

TEXAS PAPERS ON LATIN AMERICA

**Pre-publication working papers of the
Institute of Latin American Studies
University of Texas at Austin**

ISSN 0892-3507

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Belize, and Its External Relationships**

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Paper No. 89-11

The Ancient Maya Craft Community at Colha, Belize, and Its External Relationships*

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Over the past decade, extensive fieldwork and laboratory analysis have focused on the archaeological record at Colha, in northern Belize. Numerous published papers, along with doctoral dissertations and masters' theses, have provided considerable detail on the chronology, settlement pattern, technologies, and economic focus of this site. Most of the available literature is concerned with the stone tool production aspect of Colha, the craft-specialized activity that this represents, and the distribution of lithic artifacts produced at Colha at sites in northern Belize and adjacent areas (e.g. Hester and Shafer 1984, 1987; Hester 1985; Shafer and Hester 1986). A separate paper by King and Potter (1989), addresses the nature and role of the Colha community through more than two thousand years of occupation.

Our paper is a rather straightforward attempt to briefly summarize the lithic technology of Colha and to examine the manner in which the lithic commodities from the site were acquired and utilized by Maya consumers outside the Colha settlement area. We will spare the reader the detailed debate over the characterization of craft specialization at Colha, and refer instead to the papers by Mallory (1986) and Shafer and Hester (1986a) that appeared in *American Antiquity* (the reader should also see Clark 1986, 1987, for a cogent review of the criteria for recognizing craft specialization).

First, let us briefly note the level of the Colha community from Middle Preclassic through Middle Postclassic times. At both ends of this spectrum, it represented a small village or hamlet, though our knowledge of the architecture and spatial layout of Colha in Middle Preclassic times (ca. 1000 B.C.–250 B.C.) is still very rudimentary. Maximum expansion was clearly in the Late Preclassic and the Late Classic. Not only are the chert workshops abundant at these times, but there is also settlement expansion

* Paper presented at the 54th Annual Meeting of the Society for American Archaeology, Atlanta, GA, April 1989.

and major attention devoted to the small ceremonial center at the north end of the site. Even at these peaks, it is unlikely that Colha ever exceeded a maximum of five thousand inhabitants based on studies by Eaton (1980, 1982). It seems clearly to have maintained control of lithic production in the northern Belize region, at the least, in Late Preclassic times. Despite extensive excavation and survey by many research groups in northern and central Belize, no other Late Preclassic lithic production sites are yet known. This is in direct contrast to the scenario of Late Classic times, when perhaps the site was under the aegis of the major center at Altun Ha, 21 km to the south (possibly this occurred in the Early Classic, as Scarborough 1985:341 has argued that northern Belize polities were disrupted by a "coercive elite" in the Early Classic). During the Late Classic period, several lithic workshops developed in the chert-bearing zone between Colha and Altun Ha. (Interestingly, Late Classic lithic workshops also appear, for the first time, at sites like Rio Azul in the Peten and in the Rio Bec zone.) Clearly, Colha's role as a community that dominated certain kinds of chert artifact production is relegated largely to the Late Preclassic. There are, however, distinctive lithic forms, such as small stemmed blade points that were produced in large numbers at Colha in Terminal Classic times, while the other workshops to the south restricted their output to biface/celt manufacture.

The stone toolmakers of Colha utilized extensive outcrops of high quality cherts—usually banded, and of various colors, including brown, gray, and tan. The site itself was situated on the northern perimeter of what we have elsewhere called the northern Belize chert-bearing zone (or CBZ, in the following discussion). Outside this region, northern Belize lithic resources are primarily poor quality white/gray chalcedony although there are areas, as at the site of Kichpanha, 12 km north of Colha, where good quality chert has been documented.

Seven excavation seasons at Colha have provided us with an abundance of data on the technology of lithic production and the diagnostic tool forms of each major period at the site. We know least about the Middle Preclassic, and especially the early phase of this period at Colha. On the other hand, our lithic sample from this early era at Colha exceeds the sample size from Middle Preclassic sites anywhere else in this part of the Lowlands. Standardized tool forms are already recognizable, including narrow oval biface celts, bifaces with wedge-shaped bits, T-shaped adzes, and a burin on truncated blade technique for producing burin spall drills used in shell-bead making. Though we have not recognized, up to this point, any lithic production areas or

incipient workshops, the lithic sample from Cuello, also now known to be of this time frame, essentially duplicates the Colha forms. It is our view that stone toolmaking was already under way at Colha, likely at the cottage industry level, with highly specialized forms—such as the T-shaped adze—being provided to Middle Preclassic villages in northern Belize. There is even the possibility that such distinctive forms were being even more widely distributed. For example, a large T-shaped adze of Middle Preclassic form is on display at the Field Museum in Chicago, attributed to a provenience on the Subin River in southern Belize (collected by J. Eric Thompson, 3rd Marshall Field Expedition).

The macroblade technology observed at Colha in the Middle Preclassic likely has its origins in preceramic or Archaic lithic industries. A locus of preceramic lithic production has been tested at Colha by graduate student Greg Wood, during the 1987 and 1988 seasons.

Beyond the space allowed in this paper is a wide array of data indicating that the extensive Late Preclassic (250 B.C.–A.D. 250) lithic industry is clearly derived, in terms of technology and form, from the Middle Preclassic. However, for whatever reasons or stimuli, again too lengthy to detail here, the Late Preclassic occupation at Colha is dominated by stone-tool mass production. More than thirty-five large workshops, up to 450 sq m in plan and up to 1.75 meters thick, are clustered in the central core of the site. The extremely high volume of output, in the hundreds of thousands to millions of tools, has been documented previously by Shafer and Hester (1983, 1986a; see also Roemer 1984). Distinctive forms produced in great volume are large oval bifaces, tranchet bit tools (or "adzes"; see Shafer 1983a), and large-stemmed macroblade points (variously called "tanged points" or "daggers"). These three forms, and a lesser but even more distinctive form produced at Colha—the eccentric—are found at numerous other sites in a variety of contexts. Though other artifacts were made in the Late Preclassic workshops, the chert workers specialized in these forms, apparently for export to Maya consumers. We cannot precisely date the end of the workshops, if indeed there is (as we have earlier suggested) a hiatus in manufacture. There is increasing evidence to indicate that the Late Preclassic workshops continued into Protoclassic and even Early Classic times, although the level of production may have dropped off and the variety of forms became more restricted.

The Late Classic workshops at Colha are even more numerous and are distributed across the site. Particularly distinctive of the Late Classic was the manufacture of

general utility bifaces (thick, heavy celts with extensive use wear), smaller oval bifaces, the continuation (perhaps in reduced numbers) of tranchet technology, and the manufacture of eccentrics, particularly smaller effigy-style eccentrics and multinotched blades. In Terminal Classic workshops, such as Op 2007 excavated by Roemer (1984), the emphasis was on blade-making, with the blades used in the production of small-stemmed blade points. Roemer's (*ibid.*) quantitative studies revealed a workshop debitage density of more than five million pieces per cubic meter (see Shafer and Hester 1986).

The Postclassic lithic technology at Colha presents a wholly different picture. The long-lived technologies of the Preclassic and Classic are replaced by forms clearly derived from outside the region—including side-notched dart points in the Early Postclassic and lozenge-shaped points in the Middle Postclassic. Though the local chert outcrops are still used, the Postclassic flintknappers imported chalcedony into their small village—built over the remains of the earlier ceremonial center.

Given the size of the Colha community, it seemed likely to us, as early as 1976, that the production was of such volume that most of the lithic output had to be directed to a market or exchange system that would move it to Maya consumers elsewhere. Our excavations in 1979-1981 confirmed our hypotheses as to the level of production. But, where did all the stone tools—especially of Late Preclassic and Late Classic times—go and how were they utilized? It has been through the fortunate coincidence of intensive archaeological work in Belize in the 1980s and the cooperation of our archaeological colleagues, permitting us access to their lithic collections, that a fairly accurate picture of Colha tool distribution has emerged.

First of all, we can say that most of the output went to the utilitarian needs of the consumers at other sites. However, there is a second level that is also evident. The eccentrics and many of the stemmed macroblades were destined for ritual use and for elite tombs and caches. These two quite different spheres of consumption are clearly indicated by the contexts in which Colha-produced tools are found. Another pattern that seems to be emerging is that one specific tool form—the large-stemmed macroblade—was a highly prized commodity that sometimes went to Maya centers at much greater distances. It has also been suggested (Gibson *n.d.*) that eccentrics, the odd-shaped forms used so widely in Maya culture, originated at Colha in the Late Preclassic workshop context. Gibson's study of the literature and of museum

collections (see also Gibson 1986) finds that the earliest documented occurrence and use (e.g., in caches) is at the site of Colha.

Let us look, then, at how the tools from the craft-specialized community of Colha were utilized for utilitarian ("sociotechnic") and elite ritual ("ideotechnic") needs. We need to preface this discussion with a comment or two on the identification of "Colha chert" and "Colha technology." We have done both visually, based on our empirical knowledge of Belizean cherts and the experience gained through the analysis of tens of thousands of lithic artifacts from Colha itself. The Colha lithic craftsmen developed distinctive technological systems in the mass production of stone tools, and attributes of these can often be recognized. The distinctive banding and coloration of Colha cherts is well known, though we have tried to be cautious in attributing these cherts specifically to Colha—preferring instead to link such materials to the Belize chert-bearing zone (CBZ). Neutron activation analyses of the trace element composition of two hundred Belize cherts by Tobey (1986) indicate that distinctive groups can be recognized. A similar, but more limited, study using thin-section petrography has been done by Bost and Reedy (1985) and also shows some promise for gross distinctions of chert groups. Tobey's approach clearly has more interpretative potential, though it is more time-consuming and expensive.

Colha's External Relationships

Through our studies and those of our colleagues, we can now more clearly trace the distribution and use of Colha lithic artifacts beyond the site itself. We are faced with several major issues: (1) what was the method of exchange; (2) how and to what extent were the lithics utilized at the consumer sites; (3) can we document, as postulated earlier, different levels of consumption and, indeed, distinctive geographic clusters of consumer sites? All of these issues can be addressed, at least in part, with our present data. Fortunately, we also have the intensive research of Patricia McAnany (1986) on both the nature of tool consumption at Pulltrouser Swamp and the processes of exchange that may have moved Colha lithics into the Pulltrouser area.

First of all, as we have noted earlier, we see two different levels of tool consumption: "utilitarian"—the destination of the mass-produced tools, such as the large oval bifaces and the tranchet tools; and "elite or ritual," where stemmed macroblades and eccentrics were destined. But, do these two levels of tool use have

spatial boundaries or do they overlap? Based on the data we have at hand, we speculate that there were several geographic areas into which Colha tools went, some as "utilitarian," some as "elite/ritual," and into others, as both. McAnany (1986:253) has described the exchange system that moved Colha tools from the production site to other communities as an "interpolity exchange network." In essence, lithic commodities moved between communities as a "stable, small-scale sphere of economic interaction ..." among these communities (ibid.:253). Some larger communities, such as Nohmul or San Estevan, might have provided "central marketplaces" (McAnany 1986:269) with "barter as the circulation mechanism" (ibid.:109). She sees such an exchange system "organized along the lines of petty traders [following Feldman 1978:11], who were responsible for the "movement of a single line of goods over short distances" (McAnany 1986:269). (Scarborough 1985 argues for four major Late Preclassic polities in northern Belize, with Colha, and its "site level craft specialization" [p. 337] as the dominant center of one of these).

Such a system seems reasonable for what we would term our "primary consumer area"—the farming areas, communities, and centers of northern Belize and southern Quintana Roo. This primary area may have also extended somewhat into western, central, coastal, and southern Belize, but sites in those areas have a mixture of chert tools—sometimes from Colha, but more commonly from other chert sources and production areas. What we think was happening in those areas, as well as in far-flung areas in the Peten, is that some Colha commodities, especially the elegant stemmed macroblades, were being moved along by what Feldman (1978) and McAnany (1986) would describe as "professional traders—wealthy merchants ... who were involved in moving merchandise over long distances" (McAnany 1986:269). These are what we might label as our "peripheral consumer area" and define it as one that consumed lithic commodities in the form of the "elite/ritual" artifacts noted earlier.

Primary Consumer Sites

We do not have space in this paper to examine all of the information now available from northern Belize with regard to the consumption of Colha lithics. Some of these data have appeared in earlier papers (e.g., Shafer and Hester 1983, 1986a; Hester and Shafer 1984; Hester 1985), although much new information has since been recorded.

The nearest documented consumer site is Kichpanha, 12 km to the northwest. The site is located on the edge of the CBZ, and there are local deposits of good quality banded cherts and brown chalcedony (Hester and Shafer 1984:164). Studies by Shafer (1982) have shown, however, that Colha-styled formal tools occur from Middle Preclassic through Postclassic times (see also Gibson 1986). At least one thin workshop deposit is present at the site, though its date is uncertain.

The most intensive studies of a chert assemblage from a consumer site have been done at Pulltrouser Swamp, 33 km north of Colha. Shafer (1983b) and McAnany (1982, 1986, 1989) have carried out these analyses, and have focused particularly on the site of Kokeal. With the exception of eccentrics, all of Colha's Late Preclassic and Late Classic formal tool categories are found at Pulltrouser. McAnany (1986:253) notes in particular the large oval biface form, which were the most intensively recycled at Pulltrouser sites. Indeed, Shafer's (1983b) research has documented how the Colha tool forms were utilized at Pulltrouser and how, when these tools were broken, they were modified and recycled—a pattern that we now recognize at several "primary consumer sites."

Nearby is Cuello, about 29 km northwest of Colha. Beginning in what is now described as early Middle Preclassic times, Cuello was importing T-shaped adzes and other finished tools. Our examination of the Cuello situation (Shafer et al. n.d.) indicates that waste flakes found at the site are related to the reduction of local nodules of chalcedony, while chert debitage is derived from retouch and recycling of formal tools from the CBZ, almost certainly from Colha. We can also note the great similarity between the Cuello lithic sample and that reported from Pulltrouser localities some 13 km to the north. In the early 1980s, when the earliest Cuello deposits were thought to be Early Preclassic and those at Colha to be Middle Preclassic, it was difficult to explain the presence of such distinctive tools as the T-shaped adze at both sites. Now that we know these deposits are contemporary, all evidence, particularly technological attributes, points to their manufacture at Colha. Various unpublished and published papers on Cuello lithics, particularly those of Seymour (1982) and McSwain (1982, 1983a, 1983b), have sought to argue that the early Cuello inhabitants traveled to the CBZ themselves and returned with raw materials for tool manufacture at Cuello. This argument has gone so far as to postulate Late Preclassic workshops at Cuello, a locale where the requisite raw materials are absent (McSwain 1983b). Furthermore, it has been suggested that other northern Belize population centers obtained "unprocessed or

minimally processed chert for manufacture" (ibid.) within their own communities. This is clearly contradicted by the lithic evidence we have examined from these sites. We are more in sympathy with McAnany's (1986:266) well-argued observations that "very localized pools of knowledge regarding resource location and production skills" (emphasis ours) were the mainstay of interpolity exchange networks. Indeed, she further argues that such localization is "diagnostic of a very stable exchange network"(ibid.) McAnany feels the data from Pulltrouser, mirrored at Cuello, support the hypothesis that "entrenchment of resources extraction and commodity production skills ... results in a corresponding lack of such skills at consumer locations" (McAnany 1986:267). The debitage patterns at both Pulltrouser and Cuello provide evidence in support of this hypothesis.

At Nohmul, 38 km northwest of Colha, excavations by Chase and Chase, and more recently by Hammond, have provided important lithic samples. Nash and Shafer (1986) in their study of the Chases' lithic materials indicate that the formal tools were predominantly CBZ/Colha chert, although the frequencies are not as high as Pulltrouser. In Hester's review of a sizable sample of Nohmul lithics (3/19/86), he noted many recycled bifaces, stemmed blades (of Terminal Classic date), and even hammerstones, all of CBZ/Colha chert. There were also large thin Early Classic bifaces from ceremonial contexts that were of brown chert, clearly not from Colha. Similar specimens are found in western and southern Belize and will be noted later. A review of the debitage in 1986 clearly revealed that CBZ/Colha cherts were dominant, with local chalcedonies also heavily represented. No detailed quantitative or attribute studies were done by Hester at that time. In addition to the utilitarian implements from Nohmul, Hammond (et al.1987); personal communication) has reported two chert eccentrics with a burial in structure B at Nohmul, dated at around 1000 B.C. These are described by Hammond as "Colha-type, honey colored chert of good quality."

At San Estevan, 30 km north-northwest of Colha, Bullard (1965:Pl.XVII) illustrates oval bifaces and a stemmed macroblade, clearly of banded chert and appearing to be of Colha technology. The oval bifaces were associated with all three ceramic complexes, beginning with the Late Preclassic and continuing into the early Late Classic. The stemmed macroblade was from the Barklog complex, probably of terminal Late Preclassic or Protoclassic date. Laura Levi, currently testing the site, reported to Shafer (personal communication, 1986) finding much debitage and no lithic workshops. She further noted light and dark cherts "local to the area," although

Shafer and I have not seen chert deposits in the vicinity in our reconnaissance of the locale. We would predict that continuing excavation will yield "consumer" lithic assemblages similar to Pulltrouser (only 6 km to the west), Cuello, and Nohmul.

At the site of Cerros, a Late Preclassic center 45 km north of Colha, Mitchum (1981,1985,1986) has documented lithics from household contexts. In the households, she recognized a heavy emphasis on recycling of Colha-type formal tools, including bifaces, macroblades, tranchet tools, and hammerstones. Like Shafer (1983b) at Pulltrouser, she found some stemmed macroblades in "household trash" (Mitchum 1981). Mitchum (*ibid.*) also observes that the highest percentage of Cerros lithics are "Colha chert," and this includes considerable debitage from retouch and recycling of broken tools.

To the northwest at nearby Sta. Rita Corozal, Chase and Chase (1986,1988) have recovered extensive samples of chert artifacts. The Preclassic materials are currently under study at Texas A&M University and are reported to be 90-95 percent CBZ/Colha.

The Late Postclassic lithics are being written up by Kay Condit at the University of Texas at Austin. Cherts from fill contexts, accompanying the Late Postclassic lots, are dominated by Colha tools (see Shafer and Hester 1988) along with the use of local chalcedonies (perhaps from Progreso Lagoon, some 15 km to the south ... a locale often erroneously reported as a "chert source" [Andresen 1983]).

In the Department of Archaeology at Belmopan are the lithics recovered from a Sta. Rita Early Classic tomb (Chase and Chase 1986). These include a huge chert bar eccentric, 72 cm long and of CBZ/Colha chert, and two stemmed macroblades, with cinnabar residues, also from the lithic source. We speculate these lithics may be of Late Preclassic date and were curated and later placed in this tomb. We suggest this because the protrusions once present on the bar eccentric had been broken at some earlier date.

West of Cerros and Sta. Rita, at the site of Sarteneja, about 48 km northeast of Colha, large oval bifaces, macroblades, stemmed macroblades, and Late Classic general utility bifaces have all been found by Matthew Boxt (Hester and Shafer 1983). These are all of CBZ/Colha chert and technology.

At the major center of El Pozito, 31 km west of Colha, research by Berry, Shafer, and Hester (*n.d.*) has revealed that CBZ/Colha chert tools are dominant; these include imported oval bifaces, general utility bifaces, tranchet tools, blades, stemmed blades—

and much evidence of recycling of all of these. There is also a remarkable set of stemmed macroblades from a Late Preclassic cache (Cache 22) from the site's ceremonial center. White and gray chalcedony was used to make bifaces (mostly with ground bits) and some chalcedony-working areas or scatters are seen in the sugarcane fields around El Pozito.

For the site of Lamanai 38 km southwest of Colha, we have only a bit of lithic information, based on observations of materials at the field camp, courtesy of David Pendergast. The Early and Middle Postclassic lithics at that site, of the same form and technology as the materials produced at Colha workshops of that time span, are beyond the scope of the present paper. We did examine (1981) a cache of Late Classic eccentrics that looked very much like Colha chert. Pendergast (personal communication) thinks, however, that they were made at the Late Classic lithic workshops near Altun Ha. This could well be the case, although we have not seen eccentric fragments in the debris from the Colha Project's testing of workshops in that part of the CBZ (Kelly 1980, 1982). A 69-cm-long eccentric found later by Pendergast is of banded gray chert, from the CBZ.

In far northern Belize, the Sidrys (1983) survey resulted in a chert tool collection from a number of sites. Sidrys (1983:381) notes that the Maya of that area were using "blanks" and "preforms" from the Colha/CBZ. From Andresen's (1983) lithic illustrations, these include oval bifaces and what are clearly recycled bifaces. We suspect that, as at Pulltrouser, at Rio Hondo (Hester and Shafer notes; courtesy of Mary Pohl) and with the case of the so-called Puleston Axe (Shafer and Hester 1986b), large oval bifaces were being imported into far northern Belize, where they were used as axes and earth-working tools. While Andresen (1983:278) states that the majority of the chert collection represents the "work of local chert knappers," he does not describe the kind of chert (noting erroneously a chert source at Progreso, which is actually chalcedony) or the presence of local workshops or lithic concentrations. Interestingly, in this sample, which is largely Classic and Postclassic in date, only two stemmed macroblades were found, one at Sarteneja Beach and a fragment on the beach at Cerros.

From Quintana Roo, we have only some general information on the occurrence of CBZ/Colha chert and tools in the area. Observations by Patricia McAnany (personal communication, 1984) suggests the presence of these materials at Kohunlich (collection housed in Merida). There was certainly the use of local chalcedonies, but

the imported chert included heavy bifaces and a slender stemmed biface of CBZ/Colha material.

Moving now to the central coast of Belize, we have data from several sites. Collections from Ambergris Cay (Hult n.d.) provided us by Tom Guderjan and Jim Garber are overwhelmingly of chert and Terminal Classic tool types from Colha—some 55 km to the northeast. These include general utility bifaces with heavy wear, stemmed blades, and considerable recycled materials (*ibid.*). From cache contexts are two stemmed macroblades of Colha material and technology, and a cinnabar coated eccentric of CBZ/Colha material. Interestingly, at the Northern River Lagoon site, 17 km to the southeast at the mouth of the Northern River, similar eccentrics of Colha chert have been found, along with Terminal Classic stemmed blades and other lithics typical of CBZ/Colha cherts and technologies.

About 20 km down the coast, Hick's Cay has yielded bifaces, macroblades, blades, and debitage of CBZ/Colha cherts as well as chert that appears somewhat different (Hester and Shafer 1983). Hick's Cay is off Rocky Point, about 25 km southeast of Altun Ha. Although the Colha Project has surveyed this area and recovered typical banded CBZ cherts, it is possible that some dissimilar cherts are being worked somewhere in the vicinity.

The site of Moho Cay presents an intriguing situation in terms of the lithic assemblage. Located at the mouth of the Belize River, it is thought to have been a trading outlet of some sort (Healy, McKillop and Walsh 1984). Indeed, there is pristine material that could have been in an exchange "pipeline" and abandoned or cached at Moho Cay for some reason. These include large stemmed macroblades, large oval bifaces, and very large tranchet bit tools—all typologically of Late Preclassic date. But, Hester's study of the collection (Notes of 4/4/83) also revealed much used or "consumed" material, including utilized macroblades, stemmed macroblades used as cutting tools, and heavily used general utility bifaces—materials of Late Preclassic and Late Classic age. There is some chalcedony in the collection (primarily used in Early Postclassic lithics in the assemblage) but it is overwhelmingly the CBZ/Colha brown-tan-gray banded and speckled material, and the technology is generally that of Colha. Most of the material is stained black from contact with saltwater, a color that earlier led some archaeologists to state that the Moho Cay collection was of black chert—with a source somewhere from the nearby interior. Such is not the case.

These central coastal sites are clearly within the "primary consumer area." However, along the southern coast of Belize, sites like Placencia (Shafer 1984) and Wild Cane Cay (Shafer and Hester, personal observations) also have considerable amounts of chert and chalcedony. While some of the chert resembles the CBZ, we feel that local chert resources/outcrops have to be looked for and studied before any relationship to the north can be postulated.

Peripheral Consumer Area

There are two subareas within the Peripheral Consumer Area: one within Belize, and the other outside that country's present political boundaries. Starting with sites in west and central Belize, we can note that San José, about 75 km southwest of Colha (Thompson 1939; Hester, personal observations, Field Museum collections), has several eccentrics of CBZ chert, but others of different kinds of chert and chalcedony. Bifaces are largely non-Colha chert, including a gray grainy material and a brownish chert. There are large bipoints made of brown chert (as at Nohmul) and of banded gray chert not from the CBZ. A Late Classic general utility biface from the site is of yellow-brown chert, again not from the CBZ.

At Barton Ramie (Shafer 1982), the utilitarian tools, especially Late Classic general utility bifaces and stemmed bifaces, are of poor quality chert (non-CBZ) and chalcedony. However, the stemmed macroblades (three seen by Shafer) were definitely CBZ and of Colha technology. Both San José and Barton Ramie are clearly consumers only of "elite/rural" CBZ Colha lithics. Similarly, at Big Falls, about 55 km from Barton Ramie, down the Belize River, and about the same distance south-southwest of Colha, plowed fields have yielded macroblades and a stemmed blade of CBZ/Colha chert, and also debitage of CBZ chert; however, other debitage is gray chert and chalcedony (cf. Barton Ramie). One stemmed macroblade at Big Falls is of brown chert, not from the CBZ. At the Ponce's site in central Belize, Late Classic burial caches include chalcedony and chert biface points and small eccentrics (similar to those reported from Baking Pot by Bullard 1965). Some of the stemmed bifaces are of CBZ chert, but workshop loci for these are not yet known. The other chert is not from the CBZ and the eccentrics are largely of chalcedony. The data from the Belize River and western and central Belize point to other production locales in that region, especially of Late Classic date.

Archaeological research in the upper Belize River valley by Anabel Ford (personal communication) has revealed some interesting lithic assemblages. Two debitage mounds have been recorded. Shafer's review of the materials indicates that one debitage mound represents the manufacture of small prismatic chunks used as boring tools, while the other produced hundreds of flat oval flakes, perhaps used as wedges. No biface production is linked to either locus. There seem to be almost no CBZ materials represented in this area.

A similar picture is seen from the few lithics published from Xunantunich (MacKie 1985). Oval bifaces and stemmed bifaces are illustrated, and none of the illustrations or descriptions suggest either Colha cherts or technology. Other cherts and chalcedonies appear to have been used.

Farther to the south, at the site of Pacbitun, Paul Healy (1987 and personal communication) reports a large-stemmed macroblade of CBZ/Colha chert, with stemmed bifaces and bipointed bifaces of non-CBZ chert (Cache 15-1; Early Classic).

The second subarea lies outside Belize, at distance sites in the Peten from which we have sketchy but intriguing reports. At El Mirador, Richard Hansen has shown us stemmed macroblades of Late Preclassic date made of CBZ/Colha chert and technology. Fowler (1983) reports nineteen artifacts of imported chert including a polyhedral blade core of Terminal Classic date, debitage, and stemmed blades, all of CBZ/Colha material (William Fowler, personal communication, 1983). From Tikal, Hattula Moholy-Nagy (personal communication) reports stemmed macroblades of CBZ material. John E. Clark (personal communication) makes a similar claim for distant Chiapa de Corzo. We are more dubious of the latter, though we cannot rule it out. At Macanche Island in the Peten lakes, Rice (1987:219) reports that "brown cherts from the northern Belize chert zone were increasingly available in the lakes ... in the Terminal Classic and Postclassic periods." She also notes (*ibid.*:213) some leaf-shaped points (possibly Early Postclassic) of "dark flint" which may be of "northern Belize (Colha) chert." There were active Terminal Classic and Postclassic workshops at Colha, which we have only briefly considered in this paper, and perhaps the materials were imported this far to the east.

Mark Aldenderfer's lithic research in this same area, as part of the Central Peten Human Ecology Project (CPHEP), notes the presence of both local cherts and imported chert materials (Aldenderfer 1985). The imported cherts he attributes to the CBZ of northern Belize. They are found in housemounds and also in elite contexts,

although specific types or forms are not noted. For example, at the site of Yaxha, Kimball et al. (1986) report 80 percent of the mounds contained obsidian and nonlocal ("fine brown"; CBZ?) cherts. In general, Aldenderfer (1985) feels that obsidian is ten times more common than the imported cherts. Of special interest (ibid.) is the presence of five flintworking areas, described as "loci of part-time specialists utility and fine biface production"—one "station" or "workshop" in each of the five basins surveyed. He further notes that the local cherts—gray, white, and yellow in color and medium to coarse-grained—come from the Sacnab area. All of the lithics from the CPHEP studies are of Late Classic date (Aldenderfer 1988). It is hard for us to evaluate the density or status of the reported CBZ lithics, or whether any of them are in recognizable tool forms of Colha technology. It may be imported from elsewhere in the CBZ and not related at all to Colha production.

Summary and Conclusions

The site of Colha in northern Belize was a community that specialized in chert tool manufacture and export for perhaps two thousand years. The craft specialists at Colha utilized locally abundant chert resources and their own specific production skills to meet the demands for large volumes of formal tools beginning in Late Preclassic times or earlier. While by far the highest level of production went into utilitarian tools, such as large oval bifaces and tranchet bifaces, the Late Preclassic workshops also turned out oddly chipped chert eccentrics for elite or ritual use. Additionally, they manufactured large-stemmed macroblade points that were sometimes used within the utilitarian realm as knives, daggers, and spear points, but which also clearly had elite/ritual appeal and were subsequently more widely distributed than any other lithic commodity from Colha.

Seven seasons of excavation at Colha have demonstrated the character of the lithic industries, as well as the fact that far more tools were made than could be consumed locally. More important, a number of recently excavated lithic assemblages from northern Belize and adjoining areas have been examined. In these are found numerous examples of tools made from CBZ materials and usually evidencing Colha-style technology. Detailed studies of excavated assemblages in northern Belize indicate that there was a "primary consumer area" containing sites of many sizes, and at which varying degrees of Colha tool utilization can be documented. At sites like Pulltrouser,

El Pozito, Cuello, Nohmul, and Ambergris Cay, tool consumption formed a distinctive pattern, usually involving extensive recycling of tools from the CBZ. At several of these sites, one also sees the importation of eccentrics and stemmed macroblades for ritual use (e.g., at Nohmul and Santa Rita Corozal). The processes of exchange in Colha's external relationships will likely never be known for certain. We favor McAnany's (1986) hypothesized interpolity exchange system utilizing petty traders for moving these lithic commodities from Colha to the consumers. However, long-distance trade was also a part of the picture, given the materials found at the site of Moho Cay, and the presence of CBZ/Colha-style stemmed macroblades, at far-flung sites in southern Belize (e.g., Pacbitun), in southern Quintana Roo, at Tikal and in the Peten lakes area, and at El Mirador. We have speculated that the long-distance materials that went to the "peripheral consumer sites" were part of the activities of wealthy traders of the type hypothesized by McAnany (*ibid.*).

The above pattern fits fairly well for the Late Preclassic and into its terminal phases. However, by Late Classic times, chert tool workshops were more broadly scattered across the CBZ, including some clustered near Altun Ha. We have earlier speculated that Colha may have come under control of Altun Ha during this time and that its monopoly on stone tool production had ceased. Interestingly, small-stemmed blade points are made at specialized blade workshops at Colha in the Terminal Classic and these are fairly widely distributed in northern Belize, and are not duplicated in Altun Ha-area workshops. That shifts or breakdowns in local political spheres were under way at this time is well documented in the Lowlands.

After Colha's abandonment following the Terminal Classic, the site was reoccupied in Early and Middle Postclassic times. The community saw renewed emphasis on stone tool making, mostly projectile points. These are found at a number of Belizean sites and into the Peten lakes area. No other Postclassic workshops have been documented for the region. In essence, the lithic craft specialization that dominated the Colha locale for practically all of its history proved to be quite adaptable. Stone tool production and export typified the community no matter what political or demographic shifts occurred.

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