

INFERENCES ON THE NATURE OF OLMEC SOCIETY  
BASED UPON DATA FROM THE LA VENTA SITE

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La Venta is one of the three large known southeast Mexican sites belonging to the culture called Olmec. The Olmec heartland is a restricted one, limited to the lowland Gulf coast of southern Veracruz and northern Tabasco and the small volcanic area of the Tuxtla Mountains next to the sea, covering a rectangle not more than 185 by 65 miles on the sides. The trio of major sites,<sup>1</sup> named La Venta, Tres Zapotes, and San Lorenzo Tenochtitlan appear to be either contemporaneous or partly overlapping in time and, judging from what we know at present, may represent religious capitols of the Olmec group during the first millennium B.C. While some excavation has been done at each of these three sites, we do not possess equivalent amounts or quality of information about all three. La Venta is the best known, and our information comes from initial excavations in 1942 and 1943 and a much more extensive investigation carried out between January and June, 1955 by Dr. Philip Drucker and myself.

The idea of an Olmec culture or Olmec art style has a complicated history. Melgar, nearly one hundred years ago, described a colossal head from the site of Tres Zapotes; Blom and La Farge in 1925 first visited and described the La Venta site; and M. H. Saville and George Vaillant first recognized and used the term "Olmec" to denote a distinctive cultural type.<sup>2</sup> M. W. Stirling, then Director of the Smithsonian Institution's Bureau of American Ethnology, carried out surveys and excavations between 1938 and 1943 in the Olmec area, and reports on explorations carried out under his direction at Tres Zapotes, San Lorenzo, Tenochtitlan, and La Venta still form the bulk of our information on Olmec sites, ceramics, and sculptured art. Publication in 1952 of the 1941, 1942, and 1943 excavations at La Venta led Drucker<sup>3</sup> to equate La Venta in time with the Early Classic Maya Tzakol phase, but later comparative studies plus radiocarbon dates for La Venta show this equivalence to be incorrect and demonstrate that La Venta fits into the late Preclassic or Formative time period in Mesoamerica.<sup>4</sup>

The site of La Venta lies on a small island with a surface area of about two square miles, formed by the Tonala River and its backwater sloughs in the alluvial coastal plain of northern Tabasco about eighteen miles back from the coast of the Gulf of Campeche. There is no evidence that the island's dimensions or situation with reference to the river and surrounding swamps has changed in the last few thousand years. The whole region is covered with dense tropical forest, except where there are wet swamps. The annual rainfall is about 120 inches per year, and there is one main dry season of about 100 days' duration which begins in late February and ends in May.

Extending for a distance of over one-half mile along the low central ridge of the small island is a linear complex of constructions made of heaped-up clay, the alignment bearing 8 degrees west of true north. Main mounds are bisected by the north-south centerline, and secondary mounds are paired, lying equidistant on either side of the centerline. While the general bearing of the

island's low central ridge is roughly that of the site's centerline, it does diverge a few degrees to the west, and builders of the site were required to deposit at certain points some very extensive earth fills in order to permit the site to be laid out along its own precise line of orientation. It is partly for this reason that we believe that the site's alignment was astronomically determined, meaningful to its builders, and therefore necessarily adhered to. Our excavations of 1955 were concentrated in the heart of the site to the north of the Great Pyramid, whose dimensions are 240 feet east-west by 420 feet north-south at the base, with a height of 110 feet.<sup>5</sup> To the north of the pyramid lies what is clearly the main part of the site. First are two long, low flanker mounds lying equidistant from either side of the centerline, and on top of each of which there apparently originally stood a line of monuments. At the north end of these mounds and lying on the centerline is a medium sized earth mound which covered a sandstone cyst, apparently a tomb. Then comes a rectangular plaza or court measuring 135 feet east-west and 185 feet north-south, and bordered by a palisade of closely set basalt columns set in the top of an adobe brickwork wall. Extending from the southern border of this court on either side of the centerline are two low platforms, each surmounted by a rectangular palisade of basalt columns. Each of these inconspicuous platforms rests on top of the fill of a pit 62 feet on a side and originally dug to a depth of 26 feet. The fill consists of 28 layers of roughly shaped quarry slabs of green serpentine aggregating 1200 tons in all, an elaborate 15 by 20 foot serpentine block mosaic mask representing the favorite Olmec deity, the jaguar, and layers of clays and unfired adobe bricks. This feature we call a "massive offering." There are two of these, identical to each other, and they were both made at the same time.

Within the palisaded court or plaza are three small rectangular platform mounds, one along the west side, one along the east side, and one on the south. The northern edge of the court is intersected by a large stepped platform mound, probably rectangular, which contained numerous deposits of jade objects, such as earspools, celts, figurines, and beads, lying for the most part directly on the centerline. Associated with the Phase IV or latest layers of this mound are two tombs, one constructed of basalt columns set upright in a rectangle and roofed with similar columns, and the other an elaborately carved sandstone sarcophagus with a lid.

In addition, there were two deeply buried massive offerings in this area, one in the northern half of the court and the other partly under the basalt column tomb. The first, and largest, consisted of six superimposed layers of closely fitted serpentine blocks to form a pavement area measuring 63 by 66 feet. These pavings lie in the bottom of a pit measuring 77 by 77 feet, and dug to an original depth of 13.5 feet. The smaller massive offering was a single layer of dressed serpentine block paving measuring 44 by 14 feet, lying at the bottom of a pit measuring 50 by 20 feet, and dug originally to a depth of 16.5 feet. I mention these details of size of pits and their pavings made of serpentine to emphasize their magnitude and to note that one of these was deposited at the very beginning of each of the major renovations of the site. The green serpentine rock, incidentally, was secured at Nilttepec, on the Pacific side of the Isthmus of Tehuantepec, slightly over 100 airline miles south of La Venta, but 350 miles by navigable watercourses. A rough calculation of the amount of this serpentine used at La Venta comes to about 5000 tons. Throughout

the area of the site are large, flat-topped stone altars, sculptured stelae and monuments, and a number of the unique colossal heads. The largest of these sculptures weigh over 30 tons. What is remarkable about the site is that all the clay for the pyramid and other constructions, and all the stone used for the sculptures, is foreign to the island and must have been brought to the island by water transport<sup>6</sup>--no mean accomplishment when we realize that the mass of the pyramid amounts to just under 5 million cubic feet, and the source of the olivine basalt of which the great monuments are carved lies not less than 240 miles distant by navigable watercourses.

The position of the La Venta site within the larger reference frame of Mexican prehistory is not wholly clear. Contemporaneous sites in highland Guatemala at Kaminaljuyu, in the Valley of Mexico at Tlatilco, and in Oaxaca at Monte Albán appear to be less developed than La Venta. Dating from the first half of the first millenium B.C., La Venta is Classic in its cultural manifestation, but Preclassic in time. La Venta is, in brief, precocious. No hint now exists as to the origins of the Olmec culture, and if we take available information literally, it appears fullblown and disappears with scarcely any derivative traces.

While La Venta exhibits such basic Mesoamerican traits as platform mounds, truncated pyramids, carving of jade, obsidian, and quartz crystal, astronomically oriented site-plan, plumed serpent motif, and deposits of ritual offerings, it has at the same time a number of highly distinctive aspects, such as the monolithic rectangular altar, composite human-jaguar deity, concave metallic mirrors, a unique art style, and a particular type of dedicatory offering taking the form of great fitted pavements made of beautifully dressed serpentine blocks placed in the bottom of deep rectangular pits. La Venta Olmec is as distinctive in its own way as Maya or Aztec or Zapotec.

A suite of nine radiocarbon dates shows that the first construction occurred about 800 B.C., and that the site was abandoned 400 years later, about 400 B.C. The original site plan was faithfully maintained during these centuries, in the course of which the mounds, pyramid, and plaza area were enlarged three times. The initial construction, plus the three rebuildings, provide us with four stratigraphical-temporal phases whose average durations were about 100 years each.<sup>7</sup>

The constructions at the site are all of a religious nature. No occupation debris or trash deposits occur anywhere within the area of the site itself. At scattered points outside the site area are thin trash layers, but these do not indicate in any way a numerous population living on the island. These living evidences are most probably ascribable to the residence of a small corps of priests and their attendants. The La Venta site is, therefore, not a place where large numbers of people lived but rather an isolated ceremonial center which was spatially separated from the population which built and supported it and whose religious needs it served.

Let us look to the economic base which supported the builders of the site and made possible at this early date (i.e., early for Mesoamerica) the extravagance of such a large center.

Drucker and I have recently carried out and published a study of the slash-and-burn system of maize agriculture now practiced on La Venta island by the small native group resident there.<sup>8</sup> Most briefly, the method entails cutting down the trees and brush, allowing it to dry, and burning it just before the advent of the rains. A field is often recleared a second time, but two crops are the maximum that the land will yield. Such short-term land use is due both to soil mineral depletion and to the incredibly vigorous renewal of the natural growth. The fallowing period is usually four years, or at the most five. Thus, with a field under cultivation and an average of four years of fallowing, the farmer needs to control five times the area of land which he must plant each year to support his family. At La Venta, one hectare (2.47 acres) of land planted to maize will feed a family of four. Add to this an additional half hectare for beans, cotton, or other minor plantings, and we have 7.5 hectares (18.5 acres) under each family's jurisdiction. At La Venta a family of five needs 120 days to produce 150 bushels of maize, but that family requires only 100 bushels of food. Assuming an equally efficient system of maize agriculture in ancient times, part of the available surplus time could have been devoted to labor under the direction of the priests at the ceremonial center. The modern Totonac of central Veracruz require 19 acres to support a family of five; the Maya of Chan Kom require 35 acres for the same number, and at Chichén in Yucatán the average family's land requirements are 59 acres. These variable acreage requisites are a reflex of soil fertility and length of fallowing period observed.

The island of La Venta will not support, by the slash and burn farming method, more than 150 persons. Since this number is clearly too small to have served as the labor force to build and maintain the site, we can confidently state that the La Venta site is a detached ceremonial precinct which was built by a population living elsewhere.

The fact of such a detached vital center, used and maintained over a span of four centuries, clearly implies a political unity of the population which served, and was served by, that metropolis. Stability of this population is suggested by the use of the site for 400 years, as well as by the consistency in the manner of making dedicatory offerings and the similarity of objects found in these offerings, whether they be early or late in the history of the site. The living area of the population which acknowledged La Venta as the repository of its spiritual power surely did not lie to the east, where there is a vast stretch of low and swampy ground not suited to occupation or farming. To the west is a section of high ground amounting to about 900 square kilometers, lying between the Tonola and Coatzacoalcos rivers. This is an area of low hills and valley, well drained, covered with forest, and well suited to maize agriculture. It has not been adequately surveyed for smaller archaeological sites, but we do know that it was occupied when the La Venta site was in use, and it therefore constitutes the most probable habitation area for the population which supported the site.

If the average family size was 4.5 persons, a figure derived from the recent work of Cook and Borah, there would have been about 4000 family heads, and these we assume to have constituted the potential labor force for work on the La Venta site constructions.

We may ask whether 4000 men, available for work during the 100 day annual dry season over a period of 400 years, could have carried out the great labors involved in the building of the La Venta site.

Computations of the number of men required to excavate and fill the large offering pits provide us with a rough measure to estimate the labor requirements for the totality of clay structures. These needs, plus manpower requirements to transport the heavy stone monuments, yield a total of 1,100,000 man-days. Add to this the estimate of 900,000 man-days of labor needed to import, by canoe or raft from either upriver or downriver, the clays used to build the mounds, plaza fills, and pyramid, and we reach a total of 2,000,000 man-days of labor. To satisfy this need, 50 men, working every day during the 100 day dry season each year for the 400 years the La Venta site was in use, could do the job. But our archaeological evidence shows that the work was not carried out by yearly bits, but instead in at least four major efforts. If four work periods, coming at 100 year intervals and each comprising 100 working days, were involved, each of the four work periods would have required 500,000 man-days of work, or 5000 men working for 100 days. However, it may not be correct to assume that the big pyramid, with a mass of just under 5 million cubic feet of earth, was built in four stages, so it may be suggested that at the end of every 50 year calendar round the pyramid was added to, and that every 100 years the other mound constructions and plaza floors were resurfaced. The occurrence of four of the great buried pavement offerings or caches, three of which can be proved to have been deposited as the initial act in the successive major renovations of the site, point clearly to a prominent ritual, involving large numbers of workers, which was enacted to mark the beginning of a new era. That this periodicity was a regular one and derived by a precise system of time-reckoning seems highly probable in view not only of the general Mesoamerican pattern of cyclic rituals, but also of what we know of Olmec calendrical accomplishments from the nearby site of Tres Zapotes. J. E. S. Thompson has earlier shown that the Olmec probably computed and observed two of the standard Mesoamerican time cycles of 52 and 104 years.<sup>9</sup> Since these are convenient to use here in our attempt to analyze the construction of the La Venta center, we may suggest that every 50 years (this figure being rounded off from the 52 year cycle) a work crew was put on the pyramid and every 100 years (the rounded off 104 year cycle) the crew was added to in order to refinish the mounds and the plaza floor, and perhaps to reposition the monuments. The pyramid work crew would number 2000 men, working for 100 days every 50 years for 400 years; the mound-plaza-stone monuments crew would comprise an additional 1500 men working for 100 days at 100 year intervals. The maximum crew would not exceed 3500 men, a figure well within the potential number of available men already suggested, namely 4000 family heads.

While such figures are admittedly estimates, they may have some basis in fact since they are built around a number of specific archaeological observations. It is not my intention to suggest that the site was in fact built in this way, but merely to point out that it may have been so constructed.

Why La Venta island was selected as the place to build the ceremonial center we do not know. It was not uncommon in prehistoric Mexico to locate ritual centers on accessible but isolated islands. The Isla de Sacrificios, just off the city of Veracruz, was such a religious center, as was the island

of Jaina, off the coast of Yucatán. It may have been that the important rituals should be conducted in a quiet and serene atmosphere for the people's benefit, rather than as public spectacles with as many of the faithful present as possible. A second possibility to account for the selection of the site was its accessibility to the Tonolá River for unloading construction materials and heavy stones for monuments. While this may have been taken into consideration I rather doubt that it could have been the primary reason for selecting the site. A third possibility is that La Venta island may have earlier been the location of a shrine which, in the course of time, became important in some way or other, and that when the time came to build the La Venta site which we know, the sanctity of the spot was already so traditional as to encourage its continued use. Since the priests would have been in a position to designate the spot, they may well have selected the location already rich in tradition and ritual significance. The phenomenon of building important new religious edifices on the location of earlier shrines in order to suppress or incorporate the sanctity of the spot is very widespread. Many of the great cathedrals of Europe are built on the sites of pagan temples, and in the Valley of Mexico the three most important Catholic edifices, the Cathedral and the Basilicas of Guadalupe and Los Remedios, are built precisely over the sites of the three most important Aztec shrines which were in use at the time of the Conquest.<sup>10</sup> At La Venta a somewhat similar process may have occurred. In the Phase I clay fills we recovered about a half-dozen isolated fist-size pieces of clay flooring, which bore thin colored surfacings of brown and yellow, quite different from any represented in position in the site. These can only have come from pre-Phase I, that is, pre-La Venta, clay structures. Where these flooring fragments came from--from the island or from some distance away--we do not know. But the possibility remains that somewhere within the area of the main La Venta site there stood platform mounds which were destroyed at the time the base of the present site was being cleared and leveled.

It has already been mentioned that the La Venta constructions were erected, then rebuilt, three times, and that these general refurbishings provide us with a convenient stratigraphic index which we have labeled Phases I (earliest), II, III, and IV (latest). Each major rebuilding was initiated by the deposition of what we have called a "massive offering," taking the form of burying, at a considerable depth in a large pit, one or more layers of dressed serpentine blocks. This sort of ritual offering is unique to La Venta. Middle American peoples usually, like ourselves, wished to exhibit the results of their public works projects in the form of a new building or other architectural accomplishment, but the La Ventan's psychology appears to have been different. One feels that the offerings, which we have reason to believe were devotional in character, did not require visible manifestation but rather were offerings of work and labor. The serpentine, while difficult to secure from its distant source, was not a precious material that required deep burial to prevent its theft. Whatever the explanation, some specific peculiarity of Olmec religious psychology is involved in the practice of depositing the massive offerings.

Assuming the accuracy of the nine radiocarbon dates for La Venta, each of the four architectural phases had a duration of about 100 years. We have reason to believe that 52 or 104 year cyclical construction programs may have been practiced at La Venta. What is certain is that the site was never vacated nor abandoned during the span of time which elapsed between its initial construction

and final abandonment, as shown by repeated painting of surfaces, absence of erosion surfaces, and lack of humus layers. The site was continuously maintained and kept in excellent condition by minor repairs, so that we may say with reason that a corps of attendants charged with upkeep was in continuous residence there.

The presence of numerous sculptured altars, stelae, and smaller stone carvings which were set up in an obviously planned array, as well as large numbers of ritual or dedicatory offerings of jade beads, figurines, and celts deposited precisely along the centerline, and the absence of any occupation refuse in the area north of the pyramid can all be taken as evidence for the use of the site for sacred and ritual purposes. Ritual scenes, shown in sculptures on sides of altars or on stelae, portray ceremonially arrayed priests wearing elaborate headdresses and engaged in ritual acts. Infants are often shown held in the arms of priests, but whether these are the objects of sacrifice or adoration we have no way of telling. The existence of a complex system of religious beliefs and values can thus be assumed, even though the actual form and nature of these evade definition. One offering is in the form of sixteen beautifully carved jade and serpentine figurines, arrayed in such a way as to strongly suggest they are engaged in some sort of ritual act, and this tableau gives us a hint that rituals involving numbers of priests were conducted. The work of placing the great massive offerings in their pits was surely ritually overseen, since small jade caches, which are interpreted as dedicatory offerings, occur at precise places in the overlying fills. In the fills overlying each of the massive offerings, for example, is a cruciform offering of jade celts, and this consistent feature may be taken as proof of a fixed ritual associated with the placement of this particular kind of offering.

The massive offerings themselves, which were deposited as the first act in the renovating of the mounds and plaza floors, point to the renovation itself as an important ritual act that occurred, not without plan or at the spontaneous whim of the priests, but at a precise date, doubtless determined calendrically, and only after great stockpiles of construction material, such as clay, serpentine blocks, and so on, had been accumulated and made ready for the great event. The obvious great importance of the site's centerline, used both as a locus for offerings and to determine the position of tombs and monuments, must be a reflection of a particular religious conception having to do with fixed rituals imbedded in a concept of orientation. The tombs and monuments, incidentally, usually have a small deposit of precious jade objects buried immediately beneath them. Such careful preparation indicates a ritual of some moment connected with the setting up of monuments.

Within the palisaded court or plaza were three low platform mounds. Only in the east mound and eastern half of the south mound were jade offerings found, and the large number of these contrasts strongly with their total absence in the western half of the south mound and in the western mound. Here again is evidence of an activity and belief pattern perhaps having something to do with a color-directional concept expressed as jade = green = east, but once more we can only speculate on the significance of the observed differences.

The religious functionaries which we see portrayed on the sculptured altars and stelae we assume are those individuals who were the masters of

formalized ritual, and since these massive carvings represent a high, perhaps the greatest, technical achievement of the society, the priests may be assumed to have occupied a very special and elevated status within that society. Since the La Venta site represents the most substantial evidence of the activity of the society, it may be proposed that the priests held the highest prestige and authority roles in the La Venta population. And from this flows the further indication that one religion which the priests symbolized was a dominant aspect of the society and that this religion served as the integrating or centralizing mechanism with the ceremonial site as its vital center. My own view is that the ceremonial center implies a high degree of political integration, though I know of no way to demonstrate this actually. If we could learn something concrete about the number and size and distribution of villages of the La Venta group, we might be in a position to say something concrete about political structure. If we view the large number of jade objects and minor and major stone monuments as destined primarily for ritual purposes, we may suggest that the priesthood controlled both their production and the craft specialists who produced them. While not important in itself, the situation may suggest one of the ways in which the authority control of the priesthood became established.

By analogy with what is generally believed to have been the case in the Classic period theocratic societies of Mesoamerica, it is probable that the religion was voluntarily, or at least willingly, supported by the general population because that same population was the beneficiary of the religion. Whether there were secular authorities, such as kings or paramount chiefs, we do not know. In the several tombs which are believed to mark the burial places of individuals of high status, there are numerous items of precious jade of the same sort which occurs also in ritual offerings in the court mounds or along the centerline. These tombs, therefore, are probably those of high priests. If there was secular authority, this office may have been combined with religious office and the existence of priest-kings is suggested. The centralization of religious activity for a dispersed population suggests the possibility that the ritual center served also as a political or governmental center. While most of this is admittedly speculative, we must recognize the obvious fact that a good deal of executive authority must have been vested in the priests, since the La Venta site stands as palpable evidence of the exercise of authority to mobilize and direct large numbers of workers to import multi-ton stones, to carve them into altars or stelae or colossal heads, to dig and fill the big massive offering pits, to build the pyramid, to import and lay down the new layers of clay in the court, and so on. Whether we call this voluntary or involuntary service,<sup>11</sup> its accomplishments could only have been realized through the intermediary of a highly skilled managerial group, which planned the work in advance, issued the directives, and saw to it that the activity was carried out to completion.

In the light of what we know about Mesoamerican organized religions, we are probably not wrong in assuming that the La Venta rituals were aimed at agricultural fertility through worship of a pantheon of cosmological gods. The connection of the jaguar, who appears as the dominant deity of the Olmec, with rain and crop fertility in later Mesoamerica, hints strongly of this.<sup>12</sup> The tremendous amount of magical belief and ritual connected with maize and its growing among recent Mesoamerican groups must have very ancient roots that go back beyond the Early Classic Maya of the second and third centuries A.D. where



the maize goddess is already important. Eric Thompson has felicitously summarized this in the following quotation:

Maize was a great deal more than the economic basis of Maya civilization; it was the focal point of worship, and to it every Maya who worked the soil built a shrine in his own heart. Without maize the Maya would have lacked the leisure and prosperity to erect their pyramids and temples; without their mystical love for it, it is improbable that the peasants would have submitted to the unceasing and stupendous program of building directed by the hierarchy. The Maya laborer knew that he was building to conciliate the gods of sky and soil, on whose care and protection his maize field was dependent.

The orientation of the La Venta site along a line 8 degrees west of true north and the evident magical significance of that line as indicated by the large number of votive offerings deposited along it suggest strongly that those who planned the site were conversant with astronomy. Most, if not all, large Mesoamerican sites are carefully oriented to some astronomical feature, and in most the line of orientation is linked with a complex calendar. Although we cannot tell why La Venta is oriented along its line, the fact that it is so oriented implies a developed knowledge of calendar and astronomy possessed by its builders. The existence of early dated Olmec monuments in the Olmec area but not from the La Venta site proper, older by a half-dozen centuries than the earliest date-bearing Maya inscriptions,<sup>13</sup> does not detract from the proposal that the La Venta priests were astronomical and calendrical experts. As among later Mesoamerican peoples, there probably existed a religious calendar by means of which people were told when to clear fields, when to burn the slash, and when to plant and harvest, and for each of these necessary acts we may suppose that special ceremonies were held in the religious precinct to secure divine intercession for success in securing a favorable crop. By means of a religion which became, through long practice, necessary for successful agriculture, there crystallized what Eric Wolf has called the Theocratic period and which Gordon Willey has named "Temple Formative."<sup>14</sup> Behind this lies a long period of farming and the gradual amassing of a body of empirical data on seasons and weather. But the seasons do not always repeat themselves accurately, and along the Veracruz coast storms, floods, and drought are a menace to successful farming. Given a sufficiently large population, plus some stimulus, either self-generated or of outland origin,<sup>15</sup> a priestly group who were astronomical specialists (perhaps derived from weather shamans who systematized cosmic phenomena into an agricultural calendar) may have succeeded in organizing a population into a cooperative group in order to erect and support the ceremonial precinct which functioned both as an astronomical observatory, the findings from which were applied to improving the calendar, and as the repository of the source of man's continued success in farming.<sup>16</sup> This suggestion is only hypothesis, and a similar one has been made before. William Coe, in 1959, proposed that the development of the Classic Maya site of Piedras Negras may have been due to a "skilful group of individuals who appeared . . . and proceeded to organize the local farmers through the imposition of Classic components," and that this external organizing influence was directed to "a community with a relatively static, insular, uncomplicated culture, but one that could not mitigate the profound uncertainties of agricultural life. The priestly group, whether foreign or locally derived, appears to have claimed this power and thus

was able to extract enormous labor from the countryside--labor that fashioned a context for the power itself."<sup>17</sup>

J. Eric Thompson's suggestion that among the Classic Maya there existed a "lay" culture of uneducated peasants and a "hierarchical" culture of priests in whose hands was concentrated the intellectual knowledge of the society does not seem much different from the reconstruction which has here been suggested for the La Venta culture group.

Julian Steward says that the thesis that ceremonial centers in Mesoamerica developed because ritual acquired greater importance is circular reasoning. In taking this position he is not necessarily correct, since once the population density was great enough to exercise pressure on the land, and provided the priest group had already assumed responsibility for agricultural success through weather-control or by notification of planting and harvesting dates reinforced by essential rituals, the priest group could expand the ceremonial center at will. For the nearby Popoloca of the Tuxtla mountain slopes, Foster mentions a "rain-maker" who did not farm but collected a tribute of maize from the people of his group to prevent him from bringing storms which would destroy the crops.<sup>18</sup>

Some administrative control by the priestly group may have been exercised by allocating farmland and supervising, for example through dictating the span of the fallowing period, the use of land in order that production might be maintained at the desirable level. An uninterrupted period of four centuries of functioning of the La Venta site certainly argues that steady hands were guiding the population.

How the priesthood was supported lies again in the realm of conjecture and inference. Either a per capita levy or contribution of food from each farmer's surplus or the communal tilling of certain fields seems most probable as their means of support. In parts of Guatemala special fields are today cultivated to provide the food of civil and religious authorities, but we do not know how ancient this practice is.<sup>19</sup>

While the La Venta site has already yielded a veritable treasure of polished jade objects which were deposited as votive or ritual offerings, there has come to light no hint of a storehouse or treasury or shrine where such goods were accumulated, and it seems most probable that the aggregate of buried dedicatory caches themselves constitutes the long term concentration of ecclesiastical valuables.

There is no evidence that the La Venta site served as a market. While large amounts of foreign materials, such as jade, serpentine, basalt, andesite, schist, chromite, cinnabar, limestone, and obsidian, occur at the site in the form of objects contained in buried offering-caches or sculptured monuments, these are scarcely the sort of materials one would find in a native market. They seem, rather, to be the kind of items available through tribute or taxes or through actual procurement by work parties dispatched for that purpose. Because of the nonsecular and devotional nature of the stone sculptures at La Venta, it seems probable that the sculptors of monuments and carvers of jade were artisan groups attached to the ceremonial site since their productions were apparently destined for religious use.

I have earlier mentioned that the sources for the plutonic and metamorphic rocks used in large quantity by the Olmec occupants of the sites of La Venta and San Lorenzo Tenochtitlan lie at considerable distances from these sites. The source of the large basalt blocks used to produce altars, stelae, and colossal heads seems to be at La Union volcano, some 240 miles by river and offshore waters from La Venta.<sup>20</sup> These great stones, weighing up to 40 tons apiece, must have been transported down the rivers in the rainy season, along the coast, and then back up the Tonalá River to the site. Since such work must have been carefully planned, must have required the use of many laborers, and must have been possible only with knowledge of the construction and propulsion of adequate water transport, we can infer from this the existence of a skilled specialist group of transportation engineers.

This hasty survey of inferences derived from excavation data of the La Venta site indicates that by 800 B.C. the society whose labor built the site also provided support for a corps of full time specialists residing at the site. This specialist group comprised primarily a priesthood whose responsibility was the performance of ritual acts aimed primarily at securing divine intercession for agricultural success through weather control and calendrical knowledge applied to the management of the slash-and-burn system of maize production.

The material accompaniments of ritual, as exemplified in the sculptured monuments, dedicatory caches of polished jade objects, and deeply buried massive offerings in the form of mosaic pavings, support the further inference that the permanent group attached to the ceremonial center included transportation engineers, sculptors, and construction experts who planned and superintended what might be called major public works projects. What the size and constitution of this group was we do not know, but since it is probable that the trash heaps tested by Drucker in 1942 on La Venta island represent the refuse accumulation of this religious-technologist corps, there remains the hope that additional excavation, performed specifically on La Venta island to examine this question, might yield interesting results.<sup>21</sup>

Tomb burials at La Venta are few, and all are late in the site's history since they are assignable to Phase IV which is believed to date from the century 500 to 400 B.C. While special burial of priests may have been practiced from the beginning, the tombs of the high priests of La Venta of Phases, I, II, and III have not been found. The late occurrence of entombment of special status individuals within the heart of the ceremonial precinct may indicate merely that an unusual degree of personal identification of certain priests with the religious welfare of the society had developed, or it could signify the excessive accumulation of power by the hierarchic religious group which imposed such oppressive demands upon the supporting population that the latter either withdrew its support and forced the abandonment of the ritual center, or actively engaged in a social revolt. The only justification for such speculation is the notable fact that large tombs date from the end of the period of the site's use, and while these two things may be quite unrelated, we cannot assume that they are. The occurrence of three such tombs in a span of not more than 100 years might mean that head priests succeeded each other at 30 year average intervals--this seems rather long to me and I confess that if there were four or five or six such tombs one could argue more plausibly that all of the Phase IV main priests were buried in the site.

Maintenance of the clay structures may have been on a day-to-day basis by some members of the specialist or hierarchic group permanently attached to the site, but the major periodic rebuildings could only have been carried out by mass labor provided by the peasantry or lay population living some distance away. Such a division of society based upon residence and duties has been proposed by J. Eric Thompson and S. G. Morley for the Classic Maya, and Tax has carefully described a modern situation in highland Guatemala of "vacant towns," to use his term, which are occupied by officials and visited by the outlying and dispersed farmers on religious or civil holidays and on market days.. Implicit in all such formulations of a small power-holding elite and a passive peasantry is what Linné<sup>22</sup> refers to as the "submissive religiosity [which] seems to be an Indian racial trait." I would disagree with the literal interpretation of submissive religiosity as an Indian racial trait and suggest that La Venta, as one of the earliest manifestations of this meekness before religious authority, shows that the Mexican peasantry has been culturally trained in this attitude for at least twenty-seven centuries.

There remains another matter, which also requires speculation, to take up. This is the problem of why the La Venta site, after 400 years of continuous use, was abandoned. Several possibilities can be suggested. It is perfectly possible that when the site was first built, presumably at a point in time marking the beginning of a new calendrical era, the intention was that it should serve its function for a predetermined span of time, such as eight 52 year or four 104 year periods, and then be relocated.

If the La Venta culture group lived in peace and flourished, their numbers may have expanded to the point of overpopulation, so that unduly great pressure on the land through too frequent clearing was required and economic suicide through decreasing production and increasing demands resulted. There is no evidence at all for this proposal, but a similar theory is widely held to account for the breakup of the Classic Maya about A.D. 900.<sup>23</sup>

Another possibility assumes the increase of spiritual and temporal powers by the priesthood during the four centuries of the use of the La Venta ritual center. Given such accumulation of authority, there may have come a point beyond which the common people refused to go to meet what they considered intolerably heavy demands for their services, goods, and time. A bare suggestion of this in the La Venta site is the occurrence in its final phase, of large tombs and sarcophagi which may be interpreted as the material expression of the ultimate development of class differences in the form of burials of high priests within the ceremonial precinct.

Or, the people and their ceremonial center, with its priests, may have been conquered by an invading group of another religious persuasion. The deliberate mutilation of twenty-four of the forty-five sculptured monuments at the La Venta site indicates some kind of religious reaction. The mutilation varies from the battering off of heads of figures or the despoiling of facial features of priests or deities portrayed on altars or stelae to the outright destruction of whole monuments whose remains consist only of fragments bearing bits of sculpture. One could interpret such evidence as being due either to a succeeding people who were engaged in a program of destroying the religious art of their predecessors or to the reaction against the old religion by a disillusioned people imbued with iconoclastic fervor.

One further possibility to account for a social or religious breakdown is that a succession of natural catastrophes led to profound disruption of the agricultural production system. If, as we assume, the religious center at La Venta operated primarily to insure agricultural success, a sequence of droughts or excessively rainy years might so demoralize the population that they would either actively turn against their religious leaders or simply withdraw their support. That such catastrophes could occur is indicated by records of no fewer than fifteen great famines in Yucatán in the 300 year period from 1535 to 1835. One may hope that further investigation will produce information to settle this problem.

While the interpretations offered here may be sounder on some points than on others, I do not feel that as a whole they are very far from the fact. If this be admitted, we have an example of the Mesoamerican pattern of theocratic control in existence about one thousand years earlier than the first certain evidence of organized religious activity in the great Classic Maya centers of lowland Guatemala. M. Coe<sup>24</sup> has said, "Although it may share the honor with the Chavín culture of Peru, the Olmec culture seems to have been the first civilization of the New World." While the La Venta site is organized along fairly simple lines, the germ of later urban ceremonial centers, such as Teotihuacan, is clearly present if we judge from the occurrence of the orderly alignment of mound structures, the specialist priest group attached to the ceremonial center, technological specialists (jade carvers, sculptors of monuments, etc.), burial in tombs of special-status persons accompanied by rich offerings, and the like.

#### REFERENCES AND NOTES

1. A fourth site in this class may exist, but published information concerning it is scanty. This site is named Laguna de Los Cerros. It lies about halfway between Tres Zapotes and La Venta in southern Veracruz state. A. Medellín Zenil. *Monolitos Ineditos Olmecas. La Palabra y el Hombre*, No. 16, pp. 75-97. Xalapa, Ver., 1960.
2. For a more extended review of the history of Olmec studies see P. Drucker, R. F. Heizer and R. J. Squier, *Excavations at La Venta, Tabasco, 1955*. Bureau of American Ethnology, Bull. 170, pp. 248-253. Washington, 1959.
3. P. Drucker, *La Venta, Tabasco: a Study of Olmec Ceramics and Art*. Bureau of American Ethnology Bull. 153. Washington, 1952.
4. P. Drucker, R. F. Heizer and R. J. Squier, *Radiocarbon Dates from La Venta, Tabasco*. *Science*, Vol. 126, No. 3263, pp. 72-73. 1957.
5. Actually, the pyramid is rather higher than 110 feet, since its base, which was never reached by us, lies at least 5 meters below the site's present surface.
6. In 1955 a road construction company was busily engaged in cutting into the island's surface at many points to secure fill for two causeways to link the island with higher ground about 25 kilometers to the north and to the east, for the purpose of transporting crude oil in tanker trucks, and none of these exposures contained clays of the color or texture of those of which the mounds were constructed.
7. These four construction periods we have designated Phases I (earliest), II, III, and IV (latest).

8. P. Drucker and R. F. Heizer, A Study of the Milpa System of La Venta Island and Its Archaeological Implications. *Southwestern Journal of Anthropology*, Vol. 16, pp. 36-45, 1960. An excellent account of southeast Mexican agriculture occurs in Henry H. Harper, *A Journey in Southeastern Mexico*, pp. 73-76. New York, 1910.
9. J. E. S. Thompson, *Maya Hieroglyphic Writing: Introduction*. Carnegie Institution of Washington, Publ. 589, Washington. *Ibid.*, *The Rise and Fall of Maya Civilization*. University of Oklahoma Press, Norman, 1954.
10. R. G. Montgomery, W. Smith, and J. O. Brew. *Franciscan Awatovi*. Peabody Museum Papers, Vol. 36, App. D. Harvard University, Cambridge.
11. A considerable misapprehension may exist, even today, about the nature of the labor force which erected some of the great monuments of antiquity. R. J. Forbes (*Man the Maker*, p. 44, Schuman, N.Y., 1950) says that the labor to build Cheops' pyramid at Gizeh in the 29th century B.C. was not, as often popularly believed, all slaves, but rather mostly farmers and craftsmen, the farmers "working on the job in payment of taxes during the season of the inundation [of the fields by the Nile River] when agricultural work was impossible anyway."
12. J. E. S. Thompson, *Aquatic Symbols Common to Various Centers of the Classic Period in Meso-America*. *The Civilizations of Ancient America, Selected Papers of the XXIX Internat. Congr. of Americanists*, pp. 31-36. Chicago, 1951.
13. M. D. Coe, *Cycle 7 Monuments in Middle America: a Reconsideration*. *American Anthropologist*, Vol. 59, pp. 597-611. 1957.
14. See also remarks on this subject by G. Bushnell, *An Old World View of New World Prehistory*. *American Antiquity*, Vol. 27, pp. 63-70, 1961. A variable terminology has been suggested by different workers for the La Venta type situation. Armillas refers to the detached ritual center as having a "pseudo-urban" character; Wauchope suggests "Urban Formative"; Wolf, the "Emergent State"; Beardsley's term would be "Undifferentiated Simple Nuclear Centered," and so on.
15. No developmental stages of Olmec culture are at present known, and the source of the impulse is unknown. While Old World origin--as inferred, for example, by Alfredo Chavero, or the interpretations of Mesoamerican culture aimed at verifying the Book of Mormon--has been suggested, no serious student known to me believes them to be anywhere near the mark. The connection hinted at earlier by P. Drucker and G. Willey between Olmec and Chavín art as evidenced in stone sculpture may be the lead that will offer some insight into the source of the stimulus leading to the appearance of one or the other of these cultures.
16. W. R. Coe, *Piedras Negras Archaeology: Artifacts, Ceramics and Art*. University of Pennsylvania, Museum Monographs, 1959, says (p. 4), "It seems reasonable that priestly tenure originated and depended in part on their foresight, dramatic ability, and accuracy of observation and record, for a miscalculation as to time to plant and the predetermined moment to harvest could have had serious consequences."
17. Op. cit.

18. G. M. Foster, *A Primitive Mexican Economy*. Monographs of the American Ethnographical Society, No. 5, 1942.
19. O. La Farge and D. S. Byers, *The Year Bearer's People*. Tulane University, Middle American Research Series, Publ. No. 3, 1931.
20. R. F. Heizer and H. Williams. *Olmec Lithic Sources*. Boletín del Centro de Investigaciones Antropológicas de México, No. 6, pp. 16-17. Mexico, D.F., 1960.
21. Pottery figurines are abundant in the refuse heaps on La Venta Island, as reference to Drucker's 1953 report will show. No clay figurines occurred within the site area itself, nor were there any clay figurines found in offerings. Does this indicate the profane or household use of these rather than their employment in organized ritual? If La Venta ritual was oriented toward agricultural management one might expect clay figurines to have been used as offerings if they did serve, as Armillas supposes, in fertility contexts. P. Armillas, *Formaciones Socio-económicas y Religión en Mesoamérica*. The Civilizations of Ancient America, Selected Papers of the XXIXth Internat. Congr. of Americanists, pp. 19-30, Chicago, 1951.
22. S. Linné, *Mexican Highland Cultures*. Ethnographical Museum of Sweden, Publ. No. 7, 1942.
23. This is a big question which I do not want to get involved with here. B. Meggers (*Environmental Limitation on the Development of Culture*, *American Anthropologist*, Vol. 56, pp. 801-824, 1954) believes that lowland Maya (and presumably lowland Olmec) cultures could not have been indigenous developments but must have been introduced from elsewhere. She even suggests (p. 609) that the source of Classic Maya civilization was from the Olmec area. Termination of the Classic Maya culture about 800 A.D. is attributed by her to failure of the agricultural system through decreasing soil fertility.
24. M. Coe, *Review of Excavations at La Venta, Tabasco, 1955*. *American Journal of Archaeology*, Vol. 64, pp. 119-120, 1960.

#### POSTSCRIPT

Since this paper was written Howel Williams and I have carried out further fieldwork in Mexico and now believe that the southern margins of the Tuxtla Mountains, which lie to the west of La Venta, may have been the source of most of the large, volcanic stones used for monuments. Water transport, though for shorter distances, would have been involved in bringing these great stones to La Venta. This statement is added to caution the reader that the statements on pages 45 and 53 regarding the source of materials may be corrected by our recent work.

A recent article on the possible relationships of the Chavin and Olmec art styles should be cited: G. R. Willey, *The Early Art Styles and the Rise of Pre-Columbian Civilizations*, *American Anthropologist*, Vol. 64, pp. 1-14, 1962.

One further note is necessary. I did not know when I wrote this paper that Drucker was writing his article that appears in this volume.

R. F. H.