VI. TWO UNUSUAL MAYA STELAE

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As is generally known, the Maya lowlands comprise a vast province of massive limestone deposits. Since these limestones are usually exposed or only slightly buried, ready material in unlimited abundance was ordinarily available for the cutting of building stone, for reduction to lime for mortar, and for the carving of sculptures and other monuments. At a number of Maya lowland sites quarries have been observed in the sites, or their immediate vicinity, and there has been little reason to suspect the long distance transport of large and heavy stone for monuments as was characteristic of the ancient Olmec civilization in its principal sites of La Venta and San Lorenzo.

For the most part it is only on the peripheries of the Maya lowlands that major non-limestone monuments and architectural constructions are found.[1] The two best known examples are Copan and Quirigua, and in each case local stones were quarried. At Quirigua in the lower Motagua Valley, separated from the Maya lowlands proper by the Santa Cruz range, ignimbrites, not immediately available but probably transported from no great distance, and local sandstones were employed in monument carving as well as in architecture. At Copan in the foothills of southwestern Honduras, even farther removed from the true Maya lowlands, ignimbrite from the Copan Valley was preferred to the local limestone. At Maya sites within the lowlands proper, non-limestone monuments or architectural constructions are very rare, and the major example is Altar de Sacrificios on the lower Pasion where during the Early Classic period local sandstone supplied the material for both monuments and architecture until after 9.10.0.0.0 (A.D. 633) when limestone supplanted sandstone (Graham, in press).

During the course of archaeological research in southern Mesoamerica in 1967, we had the opportunity to examine two quite unusual non-limestone Maya sculptures: Stela 1 of Ichpaatun and Stela 9 of Calakmul.

The ruins of Ichpaatun are situated on the west coast of the Bay of Chetumal on the Caribbean coastline of the Yucatec peninsula. The site and its single monument were discovered in 1926 by Thomas Gann (Gann 1926a, 1926b). Although data on the ruins are very scarce (Gann 1926b; Escalona Ramos 1946; Sanders 1960), the use of non-limestone materials is apparently

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[1] The stone of seven of the Caracol monuments is described as a gray slate, but the great majority of monuments at the site are of limestone (Satterthwaite 1954:26-27). The sculptures of Tonina, situated in the Ocosingo valley on the periphery of the Classic Lowland domain, are at times described as "yellow, coarse-grained limestone," at times as "yellow sandstone" (Blom and La Farge 1927:251, 269, 303), and there is confusion as to whether limestone or sandstone, or both, were used at Pusilha (Morley 1937-38, Vol. IV:18, quoting Gann and Joyce; Morley 1947:359). Single examples or small numbers of non-limestone monuments are reported for Salinas de los Nueve Cerros, Naranjo, Tikal, and other sites. Unfortunately, we have not been able to study samples from these other sites.

limited to the stela, identified by Gann as shale. Gann had the monument removed to Yucatan, evidently hoping to arrange for its exportation, and eventually in 1938 the stela came into the hands of the Museo Regional in Merida where it is now exhibited.

The irregularly shaped shaft, of sub-rhomboidal cross-section, measures 266 x 54 x 30 cm. and originally had carving on both faces and overlapping onto the sides. The monument is now badly battered, and most of the details of the standing figure portrayed on the front are lost although the Late Classic stance with feet pointing outward seems to be present. Only the all-glyphic back preserves substantial detail. Here the hieroglyphic text opens with a clear Initial Series date, recording 9.8.0.0.0 5 Ahau 3 Ch'en (A.D. 593, GMT), followed by Glyphs G9/F and a lunar series. The recorded moon age of 19 Glyph D is in agreement with an average age of 19.6 days calculated for 9.8.0.0.0 on the basis of an arbitrary average age of 13.260 at IS base.

The ruins of Ichpaatun include a large stone walled enclosure and various buildings which are strikingly reminiscent of the Late Post Classic site of Tulum some hundred miles to the north. W. T. Sanders undertook brief ceramic testing at Ichpaatun in 1955, finding a major Post Classic occupation and thus confirming the resemblances to Tulum, but also encountering indications of a minor Classic period occupation (Sanders 1960). Since the general character of the site is Post Classic, the possibility that the stela is secondarily associated with the ruins should be borne in mind. We are reminded of Tulum Stela 1, with dedicatory date at 9.6.10.0.0 (A.D. 564), which surely must have been removed from a Classic period ruin and re-used in Late Post Classic Tulum many centuries later. The circumstances surrounding Ichpaatun Stela 1 are not so clear cut, as we know so little of the Ichpaatun ruins and as, in contrast to Tulum, there is evidence for Classic occupation; nevertheless, we are inclined to entertain doubt about the original association of the monument with the site of its discovery (Andrews 1965: 299, 300).

The stone of the Ichpaatun monument may be described as a quartz-muscovite-chlorite-garnet-graphite schist or phyllonite. It is characterized in hand specimens by a conspicuous alternation of layers composed mainly of granoblastic quartz with undulose layers composed mainly of silvery white mica (muscovite), graphite, and chlorite. These layers range in thickness from a millimeter or less to about a centimeter. Numerous ovoid garnets are disseminated throughout, most of them concentrated within the granoblastic layers; the flaky minerals are molded around them.

The microscope reveals clear evidence of strong differential movement. All of the quartz grains show the shadowy extinction indicative of strain; their irregular boundaries interlock into a firm mosaic. Many of the muscovite flakes, which range up to a millimeter in length, are strongly bent, and trains of graphite dust swerve at various angles to the dominant schistosity. The garnet crystals, most of which measure between 0.5 and 2 mm. across, also contain trains of graphite dust inclined to the general schistosity. Most of the chlorite is concentrated around the garnets, suggesting regressive metamorphism. Accessory constituents include apalite and sphene.

C. G. Dixon (1956: 15) mentions the presence of garnetiferous schist and gneiss within the Maya Series, apparently intruded by muscovite granite.

He notes that they are exposed along the walls of the valley of Silk Grass Creek, the floor of which is cut mostly in granite. It seems possible that the garnetiferous phyllonite of the Ichpaatun stela came from this region. The Caribbean coast near the town of Stann Creek lies only about ten miles away. It would not have been difficult to transport slabs downstream to the coast, and to raft them northward during times of calm water.

Garnetiferous schists are widespread in the Chuacus metamorphic series of the Central Cordillera of Guatemala, north of the Motagua Valley (McBirney 1963). They are abundant also around Mixco Viejo in the upper part of the Motagua Valley. Those described by McBirney differ mineralogically, however, from the phyllonite of the Ichpaatun stela, most of them carrying hornblende, albite, and epidote in addition to the mineral present in the stela rock. It is obvious, moreover, that transport of rocks from the Central Cordillera of Guatemala to Maya sites in the Yucatan peninsula would involve much more severe logistic problems than would transport from the northern part of the Maya Mountains of British Honduras.

The ruins of Calakmul lie little more than a hundred miles inland in a southwestern line from Ichpaatun and about forty miles north of the Guatemalan frontier. Stela 9, described by Denison in his account of Calakmul monuments as carved from slate, is apparently the only non-limestone monument of the 103 stelae catalogued for the site since no reference is made to the material of the other monuments (Ruppert and Denison 1943). The monument is now on exhibit in Campeche, having been removed there for the dedication of the new Museo Regional in 1943.

Stela 9 of Calakmul is a perplexing monument. Measuring 294 x 49 x 15 cm., the stela is carved with portraits of human figures on front and back with the hieroglyphic captions to the portraits as well as the glyphic texts along both sides of the shaft being badly damaged and eroded. On the left side a lengthy column of glyphs opens with the IS 9.10.16.16.19 3 Cauac 2 Ceh while the long column of glyphs on the right side encloses an IS probably at 9.11.10.0.0 11 Ahau 18 Ch'en. The panel on the back presents the certain CR date of 11 Ahau 18 Ch'en, presumably also at 9.11.10.0.0. The front panel presents the date 11 Ahau 18 VY, half-period, presumably the PE date 11 Ahau 18 Ch'en at 9.11.10.0.0. This is followed by 10 Ahau 8 Yaxkin´(?), presumably a reference to the current katun end at 9.12.0.0.0 10 Ahau 8 Yaxkin.

We interpret the epigraphic evidence to strongly indicate a dedicatory date at 9.11.10.0.0 (A.D. 662, GMT), but with dedication ten years later at 9.12.0.0.0 being a less favored alternative possibility. Unfortunately, the stylistic evidence afforded by the sculptured figures does not satisfactorily confirm this chronological placement. Proskouriakoff (1950: 114) points out that while certain stylistic features are consistent with an early Late Classic age, there are other traits (the frets of the loincloth apron and the diagonally held staff) which strongly argue for a much later placement. While not ignoring these stylistic aspects, we feel the epigraphic evidence, though not conclusive, outweighs the stylistic features in this instance. We believe the situation is somewhat analogous to Stela 9 at Altar de Sacrificios whose dedication is surely fixed earlier than certain features of the sculpture would suggest (Graham, in press; Proskouriakoff 1950:117).

Stela 9 is cut from a dark gray semischist strippled with minute crystals of pyrite. The rock has a pronounced fissility produced by the sub-parallel orientation of minute flakes of muscovite and by a streaky concentration of graphite dust. The rock is very much finer grained than that of the Ichpaatun stela, and is devoid of garnet.

Most of the rock consists of fractured and granulated crystals of quartz, none of which exceed 0.05 mm. across, most measuring only about half this size. The margins of the crystals are frayed. Next in abundance are flakes of muscovite, but even the largest of these measures not more than 0.1 mm., and most are much smaller. Clouds of irresolvable graphite dust are gathered in flamelike streaks. The constituents of the matrix between the quartz and muscovite are too fine to identify, but probably pulverized quartz predominates. Rare, broken crystals of calcic plagioclase appear to be the only feldspars.

The rock is probably a sheared siltstone that has undergone a moderate amount of metamorphism; much, perhaps most of the finely divided muscovite may have originated from feldspars, and much of the original clastic quartz has recrystallized.

Dixon states that although many sedimentary rocks of the Maya Series in the Maya Mountains are unmetamorphosed, most of them exhibit low-grade metamorphism. Included among the series are graywackes, quartzites, slates, phyllites, and shales "with some schists and gneisses." It seems likely that the semischist of Stela 9 comes from this suite of rocks, but published descriptions of the Maya Series are far too brief to permit an exact localization.

Similar semischists may be present in the Santa Rosa and Tactic formations of the Central Cordillera of Guatemala, on the north side of the Motagua Valley (McBirney 1963: 199-203), but much more study would be needed to confirm or deny this suggestion. It seems certain, however, that neither the phyllonite of the Ichpaatun stela nor the semischist of the Calakmul monument can have come from the metamorphic belt on the south side of this valley.

The Maya Mountains are little more than 100 miles south of the coastal site of Ichpaatun, and assuming Stela 1 was originally raised in the vicinity of Ichpaatun it is most probable that the stone was rafted to the site along the coast line. We know that upon the arrival of the Spanish in the 16th century the east coast of Yucatan was regularly plied by large commercial canoes, and doubtless this was true earlier as well. Sites such as Ichpaatun and Tulum probably existed mainly in order to regulate the coastal trade. The Calakmul monument was probably transported along this route also, perhaps about the same time, and then carried inland for the overland journey to the site. Both monuments being derived from the same general source, being carved about the same size and proportion, and having been dedicated within some 70 years of each other, must have a related history that remains to be further elucidated.

a b c

Plate 1. a), Calamul Stela 9, front. b), Ichpaatun Stela 1, back. c) Ichpaatun Stela 1, front and left side.

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