THE SWASEY CERAMIC COMPLEX OF NORTHERN BELIZE:

A Definition and Discussion

by

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Prior to the work of the Corozal Project[1] in northern Belize, there was little to suggest that it was an area which might yield important evidence on the earliest Lowland Maya. Nearby Nohock Ek had been described by the Coe Brothers (Coe and Coe 1956) as an Early Preclassic site, but no evidence was given to back up this statement. Haberland (1958) had indicated a Middle Preclassic presence at Louisville; Pendergast had mentioned a few Mamom sherds at Altun Ha (personal communication to N. Hammond), and Bullard had discussed the possibility of a Mamom complex at San Estevan before rejecting it and opting for a "conservative Late Formative" date (Bullard 1965: 48). For the most part, however, it was the terminal part of the Preclassic that offered the most exciting possibilities. With the heavy concentration of Floral Park pottery in the eastern region and the known presence of Holmul I ceramics at four sites in the project's area, it "seemed a good place to examine the Preclassic-Classic transition and the role of the Protoclassic" (Hammond 1977a: 47).

At the end of the 1974 season, the situation appeared to have changed little. A few possible pieces of Mamom pottery had been found at several sites and a small group of sherds from the lowest levels of a test excavation at Nohmul (Hammond 1977a: 302b; 1975) clearly antedated the Cocos Chicanel material but did not appear related to the Mamom ceramic sphere. Other than that, there were no early indicators. On the other hand, excavation both at Nohmul and elsewhere had revealed the existence of the Freshwater Floral Park ceramic complex (Pring 1975a) and indicated the presence of a poorly defined late facet of Cocos Chicanel apparently contemporary with it. It was indeed, in an attempt to gain better stratigraphic definition of this late facet that the author undertook excavation at Cuello in the Corozal Project's 1975 field season since surface finds from that site revealed pottery that appeared transitional between the Late Preclassic and Early Classic periods.

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Operation 17B, a 2 metre square test trench on Platform 34 (Hammond 1975), which began with these limited objectives, quickly acquired a new significance as it penetrated a series of plaster floors, interspersed with sub-floor fill and occupation deposits, revealing, with good stratigraphic control, a sequence going back from Cocos Chicanel, through Lopez Mamom to material that was markedly different from the above and which, to judge from its depth of well over a metre, was of considerable duration. A second excavation, through a partially destroyed Protoclassic pyramid (Str. 39) some 150 metres east, descended by chance onto a burial cut into bedrock which contained five whole vessels of the same ceramic complex, which was subsequently named Swasey.[2] The importance of these finds was immediately apparent and was discussed in a paper given by the author at the Society of American Archaeology's annual general meeting held at Dallas, Texas later in the year. It was not until the first radiocarbon dates were processed and known, however, that the full significance of the site was appreciated. Subsequent excavation at the site in 1976 confirmed these initial findings and led directly to the creation of the Cuello Project in 1978 with plans to excavate a substantial further area of Platform 34 to provide as much information as possible on all aspects of the Preclassic occupation there.

If these early dates (ranging back to 2000 bc[3]) and the attendant archaeological data are accepted, the implications for early Maya prehistory are considerable. Current, or recent, thinking was based on the assumption (fast becoming a belief) that the earliest Maya in the Lowlands were represented by the Real Xe ceramic complex which was felt to be no earlier than the Middle Preclassic period. Thus Willey, in his summary chapter in The Origins of Maya Civilization, states that "the earliest firm and reasonably abundant evidence for Maya Lowland occupation comes from the Pasion Valley" (Willey 1977: 385) and later that "it was the unanimous opinion of the seminar that the Xe-Eb pottery-making immigrants first entered the Maya Lowlands at the very beginning of the Middle Preclassic Period" (Willey 1977: 401). If these were widely held views at the time, they have had to be modified considerably by those who accept the evidence from Cuello. Likewise, the question of the origin of these "immigrants" is at the very least obfuscated by the ceramic evidence of the Swasey complex. In addition, it represents a setback to those who argue that the earliest inhabitants of the lowland zone opted for a riverine environment, since the site is roughly equidistant between, and some distance from, the Nuevo and Hondo rivers.

Other examples could be cited as evidence of the disruptive effect that the Swasey data, if accepted, may have on traditional views held about the Early Preclassic Maya. However, there are a number of Mayanists who reject the evidence in the preliminary form in which it has so far been published or for one reason or another

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2 Swasey, like all north Belize ceramic complexes, is named after a local stretch of water - Swasey Creek in this case.

3 Dates are given in uncalibrated radiocarbon years on the 5568 half-life. This implies no disrespect to Clark's or other calibrations; it is merely to provide easier comparison with other sites.

question its authenticity and reliability. For some, it is a proper scientific caution, in the light of new evidence. Others may feel it academically unwise to advocate acceptance, at such an early stage, of data that have such far-ranging significance. For others again, there is a question mark over the validity of the dates in the light of other evidence currently suggesting that radiocarbon dating may be more variable than was previously thought. Ceramicists may argue that the Swasey phase is unacceptably long considering the apparent lack of change therein, and feel that it is more a variant of the Eb and Real Xe complexes found elsewhere in the Maya Lowlands at the start of the Middle Preclassic. It is not being cynical to say that at the heart of these objections is the very fact that the new evidence does upset widely held views on the Maya Preclassic. Whilst it is right that new arguments be subjected to critical scrutiny before they are accepted, it is less defensible for archaeologists to adhere to old ideas in the face of new ones, especially if the old are based on insecure facts compounded by a series of assumptions. The flimsiness of that evidence will be outlined in further detail at a later stage. Apart from the radiocarbon dates, the bulk of the doubts appear to be centered on the interpretation of the ceramics and their relationship to the stratigraphy. As the initial excavator and the project's ceramicist whose opinions have been advanced in several publications already (Hammond 1975, 1976a, 1976b, 1977a, 1977b, 1977c; Hammond, Pring et al. 1976, 1979; Pring 1975b, 1976, 1977), I feel doubly compelled to defend the validity of the evidence from Cuello as it relates to the Swasey phase in particular. This I propose to do by setting forth the ceramic details as they relate to the stratigraphy and the radiocarbon chronology. After that, I shall offer some comments and thoughts, based on comparative ceramic studies, on the origins of the phase and its relationship to other ceramic compleses of the Lowland Preclassic.

Turning first to the stratigraphy, the critical excavations were, in the Corozal Project nomenclature, Ops. 17B and 17F. 17B was a 2 metre square test trench excavated by natural levels down to bedrock in 1975, while 17F consisted of two 5 metre square area excavations adjacent to 17B and likewise dug down to bedrock. The earlier excavation demonstrated both the strengths and weaknesses of what has been described as "telephone-booth" archaeology. Had it not been for this trial excavation carried out in a few weeks by two project members assisted by a couple of local workers, the Swasey phase would probably not have been known. At the same time, the area excavations of 1976 indicated that what had been interpreted as a series of platform floors, in fact represented the interiors of structures set around a patio. Nevertheless, the work in 1976 confirmed the stratigraphic sequence of the previous year, at the same time adding a great deal more information on which to base speculation about Preclassic society in the area. A glance at the section of Op. 17B (Hammond 1975: Fig. 8.5) shows that we are dealing with a series of superimposed floors, interspersed with occupation and fill deposits, most of which are in very good condition. Thus, although we might expect an upward mix, tending to blur the evidence relating to the terminal points of ceramic change, the sealing of the layers provides a clear-cut introduction point for ceramic modes since the pottery is extremely unlikely to seep down to lower levels. This expectation was realized in that the earliest levels provided unmixed Swasey deposits, while later layers contained a mix of Swasey and Lopez, both of which continued in decreasing quantities into the Cocos strata closest to the surface. It will be noted that there are no completely unmixed Lopez and Cocos levels, nor is this particularly surprising given the nature of the deposits. The evidence for ceramic

change is clear and, when combined with the stylistic distinctions (which will be dealt with at greater length subsequently), provides us with a very good data base on which to build hypotheses.

Full details of the ceramics, together with a more comprehensive comparative analysis are contained in my doctoral dissertation (Pring 1977). Here I shall outline a few of the salient features of the Swasey Ceramic Complex. We have two major redware Groups (Consejo and Ramgoat), a very substantial buff Group (Tiger) and a rather limited black Group (Machaca). In addition there are other Groups - Quamina (Cream), Stopper (Brown), and Chicago (Orange) - which are numerically less well represented. Dichrome pottery is even less common, though there is a representative sample of Tower Hill Red-on-cream, a couple of vessels of Ossory Red-on-orange and a few sherds of Red-and-unslipped pottery. The entire Swasey sample at present numbers some 10,000 sherds [4] almost all occurring in pure deposits from the excavations at Cuello indicated above. The presense of major red, buff and black Groups and their proportional relationship to one another is extremely significant when we come to consider the factors that suggest continuity between this and subsequent ceramic complexes. Of the red Groups, Consejo is easily the more recognisable by virtue of its glossy, vermilion red slip. The consistency and brightness of this slip appear to have been achieved by the application of a thin cream-to-white underslip. It is thus linked closely in technical terms with the Quamina group which employs the same underslip without the addition of the red, except in the case of Tower Hill Red-on-cream where bold quadrilaterals of cream are left reserved by the partial application of the same red slip. In the course of the 1979 season several sherds of this type were found to possess genuine resist decoration with patterns consisting primarily of squiggles or wavy lines, although in one instance a definite figure painting was found with what appeared to be a bird or ship resting on a series of such lines apparently representing water. Even after a brief acquaintance with sherds of this group, it would be hard to mistake them for any other Preclassic type in the area. Closest comparisons (if they must be made) are with some of the red gloss pottery of the Early to Middle Classic. The gloss on Consejo contrast markedly with the duller and much waxier surface encountered in both Lopez and Cocos. Ramgoat Red, on the other hand, is much less easily distinguished and might even be overlooked in deposits that are mixed. It lacks the underslip and consequently loses the homogeneity and brightness of its counterpart. Although it, too, lacks any waxy feel for most of the period, there are a number of sherds from later levels which appear to be transitional in terms of slip texture. The colour range is wider, from deep purple or even brown at one end of the scale through to a pale buff or orange at the other. The central colour is, however, a deep Indian Red and it will be appreciated that in this respect it is close to Joventud Red though the latter lacks the range. Whilst the Ramgoat Group appears to merge gradually into the Joventud Group, the evidence from the 1979 season would appear to

4 This figure is based on a sherd count at the end of the 1976 season. Subsequent work, in 1977 and 1979, has added another 1000-2000 sherds and has advanced our knowledge somewhat. This paper was originally written in 1978 but has been brought up to date by the inclusion of such additional knowledge as is relevant to the subject.

suggest that both Consejo Red and Tower Hill Red-on-cream actually persisted into the Middle Preclassic. Both types were found in some quantities mixed with Lopez Mamom deposits and whilst this may mean that they were merely absorbed into later deposits of a mixed nature, it is at least as plausble to suppose that they were actually being manufactured and used at this later date.

Both the Tiger and the Machaca Groups equate closely in terms of colour range with their Lopez Mamon successors, although the olive tinge detectable in the buff group is more pronounced in the Swasey complex. As with most Swasey sherds there is no trace of the waxiness that characterizes Lopez especially and to a lesser extent Cocos. The Stopper group has no equivalent in subsequent Preclassic periods though it is found again in the Classic. The last of the monochrome groups -- Chicago Orange -- is of considerable significance when discussing the issue of continuity within the Preclassic. The Chicago variety, found in the Swasey ceramic complex, is only distinguishable from the Warrie Camp and Chucun varieties (Lopez and Cocos respectively) on grounds of vessel shape. The paste and slip are such that body sherds from mixed deposits are indistinguishable. Another feature that is relevant to this argument is the presence of Red-and-unslipped pottery in both the Consejo and Ramgoat groups. The practice of leaving the outside walls of a vessel unslipped but with decorative techniques such as impressing and punctating employed on the unslipped surface is one that continues as a minor mode throughout the Preclassic in northern Belize.

On the Unslipped side, we have one major group -- Copetilla -- as well as a handful of striated sherds that have not been typed as yet although the 1979 excavations indicate that they were being made in small but not insignificant quantities during this period. Copetilla Unslipped is characterized by a well-smoothed and even on occasions lightly washed surface with a colour range from dark gray, through buff and tan to pale orange. In respect of surface smoothness it differs from subsequent unslipped types that are rather rougher, but this is a fine distinction only made possible by the purity of the Swasey deposits. Within this group is a pattern-burnished type originally named Yotolin in deference to Brainerd's and Smith's work on the pottery of Mani (Brainerd 1958; Smith 1971: 22, 133), although this name may have to be revised. The basic surface is similar to Copetilla Unslipped but with the addition of pattern-burnished decoration in the form both of thin bands and rectangular areas of cross-hatching. The decoration is faint, but when viewed in a strong cross light is strikingly similar to that described and illustrated by Brainerd (Brainerd 1958: Fig. 30c, 1, 10, 13, 28, 30, 31, 34). It was this fact that prompted the original name. However, a personal inspection of the Mani material (following a communication from Robertson-Freidel) indicates that the paste and texture of the Mani material are very different from those at Cuello.

If pattern-burnishing is one means of decoration in the Swasey ceramic complex, other decoration, on slipped pottery, is mostly limited to incising and modelling. The former is by far the more common, occurring with both pre-slip groove- and post-slip fine line-incisions. The groove-incising can be very faint and is found in the Consejo, Ramgoat, Tiger and Stopper Groups with, in most cases, one or two lines

placed horizontally round the exterior just below the rim. Occasionally, groups of diagonal, parallel lines are "framed" by the horizontal lines placed on the exterior both near the rim and the base. The fine-line incising, which is found in the Consejo (one sherd), Machaca, Tiger and Stopper Groups, is more varied and elaborate, particularly in the Tiger Group. Crossed lines and cross-hatching are popular, though ticking, parallel diagonal lines and triangles are also found. The cross-hatching is occasionally associated with faint modelling apparently designed to give the appearance of facial features (e.g., Pring 1976: Fig. 1d, j, 1977: Figs. 25r, 26a). Individually, this impression might be dismissed as fanciful but it occurs with too great consistency in a number of Swasey groups together with more fully modelled figurines and even resist painting designed to achieve the same effect (Hammond 1977c: Fig. 8).

In terms of shape, there is a fairly sharp distinction between those groups apparently used mainly for utilitarian purposes (Copetilla and Chicago for example) and those that are apparently rather finer such as Consejo, Ramgoat, Stopper and Machaca. The Tiger group, interestingly, has shapes that fall within both categories. In the "utilitarian groups" the jar form is very common and distinctive with a low-to-medium-high, flaring neck, thickened at the upper end with a square lip. Although this form appears to overlap slightly, in a modified version, into the succeeding phase, it is generally a diagnostic feature of the Swasey ceramic complex and one that could be spotted with ease from mixed deposits in northern Belize. Frequently associated with this shape is the "double-cylinder" handle which consists of two or occasionally more cylindrical rolls of clay joined together in a vertical plane generally attached to the rim at the upper end and pushed through or moulded onto the shoulder of the vessel below (Pring 1976: Fig. 1h). Less common, but of considerable interest, is the bottle shape. The evidence for this is based mainly on the thin, vertical or slightly tapered neck with its exterior folded rim. Prior to the 1979 season, the only suggestion as to what body shape accompanied the bottle neck was Brainerd's reconstructed shape based on material from Mani (Brainerd 1958: Fig. 31c, 8, 23) with a pointed base and apparently sloping sides with a medial angle of sorts. However, in 1979 enough broken sherds were found in a level of mixed Lopez and Swasey material to reconstruct an entire bottle with a globular body, long, hollow, single foot and at the upper end, a narrow cylindrical opening tapering to a rim diameter of 2-3 cms with a presumed exterior folded rim and pointed lip. The actual rim is missing but there does not appear to be much doubt as to its actual shape. This particular vessel occurred in mixed deposits and was placed within the Joventud Group on the gounds of slip characteristics but sufficient bottle necks and monopods have been found in unmixed Swasey deposits to indicate that this shape was not uncommon at that time. Other shapes include the tecomate (incurving-sided bowl with restricted orifice) and a small number of dishes and bowls.

Among the finer pottery, the range of shape is greater though the commonest by far are the vertical- or slightly flaring-sided dishes and plates with direct rims, and the incurved-recurved sided plates, again with a direct rim for the most part. Round- or out-curving sided vessels are also found, together with tecomates, bottles and low-necked jars. Appendages include monopods, strap handles, bosses and round-section

spouts. One of the features of this pottery is that there tends to be minimal rim alteration with generally round or square lips. Certainly, there is no suggestion, until very late in the phase of the heavily bolstered or exterior-folded rims that are so typical of the subsequent Preclassic ceramic complexes.

Looking at the Swasey pottery from a more general viewpoint, the most striking feature is its sophistication. As far as we know at present this is the earliest Maya pottery, yet it could never be compared with some of the other "earliest" ceramic complexes either in Mesoamerica or northern South America. The fairly simple forms and decoration of Pox, Purron, Valdivia I and even Barra are all wholly alien in character from Swasey. Indeed, it is the opinion of the author that the pottery of this period represents a high point in sophistication that is not again equalled until the Protoclassic period. It is interesting to note that Andrews IV (1968) expressed similar views on the pottery of Phase I (now Nebanche Mamom) at Dzibilchaltun. It was, in his view, "by far the best and the most aesthetically pleasing of any made at the site at any time." For Swasey, a wide range of shapes, a sure control over firing and slipping, elegant and occasionally complex decoration -- all suggest that the potters were no novices.

One of the more puzzling features of the Swasey phase was the apparent lack of ceramic change. If our radiocarbon determinations are correct, then we are speaking of a phase of over a thousand years, yet on the initial evidence it proved impossible to find any satisfactory criteria on which to define any facets. However, work at Cuello has already provided enough material to suggest that such a facet will be established, and it may be possible to do this when the sherds from the excavation have been analysed in depth. During the earlier part of the phase, we see Ramgoat Red, as the larger red-slipped group, forms appear to be slightly simpler and, in the case of those diagnostic modes such as jar necks and "double-cylinder handles," are unmodified. Tiger Buff is more important while Yotolin Pattern Burnished is confined to the earlier part. In the latter part, Consejo Red grows in importance, and indeed, as mentioned above, may even continue into the subsequent Middle Preclassic period. Bichrome painting, especially with Tower Hill Red-on-cream and Ossory Red-on-orange makes a late appearance and likewise may continue even further. This is welcome news, for the presence of such a long phase without any ceramic change would be hard to accept for many archaeologists. Yet, it must be admitted that our concept of ceramic change and the speed at which it operates may well be based on misleading premises. Thus it had been widely assumed that the Mamom ceramic phase stretched from approximately 550 to 250 B. C. - a span of only three hundred years. Yet these dates are by no means based on secure carbon dating. If the Cuello dates are accepted in their entirety, the Lopez Mamom complex may well range from 1050 B. C. to 250 B. C. - an 800 year stretch, with Cocos Chicanel lasting a further 500 years. Seen in this light we have a picture of long early ceramic complexes, gradually shortening and becoming more susceptible to ceramic change. If this is the case then the length of the Swasey phase is not too disturbing.

One of the more critical factors in our argument concerns the link between Swasey and Lopez Mamom. It should be stressed that this link and comparison is made

purely locally. I have elsewhere (Pring 1976, 1977) attempted to make comparisons with other areas both in the Maya Lowlands and beyond. Here, however, I shall be referring to the ceramics of northern Belize. It could be, and indeed has been argued that Swasey is unrelated to the Mamom pottery of the Middle Preclassic period and thus that the Swasey settlers were an isolated group that had little or no influence on subsequent events. The stratigraphy at Cuello argues against this view, but it is the ceramic evidence that is most compelling. First, however, we must establish the validity and unity of the Lopez Mamom ceramic complex. At Cuello, where most of the deposits have been found, it has proved possible to sort Lopez pottery from both earlier and later material on the basis of shape and slip texture. This distinction is possible despite, or perhaps because of, the fact that there have been no wholly pure deposits excavated at the site to-date. In northern Belize, as elsewhere in the Maya Lowlands, redware is numerically dominant among slipped pottery (an exception to this rule occurs at Barton Ramie in the Jenny Creek complex where the Joventud group is overshadowed by other monochromes). In terms of slip texture and colour it is similar to both Sierra Red of the Cocos complex and Ramgoat Red of the Swasey. Yet, on both of these grounds there are distinctions which are sufficient to warrant sorting of even undecorated body sherds. In view of the opinion generally held among Mayan ceramicists that there is virtually no slip distinction between Sierra and Joventud Red, this may be hard to accept. Nevertheless, such is the case in northern Belize and other ceramicists who have observed the criteria for sorting (Ball and Robertson-Freidel for example) are of the opinion that the distinctions are genuine. Specifically, the slip of Joventud Red is more crackly, much more waxy and of a more limited colour range than redware that either precedes or succeeds it. Whilst this is most noticeable in the Joventud group, it is also found in all the other slipped groups with the exception of Chicago Orange. Having established the integrity of the Lopez Mamom ceramic complex we may more confidently discuss the latter's relationship to Swasey. Perhaps the most obvious transition is between Ramgoat and Joventud Red. Although, at each end of the scale, they are readily separable, there are a number of sherds that are clearly transitional in terms of slip characteristics, and these are found in the upper Swasey levels. Equally apparent, the Chicago variety of Chicago Orange is quite indistinguishable from the Warrie Camp variety except in vessel shape. Of the Unslipped types, Copetilla Unslipped is hard to distinguish from its Lopez counterpart. Distinctions are greater with buff and black wares as well as of course with Consejo Red, but the very fact that red, buff and black are the predominant slip colours, in that order, argues for continuity in the area. Of the Minor groups, Tower Hill may well be a forerunner of Muxanal Red-on-cream; Lazaro variety found in Lopez Mamom, while the concept of red-and-unslipped decoration continued with the Bobo (Lopez) and the Puletan (Cocos) types. In terms of shape, we have already noted the gradual changes in the jar neck and the "double-cylinder" handle which persist into the Middle Preclassic in modified form. Another survivor is the bottle shape which is clearly present, though in smaller quantities, in Joventud Red. Tecomates continue in use, while the incurved-recurved sided vessels develop into the cuspidor bowl form. Strap handles persist and spouts are present with no great distinction. The sense of continuity is less apparent in the vertical or slightly flaring-sided vessels which become outcurving and frequently possess rim modifications that are quite extensive. The

principal decorative mode in Lopez Mamom consists of pairs of grooved-incised lines round the rim on both interior and exterior and down the side on the latter. This represents less variety than is found in the Swasey complex but there are obvious similarities between the two. To sum up, it is evident to this ceramicist at least and to others who have seen a representative sample of the material, that Swasey and Lopez are quite distinct from one another, but that the former is definitely ancestral to the latter. Swasey is thus a genuine complex in its own right and also can lay claim to being the earliest Maya ceramic complex yet known.

If the end of the period is clarified, and the middle satisfactorily described as far as its ceramics are concerned, the origins are still clouded in doubt and uncertainty. We have indicated that from the earliest levels, the pottery is sophisticated, but if this is so we must seek a reason for its sudden appearance, ready-developed at Cuello. My dissertation (Pring 1977: Chap. VIII) contains an extensive survey of other ceramic complexes, undertaken with precisely this question in mind, but the results of that survey were singularly unhelpful. The earliest ceramic complexes, from Tehuacan, through Puerto Marquez, South Coast Guatemala and Chiapas, Honduras and Monagrillo down to Puerto Hormiga and Valdivia and as far afield as Southeastern United States, all appeared quite different to me, although it should be noted that Lathrap (personal communication) did observe similarities with material that he had studied from Coastal Equador. Certainly, if an origin outside the Yucatan Peninsula is to be found for the Swasey pottery, then Northwestern South America would appear to be one of the more likely areas. At the moment, however, in the absence of any evidence, an equally appealing hypothesis is that the origins may well lie beneath the soil in the Maya Lowlands, awaiting discovery. After all, if the presence of Swasey was totally unknown for so long despite extensive work in the area then it is possible that other, earlier material remains to be discovered. The evidence of the three very early radiocarbon dates from the 1976 excavation at Cuello (discussed below) suggests the possibility of this. Furthermore, once the Swasey pottery had been discovered and defined, it quickly became apparent that it was not confined to Cuello but was found elsewhere in northern Belize and even beyond. There are definite traces of Swasey ceramics at Becan, for instance, and Ball is now of the opinion that Acachen is not the earliest ceramic complex in Southeastern Campeche "but that an earlier Swasey assemblage is waiting to be discovered" (Ball, personal communication). One of the most obvious links, however, occurs at Mani where bottles are found with similar neck forms and virtually indistinguishable pattern-burnishing even down to individual patterns (Brainerd 1958: 37, Fig. 30c, 1-4). Brainerd's assessment of this pottery as unique and very early has been challenged on numerous occasions but, on the evidence from Cuello, it would appear to be a very accurate and far-sighted one. Inspection of the Mani material in Merida suggests that it is cruder in texture and design which in turn suggest that it may be ancestral to the slightly more sophisticated version at Cuello. Certainly, if the Swasey ceramic complex is as early as we suggest, then further excavation at Mani must be an urgent task to complement the data from northern Belize.

Other links with Maya Lowland sites are more tenuous. At Dzibilchaltun, as indeed at Tikal, Seibal and a number of other sites there appears to be a progression from

a relatively non-waxy pottery into the Waxier surface traditionally associated with the Middle and Late Preclassic. We have already noted Andrews' comment on the sophistication of the Nabanche pottery. From the Central Peten, neither Uaxactun nor Tikal have much in common with Swasey and the same is true of Barton Ramie, despite the relative geographical proximity and the possibility of a temporal overlap (discussed below). In the Pasion zone, the Real Ceramic Complex at Seibal exhibits some similarities in the presence of flat-based, flaring-sided dishes and plates with direct rims (e.g., Sabloff 1975: Figs. 31, 65). At Altar de Sacrificios, this shape is also present together with tecomates and low- to medium-necked jars. In addition there are a number of sherds illustrated that bear a marked resemblance to the Swasey pottery. In particular, the "double-cylinder" handle is present in both Achiotes Unslipped (Adams 1971: Fig. 2v, 3b, d) and Abelino Red (Adams 1971: 3c). The blackware, incurving-sided bowl with impressed rows from Baldizon Punctated (Adams 1971: Fig. 1n) is similar to a sherd from Tiger Buff (Pring 1977: Fig. 24b). Some of the faint pre-slip, horizontal incising found in Abelino Red, Yaltata Orange and Pico de Oro Incised (Adams 1971: Figs. 4b, 5a, 7h respectively) resembles that found, especially in Backlanding Incised and Calcutta Incised, while the post-slip incision from Chompipi Incised is very close to Cowpen Incised: Cowpen variety (Adams 1971: Fig. 71a-d; cf. Pring 1977: Fig. 26f). There are other examples that could be cited and although they do not in any sense suggest that the complexes are related, they do offer the possibility of shared modes and hence perhaps contact of an as yet undefined nature.

The evidence for the radiocarbon dating is impressive. It must be admitted, as Culbert (personal communication) has pointed out, that all the dates come from one site and, for the most part, from one platform. Until we obtain Swasey material from other sites with roughly comparable dates, this fact will leave doubts in the minds of some. In addition, there are several archaeologically unacceptable samples in the dates. But there are few sites with a range of dates in which all are consistent and Cuello is one of the most impressive yet known for the Preclassic period of any Maya site. Indeed, the general paucity of radiocarbon dates for the Lowland Preclassic must be heavily emphasised, for it underlines the rather tenuous grounds on which Preclassic Maya chronology is based.

Thus, Sorensen (1977) lists 34 dates before Christ for the Maya Lowlands, of which 21 come from one site (Tikal) and all but a handful are from the Late Preclassic.

Hence it will be apparent that a great deal of the dating for the Preclassic, especially the earlier part of it, is based on conjecture allied to cross-referencing of ceramic modes. The evidence from Cuello is of a vastly different nature. Hammond, in conjunction with others, has recently published two articles (Hammond, Pring, et al. 1976; Hammond, Donaghey et al. 1977) in which he describes the dates available and the means by which they were obtained and tested. We have 9 dates from the 1975 excavation and 18 from 1976. Three dates from the former were unacceptable - probably through some undetected contamination before or during excavation. Of the remaining 24, one from 1976 came from a context later suspected of contamination while three appear to be too early for their context and may be of redeposited material. The remaining

20 are consistent both stratigraphically and ceramically, providing us with an impressive span of dates for the Preclassic. Twelve of these are association with the Swasey phase, giving a central date range of 2050 - 1050 B. C. Four samples are from Lopez Mamom contexts including one, the earliest, from a burial that is stratigraphcially transitional between Swasey and Lopez. The central dates for these range from 1020 - 240 B. C. The proximity of this starting date with the terminal Swasey date lends support to our belief that the later phase did in fact start around 1000 B. C. However, the rather large standard deviation of ± 195 years for the latest Lopez date means that we cannot feel as confident about its ending. Similarly, two samples from Cocos Chicanel levels gives dates of 330 and 174 B. C. and whilst these are clearly within or around the accepted Chicanel timespan, they do not help much to define that span. The dates then are most useful for determining the extent of the Swasey phase. It is to be hoped that the radiocarbon dates from the 1978-1979 excavations at Cuello will provide more chronological information for the later Preclassic period. In particular we are uncertain of the interface date for Lopez and Cocos. Nevertheless, the consistency and range of the dates give chronological framework, where before archaeologists were largely leaping in the dark. A case in point is Barton Ramie where in the 1950s a radiocarbon date was rejected as too early even though it came from the earliest levels (Willey et al. 1965: 29). Yet a more recent radiocarbon date from a similarly early cultural level excavated by the Corozal Project produced a date of 1205 ± 205 B. C. The three extremely early dates from the 1976 excavation (2790, 3190 and 3190 B. C.) may be interpreted as redeposited charcoal fragments from wood burnt either naturally or with human intervention. If the latter, of course, then the presence of man in the area would be pushed back even further.

In the preceding pages I have attempted to define and defend stratigraphically, chronologically and ceramically the evidence from Cuello as it relates especially to the Swasey phase. There are still question marks about all three. Stratigraphically, the case is the strongest, arguing for a lengthy period of Swasey occupation, followed by a Lopez presence and subsequent Cocos construction. Chronologically, the fact that radiocarbon samples are at present confined to one site is slightly disturbing, though the excavation at Barton Ramie in 1976 appears to fall within the time scheme established at Cuello. Although there may be some contamination of all Cuello dates this does not seem very plausible - the samples were assayed at two laboratories with concurrent results. Ceramically, the lack of change over a long period of time, the sophistication of the earliest pottery, the absence of any recognizable antecedents and the apparent restrictions to a relatively small area, all pose questions to which there are no simple answers. Indeed, it is important to stress that the presence of the Swasey inhabitants presents archaeologists with more problems than solutions. The greatest significance of the new evidence is precisely that - that it upsets hypotheses that had, by virture of their unchallenged use, come to be regarded as truths. To attempt to furnish answers on the basis of the limited data available would be to fall into the same errors for which we have criticised others. Nevertheless, some speculation is justified to indicate a direction or directions which future research might take.

One of the more obvious problems facing the contributors to the recent

seminar on the origins of Maya civilization at Santa Fe was the ancestry of the earliest, central-zone ceramic complexes. This problem has not been satisfactorily resolved. Culbert speaks of "the lack of close relationships between early ceramic complexes in the Southern Maya Lowlands" (Culbert 1977: 36) and Willey, in his summary chapter, states that "Pottery definitely identified to the Xe ceramic sphere has not yet been reported elsewhere in the Maya Lowlands" (Willey 1977: 386). He then reiterates Culbert's feelings and adds that the early facet of Jenny Creek falls into a similar position, having slight resemblances to Xe, but nothing of any significance. It would be pleasant and very tidy, if Swasey pottery provided the link between these disparate ceramic complexes. However, the evidence at present does not warrant the acceptance of such a hypothesis, though it does not altogether rule out the possibility. I have argued elsewhere (Pring 1977: 443) that Lowe's ethnic-rivalry model (Lowe 1977: 197-248) is one of the most plausible explanations for the earliest Maya presence in the central zone, if we set aside for the present the notion that there is further, unexcavated material of significance there. Yet where he speaks of bands of "slightly desperate commoners" who were outcasts from culturally superior people to the south and west, we would add that the same may have been occurring at a similar or slightly different period from north and east. There are some grounds for supposing that northern Yucatan, from northern Belize across to Becan and for an undetermined distance north, may have been developing as a regional entity even before the Middle Preclassic. Ball (1977: 103-104) hints at some such regionalism, although not along those precise lines, during the Acanche and Nabanche phases, but the presence of Swasey or Swasey-like pottery at both Becan and Mani means that it may go back even further. Such a link would not be implausible, particularly in view of the northern orientation of Cuello and surrounding sites as manifested in the Lopez Mamom ceramics. Moreover, the presence, at Mani, of fairly coarse pottery with decoration similar to that found in the earliest Swasey levels offers the hope that further excavation at the former may provide some important information about the latter's origins. The emphasis must now turn to excavation to provide more data on a period about which we now know more only to find that in fact we appear to know less.

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