

## GUAYABO DE TURRIALBA AND ITS SIGNIFICANCE

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The area around the Costa Rican site of Guayabo de Turrialba shows ceramic evidence of human occupation from at least c. 500 B.C., but, as seen today, its architectural features—stone house foundations, cobble-paved causeways and streets, stairways, retaining walls, mounds, plazas, and aqueducts—appear to date to the last five or six hundred years before the Spanish arrival. Although Guayabo is not the only site in Costa Rica that displays these features, it is the largest site of its kind known in the country thus far and has received the greatest attention from students of Costa Rican archaeology.

Guayabo de Turrialba is located 19 kilometers to the north of the modern town of Turrialba, on the slopes of a volcano of the same name at about 1100 meters above sea level (fig. 36). The position of the site between Premontane and Montane Rain Forest zones, and its relatively easy access to Perhumid Rain Forest (L. Holdridge 1978), would seem to be strategic in terms of resource procurement, suggesting economic stability and a capacity for sustaining populations both directly and indirectly associated with the site. The climate is temperate, humid to rainy; there is no well-defined dry season; annual precipitation averages 3 meters; temperature ranges from 18° to 22° C. Broadleafed evergreen forests, supporting a varied fauna, are typical of this region, although today many types of crops are grown. Farmers call the local soils very fertile. The streams and rivers of the region, always full from frequent rains, rush with white water down the steep sides of the Turrialba volcano for much of their courses. Between them, more gently sloping headlands and terraces are occasionally found; the site of Guayabo de Turrialba was constructed on one of these.

Guayabo has been known as an archaeological site since the last part of the 19th century, when several nonscientific expeditions were mounted to obtain pieces for museum and private collections like that of Don Ramón Rojas Troyo, then owner of the land on which the site was found. Only one scientist of that time, Anastasio Alfaro (a botanist), took an interest in recording the site and the details of the tombs he himself opened (Alfaro 1892, 1893). From that time until 1968, when Carlos Aguilar of the Universidad de Costa Rica began controlled excavations, Guayabo has suffered severe looting. This is the saddest part

of the site's history, reflecting the uninformed and misdirected interest of collector and scientist alike for the prehistoric object itself, out of context, as a "curiosity." Through Aguilar's personal lobbying, Guayabo was declared a national park in 1973, an act which has resulted in the protection and maintenance of its exposed architectural features. Aguilar's published work illustrates the layout of the major architectural features at the site, and the stratigraphic pits he dug allowed him to suggest a tentative cultural sequence (Aguilar 1972b).

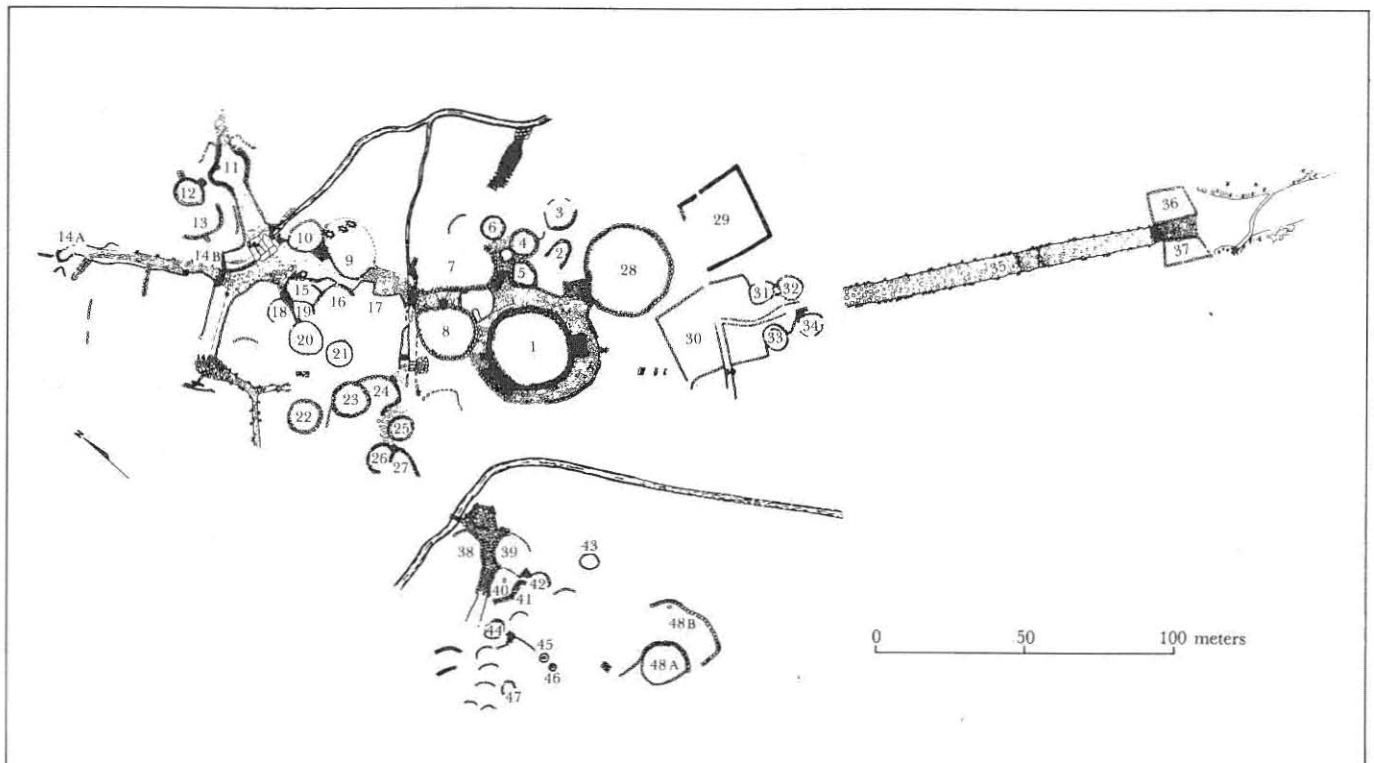
In 1978, the Universidad de Costa Rica reinitiated excavations at Guayabo, which continue today. The entire site has been carefully gridded, and investigation of the surrounding area has begun (Fonseca 1979). Participating students come from diverse fields (biology, geology, and engineering, among others), and the project's objectives have been broadened. We hope to learn more about the function of the site, how it was maintained, the factors that caused it to be founded, and its role in the hierarchy of contemporary sites in the region.

## Architectural Features

Although work since 1978 has been limited mostly to clearing, it is possible to see a few significant patterns. The architectural features vary in form and size. Mounds (hereafter M) are usually circular, but may be ellipsoidal or rectangular; others—for example, M 5, 10, 15, and 18 (fig. 36)—show irregular shapes as a result of forming part of the juncture between two or more features. To date, fifty features have been excavated: forty-three mounds, three aqueducts, two plazas, one causeway, one enclosure (hereafter E), and several paved walkways between features.

The architectural features vary in size from 4.2 square meters to 888 square

Figure 36. General site plan of Guayabo (Martín Chaverri).



meters. Although excavations are far from finished, and survey has revealed a great deal more to be done, we have found in the placement of the architectural features a pattern that allows us to take the first steps in a functional analysis of the site. Its organization has been analyzed by observing the way in which features divide, group, or connect, in the hopes of establishing generic spatial units that might have social significance. From smallest to largest, these units are: (1) the group, a formation of structures directly interrelated by sharing structural elements like walls and/or stairs; (2) the sector, an assemblage of interrelated groups, separated from other sectors by natural limits (streams, ridges) or cultural ones (other architectural features); and (3) the site or community, an assemblage of sectors, which, although separated by well-defined boundaries, have clear zones of linkage. A stylistic and environmental unity is apparent among the architectural features, which allows them to be subsumed in this largest unit.

The site of Guayabo is generally oriented along a northwest-southeast axis, an orientation emphasized by an eight-meter-wide causeway, which apparently served as the entrance to the site from the southeast. At a point some 150 meters below the center of the site, the causeway is flanked by two rectangular mounds (M36, M37). A small stairway rises between them, and, on the side away from the site, the causeway diminishes to two-three meters in width. This "gateway" to the site (Group A) was easily guarded. Once past the stairway, the causeway, now 8 meters wide, runs directly into Plaza (hereafter P) 30 near the center of the site.

During our recent investigations, the causeway was followed one kilometer farther southeast, where it meets two mounds of seven meters in diameter. To the northwest, the same axis is defined by a causeway (which picks up on the other side of M1) formed by paved zones lying between M 1, 5, 7-10, 15-17, and the retaining walls that surround them. Near the center of the site, two other roadways break off in a Y-form, one leading to a long stairway that debouches in the Lajitas creek, while the other crosses the Chanchera creek in the direction of the Guayabo River.

The builders of Guayabo showed a notable ability to harmonize architectural features with the natural topography, using the undulating, sloping ground surface to produce a multileveled, sequential site layout, which resulted in a richness of perspectives. There is little doubt that the radial system of streams flowing down the cone of the Turrialba Volcano played an important role in the orientation of the site and its aqueduct and drainage networks. Although we do not yet know the full extent of the Guayabo site, four main sectors, including all features so far known, have been established. These sectors appear to have been defined by natural or artificially controlled water courses, which influenced the architectural forms contained in each. The Central Sector (I) is so designated because its architectural features are the largest; they are associated with what may have been ceremonial objects (petroglyphs, offertory receptacles), and form part of what was probably the main entrance of the site. The Central Sector's limits are Lajitas creek, Chanchera creek, Aqueduct (hereafter A) 49, and Group A, the "gateway." All its architectural features (M1-8, M28, M32-34, E29, P30) are connected by a series of paved roadways and a system of stairs between M5 and M7 (fig. 36).

The special character of Sector I is immediately apparent. It is considered to be the main entrance to Guayabo because the principal causeway leads directly to it, through P30, the largest feature at the site (888 square meters). Where the

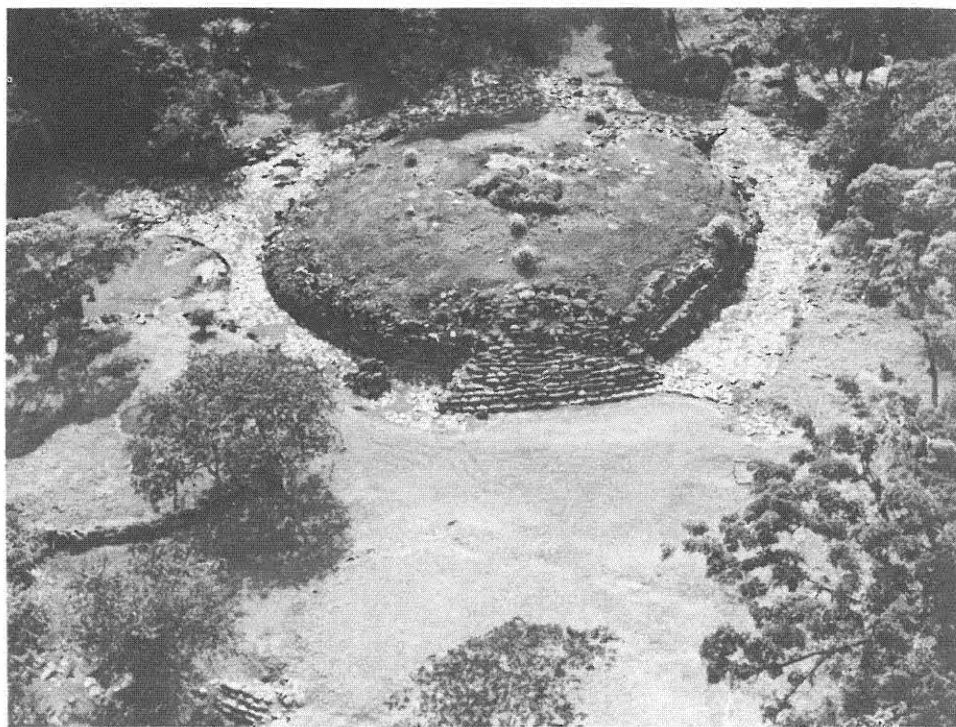


*Figure 37. Partial view of circular house foundations in Sector II, Guayabo, also showing part of Sector I with Mound I. Note the stairway of Mound I. Photo: Ricardo Luna.*

causeway enters P30, it is flanked by two pairs of mounds (Group B), each of 50 square meters, and joined by a possible stairway. The walls of M31 and M33 form part of the perimeter of the plaza. Within the plaza, there is direct access to the largest mounds. M1 stands out, with its large eastern stairway that lines up precisely with the entry into the plaza of the main causeway on the other side (fig. 37). M1 is surrounded by a paved walkway nearly ten meters in width in some parts, and has two trapezoidal stairways, one to the east and one to the southwest (fig. 38). Petroglyphs on cobbles incorporated in the walkway are numerous; some are of considerable size. At the base of the eastern stairway, there is a cup-shaped depression carved out of the first step, in the manner of an offertory receptacle. Other sizable mounds are M7, M8, and M28. The smaller mounds within this sector (M2–5) are on lower terrain, perhaps indicating that they sustained people involved in the domestic maintenance of the higher-ranking inhabitants of the larger mounds, where, it is suggested, ceremonial activities took place.

The boundaries of Sector II are Lajitas and Chancera creeks, A14, and A49. It includes M9, 10, and 15–27. Mounds in this sector are smaller than those in Sector I; they can be divided into the following groups, from north to south: Group C (M9–10), Group D (M15–16, 18–20; M21, probably part of another group in the unexcavated area to the east), Group E (M22–24), and Group F (M25–27). These groups are defined by the sharing of a single access system, generally a ramp or stairway, or by simple proximity and morphological similarity (fig. 39). Group D is somewhat different than the others, perhaps because some of its features form part of the causeway that enters from the east; it may also have had a functional difference.

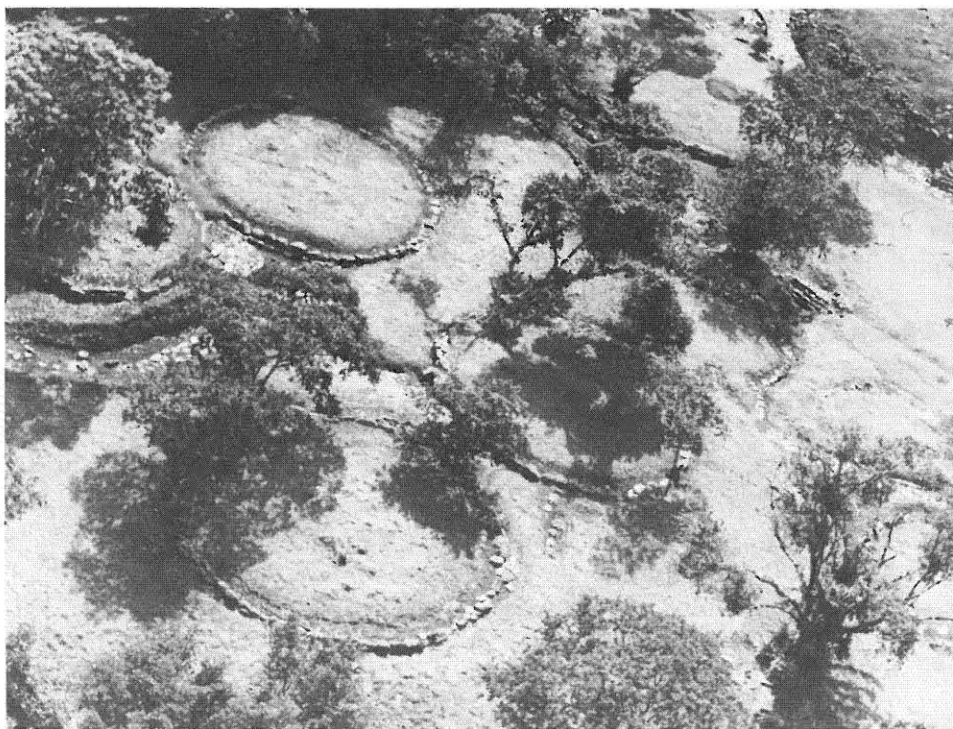
Sector III, located at the highest part of the site, is bounded by Chanchera creek and the canyon of the Guayabo River; it cannot be delimited to the east and west until our excavations have progressed further. It contains M38–48. Within



*Figure 38. Mound I and the causeway surrounding it at Guayabo. Photo: Ricardo Luna.*

it, we can define Group G, formed of M39–42, elements that share walls or entryways. In general, architectural features are far apart, but much more horizontal cleaning must be done to clarify relationships. The smallest mounds or house circles are found here; they range from 4.5 to 28.3 square meters. M48, one of the largest in Sector III (176.7 square meters), is notable for several reasons. Its entrance, in the form of a ramp, terminates in a retaining wall of very large stones on the downhill side. Surrounding it were found nine free-

*Figure 39. Group of circular house foundations in Sector II, Guayabo. Photo: Ricardo Luna.*



standing stone sculptures, mostly anthro- and zoomorphic effigies, 30–40 centimeters in height. Nearby is a petroglyph done in low relief on a sizable boulder; its zoomorphic motifs, reminiscent of some Panamanian gold work, are the most realistic, well-executed examples of stone carving found at Guayabo during recent excavations (Aguilar 1974). These associated features suggest a special, perhaps religious, character for M48.

The southern and northern limits of Sector IV are the Lajas River and A14; to the east and west, the limits are as yet undefined. A branch of the causeway, which enters the site from the east, as well as a bridge made from giant flagstones, or *lajas*, connect Sector IV with Sector II. Like Sector III, Sector IV is still imperfectly known; so far, only M3, M12, and P11 have been recognized. P11 is sunken, and one enters by stairs. It appears to be an expanded node along the passage of a causeway, which enters on one side and leaves on the opposite one. Its size is considerable (572 square meters), seeming to indicate that it was built as a plaza, not just as a wider part of the causeway.

## Comparisons and Conclusions

Guayabo de Turrialba is not the only site in Costa Rica with the kinds of architectural features described above, although it is the largest presently known. Sites similar to Guayabo include Las Mercedes (Hartmen 1901), Costa Rica Farm and Anita Grande (Skinner 1926), Nájera (Kennedy 1968), and La Cabaña (Snarskis 1978; in press), all located in the Atlantic Watershed. Outside Costa Rica, we see amazing similarities between Guayabo and the site of Pueblito in northern Colombia (Reichel-Dolmatoff 1954a, 1954b).

Las Mercedes, Costa Rica Farm, and Anita Grande all included circular mounds, house foundations, and causeways, which varied in size, height, and system of access, as they do in Guayabo. The major mound at Las Mercedes is similar to M1 at Guayabo in height and diameter. Hartman noted the presence of free-standing stone sculpture at the perimeter of the feature; this is very like the situation at M48 in Guayabo. We also appear to have located a completely buried stone sculpture in the vicinity of M1. The other mounds at Las Mercedes, as well as those reported by Skinner in Costa Rica Farm and Anita Grande, are like those found in Guayabo, with systems of stairs providing access. It is notable that the stairways of two mounds at Costa Rica Farm appear to connect; at Anita Grande, two large rectangular plazas are joined by a paved causeway, over 200 meters in length, implying a considerable size for the site (Michael J. Snarskis, personal communication).

Although other architectural features are almost certainly present at the Nájera site, three were described: a retaining wall of cobbles built around a small, natural elevation; a circular house foundation; and an "enclosure," circular in form, with several open entryways. The circular house foundation is typical of most Atlantic Watershed sites after 1000 A.D., but the round enclosure is unique so far. Perhaps the feature most similar to it is P11 in Guayabo, the only nonrectangular plaza known. In general, plaza-enclosure features form a unit, the lower, open plaza space being surrounded by raised ridges of cobbles and earthfill. The plazas are always of considerable size (compared with the mounds), and have at least two entrances, suggesting a community or "public" function of some kind. The retaining wall is also seen at Guayabo, and there is some indication that there, as well as at other late sites in the Cartago valley excavated by

Hartman and the MNCR, such features were employed to delimit cemetery zones.

The part of the La Cabaña site that was carefully excavated horizontally has a quadrangular plaza with accompanying enclosure, two raised mounds abutting it, and a smaller circular house foundation outside it; all these features are connected by paved causeways, ramps, or stairways. The obvious functional unity of this group of features is reminiscent of Sector I at Guayabo and its hypothesized “public” or ceremonial nature. Small features discovered on the La Cabaña mounds (metates, hearths, stone tools) allow us to infer the existence of different kinds of activity areas within the former structures. It is assumed, on grounds of ethnohistorical analogy and remnants of burnt cane and thatch recovered at La Cabaña, that all mounds and house circles had a perishable, roofed structure built on top (Snarskis 1978: 253–254; in press). The La Cabaña plaza had clear similarities with those at Costa Rica Farm, Anita Grande, and P30 at Guayabo, both in shape and in size. Furthermore, all are entered at one side by a major paved causeway; that of Guayabo measures 8 meters in width and 1250 meters in length in its excavated portion.

Built by people of the Tairona culture, the Pueblito site in Colombia presents striking similarities to Guayabo—it includes circular mounds, retaining walls of cobbles, systems of stairways, cobble-paved causeways, aqueducts, and bridges. Gerardo Reichel-Dolmatoff (1954a), the excavator of Pueblito, subdivided the site using units much like the sector and group concepts applied at Guayabo. This organizational relationship is emphasized further by the use of water courses, natural and man-made, as borders between population clusters at Pueblito (*ibid.*: 162). A plaza, although larger than those at Costa Rican sites, shows the same rectangular form, and aqueducts appear to have been constructed in the same way as at Guayabo (*ibid.*: fig. VI) (fig. 40).

This series of shared architectural features constitutes evidence for placing parts of northern South America and Lower Central America in the same interaction sphere in the last several centuries before the Spanish arrival; similarities in ceramic styles and metallurgical techniques, and especially language,

Figure 40. Partial view of a pool incorporated into one of the aqueducts at Guayabo. Photo: Oscar Fonseca Zamora.



have long been noted. The presence of many paved causeways, some perhaps linking prehistoric sites in Costa Rica (Stone 1977: 169), the accounts of the Spanish chroniclers describing such roads (Vásquez de Coronado 1964), the reports of 19th-century travelers and explorers of road systems linking coastal and inland indigenous villages (Hoffman 1976: 110), as well as the results of our own and other anthropologists' surveys in the field (Bozzoli 1977, 1979), make us suspect that a situation like that described for northern Colombia prevailed in eastern Costa Rica during Period IV (1000–1550 A.D.). As Reichel–Dolmatoff (1954a: 148) puts it:

... the Indians of the Sierra Nevada had constructed a network of wide, paved roads which connected the mountains with the coast, and the villages from valley to valley. These roads made for rapid communication between population centers. ...

Obviously, these road systems were a product of socio-economic processes that put a premium on fast, efficient communication between settlements, and between their zones of resource exploitation.

At Guayabo, we are attempting to expand our base of enquiry to include all parts of the surrounding locality and to define how the site interacted with other regions. This kind of study leads us to consider an important socio-political process, the formation of the chiefdom, and its function in prehistoric Costa Rica. I believe that sufficient evidence exists today to postulate the formation of chiefdoms from at least about 1000 A.D., if not hundreds of years before. In addition to the architectural features described above (which are found in many other sites), a mastery of difficult crafts (wood, stone, and jade carving, metallurgy, specialized pottery) indicates the existence of specialized artisans whose products were primarily of social and/or ideological importance.

Even though no one archaeological project with a truly regional, long-term focus has been completed in Costa Rica, three are now underway, including that of Guayabo. Work done to date has suggested some factors that may have been important in the development of the chiefdom social structure: (1) a diverse natural environment, with different zones at no great distance from one another, thus enhancing possibilities of resource exploitation and long-term productive stability; (2) trade or commerce with adjacent regions in high-status or luxury goods; and (3) long-distance trade with Mesoamerica or South America. One must remember the importance of trade as a means of transmission of ideas as well as of objects (Rathje 1974; Conrad 1974). Trade and increasing competition for productive agricultural or other territories must have resulted in a greater need for military-like controls and a higher incidence of small-scale warfare. These processes may well have stimulated the federation of major sites and their satellites, creating hierarchies of sites based on economic interaction.

Flannery's model (1972) for the passing of a social structure from one level of complexity to another appears to be sufficiently general to apply to the Guayabo site system. He uses the socio-environmental variables discussed above—trade, a varied natural habitat, increased competition for desired resources—to show how processes of *promotion* (ascendancy within a site hierarchy) and *linealization* (replacement of local, lower-order social controls with controls imposed by a higher, thus more powerful, authority) can occur in any social system, given the proper conditions. I think that this is the process that created Guayabo and sites like it; it only remains for scientific archaeological investigation to confirm the model, or to propose alternative ones.





Between Continents/Between Seas:  
**Pre-Columbian Art of Costa Rica**

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*Front cover and half-title page: Anthropomorphic-effigy vessel, Guanacaste–  
Nicoya zone, ceramic (cat. no. 83).*

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