may predate the figure’s appearance at Tikal—unfortunately, the glyphs for this event are poorly preserved, and the stela itself carries a dedicatory date some 40 years

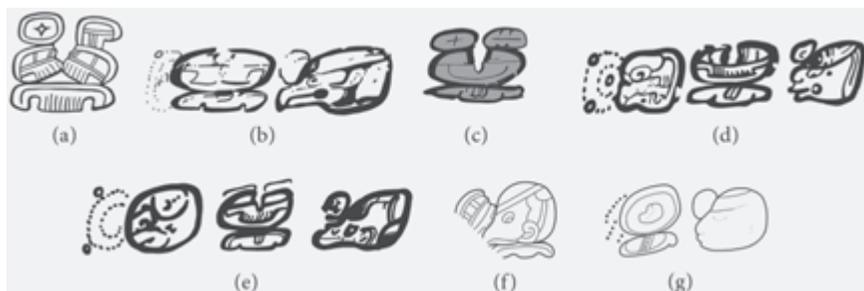


FIGURE 1.11. *El Zotz Emblem Glyphs* (drawings by S. Houston): (a) *Canberra Bowl*; (b) *Hellmuth files*; (c) *K6618*; (d) *K8383*; (e) “*Vase of the Eleven Gods*,” lid of *Tepeu 1 vase* (based on Coe 1973:Plate 38); (f) *El Zotz Wooden Lintel 1:A7, Str. M7-1*; and (g) “*earspool*” Emblem, *El Zotz Wooden Lintel 1:C7-C8, Str. M7-1*.

later (Stuart 2000:479–480). A later monument at El Perú-Waka’, Stela 44, from 9.6.10.0.0 (AD 564), subordinates the local ruler to a recently detected ruler of the Snake dynasty, a power that governed Dzibanche, Quintana Roo, and, later still, Calakmul, Campeche (Castañeda Tobar 2013:197–202). According to a vase excavated at Uaxactun, Guatemala, this Snake lord was also an overlord in that region, perhaps of some splinter branch of the Tikal dynasty (Martin and Beliaev 2016).

From these data come clear proof, first marshaled by David Stuart on the basis of clues on the wooden lintel, that El Zotz uses two Emblems, a locally supreme title. One is the so-called split-sky glyph, probably read *pa’ka’n* (“Split Sky” or “Fortress-Sky”); the other shows an earspool subfixed by a *ji* syllable (figure 1.11; see also Ek Balam Vault 15 capstone). These titles serve also as the Emblems of the royal family of Yaxchilan, a dynastic connection that has yet to be understood. A link is likely but cannot be demonstrated, we fear, on any available evidence. Another distant connection may embellish a jade belt ornament from Calakmul. Seemingly, the text refers to an “arrival” at an “earspool” location, with the event shown in an unusual form more often tied to the observation of the first crescent of the moon (Fields and Tokovinine 2012:figure 99a). Akte, a site closer to El Zotz, just south of Cruce Dos Aguadas (and just west of the road between San Andrés and Carmelita), may also have some bond with El Zotz (Krempel and Davletshin 2014:figure 2). Fragment 2 of its Stela 5 appears to show the “earspool” Emblem at position pF3. To judge from its style, the dating of that monument veers toward the end of the Classic period. A lidded vessel that belonged to an older youth (**ke-le-ma ch’o[ko]**) presents a possible third Emblem, perhaps read *Chak Nutz*, a spelling that

occurs in varying form on at least two other vessels (Coe 1973:86, positions O to D; see also K8393, Coe 1973:87). As at Yaxchilan, these Emblems may have been agglomerative, referring to different, sovereign zones within a kingdom. At times they appear singly with particular lords, at others joined in the person of a single ruler. A comparison might be the crowns of England and Scotland: King James (1566–1625) was the “First” of England but the “Sixth” of Scotland.

The reading for the “split-sky” sign was proposed by Simon Martin (2004): *pa’-chan* or *pa’-ka’n*. For plausible reasons, Martin interpreted *pa’* as an expression in several Mayan languages for “split,” literally present in the form of a sky glyph ripped asunder. He also mentions *pa’*, “an enclosing wall or fortress” (Martin 2004:4). The high location of El Zotz and its obvious defensive properties at the citadel of El Diablo trend to the latter meaning—indeed, data from the 2016 PACUNAM LiDAR Initiative now hint that such high-elevation fortifications characterized much of the northern escarpment and middle reaches of the Buenavista Valley. As a place name, *pa’* occurs on Naranjo Stela 10:B4, not in reference to El Zotz, but to a **TI’-pa’-a**, *ti’ pa’*, “edge of the fortress,” or, in a more complex rendering, *ti’ pa’a*, “edge of the fortified water/lake.” The use of *pa’* in a place name lends weight to its meaning as “fortress” or “citadel.”

Although only loosely tied to dates, eight or more dynasts are known from the patchwork epigraphy of El Zotz environs. Much depends on the puzzling welter of names on looted pots from the initial years of the Late Classic period. Some occur in one case only (K6618), others mark at least two vessels (*Baabkab K’inich*; see the Popol Vuh pot above, and that excavated from El Zotz Str. L8–13 (figure 1.10)). They prompt speculation: are they sequent rulers, the same ruler with different names, or concurrent lords holding the same august title? Of foreign mention there is only a little. One example, an unprovenanced slate mirror back from Los Bagaces, Costa Rica, doubtless brought there by ancient trade, reveals that a ruler of El Zotz had received a gift (**sib*) from a ruler of El Perú-Waka’, one K’inich Bahlam, the **wa-ka AJAW** (figure 1.12; Schmidt et al. 1998:plate 434, Museo del Jade Lic. Fidel Tristán, INS#6528; the El Perú-Waka’ Emblem was identified by Houston in 1983, cf. Guenter 2007:20). Although the pot from El Zotz that was found at El Perú-Waka’ is at least 100 or more years later, it bespeaks a longstanding amity with an enemy of Tikal’s and a friend of the Snake dynasty’s (Martin and Grube 2008:46; see also Guenter 2014:165–166). Tikal Stela 31 may, in a passage alluding to events after the arrival of Sihyaj K’ahk’ (at, possibly, November 27, AD 411), mention the funerary temple of El Diablo (Houston, Newman, Román, and Garrison 2015:232, figure 6.2). It identifies a place linked to the Jaguar God of the Underworld,



FIGURE 1.12. Slate mirror back, close-up rubbing, Los Bagaces, Costa Rica (drawing by S. Houston based on Stone 1977:figure 44).

seemingly at a location other than Tikal. The temple at El Diablo abounds in such imagery.

The ex-Museu Barbier-Mueller pot is equally intriguing because the ruler has a name that often appears at the site (see below), but it is the *mother* who bears the Pa'ka'n Emblem. The only other queen, possibly Yik'al Ahk, on the wooden lintel, employs the *Sak Wayis* title linked to the Calakmul region. The bowl in the San Diego Museum of Man (see above) is almost certainly of the same set of people, but with an important twist. In a surprising development, the son is now linked overtly to the Emblem Glyph of El Perú-Waka' (Looper and Polyukhovich 2016:4–5). This is a period in which many Maya dynasties appear to have been sending out cadet lines, splintering into multiple branches or experiencing breaks in father-to-son succession (e.g., Martin and Beliaev 2016). The significance here is unclear. The San Diego bowl could refer to a prince at El Perú-Waka'—he uses the title of youths, *Chak Ch'ok Keleem*, if in glyphs overly retouched by a restorer—taking a name from his maternal line. Or, as an alternative, the dynasty of El Zotz had been

revived *through* a local woman. In the first scenario, the prince uses his title because he simply forms part of local royalty at El Perú-Waka'; in the second, the prince continued to lay claim to royal status at his home city but had shifted to another seat in the Buenavista Valley. At the least, the bowl both confirms close ties between the two kingdoms at the beginnings of the Late Classic period and shows them, with the evidence from Los Bagaces, to be exceptionally long lasting.

One name commonly repeated at El Zotz is composed of three to four glyphs. The first element is *chak*, meaning “red” or “great.” The second glyph is a fish in a vertical position usually connected to the head of a dog or other mammal. This compound has not yet been deciphered, although it makes an appearance on a block in the Maegli Collection, Guatemala City, and on Copan Stela H, east side. A glyphic substitution on an unlabeled pot photographed by Justin Kerr appears to complete the spelling with an ‘a syllable, a probable clue to the final of this sign. Finally, the name sometimes ends in *abk*, or “turtle,” often spelled out as ‘a-ku (Houston 2008a).

The epigraphy can be summarized and extended as follows:

- Bejucal and Tikal displayed subordination to an enigmatic, foreign personage, “Born-from-Fire.” Bejucal was an early seat of the dynasty that flourished also at El Zotz.
- In general, El Zotz had poor-to-uncertain relations with Tikal, its close, vastly larger neighbor. An earthwork of uncertain date and function separated the two, perhaps as a marker of territory. Notably, the lidar from 2016 also reveals a dearth of settlement between the two, though much of the lowland area is *bajo* swamps.
- El Zotz had amicable relations with a third city, El Perú-Waka', with close bonds of marriage and, we presume, cousinage. In the Late Classic, this city battled Tikal and, for much of its history, served as an ally of Tikal's arch-enemy, the Snake dynasty (Martin and Grube 2008:108–111). The mother of a ruler of El Zotz—the lord on the wooden lintel—was most likely from an area under the Snake dynasty's control, at least to judge from her title, an epithet common to its dependencies.
- Large quantities of looted vessels reveal that new religious themes emanated from the area of El Zotz. New forms of pyramid construction also appear first at El Zotz.
- Vessels referring to figures in the El Zotz royal family have an astonishing number in the final years of the sixth century AD. The meaning of this variety remains unclear, but there may have been either a rapid turnover of rulers or

multiple, concurrent use of the local Emblem by competing lords—or an arrangement, unlike other cities, by which amicable dispersion of titles was the norm. It is noteworthy that use of “holy,” *k’ubul*, comes in relatively late, at a time of close ties to the Snake dynasty, suggesting some heightened prestige as a result of that connection.

- The prodigiously rich Burial 9 at El Zotz (Houston, Newman, Román, and Garrison 2015) probably belonged to a founder, but had no legible text with which to prove that claim.

CONCLUSION

The El Zotz project addresses such history and its setting within a landscape that shifted dramatically over the course of millennia (see the Radiocarbon Appendix below and table 1.1 for a compilation of ¹⁴C dates from the project). Yet there is a bald reality: El Zotz is a site in which the archaeology is far more eloquent than the epigraphy. A regional perspective, rooted in varied digs and suboperations, along with cross-cutting study of ceramics, lithics, human remains, and faunal material, composes a rich portrait of a kingdom at the uncomfortable margins of larger capitals. Tikal is the force here, but there are also clues to subordination and alliance with the enemies of Tikal, at El Perú-Waka’ and even into the Mirador uplands, toward Calakmul. In more general terms, El Zotz possesses the features of what French and Italian scholars call a *fondation* or *fondazione* (Elisséeff 1983:151; Margueron 1994:4; Mazzoni 1991:319–321): a sudden establishment, not only of a large settlement, but, in the Maya case, of expensive facilities to house a royal court and to service royal cults. Burial 9 and its various dynastic conceits, including royal mergers with the sun, accord well with this scenario. Anthropological researchers have used another term for such urban creations, *disembedded capitals* or, in what may be a more accurate label, *reembedded capitals* (Joffe 1998). According to one recent review, these represent: (1) sudden foundations that (2) depart from previous settlement by (3) rearranging the layout and distribution of human populations and by (4) adding centralized facilities (such as palaces) with strong evidence of (5) planning and (6) “new symbolic vocabular[ies]” (Joffe 1998:551). Some of these points resonate with the data that follow, others diverge from evidence. The relative weight of top-down or bottom-up change forms the crux of later chapters by those who know those data best.

RADIOCARBON APPENDIX

The Proyecto Arqueológico El Zotz submitted 60 carbon samples for radiometric dating between 2008 to 2016. The dates help to anchor the complex cultural and environmental contexts discussed throughout this volume. All dates were run by Beta Analytic, Inc., in Miami, Florida, under the direction of Darden Hood. The dates are presented chronologically, in tabular format in table 1.1. It offers the lab sample number, appendix reference section, the excavation context, 2-sigma calibrated date ranges, and a brief description of the significance of the date and range probabilities where appropriate. In 2016, Darden Hood and Ron Hatfield recalibrated all of the project dates using the IntCal13 calibration curve (Reimer et al. 2013) and provided date-range probabilities based on Bayesian statistics (Bronk Ramsey 2009). El Zotz is by far the best-represented site from the suite of dates with 44 samples; 12 coming from El Diablo. El Palmar has 13 dates, although six of those are from paleoenvironmental investigations relating to the Laguna El Palmar (see Beach et al., chapter 7, this volume). Two more dates derive from Bejucal, and there is a single sample from the minor center of La Avispa.

The suite of dates covers the totality of human occupation in the region from possible Archaic-period disturbances as early as the eighteenth century BC to the deposition of Lacandon god pots in the Str. L7-11 temple at El Zotz, perhaps as late as the sixteenth century AD. With a span of over 3,000 years, the Buenavista Valley has one of the longest records of ancient occupation in the Maya Lowlands. There are three dates from the Archaic, although two of them are bulk sediments and cannot be conclusively tied to human activity. In the Preclassic period, there are two dates in the Middle Preclassic and a further nine from the Late Preclassic. Five of these dates come from El Palmar, which had the largest Preclassic occupation in the valley. With 22 dates, the Early Classic is the best-represented time period, reflecting the importance of the rise of the Pa'ka'n dynasty at El Zotz and the growth of the city; this was also a focal period for many of our excavations. Nine dates come from the Late Classic period, which saw the continued expansion of the El Zotz polity. There are four dates from the critical Terminal Classic period, when dynastic kingship collapsed in the region. An additional 10 dates come from a small Early Postclassic settlement that remained at El Zotz, extending perhaps into the fourteenth century AD. Finally, there is a single date associated with the Lacandon pots mentioned above. Beginning in the fifth century BC, there are overlapping date ranges in every century until the fourteenth century AD, making this a relatively thorough series of radiometric assays for the Buenavista Valley. This appendix highlights the significance of these dates and is organized by location.

TABLE 1.1. Radiocarbon dates from the Proyecto Arqueológico El Zotz processed by Beta Analytic, Inc. All ranges are based on a 2σ standard deviation.

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
<i>Earliest Dates</i>					
285474	El Palmar E-Group	EP 8A-15-12	1876 BC	1617 BC	Sediment on top of bedrock below El Palmar Str. E4-1-6th. This bulk sediment is not likely cultural. 1782-1617 BC (85.9%); 1876-1841 BC (6.5%); 1821-1797 BC (3%)
284408	El Palmar Paleoenvironment	Z10-1	1731 BC	1511 BC	Base of 2010 El Palmar sediment core. 1693-1511 BC (93.6%); 1731-1721 BC (1.8%)
285473	El Palmar E-Group	EP 8A-12-3	1617 BC	1440 BC	Sediment from fill of El Palmar Str. E4-1-4th. This bulk sediment is not likely cultural
<i>Middle Preclassic (800-300 BC)</i>					
262057	El Zotz Aguada	Zotz Guatemala 3 200	747 BC	389 BC	Sediment sample from the base of the El Zotz Aguada in 2009. 556-389 BC (81.1%); 747-685 BC (11%); 666-642 BC (3.3%)
262061	El Palmar Paleoenvironment	Zotz Guatemala 7 110	723 BC	236 BC	El Palmar ravine. 541-357 BC (91.7%); 283-255 BC (2.5%); 245-236 BC (0.6%); 703-696 BC (0.4%); 723-721 BC (0.1%)
<i>Late Preclassic (300 BC-AD 300)</i>					
284409	El Palmar Paleoenvironment	Z10-2	405 BC	208 BC	El Palmar sediment core. 405-348 BC (48.3%); 317-208 BC (47.1%)
265817	El Palmar E-Group	EP 1B-3-5	388 BC	202 BC	Fill beneath floor on top of El Palmar Str. E4-4

continued on next page

TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
285472	El Palmar E-Group	EP 8A-3-4	352 BC	43 BC	Fill of El Palmar Str. E4-1-1st. 212-43 BC (84.1%); 352-297 BC (10.6%); 229-221 BC (0.8%)
265816	Bejucal	BL 2B-4-3	164 BC	AD 56	Leveling of the bedrock in front of Bejucal Str. S6-1. 121 BC-AD 56 (87.9%); 164-128 BC (7.5%)
284410	El Palmar Paleoenvironment	Z10-3	88 BC	AD 124	Date from 2010 El Palmar sediment core. 56 BC-AD 92 (91%); AD 98-124 (3.3%); 88-77 BC (1%)
288297	Bejucal	BL 1B-6-7	AD 58	AD 238	Fill of Bejucal Str. S6-10-Sub.2
262058	El Palmar Paleoenvironment	Zotz Guatemala 4 49	AD 127	AD 344	Deepest paleosol recovered in 2009 core at El Palmar near the Water Temple
289493	El Zotz Aguada	Z10-6 Aguada 80 cm Pit 4	AD 128	AD 322	On top of the lower floor in the El Zotz Aguada. AD 128-258 (86.6%); AD 284-322 (8.8%)
262060	El Diablo Aguada	Zotz Guatemala 6 130	AD 128	AD 381	Sample from 130 cm in the El Diablo Aguada
<i>Early Classic (AD 300-550)</i>					
431441	El Diablo Palace	EZ 19D-9-1	AD 137	AD 334	Fill of Str. F8-7
265821	El Palmar Water Temple	EP 3E-1-4	AD 220	AD 405	Deposit in front of El Palmar Str. F5-1 ("Water Temple")
288303	El Diablo Pyramid	EZ 5B-29-V13B	AD 240	AD 410	Vessel inside royal tomb (El Zotz Burial 9)

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TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
431445	El Zotz I10 Group	EZ 25C-17-11	AD 256	AD 396	Burial 28 in Str. I10-4. This is a problematic date that is inconsistent with the Terminal Classic context of the burial. AD 320-396 (74.7%); AD 256-297 (20.7%)
433097	El Diablo Pyramid	EZ 5B-36-1	AD 256	AD 400	Inside the columnar altar associated with El Zotz Burial 9. AD 316-400 (74.8%); AD 256-300 (20.6%)
262059	El Diablo Aguada	Zotz Guatemala 5 95	AD 252	AD 530	Sample from 95 cm in the El Diablo Aguada. AD 252-430 (90.7%); AD 492-530 (4.7%)
288304	El Diablo Plaza	EZ 5J-4-2	AD 252	AD 530	Ash on top of the plaza floor in front of Str. F8-18. This is not a sealed context. AD 252-430 (90.7%); AD 492-530 (4.7%)
431443	El Zotz East Group	EZ 21C-8-1	AD 258	AD 422	Final remodeling of Str. M7-1-Sub. 1-1st. AD 321-422 (85.2%); AD 258-296 (10.2%)
288298	El Zotz Acropolis	EZ 2G-7-8	AD 260	AD 536	El Zotz Burial 5, an intrusive burial placed into cut floors prior to the construction of the final phase of Str. L7-1. The date is likely from the fill of the cut floors rather than the burial itself. AD 325-475 (77.6%); AD 484-536 (14.2%); AD 260-280 (3.5%)

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TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
437467	El Zotz East Group	EZ 21E-2-3	AD 335	AD 502	Amplification of central <i>adosado</i> associated with Burial 25. This is a problematic date that is inconsistent with other dates within Str. M7-1's stratigraphic profile. AD 335-428 (95%); AD 498-502 (0.4%)
265823	El Diablo Pyramid	EZ 5B-8-1	AD 266	AD 538	Fill in front of the posterior central mask of the Temple of the Night Sun; AD 332-538 (94.6%); AD 266-271 (0.8%)
437466	El Zotz East Group	EZ 21A-9-1	AD 336	AD 534	Carbon residue found in the beak of the northern <i>Ux Yop Huun</i> mask of Str. M7-1-Sub. 2. AD 336-436 (75.8%); AD 486-534 (15.9%); AD 446-472 (3.8%)
433095	El Diablo Pyramid	EZ 5B-30-2	AD 338	AD 502	Construction of the floor connecting the Temple of the Night Sun and the Shrine. AD 338-428 (94.9%); AD 498-502 (0.5%)
265822	El Diablo Pyramid	EZ 5B-7-2	AD 402	AD 572	Fill from an early destroyed platform found underneath two plaza floors in front of Str. F8-1
431444	El Zotz East Group	EZ 21E-1-5	AD 410	AD 546	El Zotz Burial 25, located in a remodeling of the central <i>adosado</i> of Str. M7-1
265818	El Zotz Acropolis	EZ 2A-13-3	AD 410	AD 583	Fill beneath penultimate floor in the interior of Str. L7-6-Sub. 1

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TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
431439	El Diablo Palace	EZ 19B-4-4	AD 422	AD 574	Fill covering the last palace phase of Str. F8-6. Combined with other dates the fill was likely placed between AD 428-574
284412	El Zotz Aguada	Z10-5	AD 424	AD 606	Above the lower floor in the El Zotz Aguada
437465	El Diablo Palace	EZ 19C-2-6	AD 428	AD 598	Fill covering the last palace phase of Str. F8-9. Combined with other dates the fill was likely placed between AD 428-574
431440	El Diablo Palace	EZ 19C-4-1	AD 428	AD 598	Fill covering the last palace phase of Str. F8-9. Combined with other dates the fill was likely placed between AD 428-574
431442	El Zotz East Group	EZ 21C-1-2	AD 430	AD 622	Fill of Str. M7-1-Sub. 2 (the Accession Platform). AD 528-622 (74.8%); AD 430-494 (19.7%); AD 510-517 (0.9%)
288299	El Zotz Acropolis	EZ 2G-23-3	AD 433	AD 650	Fill of a possible sub-structure in the acropolis (Str. L7-1-Sub. 1?). AD 532-650 (88.4%); AD 433-457 (3.6%); AD 468-488 (3.4%)
<i>Late Classic (AD 550-850)</i>					
292997	El Palmar Paleoenvironment	Z Palmar 09 42 cm core 4: sapric peat	AD 614	AD 763	Date from 2010 El Palmar sediment core, 42 cm. AD 614-694 (92.2%); AD 747-763 (3.2%)
265825	La Avispa	IR 9A-1-4	AD 648	AD 770	Beneath the final floor of the La Avispa platform

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TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
262056	El Zotz Aguada	Zotz Guatemala 2 105	AD 651	AD 869	Sample from 105 cm in the El Zotz Aguada in 2009; below the upper floor. AD 651–779 (83.1%); AD 790–869 (12.3%)
262055	El Zotz Aguada	Zotz Guatemala 1 87	AD 656	AD 864	Sample from 87 cm in the El Zotz Aguada in 2009; above the upper floor. AD 656–778 (87.4%); AD 790–828 (4.7%); AD 838–864 (3.3%)
285471	El Palmar E-Group	EP 8A-2-6	AD 656	AD 864	Soil on top of El Palmar Str. E4-1-1st. This is not a sealed context. AD 656–778 (87.4%); AD 790–828 (4.7%); AD 838–864 (3.3%)
250881	El Zotz L7-11	EZ 3A-3-2	AD 666	AD 874	Fill surrounding the shark teeth cache found in the base of Str. L7-11. AD 666–780 (74.1%); AD 788–874 (21.3%)
250883	El Zotz L7-11	EZ 3B-1-8	AD 672	AD 879	Burnt wood, possibly from the collapsed roof of the temple on top of Str. L7-11
288300	El Zotz Acropolis	EZ 2H-5-8	AD 680	AD 881	Fill of remodeling that covered the Early Classic base (talud) of Str. L7-1
288301	El Zotz Acropolis	EZ 2H-9-3	AD 687	AD 940	Fill between final phases of Strs. L7-1 and L7-6. AD 687–895 (93.7%); AD 928–940 (1.7%)

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TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
<i>Terminal Classic (AD 850–1000)</i>					
433098	El Zotz I10 Group	EZ 25C-17-9	AD 771	AD 965	Capstones of El Zotz Burial 28 in Str. I10-4. AD 771–903 (80.8%); AD 918–965 (14.6%)
311992	El Zotz South Group	EZ 6K-4-7	AD 773	AD 968	Midden to the northwest of the South Group platform. AD 773–906 (71.8%); AD 916–968 (23.6%)
265819	El Zotz Acropolis	EZ 2G-2-2	AD 774	AD 978	Ritual deposit on top of Str. L7-1
265820	El Zotz Acropolis	EZ 2G-4-5	AD 776	AD 990	Ritual deposit on top of Str. L7-1
<i>Early Postclassic (AD 1000–1300)</i>					
288302	El Zotz Las Palmitas	EZ 4F-11-3	AD 900	AD 1152	Interior of room in Str. M3-6. This is not a sealed context. AD 947–1051 (76.5%); AD 1082–1128 (11.4%); AD 900–922 (4.2%); AD 1134–1152 (3.4%)
250880	El Zotz South Group	EZ 1D-1-1	AD 996	AD 1164	Near-surface deposit of utilitarian materials at the base of the South Group platform. This is not a sealed context
307271	El Zotz South Group	EZ 6L-5-4	AD 1033	AD 1204	Lot with postholes in Str. L9-11. AD 1033–1190 (94%); AD 1198–1204 (1.4%)
288306	El Zotz South Group	EZ 6K-2-3	AD 1034	AD 1220	South Group midden
288305	El Zotz South Group	EZ 6A-3-5	AD 1052	AD 1274	Leveling of the bedrock at the western edge of the plaza entrance to the South Causeway. AD 1151–1274 (91.1%); AD 1052–1081 (4.3%)

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TABLE 1.1.—*continued*

<i>Beta Sample</i>	<i>Appendix Reference</i>	<i>Context</i>	<i>Date Range</i>		<i>Description and Range Probabilities</i>
			<i>Early</i>	<i>Late</i>	
311991	El Zotz South Group	EZ 6A-18-4	AD 1190	AD 1278	From fill in the horizontal excavation of Str. L8-28
265824	El Zotz South Group	EZ 6E-1-3	AD 1190	AD 1294	Final floor of platform in front of Str. L9-3 in the South Group
307270	El Zotz South Group	EZ 6K-2-6	AD 1222	AD 1286	Base of South Group midden
285470	El Palmar E-Group	EP 1B-10-6	AD 1220	AD 1387	Mixed in a deposit of ceramic, obsidian, and faunal remains near the surface north of El Palmar Str. E4-4. This is not a sealed context. AD 1220-1310 (84.2%); AD 1360-1387 (11.2%)
307269	El Zotz South Group	EZ 6A-28-2	AD 1265	AD 1388	Context with toad pot in South Group on top of possible floor. AD 1265-1312 (68.9%); AD 1358-1388 (26.5%)
<i>Late Postclassic (AD 1300-1519)</i>					
250882	El Zotz L7-11	EZ 3B-1-6	AD 1426	AD 1632	Lot just above the Lacandon pots found on top of Str. L7-11. AD 1426-1524 (71.9%); 1558-1632 (23.5%)

EL PALMAR

PALEOENVIRONMENTAL DATES

Six radiocarbon dates were obtained for paleoenvironmental studies around El Palmar. Four of these (284408, 284409, 284410, 292997) date a sediment core taken at El Palmar in 2010. A fifth date (262061) came from a unit excavated in a ravine to the south-southeast of the Triadic Group. The sample was associated with an alignment of boulders that may have served a terracing function; it returned possible date ranges of 723-236 BC (with a 91.7% probability of

falling between 541 and 357 BC), consistent with human activity at other areas of the site during the Middle Preclassic. A final date (262058) comes from a core near the El Palmar Water Temple (Str. F5-1). It dates a paleosol layer (AD 127–344) that would have been in use during the Late Preclassic period before being buried by sedimentation. Further results from these dates are reported in Beach et al. (2015; Beach et al., chapter 7, this volume) and Luzzadder-Beach et al. (2017).

E-GROUP DATES

Six radiocarbon dates came from excavations directed by James Doyle in the El Palmar E-Group. The earliest from the group (285474) comes from bulk sediment on top of bedrock and beneath the earliest version of the E-Group pyramid (Str. E4-1-6th); it issues from the Archaic period (1876–1617 BC with an 85.9% probability of falling between 1782 and 1617 BC). This is not a demonstrably cultural date. A second bulk sediment date (285473) from Str. E4-1-4th is also very early (1617–1440 BC) and does not date the architecture; indeed, it may simply correspond to the soil used as construction fill. Two other dates relate to unsealed surface contexts associated with the El Palmar E-Group. A date (285471) from the summit of the final-phase pyramid (Str. E4-1-1st) returned a Late Classic date (AD 656–864 with an 87.4% probability of falling between AD 656 and 778), while a sample (285470) from debris found on top of the eastern platform (Str. E4-4) dates to the Early Postclassic (AD 1220–1387 with an 84.2% probability of falling between AD 1220 and 1310). These are either unreliable dates or evidence of later, quite light occupation at El Palmar.

Two more secure dates were obtained from stratigraphic excavations within the El Palmar E-Group. The earlier sample (265817) is from the penultimate construction phase of the eastern platform (Str. E4-4) and returned a date of 388–202 BC, indicating that the bulk of the structure must have been built in the Middle Preclassic. The fill (285472) of the final E-Group pyramid (E4-1-1st) dates to 352–43 BC (with an 84.1% probability of falling between 212 and 43 BC), with ceramics supporting the tighter range. These dates buttress Doyle's (2013a; Doyle and Piedrasanta, chapter 2, this volume) chronology for the Preclassic construction of the El Palmar E-Group.

WATER TEMPLE DATES

Right on the edge of the Laguna El Palmar sits a small pyramid, nicknamed the Water Temple (Str. F5-1) because of its location. In 2009, Varinia Matute

excavated a substantial offering at the base of the structure that consisted of ceramics, obsidian, faunal remains, and ash (Doyle and Matute Rodríguez 2009; Román et al., chapter 3, this volume). A carbon sample (265821) from the deposit confirmed the Early Classic date cued by ceramic analysis, returning a range of AD 220–405. The offering appears to be a termination ritual that coincides with the abandonment of El Palmar at the beginning of the Early Classic period.

BEJUCAL DATES

Two radiocarbon samples were dated for the hilltop site of Bejucal, which served as a royal country house for the Classic-period rulers of Pa'ka'n (Garrison et al. 2016). The dates come from the earliest occupation of the site, when it seems to have been a sacred hilltop where temples were constructed and important individuals buried. A date from the site's northwestern courtyard (265816) indicates that the bedrock was leveled for construction between 164 BC and AD 56 (with an 87.9% probability of falling between 121 BC and AD 56). A second sample (288297), from the fill of a round temple (Str. S6-10-Sub.-2), dates the construction of that structure to AD 58–238, which is consistent with the architectural form and the associated ceramics. The two dates confirm the Late Preclassic establishment of Bejucal within the sacred geography of the Buenavista Valley. The site grew in importance with the rise of the Early Classic dynasty at El Zotz.

EL DIABLO GROUP

EL DIABLO AGUADA DATES

The El Diablo Group is a part of El Zotz itself, but the large quantity of dates associated with this important complex merits its own section. Further dates from El Zotz are discussed below. The El Diablo Group was built in multiple levels on a hilltop overlooking the Buenavista Valley. One of these levels has a large depression and a leveled area that supports Str. G8-1 (figure 3.3). The depression served as a limestone quarry to build much of the architecture located at the group's center. We hypothesized that the quarry was then converted into an *aguada* (a pond for drinking water) that would have served a newly established royal court. Paleoenvironmental studies could not confirm whether the depression was ever actually capable of holding water, but two dates, one from 0.95 m (262059) and another from 1.3 m (262060), date the onset of activity in the group. The deeper date has a range of AD 128–381, while the shallower date could be AD 252–530 (with a 90.7% probability of falling

between AD 252 and 430). These dates are consistent with the Early Classic date of the El Diablo Group, and the earlier date may indicate a Late Preclassic presence, which has been confirmed by ceramics if not by architecture.

EL DIABLO PALACE DATES

The El Diablo palace is composed of a number of structures on the north and west side of the group. Investigations by Edwin Román and, later, Yeny Gutiérrez confirm the Early Classic use of the complex based on ceramics. A date (431441) from the fill of Str. F8-7 came back as AD 137–334. Early Classic ceramic evidence suggests that the date falls later in this range (Garrison and Houston, chapter 13, this volume; Román et al., chapter 3, this volume).

Three more dates come from the abandonment of the El Diablo palace. A large fill deposit was encountered on top of all of the palace structures, probably indicating the cessation of the remodeling, though Román-Ramírez (2011) believes that the deposit has ritual overtones. A sample (431439) from the deposit on Str. F8-6 dates to AD 422–574, while dates (437465, 431440) from two different contexts on Str. F8-9 each had a range of AD 428–598. Assuming the deposit occurred at the same time across the structures, the abandonment of the El Diablo palace must have occurred between AD 428 and 574. This range accords with site growth in the El Zotz epicenter at around the same time.

EL DIABLO PYRAMID DATES

A series of five dates come from the El Diablo pyramid (Str. F8-1) and its sub-structures, which includes the Temple of the Night Sun and the associated royal tomb (El Zotz Burial 9; Houston, Newman, Román, and Garrison 2015). Two dates are associated directly with the tomb. The first (288303) corresponds to a vessel within the tomb itself and dates to AD 240–410, while the second (433097) comes from a columnar altar that was used as the tomb offerings were being made: its range is AD 256–400 (with a 74.8% chance of falling within AD 316–400). This second date gives a tighter bracket for the interment of the El Zotz royal founder. Combined with other data sets, including a text from Bejucal Stela 2, Teotihuacan iconography on a vessel lid in Burial 9, and the aging of the king's skeleton, it is possible that the tomb's occupant died sometime between AD 378 and 381 (see Garrison and Houston, chapter 13, this volume, for further discussion).

The founder's tomb was covered by a large platform (Str. F8-1-Sub. 1) that supported the Temple of the Night Sun (built in two stages: Strs. F8-1-Sub. 1B

and F8-1-Sub. 1C) and a smaller, slightly later structure that we called the “Shrine” (F8-1-Sub. 1A; see Houston, Newman, Román, and Carter 2015:figure 2.3 for detailed stratigraphy). A date (433095) from a floor linking the Temple of the Night Sun and the Shrine returned as AD 338–502 (with a 94.9% probability of falling between AD 338 and 428). Presuming the king died in the early AD 380s, the temple, its expansion, and the Shrine would have been built within four decades at most.

Two more dates are relevant to establishing the construction sequence of the pyramid. The first (265822) dates the raising of the El Diablo plaza level in front of Str. F8-1-Sub. 1 to the elevation of the Shrine in AD 402–572. The second (265823) comes from architectural fill from Str. F8-1-2nd, which represents the most massive remodeling of the pyramid. This sample, recovered from in front of the central rear mask of the Temple of the Night Sun, dates to AD 266–538 (with a 94.6% probability of falling within AD 332–538). Since this construction occurred stratigraphically later than the raising of the plaza, the range in which both Str. F8-1-2nd was built and the plaza was raised must have extended from AD 402 to 538.

EL DIABLO PLAZA DATE

A final radiocarbon assay (288304) from El Diablo comes from an unsealed context in an ash layer on top of the plaza floor in front of Str. F8-18. This small platform in the plaza was likely built by squatters living in the abandoned group. The ash layer dates to AD 252–530 (with a 90.7% probability of falling within AD 252–430), but the meaning of this date is unclear because of the poorly understood context. One possibility is that Str. F8-18 was added late, but was filled with earlier material from middens on the edges of the El Diablo Group. This seems more likely than having a residential platform situated in the center of the plaza during the group’s primary royal occupation. Overall, the pattern of dates from all settings at El Diablo indicate that it was the seat of royal power at El Zotz beginning in the early fourth century AD, and continued in that role until its sudden abandonment around 200 years later.

EL ZOTZ

EL ZOTZ AGUADA

Five carbon samples were dated from the El Zotz Aguada, located west of the Five Temples Group, as part of paleoenvironmental investigations directed by Timothy Beach and Sheryl Luzzadder-Beach; these are extensively reported in

Beach et al. (2015; Beach et al., chapter 7, this volume). The earliest date (262057) appears to have washed into the *aguada* at some point: it is stratigraphically and contextually inconsistent with the rest of the dates. This assignment is 747–389 BC (with an 81.1% probability of falling between 556 and 389 BC). The lack of context is frustrating, in that it is one of only two dates firmly in the Middle Preclassic.

The other four samples from the El Zotz *Aguada* date the two floors uncovered during excavations in 2009 and 2010. Those floors doubtless aided in water retention. For the lower floor, a sample (289493) taken directly on top of the surface came back as AD 128–322 (with an 86.6% probability of falling within AD 128–258). A clear Early Classic jar found within the floor's matrix suggests that the first surface was laid down around the turn of the fourth century AD. A sample (284412) higher up in the sediment profile dates to AD 424–606, consistent with the sedimentation of the Early Classic *aguada*, likely accelerated by the relocation of the royal court from El Diablo around the turn of the sixth century AD.

The upper *aguada* floor is bracketed by two dates. The upper date (262055) was AD 656–864 (with an 87.4% probability of falling within AD 656–778), while the lower sample (262056) returned a date of AD 651–869 (with an 83.1% probability of falling within AD 651–779). Most likely, the upper floor was constructed between AD 650–780, perhaps as part of an acceleration of building activity in the El Zotz epicenter during the eighth century AD (Carter et al., chapter 4, this volume; Garrison and Houston, chapter 13, this volume).

EAST GROUP DATES

A series of five dates derive from the East Group at El Zotz, all from within the Pyramid of the Wooden Lintel (Str. M7-1) and its substructures. One of the samples (437467) is stratigraphically incongruent with the rest, despite falling in the Early Classic at AD 335–502 (with a 95% probability of falling within AD 335–428). Coming from a fill context, the carbon may represent older burnt wood that was incorporated in the later building. The other four dates provide a tidy sequence for the successive remodelings of the pyramid. A date (431443) from the final phase of the earliest platform in this location, Str. M7-1-Sub. 1-1st, places it between AD 258 and 422 (with an 85.2% probability of falling within AD 321–422). Fragments of painted modeled stucco from the destroyed portions of this platform indicate that it was built in a style similar to fourth-century AD architecture in the El Diablo Group.

Two dates are associated with the Accession Platform (Str. M7-1-Sub. 2). The first (431442) links to the building's construction fill and dates to AD

430–622 (with a 74.8% probability of falling within AD 528–622). The second (437466) comes from carbon found within the beak of the northern *Ux Yop Huun* mask on the platform and is related to the structure's use or abandonment. Its date was AD 336–534 (with a 75.8% probability of falling within AD 336–436). Using the shorter high-probability ranges for these two dates puts them into stratigraphic conflict, so we are required to use the full 2-sigma ranges for interpretation. Based on this, the range for the construction of the Accession Platform and the royal tomb (El Zotz Burial 16) that it houses is AD 436–534. The platform is architecturally distinct from earlier constructions at El Diablo, but is oriented toward the Temple of the Night Sun. It is possible that the structure was built around the turn of the sixth century AD as part of the shift of the seat of power from the El Diablo Group to the valley floor.

A final date (431444) from the East Group comes from El Zotz Burial 25, an elite interment associated with a remodeling of the central *adosado* (outset building) that was added to the first pyramidal form of the structure (Str. M7-1-2nd). The burial dates to AD 410–546, which accords with the Early Classic pots found in the tomb. The central *adosado* was remodeled numerous times and with fair regularity. The East Group was clearly a zone of the site that experienced rapid growth in the second half of the Early Classic period.

ACROPOLIS

A suite of seven dates from the El Zotz Acropolis spans its earliest constructions in the Early Classic to its eventual abandonment in the Terminal Classic as dynastic kingship ceased. The Classic-period palace consisted of 13 different structures (figure 4.1), but all of the dates correspond to the two largest buildings, Strs. L7-1 and L7-6, which were the focus of intensive investigation by the project. The earliest date (288298) fixes to El Zotz Burial 5, which was an intrusive, on-axis deposit at the base of Str. L7-1. The date of AD 260–536 (with a 77.6% probability of falling within AD 325–475) suggests that the sample is dating, not the later burial, but the fill of the earliest floor cut to prepare for this deposit.

There are two dates for early constructions in the Acropolis. The clearest early masonry building is Str. L7-6-Sub. 1, which was investigated in 2009 (Pérez Robles et al. 2009). A date (265818) from the penultimate floor inside of this structure returned as AD 410–583. This finely made Early Classic building may have been the first palace construction in epicentral El Zotz, following the abandonment of the El Diablo Group. A tunnel excavated in Str. L7-1 (figure 4.2) revealed a possible substructural platform (Str. L7-1-Sub. 1?; Marroquín et al. 2011), and a sample (288299) from the fill dates to AD 433–650

(with an 88.4% probability of falling within AD 532–650). Slightly later than Str. L7-6-Sub. 1, this could represent the beginning of the palace's expansion at the onset of the Late Classic period (see Carter et al., chapter 4, this volume; Garrison and Houston, chapter 13, this volume). It is also one of the few massive constructions from the so-called Tepeu 1 period, when many vases appear to have come from the kingdom (Carter et al., chapter 4, this volume).

An additional two dates are tethered to Late Classic amplifications of the Acropolis. A sample (288300) from the fill covering the Early Classic talud of Str. L7-1's platform dates to AD 680–881. A second date (288301) from architectural fill connecting Strs. L7-1 and L7-6 places the final construction of the palace between AD 678–940 (with a 93.7% probability of falling within AD 687–895). These dates confirm the Acropolis as the seat of the Late Classic royal court of Pa'ka'n.

Two final dates illuminate the ritual deposit that covered portions of the Acropolis in preparation for a remodeling that was never completed (Newman 2015b; Newman et al., chapter 5, this volume). These dates from two separate excavation contexts of the same deposit are virtually identical. The first (265819) has a range of AD 774–978, while the second (265820) is just slightly different at AD 776–990. With the evidence from El Zotz Stela 4 (Newman et al., chapter 5, this volume), it appears probable that the ritual deposit dates to around AD 850 and signals the end of dynastic kingship and the onset of the Terminal Classic period.

STRUCTURE L7-II

Three dates assist in understanding El Zotz's largest pyramid, Str. L7-II. Two dates are associated with the pyramid's construction. The first (250881) is associated with a dedicatory cache found at the center base of the pyramid: this deposit runs from AD 666 to 874 (with a 74.1% probability of falling within AD 666–780). The second (250883) comes from the probable remains of a perishable roof from the pyramid's upper temple, with a range of AD 672–879. To judge from stratigraphic evidence, the pyramid was almost certainly built in a single construction phase, probably during the expansion of the site during the eighth century AD. Most likely, too, it was coeval with the expansion of the Acropolis. The final date (250882) comes from just above the two Lacandon god pots offered in the ruined temple. The date is from the Late Postclassic at AD 1426–1632 (with a 71.9% probability of falling within AD 1426–1524) and provides a coda for activity at El Zotz before it was rediscovered by archaeologists in the twentieth century.

I10 GROUP

Two dates were obtained from Burial 28 located within Str. I10-4 in a small residential group on the El Zotz periphery (de Carteret 2016). The first date (431445) from inside the burial is inconsistent with the Terminal Classic context of the structure, returning an Early Classic date of AD 256–396 (with a 74.7% probability of falling within AD 320–396). This date must be considered spurious, given the other evidence associated with the burial. A second date (433098) from the level of Burial 28's capstones is more reliable, having a range of AD 771–965 (with an 80.8% chance of falling within AD 771–903). This date is consistent with a trend of increasing residences around El Zotz in the Terminal Classic, perhaps as land became more accessible after the collapse of dynastic kingship.

LAS PALMITAS GROUP

A single date (288302) from the Las Palmitas Group comes from an unsealed context within Str. M3-6 (figure 4.11). Dating to AD 900–1152 (with a 76.5% probability of falling within AD 947–1051), it accords with a small Early Postclassic occupation of the group. However, the archaeology indicates that most of Las Palmitas was constructed during the Late Classic period (Carter et al., chapter 4, this volume).

SOUTH GROUP

A series of nine dates derives from the El Zotz South Group, which saw the latest population at the site, well into the Early Postclassic. Ceramic data indicate that this was also, in all likelihood, the earliest location occupied at El Zotz, with occupation as early as the Middle Preclassic. The presence of the nearby El Zotz Aguada, perhaps beginning as a natural feature, is a likely explanation for the persistence of the South Group as a settlement over millennia. One date (250880) comes from near the surface at the northern base of the group's platform. Although consistent with other dates from the area, with a range of AD 996–1164, it should not, because of its surface context, be considered reliable. In general, it seems, the late settlement began on top of the South Group's abandoned Classic-period platform and then spread to the western edge of the Southern Causeway.

A suite of three dates originate in a midden located northwest of the South Group platform. The midden probably began in the Terminal Classic, indicated by a date (311992) between AD 773 and 968 (with a 71.8% probability

of falling within AD 773–906). Real expansion did not occur until the Early Postclassic, however. A date (288306) from the middle of the midden returned as AD 1034–1220, while another sample (307270) from the base of the deposit came back as AD 1222–1286. The organic growth of midden deposits through time makes it difficult to clarify the chronology of the deposit. A sample (307271) from the platform of a perishable structure above the midden (Str. L9-11) is consistent with the trash deposit, returning a date of AD 1033–1204 (with a 94% probability of falling within AD 1033–1190). Another sample (265824) from a small platform at the base of Str. L9-3 dates to AD 1190–1294, indicating that the Early Postclassic presence diffused across the top of the South Group platform.

A second area of Postclassic activity was west of El Zotz's Southern Causeway. Three dates reflect the occupation of that area through time. The first (288305) comes from the leveling of the bedrock at the western edge of intersection of the Southern Causeway and the plaza. This dates between AD 1052 and 1274 (with a 91.1% probability of falling within AD 1151–1274). A second sample (311991) from the fill of Str. L8-28 along the causeway's western edge dates to AD 1190–1278. Finally, the latest date (307269) at the site before it was completely abandoned is associated with a toad-effigy pot found along the western edge of the causeway, possibly on top of a floor. This final date has a range of AD 1265–1388 (with a 68.9% probability of falling within AD 1265–1312), making El Zotz one of the latest occupied Peten sites outside of the lakes region.

LA AVISPA DATE

A single radiocarbon sample (265825) dates the final of eight floors that resurfaced a small triadic group at La Avispa. While most of the settlement dates to the Preclassic period, this sample returned a range of AD 648–770, situating the final construction firmly in the Late Classic.