Wealth, Occupational Specialization, and Social Class at the Ancient City of Mayapán


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During the summers of 2008 and 2009, we directed two field seasons at ancient city of Mayapan, Yucatan, Mexico. Our long term program of research generally investigates the diversity and complexity of urban life across a heterogenous social landscape. The study focuses on ways in which the economies activities of household craftspersons, farmers, and servants articulated with institutions of political administration, patronage, rituals and the marketplace. With support from the National Science Foundation, we fully investigated one outlying administrative/ritual center (a colonnaded meeting hall at the Itzmal Ch’en group), and five houses and one craft workshop that are located in the Itzmal Ch’en and downtown Mayapan neighborhoods. The Itzmal Ch’en group is located at the far northeast corner of the walled parameter of the city and is the largest ritual/administrative complex outside of the downtown monumental center (Figures 1, 2). Our downtown sample focused on an area referred to as “Milpa 1” – which has been studied with NSF funds since 2002 and has been identified as a densely occupied zone and “crafts barrio” with a high concentration of diverse household-scale surplus craft production contexts. The Milpa 1 zone is located along the western boundary of the monumental center; it contains two of the site’s largest seven noble residences and a clustered network of small commoner houses. These two zones were selected to provide comparisons of economic patterns from the heart of the urban settlement and a more thinly-occupied, distant focal node 1.9 km distant by the city wall. These two areas can also be contrasted to two other commoner houses excavated in our last NSF grant (2002-2005 seasons) – X-43 and L-28 – each of these is also located far from the monumental center near the city wall; neither is proximal to any elite residence or public building and neither dwelling was occupied by craft specialists.

Our prior NSF grant also gave of a fully excavated sample of an outlying elite residence – Y-45. The current grant (2008-2009) allowed us to get fully excavated samples from six more buildings of contrasting location and function (the colonnaded hall). Our surface collection and test pit data from the prior (2002-2005) grant provided important information about diverse patterns of occupation and wealth, but sample sizes were small and full excavation was needed to obtain large assemblage samples to support definitive diagnosis of initial patterns detected. These data from fully excavated contexts allow us to evaluate the results of earlier phase surface collection and test pit data, and to provide concrete reconstructions of household economy from a sample of representative locations.
2008 and 2009 NSF-Supported Investigations

All houses excavated in 2008 and 2009 are small, commoner dwellings – an identification based on their size and minimal elaboration. In 2008, we excavated Hall H-15 and House H-11, along with a mass grave (a massacre site) located next to H-15 (Figure 3). The primary research objective of the Proyecto Económico de Mayapán (PEMY) during the 2008 season was to investigate the function of archaeological structures and features linked to the outlying civic-ceremonial group of Itzmal Ch’én, located by a far eastern entrance to the city wall (Gate H). We completed this objective in 2009, and also completed sampling of three houses located in downtown Mayapán, next to the site’s monumental center. A preliminary report of the 2008 season is viewable online (http://thare.kyview.org/MayapanInformes/) which was prepared for INAH. Our earlier final report of the 2001-2005 seasons is also online at this location (2000 pages). The 2008 report is 1,000 pages in length with 500 pages of text and 500 pages of images and appendices. The 2009 results will be reported to INAH by May 2011, along with those of the 2008 season in a Final Report. Chapters from the 2008 seasons include market area mapping and excavation mapping and photo-documentation (Chapter 2), the mass grave (Chapter 3), Structure H-11 (Chapter 4), Structure H-15 (Chapter 5), soil sample analysis of the market area (Chapter 6), obsidian (Chapter 7), chert and chalcedony lithic artifacts (Chapter 8), and pottery (Chapter 9). Appendices include photos of pottery (Appendix A), ceramic type and form data (Appendix B), tables of stone tool attributes (Appendix C), photos of stone tools (Appendix D), a list of lithic debitage (Appendix E), shell artifact database (Appendix F), list of special ornaments and stalactites (Appendix G), photos of ornaments and shell objects (Appendix H), and a list and photos of sculpture fragments (Appendix I). The final report will follow this format with the 2009 results, and analytical updates. Findings of the 2008-2009 seasons were presented at the 2010 Society for American Archaeology Meetings by project staff and analysts in a symposium on PEMY Mayapán research. A published monographic composed of these chapters is now in preparation. The following analyses have been fully completed: lithic chipped stone tools (chert, chalcedony, obsidian), lithic flakes, ceramics (type:variety and modal), ground stone tools, shell tools and manufacturing debris, human remains, special finds, metal artifacts. Faunal bone has been exported to the University at Albany and will be analyzed by Masson with the help of her Fall 2010 zooarchaeology seminar students.

Itzmal Ch’én Investigations 2008

During the two month 2008 season, we concentrated on three primary features of the Itzmal Ch’én group, and reserved other houses slated for excavation in this area for the 2009 season. The three features investigated included the H-15 colonnaded hall, the H-11 commoner house located adjacent to the Itzmal Ch’én compound, and a mass grave located on the platform edge to the immediate west of the H-15 hall (Figure 3). The mass grave had been located during 2003 test pit operations in the area. All three investigations were full horizontal exposures. We also performed preliminary mapping and soil testing in a potential market plaza in Square K.

Background (2008 investigations)

The Itzmal Ch’én group has a temple (H-17), two halls (H-15 and H-16), a circular shrine (H-18), an oratory (H-14) and a nearby commoner house (H-11) and it is located next to one of the two largest cenotes at Mayapán. It is the largest ceremonial group outside of the site’s
monumental center (Proskouriakoff 1962). Carnegie Investigators performed only limited work at Itzmal Ch’en, clearing part of the temple’s upper room and a plaza shrine (Thompson 1955, Chowning 1956). This group may have been associated with a Peten Lakes-affiliated group, the Kowoj, named as the “guardians of the east gate” in Colonial accounts (Roys 1962:79, Pugh 2003). However, none of our research up to this point indicates a specific affiliation with the Peten Lakes or any other non-local ethnic group. An exception to this statement may be made in the case of two sculpted features that are reminiscent of Chichen Itzá: a prowling jaguar sculpture (sacrificial stone) found in the plaza and Atlantean-supported table altar found atop Temple H-17 by Thompson (1955).

Located nearly 2 km east of the site center, Itzmal Ch’en’s halls, shrines, temple, and cenote mimic elements found in the site’s monumental center architecture and point to a distinct node of religious and political power of major significance in the outlying urban landscape. Such facilities may have been used to foster political, religious, economic integration and administration. Groups like Itzmal Ch’en were probably critical points of articulation for the activities of Mayapán’s 15,000 residents and the demands and agendas of the polity’s governing council. They were also major landmarks visible to residents and visitors alike. Our work at Itzmal Ch’en addresses two related research questions. To what degree was this facility utilized to perform ritual and administrative activities, and how did those activities differ from or resemble those reflected at the site center? Did neighborhoods punctuated by such focal nodes constitute relatively autonomous wards or were they more beholden to larger city or polity economic and social connections? Who built and utilized the Itzmal Ch’en facility, and do the artifacts or features suggest a distinct sub-group identity? How did this ceremonial group link the interests of the city’s governing elites to commoners occupying the surrounding neighborhood, and more specifically, how did consumption activities at Itzmal Ch’en reflect economic links with productive activities of the city’s commoner residents? How were public spaces utilized? As no elites resided in this portion of the city, did the plaza serve as a congregation place for more formal neighborhood activities or as a stopping place for pedestrian traffic visiting the city? This work is part of our larger program of research during the 2008-2009 seasons that investigates occupational and social heterogeneity across the urban landscape and focuses on a wide variety of domestic contexts and elite facilities distributed in outlying barrios.

The 2008 season concentrated in three areas linked to Itzmal Ch’en, Hall H-15, dwelling H-11, and a mass grave located along the western edge of the Itzmal Ch’en platform next to Hall H-15 (Zona de Entierros). Both structures were investigated with full horizontal exposures (with the use of a two meter grid of cuadros), and a wide area of the Zona de Entierros was excavated with the same methodology. Two 1 X 2 meter test pits in 2003 led our team to discover the mass grave, and in 2008 we sought to define its extent, expose layers of chopped and burned human bone and effigy censers, and gather a larger sample of material to help explain and interpret the dramatic event resulting in this deposit.

Mass Grave (Zona de Entierros)
An AMS date (A-64974) on a human bone sample from the 2003 test pits indicates that this mass grave was deposited between A.D. 1250 and 1400 and predates the city’s historically documented final abandonment between A.D. 1441-1461 (Peraza et al. 2006). Chapter 3 describes the excavation of twelve 2 X 2 meter units in the Zona de Entierros during 2008 (Figure 3-10). We infer that these bones were deposited during a single event, following the death and butchering of the victims. Bones were disarticulated, smashed in pieces, and some of them were burned (Figure 10). They exhibit spiral green bone fractures and cut marks that illustrate intentional desecration and disarticulation. Hammerstones were recovered with the remains in 2003, and the 2008 lithic assemblage consists primarily of knives (10% of 20 stone tools) and projectile points (80% of 20 stone tools). Only one skull was found intact, and its mandible was missing (Figure 6). The interior and exterior of the skull had been burned. Over 14,000 pieces of effigy incense burners were broken and distributed among the bones (Figures 5, 7), which represented 72% of the ceramic sample from the mass grave. Prior to the interment of these bones, this part of the platform edge had been exposed to bedrock or within a few centimeters of it, as the basal stair to the platform rested on bedrock. Burning on the stair and bedrock is likely associated with the mass death. The human remains and effigy censers were placed in this area and covered with soil. The deposit appears within the first ten centimeters below surface and depth varies from 20cm to 50cm deep. This mass grave is similar to one initially excavated by Richard Adams (1953) and later by Peraza et al. (2002) near Structures Q-79 and Q-80 in the site center in two respects; it contains many disarticulated individuals buried close to the surface and had abundant associated effigy censers. The grave discovered by Adams was covered by a layer of ash, which also suggests burning was associated with that deposit. This mixing of ritual pottery and human remains strongly suggests that the victims of this slaughter were the local elites associated with Itzmal Ch’en. Based on dentition, at least twenty individuals (18 adults, two subadults) are represented by the human remains. The Itzmal Ch’en mass grave differs from the grave in the site center in that no partly-articulated individuals were found. Stanley Serafin (project osteologist) presented the results of his taphonomic study of the human remains from this mass grave at the 2010 SAA meetings; his paper will be a chapter in the forthcoming monograph. Under the auspices of an NSF Research Experience for Undergraduates supplementary award, Cuauhtemoc Vidal-Guzman performed a comparative analysis of butchered human bone from the mass grave and butchered deer bone from across the city. He will work on a publication from this work in Fall 2010.

Hall H-15

Investigations of hall H-15 recovered important information regarding an outlying colonnaded hall at Mayapán (Chapter 5, online report). This is the only hall at Mayapán that has been completely excavated with all sediments screened and artifacts recovered within a 2 X 2 m excavation grid. We determined that the structure was relatively clear of debris. It was either kept that way or valuable belongings were removed prior to disuse. However, three smashed pottery offerings were found on the floor of the hall (described below) that are inferred to represent a reverential act of abandonment. A burning episode was detected on the eastern edge of the rear gallery, where parts of the floor and overlying roof fill were
intensely burned. It is difficult to know whether the entire roof was destroyed or whether it fell down decades or centuries later.

Hall H-15 was a resplendent decorated hall in its day (Figures 14-25). Cut geometric stones (Puuc style) had been integrated into its frontal façade, and sculptures of animals were embedded into its basal front wall (Figure 25). These latter sculptures had fallen onto the plaza floor and included a dog effigy tenoned sculpture, a serpent head, a jaguar sculpture, a turtle sculpture. Several fragments of human sculptures were also found at the hall, and a large tenoned serpent head was found on the floor of the western transverse room of the hall. This serpent had been suspended in the upper frieze of the entrance to this room. Smashed Chen Mul effigy ceramic offerings (Figures 20, 21) were left on the floor of the hall in three areas (Cuadros 10-K, 6-K, 5-L); these were perhaps terminal rituals prior to departure (Delgado and Escamilla 2009:261-262). The concentration in Cuadro 10-K, on the floor near the central altar, had a serpentine chisel and Ch’en Mul deity effigy vessel fragments. Analytical efforts are underway to see if any vessels from these concentrations can be refitted with each other or with effigy fragments from the mass grave or other contexts at Itzmal Ch’en.

An altar cache in Hall H-15 had not been disturbed, unlike several reported by Carnegie Investigators who thought some Mayapán offerings were looted in ancient times. A fine Itzamna painted effigy vessel was recovered intact in the altar (Figures 23, 24). Archaeologists Pedro Delgado and Bárbara Escamilla were quick to realize that hall H-15 had been excavated by the Carnegie Institution, although they never reported this work. Field directors Delgado and Escamilla noted that the Carnegie map of the structure was too accurate for a surface sketch, as many fine details were only revealed during excavation. The prior investigators apparently backfilled after exposing details. It does not appear that they excavated the entire building, only key points along the bench and other corners. Tatiana Proskouriakoff’s (1962) maps of monumental architecture required some clearing; perhaps her map of the Itzmal Ch’en group involved some of this as well.

The ceramic assemblage of H-15 suggests that the use of effigy burners were important (forming 32% of the sample); the recovery of a stone turtle effigy also indicates calendrical celebrations, and four others have been previously reported from this group (Masson 2000:Tables 3, 4). Few differences were noted in the proportions of serving wares (slipped bowls) and fancy ceramics compared to commoner houselots at Mayapan which suggests that food may have been prepared at or near the hall for festive occasions. The lithic tool assemblage (N=23) is composed of 43.5% projectile points and 8.7% knives and smaller quantities of perforators, drills, scrapers, and retouched flakes were found. Nonmilitary activities were occasionally performed at the hall, but not frequently. Delgado (with co-authors Escamilla, Masson, and Russell) presented a paper on the findings at H-15 at the 2009 meeting “Investigadores de la Cultura Maya” meeting in Campeche; the paper will be published in 2010 with the conference proceedings.
Dwelling H-11

House H-11 was a “custodial” house practically attached to the Itzmal Ch’en ceremonial group (Figures 2, 11-13). The house lacked evidence for significant surplus craft production, and its occupants were engaged in general agricultural and domestic maintenance activities. Although located next to a ceremonial group, its residents were not religious specialists as few incense burners (.6% of ceramic sherd assemblage) or other specialized ritual objects were present.

Investigations of dwelling H-11 reveal that it resembles many other ordinary houses at Mayapán (Chapter 4). We thought that its proximity to the Itzmal Ch’en group and cenote may have resulted in a degree of occupational specialization for its residents as guardians or ritual specialists affiliated with the outlying monumental architecture. However, a prevalence of bifacial axes in the stone tool assemblage of this house reveals that the inhabitants likely engaged in agricultural activities. The residents made some shell-working, but not at a scale to infer surplus production for exchange. No special concentrations of ritual pottery (such as effigy censers) reveal occupational specialization related to proximity to the civic-ceremonial group. A number of expedient lithic tools and obsidian blades exhibit wear that might be associated with working perishable materials. H-11 had 19 pieces of worked shell that included *Spondylus*, *Melongena*, *Strombus*, and two types of bivalves, as well as two examples of fossil shells.

A Late or Terminal Classic domestic occupation beneath the Postclassic dwelling of H-11 is indicated by the presence of two burials of Late/Terminal Classic date and a significant proportion of sherds (28.2% of sherd sample) of this earlier period were present in all construction levels, which are mixed with Postclassic Period pottery. Postclassic pottery formed 69.7% of the assemblage. Each burial had a single grave offering in the form of partial Late/Terminal Classic vessels. Burial 08-01, an elderly female, had a partial Chumayel Rojo olla, while the other, a double adult burial (Burial 08-02), had refitted Provincia Plano-Relieve Fine Orange sherds that formed a small portion of a vase. Obsidian was present in significant numbers at H-11. There was no intact earlier structure in the vicinity, but the quantity of Late and Terminal Classic sherds suggest that an occupation of this period was nearby and its materials were raided for the construction of H-11. Estr. H-11 also had two projectile points of a style prior to Mayapán, and one of these points was also found at H-15. This house represents one of the best contexts for occupation within the walls of Mayapan prior to the founding of the Postclassic urban center. Only one other intact Late/Terminal Classic feature has ever been identified and excavated at Mayapan, a burial chamber within a cavern of Cenote X-Coton, also near the eastern part of the city wall. Large cenotes with water such as that of Itzmal Ch’en and X-Coton were clearly a draw for settlement in earlier periods.

The Postclassic residents of H-11 had access to trade goods, and were not among Mayapán’s most impoverished commoners. Although the house is not large and is simply-constructed, some of the stones were robbed for the construction of a nearby ranch wall. The mixture of sherds from earlier periods with those of the Postclassic Period in all levels of H-11 will make
it difficult to isolate non-ceramic materials associated with specific occupations (Chapter 9). The mixture is in part due to the use of earlier midden materials as fill, and was also aided by gopher disturbance of the soil which brought earlier sherds to the surface of deposits surrounding the Postclassic structure.

Market Plaza Mapping and Soil Testing

The work in the potential market plaza also contributes to our investigations of differentiation in Mayapán’s urban landscape. Although market exchange is most convincingly studied from artifact distributions (Hirth 1998), the study of potential market facilities is also worthwhile, especially where plaza floor alignments and soil testing are combined (Dahlin et al. 2007). Our efforts in 2008 were concentrated on soil sampling transects performed by Daniel Bair, Eric Coronel, and Richard Terry (Chapter 6), and mapping of the vicinity by Timothy Hare (Chapter 2). Richard Terry paid for the labor needed for the market plaza soil samples, and for all analysis of soils from his own resources (Figure 27). Terry, Dahlin, Bair, and Hare presented a paper on this research at the 2010 SAA Meetings; they have prepared their chapter for the forthcoming monograph. Concentrations of phosphate and zinc occur in linear rows that suggest to these authors the existence of market stalls in the plaza. The signatures match those of a modern market place in Antigua, Guatemala.

Remapping of the potential market plaza in Square K reveals that this surface is not flat, but is irregular. More unusual, nonresidential alignments were present at ground surface than are indicated on the Carnegie map of the site. Detailed investigations are needed to determine the function of these facilities. The K-42 massive platform that dominates the potential market plaza is located at its north end. Inspection during 2008 reveals that it is comprised of a greater degree of artificial construction than the original Carnegie map implies. It is also taller than indicated on the old map, and rises over five meters above surrounding terrain. This structure is non-residential, and represents an anomaly for the site. A new cenote was located near the northeast edge of K-42. Details are provided in Chapter 2 (2008 report).

Findings of 2009 Season


**House I-55.** In 2009, we excavated House I-55, located within 150 m of the Itzmal Ch’en group. This locality was identified – from test pit results - as an affluent commoner dwelling (Figure 30) that was engaged in surplus obsidian blade production and had significantly greater access to a variety of trade goods compared to other commoner houses. Full excavation in 2009 revealed the following information: 1) House I-55 not only manufactured obsidian but is also the most extensive shell ornament workshop yet identified at Mayapan, 2) House I-55 was indeed affluent and its residents possessed many fine imported pottery,
micaeous ground stone, and other materials, 3) the non-obsidian stone tool assemblage from this context revealed a distinctive set of gravers and spurs associated with shell ornament-making – a detailed technological study of these items was performed, 4) the house had a considerable construction history within the Postclassic Period (at least two earlier construction phases were identified), 5) despite wealth indicators in domestic midden artifacts, activities at the house were primarily secular – a household altar had a poorly-made partial jar in it and few effigy incense burners were recovered. Two burials located off-mound to the west of the structure had no grave offerings – radiocarbon dates are needed to determine whether these are Postclassic in date. This latter observation is important in our efforts to evaluate longstanding assumptions about the decentralization of religious activities in the Postclassic Period and at Mayapan in particular; Carnegie investigators argued that ritual was practiced widely at the household scale; data from I-55 (and our investigations at H-11, L-28, X-43) contradict this assumption. H-11 is located within a stone’s throw of the Itzmal Ch’en temple, yet possessed very few effigy censer fragments. House I-55 is the most affluent commoner house that we have excavated in outlying Mayapan neighborhoods near the city wall and continued analysis will provide important comparisons.

Workshop I-57. This building is also within 150 m of the Itzmal Ch’en group. This small edifice has captured our attention since surface collections in 2002, for one primary reason. It is an independent outbuilding of special function – a lithic workshop – and it is not located within an enclosed domestic compound or within close proximity of a house. This type of “independent” workshop space is very rare in studies of Mesoamerican crafts production through all regions and time periods. The craftpersons who used this space made a point to segregate it from domestic compounds nearby by encircling it with its own walled enclosure (albarrada). Although this type of feature is rare, we do feel that it is a feature built and sponsored by residents of one or two nearby houses (House I-56 and H-24) as the walled compounds of these house groups are adjacent to I-57. Furthermore, the scale of production at I-57, while impressive, is analogous to other lithic workshops documented within houselot enclosures at Mayapan in Milpas 4 and 15 (Squares AA/Z and S on the Mayapan map. Thus we do not over-interpret this feature in terms of scale (it is not a “factory”) but do count it as evidence of the complexity and importance of surplus crafting activities within the city’s economy. Almost no pottery, faunal bone, ground stone, or used stone tools were found in the 2009 full investigations of this building, confirming our early sampling results that it is not a domestic edifice. We were surprised to learn, however, by exposing the architecture of this building, that it was constructed in the format of a small house (Figure 34), although it is about half the size most of the commoner houses at Mayapan. The building had interior space, two tiny benches (too small for sleeping), and an exterior walled patio that likely supported a thatch awning. Recovery of lithic debris from these architectural spaces and the full parameter of the structure permits an analysis of areas of work (most took place in front of the building and debris was discarded off of the patio. Analysis of flaking debris also has determined the types of tools being manufactured (points and bifaces), and the type of raw materials accessed – almost all of the latter is white-patinated chalcedony of medium grade, using small cobbles (Figure 32). This type of material is the most common at Mayapan in the composite tool assemblage of all contexts. Although the source of this material is not known,
we can state that cobble size is not large and the source is thought to be regional (probably from the northern Plains/Puuc hills interface); this material was useful for making the bulk of tools used in everyday life at Mayapan. Thus, the I-57 workshop made tools used extensively at Mayapan, of a utilitarian nature. The craftpersons working there did not have much access to finer raw materials found on some finished products or represented in debris assemblages from other workshops. The workshop fulfilled basic needs for either its neighborhood or the wider city community, and the average grade of raw materials suggests it was not in service of elite patrons.

House Q-176. Dwelling Q-176 was one of the first crafting localities noticed in our surface collections of 2001 (Figure 33). Our attention was drawn to the extreme density of pottery sherds at this location (likened to walking on sherd beds as thick as granola on the surface). We hypothesized that the density indicated pottery production at this location, but surface collection and test pit data were not conclusive and other interpretations were not ruled out (i.e. a very dense consumption locality). After full horizontal excavations of this locality in 2009, we can affirm that a range of pottery was produced at Q-176. It now stands as only two pottery production workshops ever identified for Mayapan (and northern Yucatan). Evidence for this interpretation is not the norm – no kilns or firing hearths were found, nor is there a high quantity of diagnostic “wasters.” Instead, three unique features were found – unlike any reported for the Maya area, and to our knowledge, for Mesoamerica (Figure 31). In two areas of the houselot and in one off-structure burial, deeper probes uncovered offerings of stacked jar bases, on which clay pigments were placed. Clay pigments were of colors used commonly in slips at Mayapan. The jars were very large, and the stacked, bases (reused from broken jars) served as sizeable (around 40cm in diameter) concave platters for holding raw materials. One such offering had at least 17 such bases stacked atop one another. It is unclear at this point in the analysis whether or not the residents buried these vessels as offerings in reverence to their trade, or whether these were more utilitarian caches, although the former is probably a more likely interpretation as one of the offerings was associated with a child burial. A second was located in front (east terrace) of the building on a central axis, a common place for dedication offerings. A third was off-center, within the architecture, at the north end of the building. Other offerings probably exist at Q-176 and have not been located as penetrating excavations were only performed in a few places into the building. Additional evidence for pottery production was identified during ceramic analysis; numerous figurine molds were recovered from the debris at Q-176, suggesting that both vessels and solid clay figurines were made.

Q-176 was a multi-crafting locality. Obsidian and shell debris occurred in outlier proportions in this structure’s middens – it was one of few structures with percentages over one standard deviation from the mean in the quantities of these materials. We also learned that the structure has at least two construction phases; beneath the final Postclassic building, and earlier, well-preserved structure was found, which included a plastered bench with a geometric (red dots) mural preserved. The final architectural configuration of Q-176 is at the high end of typical size and elaboration for commoner houses at Mayapan; the single burial recovered did not have wealthy grave goods. However, the production signature and finely
constructed earlier structure suggest that many aspects of this structure’s occupational history are unusual. Analysis of consumption goods at this location indicates the residents were affluent commoners.

**House Q-39.** This dwelling was located adjacent and to the north of one of the seven largest noble residences at Mayapan (Group Q-41). House Q-39 and Palace Q-41 share a dividing albarrada wall. Our work at Q-39 was undertaken in the hope of defining the social and economic relationships between neighboring commoner and elite residential groups – we hypothesized Q-39 to have housed domestic servants. Some surprising results came out of full excavation. The house is slightly larger and more elaborate than most commoner houses (Figure 37). Its architecture included a large rectangular cut-stone cist (Figures 27-29) of about 1.5 m in depth. Into the cist were placed the remains of several presumed family members, including an adult at the south end and an adult and child at the north end. Materials associated with the child/adult concentration of bones rank among the richest set of grave goods ever recovered at the city (including Carnegie and INAH investigations). These included 36 copper bells (including copper and shell necklaces and a monkey effigy copper bell), a pair of copper tweezers, an engraved copper ring, a polished shell ring, miniature pottery vessels, and an effigy pottery urn, whistle, two partial figurines, and one small eccentric flint (lightning bolt effigy).

We also identified a subsurface lithic workshop debris area off of the north edge of the structure’s platform. The density of this debris indicates that surplus lithic tools were made here. Unlike workshop I-57, raw materials were diverse, flakes were larger, and more materials of a higher quality were present. Craftspersons at Q-39 (or their patrons) enjoyed privileged access to better raw materials. Residents of Q-39 were also engaged in shell-working and densities of shell debris give this locality outlier status compared to other contexts. At this preliminary point in the analysis, we can conclude that if Q-39’s residents were servants, they were well-rewarded for their work and gained considerable wealth. Their duties were not confined to domestic service, but included the manufacture of superior quality bifacial tools and shell ornaments, presumably for consumption by the occupants of adjacent Palace Q-41. An alternative hypothesis will be considered as analyses progress. It is possible that residents of Q-39 were of noble rank and were part of the extended family that lived at Q-41. Although primary elite houses are much larger than Q-39, other houses that share courtyards with principal residences in a palace group can be smaller in size and more analogous to Q-39. Perhaps Q-39 was established as part of a growth process for the Palace Q-41 group. If so, this case represents the first instance of elite involvement in stone tool production documented for the site.

**House Q-40.** House Q-40 is the smallest house studied in the 2008-2009 group. Our research design hoped to identify potential homes of lower-ranked domestic servants or slaves. This dwelling is located within the Q-41 Palace compound (*albarrada* group), on the ground level at the base of the rubble platform that elevates the Q-41 quadrangle. Thus, Q-40, like Q-39, is spatially associated with the Q-41 group, only more directly. Surface architecture appeared ephemeral and minimal but the outlines of a house-sized rectangular building could be
determined prior to investigation. The results of this work also carried surprises. Unlike Q-39, high levels of stone tool or shell-working were not identified. A small, square burial cist in the center of the house held two super-imposed adult graves and lacked rich grave goods. The domestic assemblage of the house reflected a modest wealth profile. However, uniquely, we determined that Q-40 represented a second pottery manufacturing locality for Mayapan. Pottery produced at Q-40 was highly specific in function, namely, modeled effigy components for the deity censers used widely at elite and public contexts at the site (Figures 35, 36). The locality also manufactured smaller solid and hollow figurines. During lab analysis we determined that a high number of molds for both effigy censers and figurines were present, including several finely-made faces of key deities (maize god, merchant god). Preforms were also identified of finished molded faces with seams that indicate they had not yet been attached to other parts of the forehead and headdress. Numerous decorative elements (feathers, adornos, costume elements were found) that normally exhibit burning from use (in consumer contexts) but lacked any indication of use – these are pieces broken in manufacture. Furthermore, the “bucket” components of effigy censers were not present – these vase-like vessels are relatively plain and contain copal burned during ceremonies. The workshop specialized in the artistic, molded and modeled components of the effigies, which were subsequently attached to bucket vases upon completion. Thus, the workshop specialized in the most highly-skilled aspects of production. One partial vase was also found that had many layers of fine stucco adhering to its inner surface; this vase was used to mix plaster that was applied to molded and modeled effigy pieces before painting. Several fine plastering tools were also found, including ground stone celts covered in stucco. One such plastering tool was included in the burial cist, along with a red pigment stone, perhaps reflecting the trade of the occupants. Investigations at Q-40 have revealed our first clear case of “attached specialization” – artisans employed in making fine objects for ritual use, commissioned by noble patrons with whom they co-resided. Little evidence for other kinds of service, and certainly not domestic service, is indicated. No concentrations of metates, manos or food preparation vessels are present. Yet, the occupants of the house were not themselves wealthy.

Summary

The 2008 excavations at Itzmal Ch’en were successful. All of this work, including the consolidation of structures, was accomplished within an eight week period thanks to the diligent efforts of workers from the pueblo of Telchaquillo and a motivated and qualified staff of archaeologists. The discovery of intact features of the Late/Terminal Classic Period at H-11 in the form of two burials represents only the third instance in which undisturbed features of this period have been recovered at Mayapán. Prior discoveries of features of this date include a burial cave at Cenote X-Coton (Smith 1953:73) and a burial (found by the PEMY project) in a residential zone near Itzmal Ch’en in Square F which yielded a Late Classic AMS date (A-64975) of A.D. 600-780 (Peraza et al. 2006: Table 1). The appendices of the
online report provide data from preliminary inventories or analyses of all materials recovered in 2008.

The 2009 investigations have added dimension and documented complexity for our goal of assessing occupational heterogeneity and wealth at Mayapan. Essentially, no two houses were alike. During 2009, all localities documented were engaged in suites of surplus craft production, with different emphases ranging from ordinary, utilitarian (I-57) to artisanal goods for the governing elites (Q-40). Two contexts investigated were not known to be either wealthy or the residents of craft specialists prior to the 2009 study – Q-40 and Q-39. These data add key information to our assessments based on earlier studies of non-craft production houses of commoners (H-11, L-28, X-43) and elites (Y-45), all with NSF support. The project is now poised to fully develop its arguments with the best possible data from a range of representative contexts. Determining the degree of occupational specialization is an essential step in calculating dependencies among urban residents of all social standing.

Analyses and photography of all artifacts (begun in August 2009) was completed during a 10 day trip in March 2010, including: chalcedony stone tools (from formal to utilized flakes), obsidian, ground stone, ceramics, copper, bone tools, special finds, and shell. Faunal bone has been shipped to the University at Albany and will be analyzed with graduate student assistance in the context of Masson’s Zooarchaeology seminar in Fall 2010. Two undergraduate students performed special studies under the auspices of the “Research Opportunities for Undergraduates” supplemental grants program linked to this award – Karime Gazdik and Cuauhtemoc Vidal-Guzman. Gazdik won the 2009 Presidential and Chancellor’s Awards for Undergraduate Research at the University at Albany-SUNY for her study of deer husbandry at Mayapan using a metric analysis of long bone ends and age-at-death profiles.

A project website is currently under construction and should be up in a few months (Fall 2010) at the address: mayapanarchaeology.org. Masson has secured a small grant from UAlbany-SUNY for technical assistance in uploading the materials she has now prepared. The website will feature research summaries, photo galleries, and teaching materials prepared in 2009 for local schools in the Mayapan area. The project staff are focusing on a two volume publication, Urban Life at Mayapan, consisting of a topical synthesis by Masson and Peraza (Volume I) and a series of contributed studies on the economy and settlement of the city by graduate students and colleagues (edited by Masson, Hare, and Peraza). The 2010 SAA symposium represented a first opportunity to prepare and disseminate the chapters of the second volume. The first volume has been written and is undergoing final editing and formatting. The University of Colorado Press will publish the volumes, and a companion digital publication with data appendices, photos, and technical studies will accompany them.
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Figure 1. Mayapan and the Itzmal Ch’en group.
Figure 2. Itzmal Ch’en area showing H-15, H11. The mass grave is along the west platform edge of the H-15 hall, also next to H-14.
Figure 3. Excavations in the mass grave – location of Structures H-15 and H-14 shown.

Figure 4. Soil at surface and mass grave soils within 10 cm of surface, staircase at left.
Figure 5. A deity effigy ceramic arm within the mass grave.

Figure 6. The only intact bone in the mass grave – a human cranium (no mandible present).
Figure 7. A ceramic skull from a headdress of a ceramic deity effigy, mass grave.

Figure 8. The mass grave consisted of thick scatters of bone and broken effigy ceramics. Note mandible at top of photo.
Figure 9. Projectile points were common in the mass grave, pointing to a massacre. They were likely used in the violent events preceding the death of those interred.

Figure 10. Most remains were chopped and burned, suggesting post-mortem desecration.
Figure 11. Plan of house H-11, showing location of two burials (three individuals).

Figure 12. Cross section of house H-11.
Figure 13. Photo of H-11 (looking west) after excavation and consolidation.

Figure 14. Hall H-15, just before excavations started (looking south from center of Itzmal Ch’en group plaza).
Figure 15. Cross sections of Hall H-15.

Figure 16. Plan of surface rubble of Hall H-15.
Figure 17. Photomosaic of H-15 surface rubble.
Figure 18. Plan of H-15 after horizontal excavations.
Figure 19. Hall H-15 during excavations.

Figure 20. One of the floor concentrations of broken ritual ceramics on H-15 and a greenstone chisel.
Figure 21. One of the floor concentrations of broken ritual deity effigy ceramics on H-15.

Figure 22. Offering in altar of H-15 (Itzamna deity effigy vessel).
Figure 23. Offering in altar of H-15 (Itzamna deity effigy vessel).

Figure 24. View of hall H-15 after consolidation.
Figure 25. Sculptures from the surface of H-15. All were found in front of the building (north wall) except for the serpent at the upper right which faced west from the hall’s transverse room. They include two serpents, one jaguar, one dog, and one turtle with a human face coming out of its beak.
Figure 26. Soil tests in Square K market plaza (left), plaza shaded in blue (right).
Figure 27. Family tomb from commoner house in downtown Mayapan (Q-39).

Figure 28. Some of the grave goods from a commoner house (Q-39) in downtown Mayapan.
Figure 29. Copper and shell rings that would have fit a young child’s fingers from a commoner grave in downtown Mayapan (Q-39).

Figure 30. An affluent commoner house (after excavation and restoration) near Itzmal Ch’en (I-55) whose occupants made surplus quantities of obsidian blades and shell ornaments.
Figure 31. A stacked pottery and clay pigment offering from Q-176, one Mayapan’s two identified pottery production workshops.

Figure 32. Stone tool debris from a non-domestic workshop (I-57) near Itzmal Ch’en.
Figure 33. Pottery (and shell, obsidian) production House Q-176, after restoration.

Figure 34. Workshop building I-57.
Figure 35. Impression made (by our team using modern clay) from effigy censer face mold, Q-40.

Figure 36. Effigy censer face mold (bottom) and figurine molds (top) from Q-40.
Figure 37. House Q-39 – during excavation.