

Early Olmec Landscape Urbanism

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The early Olmec had a settlement preference for islands in the coastal plains of Mexico's southern Gulf Coast. Taken in conjunction with the symbolically charged monumental art and architecture, this preference suggests that the Olmec built landscape was created as nested levels of material replicas of a basic cosmic notion that was crucial to reinforcing their beliefs, behaviors and values. The layers of the central Olmec metaphor revolve around the reproduction of the "sacred mountain" notion at several scales. The nested levels of the sacred metaphor will be discussed starting with small low artificial mounds built in the wetlands for subsistence purposes, followed by the San Lorenzo Island, then the Great Plateau of San Lorenzo and finally, in specific works of art.

Los olmecas tempranos tenían cierta preferencia para asentarse en islas posicionadas en las llanuras costeras de la costa sur del Golfo de México. Tomada en conjunto con el simbolismo de la arquitectura y algunos ejemplares de arte monumental, esta preferencia sugiere que el paisaje construido de los olmecas de San Lorenzo se creó como niveles empalmados de réplicas materiales de una noción cósmica básica que fortalecía sus creencias, comportamientos y valores. Los niveles de la metáfora central olmeca gira en torno a la reproducción del concepto de "montaña" en diferentes escalas, desde los islotes construidos en los humedales para fines de subsistencia, seguido por la Isla de San Lorenzo, luego la Gran Meseta de San Lorenzo y finalmente, en varias obras de arte.

More than a setting, backdrop or context, geographical location and landscapes interact with social practices and structures, norms and values, power and inequality, difference and distinction, and influences human history (Gieryn, 2000; Strang, 2008). Locational aspects serve exclusionary and segregation functions, by keeping out and setting apart certain people. As well, spatial form influences the organization of political and economic activities. In short, landscape derives from human actions and institutions just as it propitiates them. The concepts involved in sacred geography, the built environment and the

animate universe in Mesoamerican thought are examples of this dynamic interaction (Dunning and Weaver, 2015; López Austin and López Luján, 2009; Sugiyama, 1993; among others).

The Olmec civilization developed a specific way of life on the southern Gulf Coast of Mexico and a political territory that was ruled consecutively by the Early Preclassic archaeological site of San Lorenzo, Veracruz, 1800 to 1000 BC, followed by La Venta, Tabasco, in the Middle Preclassic, 1000-400 BC (Figure 16.1). It stands out for having produced an amazing quantity of magnificent

stone sculpture characteristic of the Olmec art style, a symbolic system endorsing a stratified society led by hereditary rulers backed by divine legitimation (Caso, 1965; Coe, 1965a, 1965b, 1968, 1972, 1989; Covarrubias, 1957; Cyphers, 2010, 2012, 2018b; Diehl, 2004; De la Fuente, 1992; Grove, 1989; Lowe, 1989; among others).

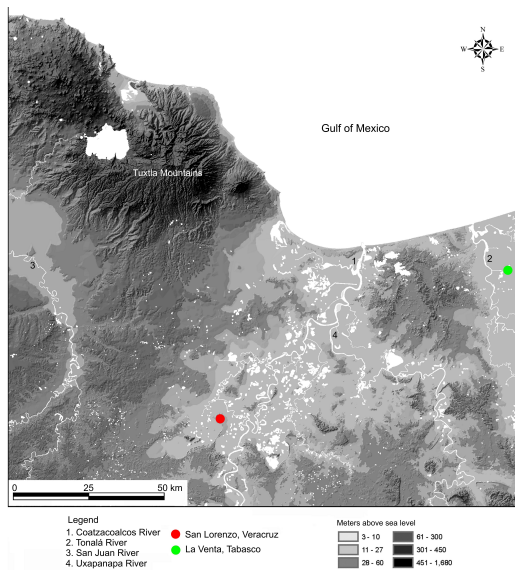
Hills and mountains hold a special place in Olmec beliefs, as evidenced by the shape of their capital cities, the unique archaeological sites of San Lorenzo (Figure 16.2) and La Venta, each located on a low promontory set in the vast soggy coastal plains. The deliberate construction of these political capitals on the low hilly terrain of islands emerging from the wetlands was not just the result of economic considerations but also blended and integrated the symbolism of hills, water, founding ancestors and

cosmic deity in the monumental construction of each place.

The Olmec settlement preference for islands, taken in conjunction with the symbolically charged monumental art and architecture, suggests that the Olmec built landscape was created as nested levels of material replicas of a basic cosmic notion that was crucial to reinforcing their beliefs, behaviors and values. Such nested levels conform to Houston's layers of reciprocal metaphors (1998). The layers of the central Olmec metaphor revolve around the

Figure 16.1.

Map of the southern Gulf Coast of Mexico.

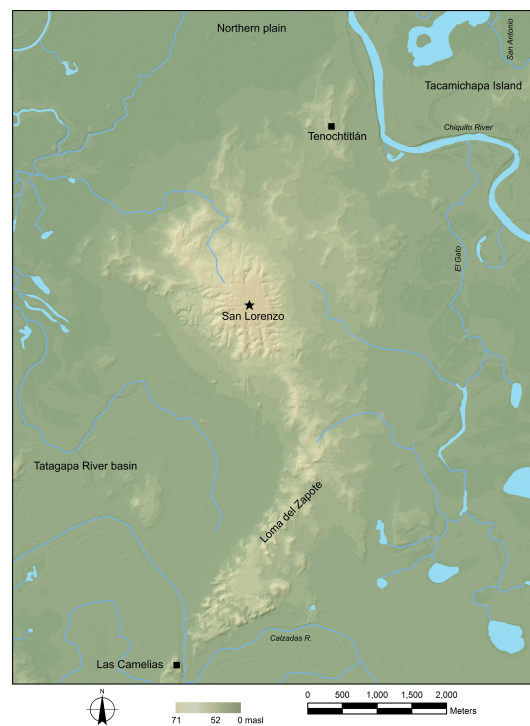


Note. Map of the southern Gulf Coast of Mexico showing the location of the coastal plains (3-27 masl), the Olmec island capitals of San Lorenzo and La Venta and the major rivers. (Map: G. Jiménez).

Figure 16.2.

The San Lorenzo Island.

Map: G. Jiménez.



Note. The San Lorenzo Island is an elongated body of low terrain set in the wetlands of the lower Coatzacoalcos drainage. Three major sites occupy the island, the capital of San Lorenzo and the lesser centers of Loma del Zapote and Tonochtitlán. The highest elevation corresponds to San Lorenzo's Great Plateau.

reproduction of the “sacred mountain” notion at several scales.

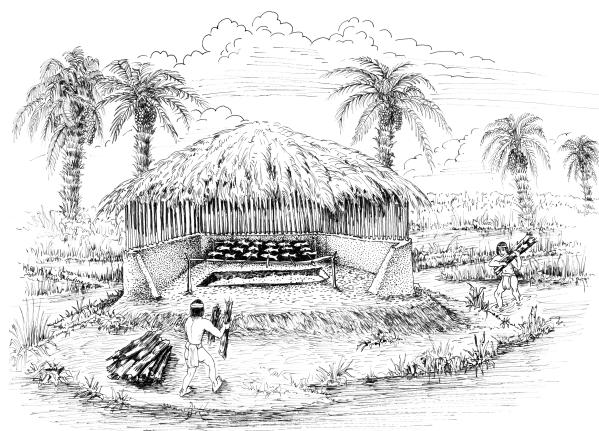
In the following pages the nested levels of the sacred metaphor will be discussed. In the San Lorenzo region, the earliest manifestation consists of small low artificial mounds built in the wetlands for subsistence purposes. Its maximum expression is the San Lorenzo Island, followed in magnitude by the Great Plateau of San Lorenzo during its apogee. Another level is represented by specific works of art.

The earliest manifestation of the sacred metaphor
The earliest manifestation of the metaphor is found in the wetlands located at the northern end of the San Lorenzo Island (Cyphers et al., 2013). Numerous low earthen mounds were intentionally built in the swampy terrain as base camps for the extraction and production of storable smoked aquatic foods such as fish, key for surviving crisis times in the risky coastal plains (Figure 16.3). Each one was a small safe haven above the flood line that was built by self-sufficient households as a strategic tool for the capture of channel resources and recession harvesting strategies capable of obtaining a high protein yield with a low labor investment. Most of these mounds were built by the earliest families that arrived in the region, 1800-1600 BC, as subsistence infrastructure. Thus, there is a social and symbolic association between the founders and these tiny artificial islands. It is likely that these mounds are the earliest material manifestation of the sacred mountain metaphor in the Olmec world.

The seeds of social stratification are found in the kinship structure of the founder families, 1800-1600 BC. It is expected that the demographic cycle of the household and production differentials created transitory asymmetries of labor and wealth in these groups that were made permanent under specific conditions (see O’Shea, 1990, pp. 353).

Not all households were capable of achieving the same

Figure 16.3.
Seasonal base camps.



Note. Artificial low mounds located in the wetlands north of San Lorenzo were used as seasonal base camps for the exploitation of aquatic resources and for the preparation of smoked foods. (Drawing: F. Botas).

degree of annual subsistence success due to variable luck at fishing, hunting and cultivation, and to their place in the domestic cycle. Their subsistence deficits had to be covered by the more successful households, hence generating patron-client relationships.

The founder families constantly invested labor in these low mounds, actions which established property rights over them and over the surrounding wetland locations necessary for the production of critical crisis foods. This became one of the initial bases for the differentiation between the founders’ kin and those people who arrived at a later time. The hereditary control over these mounds gave the first families an important advantage over one the most important means of subsistence at the same time that the mounds were the initial basis for establishing rights based on genealogical distance to the founders and their real or mythical place of origin. As more people arrived at the San Lorenzo Island, only the founders’ descendants had hereditary rights to the mounds and surrounding wetland.

Through time the growth and expansion of these families led to the formulation and reformulation of concepts of lineage and clan centered on the legendary founders, who became lineage emblems. In this way, the wetland mounds were more than just a means to create symmetrical rights over the natural abundance, but also may be considered one of the early foundations of sociopolitical differentiation. These ancient miniature “hills surrounded by water” linked the concept of exclusive property rights to the founders’ families, which later would become the royal lineages.

The construction of the low wetland mounds was not simply an appropriation of a geographic space but also included the alteration of the natural environment for practical and symbolic reasons. Their construction may be compared with the building of a model of the Olmec cosmos on a small scale, each one a small hill surrounded by water, each one a symbol of the primordial cosmic monster and sacred mountain emerging from the watery Underworld (see Gillespie, 1993; Bassie-Sweet, 1996). In this fashion cosmology participated in the establishment of exclusive rights based on descent and first occupation of the wetland zone and materially anchored these rights in the heart of the early Olmec world. The identity of the founding families and their “living ancestors” (see Helms, 1998) was imbued in the wetland mounds. This identity and its attendant rights later became the basis for asymmetrical relationships, sociopolitical differences and monumental declarations of power.

As time passed, between 1400 and 1000 BC, the original founding families, who had become the elite lineages of San Lorenzo, maintained possession of the wetland mounds which play an important role in acquiring labor for monumental works such as terrace construction and stone transport. The elite lineages could cash in social debts created through the unbalanced reciprocal exchanges of vital subsistence resources with genealogically

distant groups. Through their ownership of subsistence infrastructure, they were able to re-organize the means of production of essential crisis resources at this time, control their disbursement and automatically gain the future labor and pledges of allegiance (see Gilman, 1981, pp. 4) of clients participating in the same social hierarchy (see Hirth, 1993).

The San Lorenzo Island

The San Lorenzo Island is located in the dynamic coastal plains of the southern Gulf Coast of Mexico (Figures 16.1 & 16.2). It is set in the lower Coatzacoalcos River drainage, covering an area of over 21,000 km² with a mean annual discharge of more than 22,000 m³. Only 10-15% of the lower Coatzacoalcos drainage contains high ground safe from flooding, which makes risk a way of life in this region. From Olmec times to the present, the inhabitants of this region have been careful observers of dry land and register even the tiniest piece of land that stays dry during floods.

From time immemorial, the nature of the wide floodplains of the southern Gulf Coast of Mexico required careful and constant observation of water levels in order to identify the few existing safe places. This primordial factor in decision making became a central element in the Olmec world view as the margin of safety above the flood line became directly associated with relative social and political positions. Specifically, the island position of the capital of San Lorenzo, on an elongated promontory circumscribed by water, was an ideal location within the semi-radial fluvial network for subsistence and communication.

The island home of the first Olmec capital has been shown to be coterminous with cultural boundaries encasing cognitive phenomena wedded to the sociopolitical organization while at the same time showing intensive connectivity with the surrounding landscape (Symonds

et al., 2002; Cyphers et al., 2013). The exceptional characteristics of the natural environment indicate the inherent potential for the San Lorenzo Island to have functioned in the past as a transportation-communication hub and seat of Olmec culture. San Lorenzo's development was not directly prescribed by the geographical characteristics of the Island-- the Olmec created their own trajectory. Yet this specific course of sociopolitical and economic development took clear advantage of distinctive geographic features. The Olmec fully occupied the San Lorenzo Island and modified, developed and utilized its natural resources. This landscape constituted the Olmecs' ideological and material homeland, the early hearth of Olmec identity.

Specific traits of the river system influenced and shaped the growth of settlement hierarchies, specifically the networked fluvial courses. The Island location, circumscribed by natural river and floodplain barriers, attracted population to this area of high resource concentration, while river flow imposed directionality on the movement of people and goods. Site development on the slender ridge bisecting the Island seems akin to the well-known geographical tendency for settlements to place themselves along transportation arteries in a linear fashion (Collins, 1959, pp. 38). The Island was a central node in a dendritic, central place pattern of settlement (Johnson, 1973) surrounded by diverse means of transportation and communication to the outer hinterland and beyond. Cosmologically this was expressed as a hill surrounded by water, a sacred Olmec concept.

The position of the major and minor centers-- occurring in a linear pattern along elevated lands that parallel the fluvial thoroughfares, at the ends of the Island, and at strategic spots in the fluvial system-- formed a complex network geared toward control of aquatic resources and opportunities related to trade, transportation, interaction

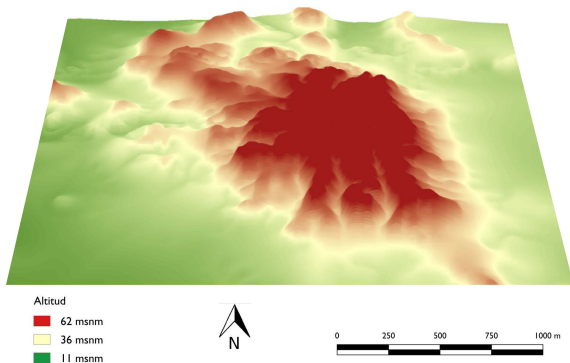
and exchange, all of which was overseen by the island capital. Secondary and tertiary settlements strategically founded at narrow straits and river confluences managed downriver traffic, linked to terrestrial routes and captured upriver goods. Stone monuments-- purposeful conspicuous markers calling attention to the importance of these sites and their ruling establishment-- reinforced a cognitive phenomenon uniting polities.

San Lorenzo's Great Plateau

The next level of the metaphor corresponds to the Great Plateau of San Lorenzo, a human-made construction rising to an altitude of 65+ meters above sea level and 40 meters above the surrounding wetlands (Figure 16.4). Its earliest occupation dates to 1800-1600 BC, a period when the inhabitants leveled and filled in the irregularities in the land (Cyphers, 2012; Cyphers et al., 2008-78; Cyphers et al., 2014). By 1600 BC, it was the most important site in the region and location of the earliest known appearance of monumental stone sculpture. By 1400 BC, San Lorenzo had become a large village with about 1200 inhabitants and a population density of 15-26 people per hectare. The high status groups founded their dwellings on the highest ground. The inhabitants applied 1,300,000 m³ of earthen fill as part of a master plan to create a terraced plateau. By 1200 BC, San Lorenzo's development was quite impressive, with a 350% population increase, an area of nearly 200 ha and a population of 3400 people. The landform looked like a terraced plateau. Between 1200 and 1000 BC, a major construction stage increased the height of the plateau and leveled the highest terraces even with the top. By the end of the apogee phase at 1000 BC, San Lorenzo had attained its maximum expression as the first urban center in Mesoamerica. Its size had quadrupled, reaching more than 775 ha, with a resident population of nearly 12,000 people (Arieta and Cyphers 2017, 2000).

Figure 16.4.

The Great Plateau was the highest sector of the San Lorenzo Island.



Note. It was designed and constructed to replicate the central cosmological notion of the sacred hill surrounded by water. Habitation was organized according to status and according to elevation and distance to the center of the plateau. The rulers and foremost elite occupied the top of the plateau (red), less elite on the terraces (pale red and yellow) and the commoners in the periphery (light green). (Map: V. Arieta).

The episodic construction of multiple levels of horizontal habitation terraces around the heights of the Great Plateau was achieved with the placement of 6 to 8 million cubic meters of artificial earthen fill. It required 14 to 18 million person-hours of labor to build. The average estimate of its volume, 7 million cubic meters of fill, is equivalent to 50 times the volume of Temple I of Tikal or 7 times the volume of the Pyramid of the Sun at Teotihuacan (Cyphers et al., 2008, pp. 7).

The Olmec had remarkable reasons for building the Great Plateau. In basic terms, this artificial structure is high ground, safe from flooding. Ideologically speaking, it is a replica of the sacred mountain as in Olmec mythology. Its

location on the San Lorenzo Island makes it a sacred hill surrounded by water, a lasting concept in Mesoamerican cosmology. The sacred mountain paradigm was solidly imbedded in the Olmec built landscape in the form of this important material replica. The interplay of the built landscape with this cosmological notion was crucial in reinforcing beliefs, behaviors and values (Cyphers, 2012, 2018a, 2018b).

The design and diachronic construction program of the Great Plateau provided tangible parameters for modeling and remodeling the human settlement distribution such that social and political status diminished with decreasing elevation and distance from the center. This roughly concentric pattern, yet another manifestation of sacred metaphor, gave shape to quotidian life and reinforced the principles of social and political differentiation by directly shaping patterns of behavioral interaction. On the plateau heights, the design and symbolism of the most ostentatious constructions provided further reinforcement of the metaphor. Residential and ceremonial architecture replicated the sacred notion in many ways, thus adding another nested layer to the metaphor. In this fashion the different construction scales were imbued with and formed part of the metaphor. Such metaphors are not unidirectional but rather are reciprocal in the sense of a mutual interaction with the built environment and behavior (Houston, 1998).
Artistic manifestations

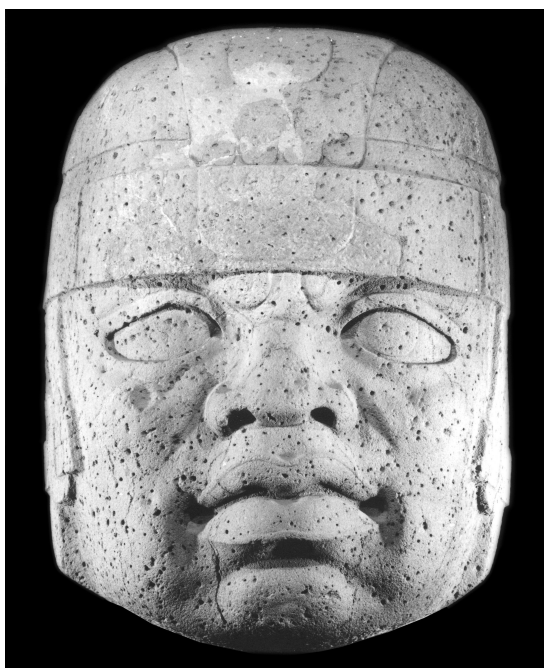
The study of Olmec religious concepts based on the analysis of stone monuments and other artistic manifestations has advanced understanding of ancient cosmology. It has been proposed that the rulers, sometimes interpreted as shaman kings, acted as intermediaries between the earthly surface, the gods and the forces of the Universe associated with Sky, Earth and Underworld (Furst, 1968; Reilly, 1989, 1995). The colossal heads appear to be portraits of Olmec rulers (Figures 16.5) and

the so-called “altars” were their thrones (Figures 16.6 & 16.7) (Coe, 1968, 1989; De la Fuente, 1977, 1992, pp. 102; Grove, 1970, 1973, 1981; Cyphers, 2004; Wicke, 1971). Transcendental concepts related to rulership include the “sacred hill surrounded by water” or “sacred mountain”, the multi-level cosmos and caves, craters and other openings as portals to the Underworld (Grove, 1999; Heizer, 1968; Reilly, 1994, 1999).

Olmec ruling lineages calculated their descent from divine ancestors, the legendary founders of the social group. The ancestors provided the cosmological model for authority and privilege based on their cave and mountain origins and Earth deity associations. The iconography and form of the rulers’ thrones is the basis for identifying

Figure 16.5.

Monument 1 from San Lorenzo.



Note. Monument 1 from San Lorenzo, a colossal head representing an ancestral ruler. (Photo: B. Martínez).

Figure 16.6.

Monument 14 from San Lorenzo.



Note. A monolithic stone throne that functioned as the seat of authority and emblem of the ruler and, at the same time, symbolized the sacred hill and earth monster. The seated figure in the niche is the symbol of the ruler’s sacred ancestor emerging from the cave of origins located in the Underworld. (Photo: B. Martínez).

Figure 16.7.

Altar 4 from La Venta.



Note. A throne with explicit iconography of the primordial cosmic monster on the upper ledge. (Photo: H. Kotegawa)

this monstrous creature as symbol of the Universe and important god with terrestrial and celestial connotations (Grove, 1970). The throne represented the monster which was a metaphor of the sacred hill (Cyphers, 2008) and contained important icons of divine descent such as the frontal niche and seated figure, which represented the entrance to the cave/monster mouth and the apical ancestor, respectively.

Thus, Olmec rulers considered themselves descendants of a divine ancestor whose origins lay in a cave entrance to the Underworld, synonymous with the monster's mouth. Throughout Mesoamerican time, the cave is the symbol of Creation and of life itself (Heyden, 1975, pp. 134). It persisted in time, for example, in the Pyramid of the Sun, a monumental construction of the Classic period of Teotihuacan that rests upon a cave containing a water source. The association of hill and cave with water is related to the monster in the Olmec world-view. As the Earth itself, a sacred hill, the monster opens its cave-like jaws to show the passageway into the watery Underworld. This divine monster, in all its symbolic facets, was the emblem of the rulers.

The identification of the sacred ancestor in the large thrones led to the discovery of the principle of divine descent in Olmec elite social organization. The amalgamation of ancestor veneration, origin myths and religious concepts in these monuments is the foundation for privileged kin relationships. Royal lineages confirmed their superiority through the principle of divine descent, which automatically differentiated between the aristocratic lineages and the common people based on distance to the divine ancestor, equivalent to the founding fathers (Cyphers, 2008; Cyphers et al., 2013).

Early Olmec landscape urbanism

The high terrain of the San Lorenzo Island cutting

through the wetlands was synonymous with the prime Olmec deity, the Earth Monster, a natural and cultural reproduction of this creature floating on the primordial waters. No cave has ever been found on San Lorenzo's Great Plateau, and it is doubtful that one exists because of the sedimentary nature of the underlying geologic deposits. However, the Olmec would have easily identified springs emanating from the soils across the Island, which was clear proof to them of the proximity of the Underworld, origin of the sacred ancestors, the great monster deity and the vital forces of the land. The modeling of the high terrain of the Island to give a terraced shape to the Great Plateau and to increase its size was a way to materialize the early Olmec cosmological concept of monumental architecture as a replica of the sacred hill surrounded by water. The rulers and their families occupied the highest sector of the Plateau, an elevation befitting their status. The Red Palace was the home of one of the first rulers of this capital. The Group E architectural precinct, the rulers' ritual-administrative center, was designed as four low earthen platforms organized around a sunken patio, symbol of the watery underworld.

The organization of population by status, elevation and distance to the center of the Great Plateau was a means to give social and political meaning to space and conserve the social order. The nearly 12,000 inhabitants of San Lorenzo itself, plus another 5,000 people in the other island communities, gave shape to the first Mesoamerican urban center, far surpassing all its contemporaries.

The specific urban style of San Lorenzo was integrated into the natural and built landscape and particularly pertinent to ideological and administrative considerations. It is unlike other models of Mesoamerican urban tradition (e.g. Sanders and Webster, 1988) for many reasons. Life at San Lorenzo was intimately adjusted to the hydrological rhythms of the coastal plains for security and subsistence

reasons. The island setting, a hill surrounded by water, was a guarantee against the risks of the natural environment. As such, the landscape was natural and cultural and completely integrated in their way of life and thought. The sacred metaphor reflects the replication of material and ideological continuity at all levels, from the natural to the cosmological. For this reason, the urban development of San Lorenzo and the planning and construction of the Great Plateau gave social and political shape to the metropolis while imbuing it with a cosmological aura. This early model of landscape urbanism permeated Olmec life and thought for at least 1000 years at San Lorenzo. However, it did not disappear but rather persisted in the subsequent capital of La Venta and then, in one form or another, in later Mesoamerican civilizations.

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