# The Ancient Maya Economic Landscape of Caracol, Belize

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Although Maya archaeological research has been carried out for well over 150 years, the study of ancient Maya economies remained incomplete until relatively recently. The dilemma faced by Maya researchers was partly fueled by a lack of archaeological data that could be definitively discerned in the archaeological record and that could be distinguished among possible Maya distribution systems (e.g., Hutson and Dahlin 2017:4) as well as by economic theories that underplayed the role of markets and commercialism in the past (see the discussion in Feinman and Garraty 2010 and Garraty and Stark ed., 2010). While Maya archaeologists recognized that nonlocal goods appeared repeatedly in their excavations and were often widely distributed at a site (e.g., A. Chase and D. Chase 1992:5, 13; Willey et al. 1965), they had difficulty establishing the specific mechanisms that led these goods to be located in the various archaeological contexts. Discussions may also have been delayed by a prevalent assumption in the field of economic anthropology that ancient societies could not have had markets (e.g., Polanyi et al. 1957; Sahlins 1972). Expectations that ancient residential groups were generally self-sufficient producers of both subsistence and quotidian items (Sahlins 1972:83-85) may have been a further complication; thus, larger interconnected economic systems would not have been as necessary. Yet another issue has been the unnecessarily dichotomized considerations of distribution systems as being either market or feasting based. While defining the rise of ancient states has been a focus for many researchers (e.g., Clark 2007; Feinman and Marcus 1998; Traxler and Sharer 2016; but see Yoffee 2005), considerations of economy were to a large degree focused

on feasting (e.g., Bray 2003; Dietler and Hayden 2001; Hayden and Villeneuve 2011) and prestige goods (e.g., Foias 2013:200; Guderjan et al. 2003:90; Reents-Budet et al. 1994) as primary integrative and distribution mechanisms. Both the anthropological study of urbanism (Hannerz 1980; Low 1999)—especially ancient urbanism (Marcus and Sabloff 2008; Storey 2006; Wheatley 1971)—and globalization (Appadurai 1996, 2001) are relatively recent developments in the field, but both have applications to the Maya archaeological record (A. Chase and D. Chase 2016a, 2016b), as does the current consensus on the existence of markets in ancient Maya societies.

At AD 650 the metropolitan area of Caracol, as opposed to the larger polity of Caracol, covered some 200 square kilometers (A. Chase et al. 2011, 2015; D. Chase and A. Chase 2017). The occupants of this ancient city—over 100,000 of them—lived within a completely anthropogenic landscape filled with housing, monumental architecture, terraced agricultural fields, and a radiating causeway system that permitted communication and economic transactions (Figure 8.1;



Figure 8.1. Map of Caracol, showing its causeway system and termini groups that functioned as market locales; the boundaries of the city are determined by density of residential groups and agricultural terraces.

see also A. Chase and D. Chase 2016a, 2016b; D. Chase and A. Chase 2017). We have previously described the household economy for Caracol—where the majority of individual household *plazuela* groupings not only were agriculturally sustainable but also created surplus items for exchange, allowing the residents in these groups to participate in the site's market economy (D. Chase and A. Chase 2014a; A. Chase and D. Chase 2015). Virtually every household was within 3 kilometers of their closest local market (A. Chase et al. 2015; A.S.Z. Chase 2016b; D. Chase and A. Chase 2014a;). All of these households were economically interdependent on the structural framework of the site's distributed markets. Economic activities at Caracol took place within this broader system and not within a vacuum. Many items were brought into the site for distribution, with multiple kinds of production and distribution activities taking place within the site itself. In this chapter we first address basic considerations in defining ancient economic activities and then provide the context for considering them through the lens of Late Classic Period Caracol.

# The Ancient Maya Economy: Background

Discussion and diverse opinions exist today about the nature of the ancient Maya economy and particularly about systems for distribution of goods. Some researchers focus on market exchange (e.g., King, ed. 2015; L. Shaw 2012). Others focus on feasting and gift exchange (e.g., Foias 2002; LeCount 2001; but see LeCount 2010:153). However, at the onset of this current discussion it is important to note that societies generally use a wide variety of economic transactions. All economic systems include multiple aspects; thus, a market economy can include redistribution and gifting. And economies include activities that have political, social, and religious significance. Contemporary market-based Western economies are no exception. Weddings, birthday parties, potluck dinners, and various kinds of formal and informal gift exchange may be critical to the functioning of our current world; yet few of us would argue that these are the primary drivers of the economy-even though each of these activities may result in economic impact. Weddings, for example, can have both direct and indirect economic impact, involving specialized wedding planners, focused shopping venues, and increased household goods for newlyweds. Weddings, however, are more part of the fabric of society than the hallmark descriptor of the economy. Likewise, the ancient Maya economy was far more than ritual feasting or gift exchange. It is likely that such activities occurred but unlikely that they are

omnipresent in the archaeological record or drove the ancient Maya economy, at least at sites like Caracol. In our estimation a focus only on these lower-level economic activities is thus inadvisable. This discussion is focused on the aspects or goods for which we have relatively clear direct or indirect archaeological data related to production and distribution as well as on three specific sectors of the economy (domestic, institutional, and political).

In these discussions, context is of utmost importance, as always. On first glance, and in isolation, an archaeological pattern such as the distribution of one artifact type may have multiple meanings and result from different processes (e.g., Chapters 7, 24). As noted by Carol Smith (1976b; see also A. Chase and D. Chase 2009), the widespread distribution of artifacts across society (especially in situations of small samples) could indicate a market economy, an egalitarian society, or elite payments (or gifting). Hirth (1998) developed this idea further in demonstrating that artifactual distributions in a complex urban setting were almost certainly the result of a market economy. Additional details relative to specific artifacts provide resolution as to how the system worked. For Caracol, this means being able to see how things were distributed over the landscape (D. Chase and A. Chase 2014a).

At the same time, variations among Maya sites are key to determining how the systems worked across sites. It has long been realized that certain sites produced bulk commodities for others, and the known instances have increased in recent years. For example, we know that Colhá produced chert artifacts (Shafer and Hester 1983, 1986) that were widely distributed (Dockall and Shafer 1993) and that the Belize Valley produced red-slipped ash-tempered pottery for a large segment of the eastern Maya area (D. Chase and A. Chase 2012). Cancuén has been demonstrated to have acted as a transshipment point for obsidian and also to have processed jadeite (Demarest et al. 2014; Chapter 3 in this volume), and Salinas de Nueve Cerros is known to have exported salt (Woodfill et al. 2015; Chapter 10, this volume). However, even when the production aspects can be identified, there are differences in distribution and access; sometimes producers at the site had access to the items they produced, as at Colhá, but other times the materials were produced predominantly for export, as at Cancuén, and not utilized internally. Virtually all sites imported some materials-finished or unfinished-from afar, but some sites, like Caracol, were greater consumers than others. Thus, aspects of the ancient Maya economy varied by venue and location. Most sites imported not only exotics like marine shell or jadeite for use in ritual contexts but also materials that



Figure 8.2. Categories of items that would have been available at Caracol's markets: (*a*) finished chert tools; (*b*) *Spondylus* marine shell (in various forms); (*c*) obsidian tools and ritual items; (*d*) imported pottery; (*e*) jadeite artifacts and debris; (*f*) objects made of metamorphic stone.

were used in daily life, like pottery, obsidian, and ground-stone tools (Figure 8.2). Pottery was manufactured by specific producers and not by each individual household; this is evident from the Instrumental Neutron Activation Analysis (INAA) analyses carried out by Ronald Bishop and his colleagues (Rands and Bishop 1980; Halperin et al. 2009). Even basic foodstuffs—as at Chunchucmil (Dahlin et al. 2005; Hutson and Dahlin 2017:9)—could be widely imported and traded.

The distinctions in the supply chain are crucial: a site-by-site, regionwide focus is necessary to understand the economic system as a whole. However, starting with a focus on one site and one period, specifically Late Classic Period Caracol (AD 550–800), can provide a solid building block for investigating the larger economic system. In this case, the units of study are the material goods themselves and the determination of the economic hallmarks found in their systems of production and distribution. Such an analysis is specifically aided by determining: (1) the source of an artifact (and the material from which the artifact was made); (2) the production location of an artifact, meaning whether it was produced wholly or partially finished at the site or was imported as a finished product; (3) a determination of which items were used on site and by whom within the society; and (4) the identification of the degree to which the distribution of artifacts was reflective of both the distribution system and societal wealth.

Other aspects of the economic system also require consideration. How are goods transported within sites and across regions (Chapter 20, this volume)? What evidence remains of preparation for risk due to disruption of production (weather, trade route interruption, warfare, etc.)?

# The Economic Framework of Caracol, Belize

The focus here is on the Late Classic Period at Caracol, Belize (AD 550–800), perhaps the best-represented segment of the Caracol archaeological record. This era of widespread prosperity can be compared and contrasted with the situation both before (A. Chase and D. Chase 2005) and after (A. Chase and D. Chase 2007) this well-known period. We feel confident in discussing the economic "nuts and bolts" of the site in part because our long-term project investigations at the site now spans thirty-four archaeological seasons, during which time all of the downtown architectural groups as well as 141 residential groups have been archaeologically sampled, resulting in the recovery of 373

interments containing 753 individuals (associated with 1,375 pottery vessels) and 335 formal caches (associated with 765 pottery vessels). A wide variety of use-related remains have also been recovered in these investigations, including 355 reconstructible pottery vessels found on the floors of plazas and structures as well as numerous other associated materials and wide variety of crafting areas.

For purposes of analysis, the ancient Maya economy at Caracol may be subdivided into three related parts: domestic, institutional, and political. The domestic economy is constituted by land, labor, and capital that is accessed through nonmarket means (D. Chase and A. Chase 2015:15, following a 2013 lecture by Hirth in Chicago). The institutional economy consists of the formalized system for the distribution of goods throughout a society (A. Chase et al. 2015; D. Chase and A. Chase 2014a). The political economy is visible both within and between sites. It was composed of the symbolic capital (or power) amassed and projected by a given state or polity and was sometimes reflected in the distribution of wealth within that society, both directly and symbolically (e.g., D. Chase and A. Chase 2004, 2009, 2017). All of these sectors were interrelated.

# Caracol's Domestic Economy

In the Maya area the ancient domestic economy was centered on households and residential groups as the units of production. Subsistence agriculture was practiced at the household level (A. Chase and D. Chase 1998b), and households produced sufficient food on agricultural terraces in the immediate vicinity of each household to sustain themselves (A. Chase and D. Chase 1998b; D. Chase and A. Chase 2017; Murtha 2009, 2015). Similarly, households were invested in the flow of water through these terraces; a majority of them maintained access to their own constructed reservoir for drinking water (A.S.Z. Chase 2016a; A.S.Z. Chase and Weishampel 2016). The majority of these household groups also produced surplus items that gave them access to the institutional economy; thus, various households specialized in the production of shell, lithic, bone, wood, and other finished items that could be sold or exchanged to obtain needed goods from Caracol's markets. The exchange of these goods formed a point of articulation with the site's institutional economy. It is also possible that the households produced surplus crops and goods that were used for export and formed a second point of articulation with the site's institutional economy. A third point of articulation was found in the garbage produced on the

household level: while organic waste and nightsoil was likely recycled into the households' agricultural fields as fertilizers, other types of garbage were likely collected and moved about within the site's institutional system as a source of building material.

Production took place in most households at Caracol, with the crafting debris often being buried within structural fills in the residential platforms (A. Chase and D. Chase 1994; Johnson 2014, 2016) or-if made of jadeite, Spondylus, pyrite, or obsidian-being placed in ritualized contexts. Thus, the recovery of crafting debris can sometimes be a matter of fortuitous sampling. Thus far, we can identify three areas in the site epicenter (Caana, Barrio, and Northeast Acropolis) and twenty-eight residential groups as having been involved in some form of lithic production. Nine of the residential groups produced evidence of intensive lithic production, and it is suspected that the other nineteen groups were using lithics to craft perishable materials like wood (e.g., C. Pope 1994). Five residential groups produced extensive evidence of having worked conch shell (Cobos 1994), and two residential groups have residues from manufacturing items of bone (D. Chase and A. Chase 2015). Thirty-one residential groups appear to have been involved in textile production (A. Chase et al. 2008). We believe that this focus on specialization and differential crafting in Caracol's residential groups is due to efforts to produce commodities that enabled the residential groups to obtain the quotidian, luxury, and ritual goods found in these residential groups, which would have been available through Caracol's market system. Evidence from Caracol suggests differential production of items among residences. In some cases the products were the focus of the residence as a whole, while in other cases individual residents may have had other occupations.

# Caracol's Institutional Economy

The institutional economy at Caracol was market-based. The site's elite controlled the distribution system—the market locations themselves—where the distribution (and taxing) of quotidian, ritual, and prestige goods took place. The institutional economy was physically represented both in the site's transportation system of causeways (A. Chase and D. Chase 2001; D. Chase and A. Chase 2017) and in the structural location of market locales (A. Chase et al. 2015; D. Chase and A. Chase 2014a) throughout the site during the Late Classic Period. The dendritic layout of Caracol's causeway system served to join together a series of public plazas that were used for both economic and administrative purposes (A. Chase 1998; A. Chase and D. Chase 2001, 2004; D. Chase and A. Chase 2004, 2017). In some cases, these large open spaces were purposefully embedded in Caracol's landscape to serve as the contact points for any economic transactions (e.g., Figure 8.3; see A. Chase et al. 2015). The dendritic layout of the site also shows that the public plazas are directly linked to the site epicenter, implying centralized control over what was and was not available at a given location. Imported goods were widely distributed; for instance, jadeite appears in 45% of the investigated groups at Caracol (Figure 8.4; A. Chase et al. 2015:231) and imported Belize Red footed dishes and plates occur in burials in thirty-eight different residential groups at the site, indicating widespread access by a socially diverse population. Yet access to these materials could be skewed; the distribution of Belize Red plates as opposed to Belize Red dishes (both contemporary forms) clearly shows that plates were not available in the northeastern part of the site (D. Chase and A. Chase 2014a:246). Obsidian from the Guatemalan highlands is even more widely distributed at Caracol, occurring in virtually every excavated residential group at the site and presumably available in all the different markets (L. Johnson 2016).

The dense distribution of residential units at Caracol and the anthropogenic landscape that is covered in almost continuous agricultural terraces (A. Chase and D. Chase 1998b; D. Chase and A. Chase 2014b) ensured that that causeways were used for transportation and that exchange took place at the market locales. It also ensured elite control over these transactions, as these were the most effective passageways across the metropolitan area. The market locales formed the points of articulation for the domestic economies found in the households. Any goods produced externally to the site would have been brought into these locations, presumably under elite supervision for purposes of taxation (see also M. Smith 2014); these goods included a mix of quotidian, prestige, and ritual items. Based on archaeological contexts, utilitarian, polychrome, and ritual pottery were all available in Caracol's markets as well as other items like obsidian, metamorphic ground stone, jadeite, Spondylus, other seashells, and stingray spines (e.g., Figure 8.2). A host of perishable items such as baskets, fibers, wooden objects, and specialized foodstuffs also would have been available. And Caracol's residents would have made their way to these locales with commodities produced in their households to obtain needed items through the market system.







Figure 8.4. Distribution of jadeite recovered in residential groups at Caracol, Belize.

#### Caracol's Political Economy

Caracol's Late Classic political economy was directly reflected within the site's residential households and indirectly through intersite comparisons. Successful warfare at the beginning of the Classic Period had led to the adoption of a widespread shared identity and shared prosperity. For the majority of Caracol's population, this shared identity was focused on residential shrines that were the loci for household tombs and ritual caches; a good proportion of the individuals within these groups also had teeth inlaid with jadeite and hematite, wore earrings and jewelry made of seashell, and had access to polychrome and imported ceramics (D. Chase and A. Chase 2004). At the same time the

site's elite employed a management strategy called "symbolic egalitarianism" (D. Chase and A. Chase 2009), meaning that they did not flaunt their wealth, most likely in life and especially in death. Most of Caracol's elite tombs are not ostentatious, containing relatively plain ceramics in smaller numbers as well as limited amounts of jewelry (in accord with society-wide distributions following the tenets of symbolic egalitarianism), a pattern also found with the two Caracol rulers thought to be interred at Tikal, Guatemala (D. Chase and A. Chase 2017:219). "Burial 23 connotes simplification in most if not every respect, a trend evident in considerably earlier Bu. 195" (W. Coe 1990, 3:843).

Part of Caracol's Late Classic political economy involved the incorporation of other states and polities, presumably as a means of extracting resources and projecting power. The hieroglyphic texts indicate that this was the case for both Tikal and Naranjo in Guatemala during the early part of the Late Classic Period. We have previously argued that the hieroglyphically recorded conquest of Tikal by Caracol in AD 562 was strengthened through the conquest of Naranjo in AD 631 by placing Tikal within direct territorial access and marching distance (A. Chase and D. Chase 1998a). The archaeological data demonstrate that Caracol not only intervened in the politics and economics of Tikal but also used its position of power to symbolically restructure the ritual core of Tikal through the placement of two Caracol rulers there in death (A. Chase and D. Chase 2020). The rebuilding efforts at Tikal associated with these two tombs have been interpreted as "an attempt by usurpers to put their own distinctive stamp on the political and ceremonial heart of the city" (Haviland 1992a:73-74). Thus, Caracol symbolically projected its power over Tikal through the very real appropriation of its central architectural and ritual space. Caracol was also involved in extracting resources from the site, as indicated by the wealth differences that exist between the residential groups of the two sites. Whereas Caracol's wealth, as expressed in the volumetrics of its residential groups (see A.S.Z. Chase 2017 for Gini indices), shows evidence of inequality within a wide range of variability, reported artifactual distributions from Tikal (Moholy-Nagy 2003a, 2008a) suggest that Tikal's degree of inequality is far more pronounced (Kohler et al. 2017)-presumably because of social policies related to an extractive political economy imposed on Tikal's residents by Caracol during the early part of the Late Classic Period. Whereas the Late Classic had a more level playing field, disparity in equality was apparently more common at Caracol in the Early Classic and Terminal Classic Periods, both before and after Caracol's Late Classic Period peak.

# Contextually Situating Caracol's Economy

Although seemingly peripheral to the central Maya area in terms of contemporary roads and geography, Caracol is actually situated on a natural corridor forming the easiest transshipment route for the resources found in the Maya Mountains and the central Petén of Guatemala. The site's location provided it with a distinct economic benefit; it was situated relatively close to metamorphic resources that were used for creating ground-stone artifacts like manos and metates that were in demand in the Maya lowlands. The site's causeways span the relatively flat Vaca Plateau, providing a transportation route for the movement of these items through Caracol on their way to sites in the interior of the Petén of Guatemala. Part of Caracol's economic power was certainly derived from this siting and from its control of this trade. Based on the extensive agricultural fields that cover the landscape of Caracol (e.g., A. Chase and D. Chase 1998b; D. Chase and A. Chase 2014b, 2017), which easily sustained the projected population (e.g., D. Chase and A. Chase 2015:17; Murtha 2009, 2015:85), it is also possible that Caracol produced surplus crops for export to other parts of the Maya region in conjunction with other items produced within its households. This would match similar arguments regarding the agricultural intensification of wetlands in northern Belize that would have resulted in crop surpluses that could have been exported into the central Petén using canoes that followed riverine and *bajo* routes (Dahlin and Chase 2014; Montgomery 2016).

By the middle of the Late Classic Period the city of Caracol had expanded to encompass some 200 sq km of continuously settled and agriculturally productive landscape that was integrated by its causeway system with its regularly distributed market plazas. Given the site's focus on agricultural terracing, it is unlikely that there was much trade into Caracol of basic subsistence crops, as each residential group had sufficient area to produce its own food. Thus, apart from specialty food items, all agricultural items would have been produced and consumed internally. Animals for consumption—such as rabbits, dogs, deer, pig, armadillos, and agoutis—could have been penned within the city or obtained from outside it. However, the bones of animals were also utilized in internal production areas to make both tools and ornaments (Teeter 2001; Teeter and Chase 2004), and it is likely that leather would also have been made by some residential groups. Perishable items like nets, baskets, and wooden artifacts were also crafted throughout the city. Building materials were obtained internally in the city, largely as a process of expanding the agricultural terraces (D. Chase and A. Chase 2014b). Limestone for construction was readily available, and the landscape was terraformed once building materials were removed. Quarries are not in evidence at Caracol because they were covered over and infilled with agricultural terracing (A. Chase and D. Chase 1998b, 2016a, 2016b; D. Chase and A. Chase 2017). Slate from the Macal River area was widely available and was utilized for ritual purposes and for crafting some tools and jewelry. Plaster must have been widely available; even the causeways were plastered. However, the burning of limestone needed to make plaster requires substantial quantities of wood, implying that plaster was likely produced on the edges of the city and then brought back into the urban center.

Some external raw materials were refined through the production process internally. Among these are both obsidian and chert. Obsidian originating from Guatemala and Mexico was widely available to all of Caracol's households and was brought into the site both in finished form and in cores that could be processed by households (Johnson 2016). Poor-quality chert was also widely available at Caracol for household production purposes, but fine-quality finished products of chert were also imported to the site from other areas, like northern Belize, and were available to the people living in the residential groups across the site. Marine shell (obviously nonlocal to this inland city) was widely available to Caracol's inhabitants. Complete conch shells were brought into the site for use as musical instruments and to be utilized by residential groups for crafting smaller items. Other marine items like coral and sea fans were transported to the site to be included as cache contents. Marine items tended to come from the Pacific and Atlantic coasts early in Caracol's history and then almost uniformly from the Caribbean in the Late Classic Period (Cobos 1994). Live sea fish were also among the commodities brought into Caracol, presumably via the Belize River (Cunningham-Smith et al. 2014). While textiles, cloth, and clothing may have been extensively embroidered at Caracol based on the presence of artifacts like needles and spindle whorls, it is suspected that cotton was not grown locally and thus needed to be imported.

Goods not produced by Caracol's households were also brought into the market plazas, where the site's inhabitants could obtain them. Obsidian was certainly available in these locations (Johnson 2016). So, too, were manos and metates made of hard ground stone that came from just east of Caracol in association with the Macal River. Items of jadeite would have also been available, presumably as finished objects, although some processing of jadeite is hinted

at by the inclusion of jadeite processing chips within both epicentral and residential caches. In the Early Classic Period jadeite, shell, and pyrite had a more limited distribution outside of the site epicenter; however, in the Late Classic Period these three items were broadly distributed among the site's residential groups. In both periods jadeite, shell, and pyrite tended to be concentrated in symbolic ritual locations.

Importantly, pottery was also likely imported from areas both immediately beyond and well beyond the city boundaries. The pottery that was used for ritual cache vessels (finger bowls and urns) is often crudely made and not slipped; it is likely that these materials were made at the edges of the city, probably by specialized producers, and were available through the market plazas. Many of the site's storage wares, cooking pots, and water jars contain quartzite in their paste as temper, meaning either that the quartzite was traded into the site or, perhaps more likely, that the jars were made to the east along the Macal River, where both water and wood for firing were found and quartzite occurs naturally. Pottery was often fired at the edges of ethnographically known Maya communities (Reina and Hill 1978), which supports the idea that outer Caracol locales such as the Macal River region were production areas. Serving wares were also imported from outside the city boundary; some of the other quotidian pottery vessels were probably made just beyond the western boundary of the city along the Chiquibul River (again, where wood and temper were available for production, similar to the eastern Macal production areas). Others were imported from even greater distances and in standardized forms—as established for Belize Red (A.S.Z. Chase and A.M.Z. Chase 2015; A. Chase and D. Chase 2012), which is widely distributed at Caracol and in southern Belize. Thus, by the Late Classic Period most pottery was likely brought into Caracol from specialized producers located at some distance from the city epicenter, although at least some was potentially produced at the eastern and western edges of the city within the polity itself.

### Discussion

When viewed through the lens of production and distribution, the artifactual materials of Caracol add great insight into the Late Classic economic system that was in place. With the exception of agricultural products, Caracol's residential groups were dependent on producers from other Caracol households and from well outside the urban boundaries. The people in these residential

groups produced a wide variety of items that permitted their articulation with the site's economic system. Market plazas were located throughout Caracol to facilitate the transfer of goods and, presumably, services to the site's population. The direct connection of these locations to the site epicenter by means of causeways is strong supporting evidence for some kind of central oversight of the economic system.

By the middle part of the Late Classic Period no household was economically self-sufficient in isolation. In addition to locally produced material goods and food items, Caracol's populace was dependent on exterior producers for many of the products that they used. We suspect, given the broader interlinked Late Classic economic landscape, that Caracol was not alone in this situation. Thus, trade and exchange between different Maya regions had come to dominate the economic systems of the ancient Maya, meaning that the economies of many polities were interdependent. Salt, obsidian, cloth, ceramics, exotics, and other goods and raw materials flowed into the Caracol system, and finished products of metamorphic rock and perishable materials, as well as possibly bulk commodities, flowed out. This system of interdependence came to dominate the political economy. However, any imbalance to the interdependent political economies could have had serious repercussions given the institutional system's economic dependence on outside producers. Thus, the economic interconnectedness in the broader Late Classic Maya region at the end of the Late Classic Period would have been vulnerable to outside risk factors.

In marked contrast to the Late Classic situation, Caracol households during the Terminal Classic Period (AD 800–900) show extreme variation in artifact distribution (A. Chase and D. Chase 2007), suggesting changes to the economic system at the site and a potential breakdown of the once-functional market system or, at a minimum, changes in what was available within the markets. The existence of status-linked ceramics at Caracol during the Terminal Classic Period (A. Chase and D. Chase 2004) suggests to us that Caracol had shifted focus to become more of an extractive economy, where prosperity and broader Mesoamerican trade items were no longer shared (A. Chase and D. Chase 2007; D. Chase and A. Chase 2017). Thus, we suspect that the Maya collapse is ultimately at least partially due to the further disruption to this "global" economic system. Rather than climate change or drought, we see disruptions to the interconnectedness of ancient Maya economies and modifications in local distribution systems as leading to the demise of the once successful city and polity of Caracol.

# Conclusion

The archaeological data from Caracol, Belize, collected over the last three and a half decades permit insight into a single Maya economic system that has rarely been achieved. These data can be positioned within three very different frames: first, the domestic economy centered on households and residential groups; second, the institutional economy focused on the city itself, its markets, and their administration; and, third, the political economy focused at the polity level and related to the very real acquisition of resources and the symbolic imposition of power. Each of these frames provides a distinctive part of Caracol's economy both over space and over time. Importantly, they suggest that by the middle of the Late Classic Period the economics of many different polities across the southern lowlands were interdependent. This interconnectedness, which had resulted in a reduction in the redundancy in local systems, may have provided a weak link in the overall Maya economic system and surely factored into the final events that led to the heretofore enigmatic Classic Maya collapse.

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