

THE CLASSIC MAYA SETTLEMENT AT QUIRIGUA

Recent agricultural activities have helped reveal the extent of the buried settlement

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Ever since the visit of Frederick Catherwood in 1840, scholars and laymen alike have been attracted to the Maya ruins of Quirigua. Above all, it is the magnificent sculpture that has brought accolades to the site. But while many have inferred the existence of an important "city" or "capital" to support the rulers and sculptors responsible for these monuments, few have tried archaeologically to discover the size, internal structure or developmental background of the center. In part, this is because most of the work at Quirigua predated the development of settlement

pattern studies in archaeology, a phenomenon of the last two or three decades in Maya studies as well as archaeology generally. But the floodplain siting of Quirigua itself scarcely encourages exploration. Little architecture is visible beyond the confines of the 30 hectares (75 acres) set aside as an archaeological park in 1910, chiefly because all but the latest and most substantial construction is buried by a millennium of flood silts. Independent commercial activities beginning in late 1977, however, have provided a "solution" to the problem: that is, recent excavation

1 Looking northwest, an aerial view of the site core of Quirigua, shrouded in forest cover, and the surrounding floodplain under which most of the Classic settlement lay buried.



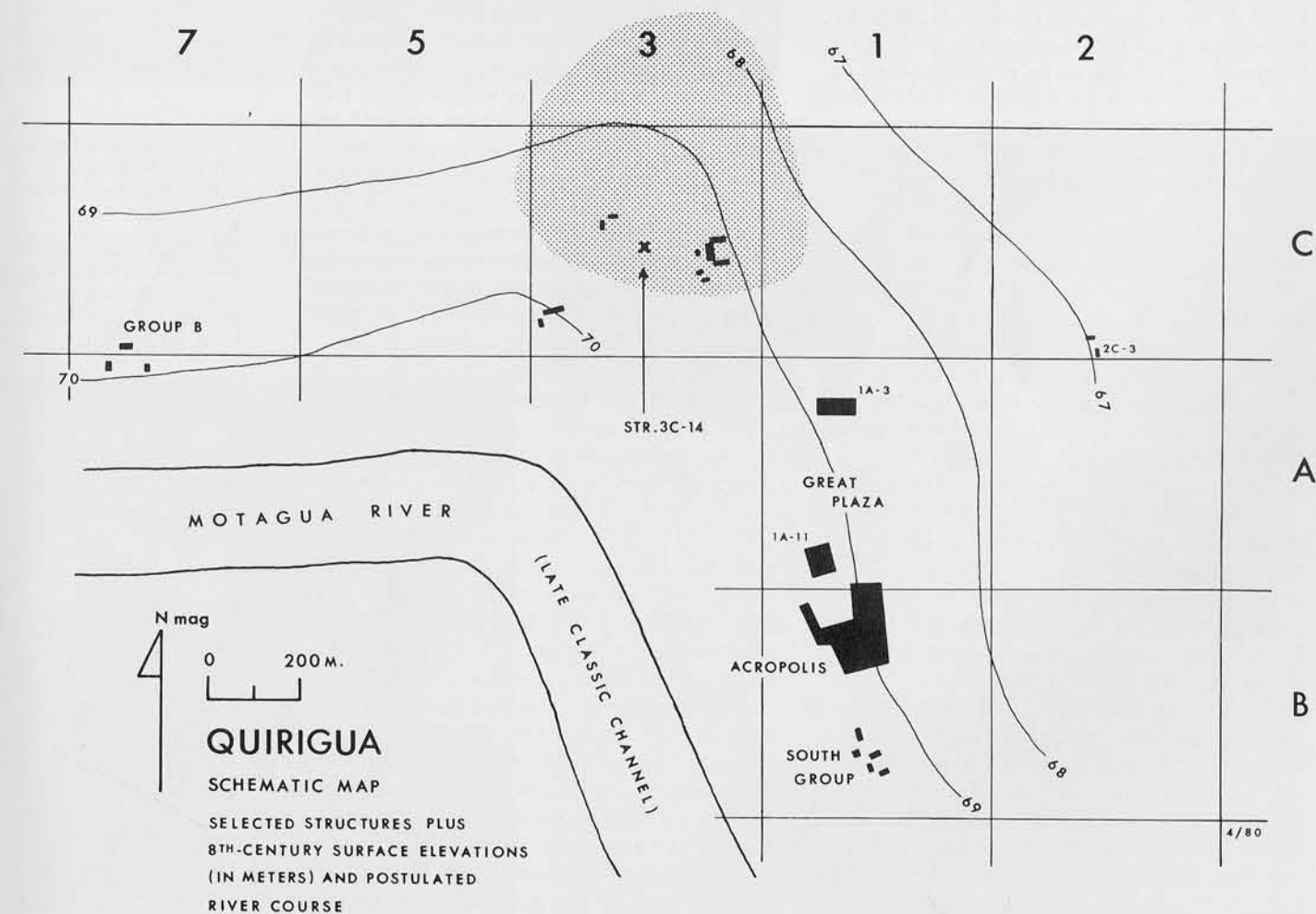
of deep drainage ditches in the zone surrounding the park, or site core, have exposed a range of features including house platforms, ceramic wells, and middens, with occupations in the Early to Middle Classic (here, ca. A.D. 400-700) as well as Late Classic (ca. A.D. 700-900) represented. The area examined covers more than 800 ha. (about 2000 acres) and has yielded a wealth of detailed information that would otherwise have been beyond the budgetary reach of archaeological investigation.

Before summarizing the results of the ditch survey, I should describe briefly the nature of the archaeological sample it represents. First, the majority of the ditches are parallel cuts, regularly spaced, with center lines 76 meters (250 feet) apart, running 25° west of magnetic north. The ditches are about 2 meters deep, 4½-5 meters across at the top and about a meter across at the base, and I note—gratefully—that these are *drainage* ditches, not irrigation ditches, so that most of them usually do not contain much standing water. The aggregate result, archaeologically, is a



2 Drainage ditch with cobbles as evidence of cut construction (foreground). Forest surrounding site core visible at left.

3 Schematic map of Quirigua. Stippling indicates area of densest Early Classic features.



site core, overlooking the whole. The heart of the settlement, however, was the area within 1300 meters west and 300 meters east of the site core.

This center is now shaped like an L or a V, open to the southwest, and in 1977, from the distribution and orientation of known surface features, we had hypothesized that the culturally vacant quarter was occupied in Late Classic times by the Motagua river (Ashmore 1977; Jones, Ashmore and Sharer, in press). Ditches in that area, examined in 1979, did provide evidence of derelict channels and we still believe the hypothesis correct, although the critical gravel deposits themselves are unfortunately not presently datable. Indeed, documented changes of the Motagua meanders within the 20th century make it likely that at least some of the channel deposits in this key area too are fairly recent (although obviously older than the Fruit Company levee), and we do have one instance of what appears to have been a Late Classic structure (Fea. 5A-1), undercut by the outer curve of a meander and "redeposited" in what should otherwise have been "earlier" levels.

On the other hand, between about A.D. 500 and 700-800, alluvial accretion within



7 Several ancient ceramic wells were discovered along the ditch paths.

about 500 m. of the posited river course was about one meter, which would yield an average deposition rate of 33-50 cm./century. In the last millennium, nearly 2 m. (20 cm./century) have accumulated in areas approximately 1 km. from the current channel and 60 cm. (6 cm./century) in areas at a distance of 2 km. from the present river course. In other words, if the last 1000 years have witnessed comparable local alluviation rates, our hypothetical river course is supported for at least the period right before the 8th century florescence. Moreover, the plotted contours of the 8th century ground surface turn a nearly right angle at the appropriate place for our postulated channel (see Fig. 1). On cultural grounds as well I continue to believe that both Quirigua and Copan were oriented toward river traffic and that the mirror-image aspect of their core layouts reflects in part the opposite directions of flow of the Motagua and Copan rivers.

The principal Late Classic settlement remains of the center at Quirigua, then, currently occupy about 3 km.² (740 acres), and the functioning center in the 8th century was presumably not significantly larger than the preserved archaeological traces now indicate. In the 9th century, occupation continued (Sharer 1979), and the indices diagnostic of this period are spread fairly widely throughout the 8th century zone of settlement. The area of most concentrated late finds includes the settlement east of the Great Plaza, Str. 1A-11, and the Acropolis south through the South Group of the site core. The relative sparseness of coeval finds to the north and northwest may, however, reflect to some degree the lesser alluvial protection there, the post-800 settlement traces being the most superficial and therefore the most vulnerable to destruction.

Evidence for the size and nature of the local center before A.D. 700 is limited as well, the strongest evidence coming from a small zone immediately northwest of the site core. Artifactual traces of occupation predating A.D. 400 are extremely rare, and whatever settlement existed in this location that early is still buried beyond our reach, well over 2 m. below the present ground surface. For the period A.D. 400-700, we are still trying to refine internal chronological distinctions, but the bulk of material from that era is from a fairly well delimited area of about 600 m. north-south and an equal distance east-west. The bounds of this zone likely reflect

alluvial masking to some degree, so I would not claim that Quirigua at this time covered only a third of a square kilometer. Nonetheless, within this zone are the remains of some moderately imposing architecture. These remains comprise Str. 3C-14 and Platform 3C-1, excavated in 1979 in conjunction with our investigation of Monument 26, the recently discovered stela discussed by Jones and Sharer (see pp. 11-19), and two uncleared structures (3C-17 and 3C-18) revealed in a ditch exposure ca. 120 m. northwest of Str. 3C-14. Str. 3C-14 is not itself a very imposing construction, but it crowned a meter-high platform greater than 24 m. (east-west) by 32 m. (north-south) in extent. It also housed the dedicatory cache described in pages 37ff. and containing, among other things, six pieces of worked jadeite weighing together over five pounds. The precise provenience of the aforementioned stela, Monument 26, must remain unknown, but a plain round schist "altar," Monument 27, was still *in situ* atop Platform 3C-1 and suggests association of the stela with the platform as well. Certainly the stela came from the general vicinity of Str. 3C-14, as did some small schist pedestal sculptures, and the obvious implication is that we

8 Ancient trash deposits unfortunately proved attractive to modern curiosity seekers as well as archaeologists.



have, in this area, at least one principal focus of Quirigua as it existed about A.D. 500.

It is presently very difficult to say how many people lived at Quirigua in the 5th through 7th centuries A.D. since the material resources usually exploited for reconstructing population figures—especially structure counts and floorspace measures—are simply not available. For the 8th century settlement, the data are generally more abundant, but still equivocal. Estimating absolute population and population density from structure counts is hampered by the aforementioned problem of identifying which features were structures. The further issue of establishing contemporaneity remains unresolved, since our most widely usable chronological index is associated pottery, which necessarily assigns "dates" representing spans of about a century. And unlike settlement excavations elsewhere, the Quirigua ditch exposures do not provide evidence of construction buildup or repair, so that we cannot do away with the contemporaneity problem—as Haviland (1970) could at Tikal—by showing that houses were continually occupied throughout the century and therefore contemporary.

For the time being, the best way to approach the question of Late Classic Quirigua population is to note again that imaginary ditches superimposed on maps of presumably comparable sections of Tikal and Copan encountered approximately 20% of the construction features at the latter sites. Using these percentage figures to extrapolate from raw ditch counts of 8th century construction features at Quirigua, we arrive at totals about 1/5 to 1/3 the magnitude of the "Sepultura" area of Copan (Willey, Leventhal and Fash, 1978) and thus a detectable site-center population density of probably about 20-35% of the Copan Sepultura density. I emphasize that this is a very gross and indirect calculation, laden with assumptions, but illustrative as a first approximation. And it does seem to suggest that occupants of imperishable structures in the 3 km.² (740-acre) 8th century center numbered in the hundreds rather than the thousands.

This brings us to the final question of intra-site variability in activities, for which the evidence is of two kinds. The first is artifactual variability, the second, construction forms and arrangement. Although the distributional analyses of the Quirigua



artifactual record are still in progress, two manufacturing activities have been clearly identified—obsidian knapping and ceramic production. The obsidian collections are undergoing detailed study by Andrea Gerstle of the University of California, Santa Barbara. From my own cursory examination, however, blade production at least appears to be widely distributed throughout 8th century Quirigua. Evidence for ceramic production includes figurine molds, concave stamps, and bowl sherds containing unfired clay, and derives principally from a midden deposit 300 m. north of Morley's Group B. Both activities are fairly simple in terms of Adams' (1970) ranking of potential Maya occupational or craft specializations (cf. Johnson 1976; Sheets 1978), and we have as yet perceived no marked traces of where sculptors, architects or other such specialist artisans may have lived and/or worked (cf. Becker 1973), beyond the locations of their magnificent finished products.

In the observed architectural distributions, however, there are some clear implications concerning intra-site differentiation and site planning. First, despite the alluvium problem, there are three readily discernible foci of monumental and/or public architecture in the 8th century settlement. One is the Acropolis and

another the Great Plaza, this pair comprising the traditionally recognized core of Quirigua. In addition, there is a third area, northwest of the first two, where we had earlier thought the superficially visible architecture defined something akin to a second Great Plaza (Ashmore 1977; Jones, Ashmore and Sharer, in press). With the ditch data, it turns out that this relatively open area is centered on Str. 3C-14, and the excavations there in 1979 have suggested that the structure continued to be a visible feature into and perhaps throughout the 8th century. On several grounds we have estimated the construction date of Str. 3C-14 as about A.D. 500, somewhat before the estimated date for the earliest known construction in the Acropolis. Thus, although stratigraphy at the latter location is architecturally more complex and continuous, the documented time span represented at Str. 3C-14 seems to reach further back in the occupation sequence. It therefore seems certain the two areas were designated as focal zones more than a century before the great ruler Cauac Sky embarked on his ambitious building program (Jones, Ashmore and Sharer, in press).

The possible ontogenetic implications here for Quirigua/Copan relations are not clear, but one is led to wonder whether perhaps the mirror-image areas of Copan



9 Str. 1C-1, the bulk of which was revealed only when the smaller side ditch was cut.

10 Fea. 5A-1, the remains of a construction displaced by river erosion.

and Quirigua aren't in fact restricted to the Great Plaza—Acropolis combinations, Cauac Sky following the layout of this core of Copan in his remodeling of Quirigua. The layouts of Quirigua's Str. 3C-14 area and the Copan Sepultura area may have been essentially irrelevant to the political point Cauac Sky was apparently trying to make in creating for Quirigua a more extensive version of the Copan core.

By way of interpretive summary, let me say that the social and cultural historical picture sketched by the ditch data accords well with that described earlier in this issue (pp. 11-19) by Jones and Sharer from the perspective of the site-core data. That is, Quirigua was probably always a river-oriented settlement, and its earliest known florescence was apparently stimulated by external forces about A.D. 500. Elsewhere (Ashmore, Schortman and Sharer, in press, and see pages 42-44 of this issue) we have suggested that the specific role assumed by Quirigua at this time was as a meeting ground for representatives from the Peten and Copan (or the southeast highlands generally), this center perhaps serving as a subsidiary node in the Maya-Mexican network whose operations in the Valley of Guatemala have been outlined by Kenneth Brown (1977). Our primary evidence for this interpretation was the juxtaposition of highland and lowland Maya material traits at or around Str. 3C-14, but other sites in the wider periphery of Quirigua (e.g., Loci 011, 057) also appear to support the fluvial emphasis as well as the Peten ties on this time level.

With the decline of the linkages which had culminated in the Valley of Guatemala,

Quirigua may have gone into a period of relative quiescence, re-emerging in the 8th century as a vigorous center with the ascension of Cauac Sky. Jones and Sharer note the temporal correlation of resurgence of power at Quirigua with that at Tikal. While architectural and sculptural manifestations in the Quirigua site core at this time do seem to reflect far-flung affiliations, with Copan, the Usumacinta area and perhaps Tikal (see Jones and Sharer pp. 18-19 and Miller 1980), the ceramics and settlement data—both within the overall center described here and in the wider periphery—reflect continuity with the local past and with traditions farther up and down the Motagua river (see Schortman pp. 30-34, also Smith and Kidder 1943).

With the transition to the Postclassic period in the 9th century, our overall view of Quirigua as a functioning center becomes clouded, apparently because of preservation problems. It does seem, however, that the rulers at this time followed a different set of customs and had a different set of contacts from their predecessors, with links now to the upper Yucatan peninsula and perhaps the Gulf Coast (Sharer 1979). The implication of all this is that while the Quirigua area was always a locality rich in the biotic and mineral resources needed to foster a growing community, strategic location was the chief factor in the growth and decline of Quirigua's importance in larger socio-political and economic spheres. The land and the Motagua route were always there, but marked changes in Quirigua's prosperity were a function largely of events and conditions far beyond its purview.



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