

The Enigma of Aztec Sacrifice

by Michael Harner

Human sacrifice was meant to appease the appetites of the gods—and of the Aztecs themselves

On the morning of November 8, 1519, a small band of bearded, dirty, exhausted Spanish adventurers stood at the edge of a great inland lake in central Mexico, staring in disbelief at the sight before them. Rising from the center of the lake was a magnificent island city, shining chalk white in the early sun. Stretching over the lake were long causeways teeming with travelers to and from the metropolis, Tenochtitlán, the capital of the Aztec empire, now known as Mexico City.

The Spaniards, under the command of Hernán Cortés, were fresh from the wars of the Mediterranean and the conquest of the Caribbean. Tough and ruthless men, numbering fewer than four hundred, they had

fought their way up from the eastern tropical coast of Mexico. Many had been wounded or killed in battles with hostile Indians on the long march. Possibly all would have died but for their minuscule cavalry of fifteen horses—which terrified the Indians, who thought the animals were gods—and the aid of a small army of Indian allies, enemies of the Aztecs.

The panorama of the Aztec citadel across the water seemed to promise

the Spaniards the riches that had eluded them all their lives. One of them, Bernal Díaz del Castillo, later wrote: "To many of us it appeared doubtful whether we were asleep or awake . . . never yet did man see, hear, or dream of anything equal to our eyes this day." For the Spaniards, it was a vision of heaven.

Slightly more than a year and half later, in the early summer of 1521, it was a glimpse of hell. Again the

Two sixteenth-century drawings from the Florentine Codex of Bernardino de Sahagún. At left, the victim's heart is offered to the sun. At right, priests sacrifice a youth who had been chosen to personify the Aztec deity Tezcatlipoca for a year. Accompanied by a retinue, the future victim often strolled as a god on earth, playing one of his clay flutes. When he finally ascended to the temple-pyramid platform, he broke his flutes, one by one, on the steps. The vast majority of victims did not enjoy such presacrificial status.



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The main temple-pyramid at the Maya site of Tikal, Guatemala. The steep steps of Mesoamerican pyramids may have facilitated tumbling down the bodies of victims after sacrifice.

Spaniards found themselves on the lakeshore, looking toward the great capital. But this time they had just been driven back from the city by the Aztec army. Sixty-two of their companions had been captured, and Cortés and the other survivors helplessly watched a pageant being enacted a mile away across the water on one of the major temple-pyramids of the city. As Bernal Díaz later described it,

The dismal drum of Huichilobos sounded again, accompanied by conches, horns, and trumpetlike instruments. It was a terrifying sound, and when we looked at the tall *cue* [temple-pyramid] from which it came we saw our comrades who had been captured in Cortés' defeat being dragged up the steps to be sacrificed. When they had hauled them up to a small platform in front of the shrine where they kept their accursed idols we saw them put plumes on the heads of many of them; and then they made them dance with a sort of fan in front of Huichilobos. Then after they had danced the *papas* [Aztec priests] laid them down on their backs on some narrow stones of sacrifice and, cutting open their chests, drew out their palpitating hearts which they offered to the idols before them.

Cortés and his men were the only Europeans to see the human sacrifices of the Aztecs, for the practice ended shortly after the successful Spanish conquest of the Aztec empire. But since the sixteenth century, Aztec sacrifice has persisted in puzzling scholars. No human society known to history approached that of the Aztecs in the quantities of people offered as religious sacrifices: 20,000 a year is a common estimate.

A typical anthropological explanation is that the religion of the Aztecs required human sacrifices; that their gods demanded these extravagant, frequent offerings. This explanation fails to suggest why that particular form of religion should have evolved when and where it did. I suggest that



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the Aztec sacrifices, and the cultural patterns surrounding them, were a natural result of distinctive ecological circumstances.

Some of the Aztecs' ecological circumstances were common to ancient civilizations in general. Recent theoretical work in anthropology indicates that the rise of early civilizations was a consequence of the pressures that growing populations brought to bear on natural resources. As human populations slowly multiplied, even before the development of plant and animal domestication, they gradually reduced the wild flora and fauna available for food and disrupted the ecological equilibriums of their environments. The earliest strong evidence of humans causing environmental damage was the extinction of

many big game species in Europe by about 10,000 B.C., and in America north of Mexico by about 9,000 B.C. Simultaneously, human populations in broad regions of the Old and New Worlds had to shift increasingly to marine food resources and small-game hunting. Finally, declining quantities of wild game and food plants made domestication of plants and animals essential in most regions of the planet.

In the Old World, domestication of herbivorous mammals, such as cattle, sheep, and pigs, proceeded apace with that of food plants. By about 7,200 B.C. in the New World, however, ancient hunters had completely eliminated herbivores suitable for domestication from the area anthropologists call Mesoamerica, the re-

gion of the future high civilizations of Mexico and Guatemala. Only in the Andean region and southern South America did some camel-related species, especially the llama and the alpaca, manage to survive hunters' onslaughts, and thus could be domesticated later, along with another important local herbivore, the guinea pig. In Mesoamerica, the guinea pig was not available, and the Camelidae species became extinct several thousand years before domesticated food production had to be seriously undertaken. Dogs, such as the Mexican hairless, and wildfowl, such as the turkey, had to be bred for protein. The dog, however, was a far from satisfactory solution because, as a carnivore, it competed with its breeders for animal protein.

The need for intensified domesticated food production was felt early, as anthropologist Robert Carneiro has pointed out, by growing populations in fertile localities circumscribed by terrain poorly suited to farming. In such cases, plants always became domesticated, climate and environment permitting, but herbivorous mammals apparently could not, unless appropriate species existed. In Mesoamerica, the Valley of Mexico, with its fertile and well-watered bottomlands surrounded by mountains, fits well Carneiro's environmental model. In this confined area, population was increasing up to the time of the Spanish conquest, and the supply of wild game was declining. Deer were nearly gone from the Valley by the Aztec period.

The Aztecs responded to their increasing problems of food supply by intensifying agricultural production with a variety of ingenious techniques, including the reclamation of soil from marsh and lake bottoms in the chinampa, or floating garden, method. Unfortunately, their ingenuity could not correct their lack of a suitable domesticable herbivore that could provide animal protein and fats. Hence, the ecological situation of the Aztecs and their Mesoamerican neighbors was unique among the world's major civilizations. I have recently proposed the theory that large-scale cannibalism, disguised as sacrifice, was the natural consequence of these ecological circumstances.

The contrast between Meso-

america and the Andes, in terms of the existence of domesticated herbivores, was also reflected in the numbers of human victims sacrificed in the two areas. In the huge Andean Inca empire, the other major political entity in the New World at the time of the conquest, annual human sacrifices apparently amounted to a few hundred at most. Among the Aztecs, the numbers were incomparably greater. The commonly mentioned figure of 20,000, however, is unreliable. For example, one sixteenth-century account states that 20,000 were sacrificed yearly in the capital city alone, another reports this as 20,000 infants, and a third claims the same number as being slaughtered throughout the Aztec empire on a single particular day. The most famous specific sacrifice took place in 1487 at the dedication of the main pyramid in Tenochtitlán. Here, too, figures vary: one source states 20,000, another 72,344, and several give 80,400.

In 1946 Sherburne Cook, a demographer specializing in American Indian populations, estimated an overall annual mean of 15,000 victims in a central Mexican population reckoned at two million. Later, however, he and his colleague Woodrow Borah revised his estimate of the total central Mexican population upward to 25 million. Recently, Borah, possibly the leading authority on the demography of Mexico at the time of the conquest, has also revised the estimated number of persons sacrificed in central Mexico in the fifteenth century to 250,000 per year, equivalent to one percent of the total population. According to Borah, this figure is consistent with the sacrifice of an estimated 1,000 to 3,000 persons yearly at the largest of the thousands of temples scattered throughout the Aztec Triple Alliance. The numbers, of course, were fewer at the lesser temples, and may have shaded down to zero at the smallest.

These enormous numbers call for consideration of what the Aztecs did with the bodies after the sacrifices. Evidence of Aztec cannibalism has been largely ignored or consciously or unconsciously covered up. For example, the major twentieth-century books on the Aztecs barely mention it; others bypass the subject completely. Probably some modern Mex-

icans and anthropologists have been embarrassed by the topic: the former partly for nationalistic reasons; the latter partly out of a desire to portray native peoples in the best possible light. Ironically, both these attitudes may represent European ethnocentrism regarding cannibalism—a viewpoint to be expected from a culture that has had relatively abundant livestock for meat and milk.

A search of the sixteenth-century literature, however, leaves no doubt as to the prevalence of cannibalism among the central Mexicans. The Spanish conquistadores wrote amply about it, as did several Spanish priests who engaged in ethnological research on Aztec culture shortly after the conquest. Among the latter, Bernardino de Sahagún is of particular interest because his informants were former Aztec nobles, who supplied dictated or written information in the Aztec language, Nahuatl.

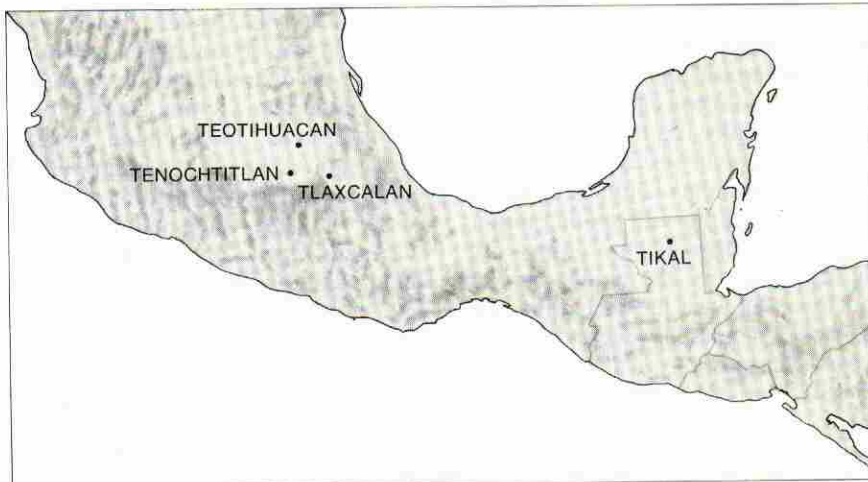
According to these early accounts, some sacrificial victims were not eaten, such as children offered by drowning to the rain god, Tlaloc, or persons suffering skin diseases. But the overwhelming majority of the sacrificed captives apparently were consumed. A principal—and sometimes only—objective of Aztec war expeditions was to capture prisoners for sacrifice. While some might be sacrificed and eaten on the field of battle, most were taken to home communities or to the capital, where they were kept in wooden cages to be fattened until sacrificed by the priests at the temple-pyramids. Most of the sacrifices involved tearing out the heart, offering it to the sun and, with some blood, also to the idols. The corpse was then tumbled down the steps of the pyramid and carried off to be butchered. The head went on the local skull rack, displayed in central plazas alongside the temple-pyramids. At least three of the limbs were the property of the captor if he had seized the prisoner without assistance in battle. Later, at a feast given at the captor's quarters, the central dish was a stew of tomatoes, peppers, and the limbs of his victim. The remaining torso, in Tenochtitlán at least, went to the royal zoo where it was used to feed carnivorous mammals, birds, and snakes.

Recent archeological research

lends support to conquistadores' and informants' vivid and detailed accounts of Aztec cannibalism. Mexican archeologists excavating at an Aztec sacrificial site in the Tlatelolco section of Mexico City between 1960 and 1969 uncovered headless human rib cages completely lacking the limb bones. Associated with these remains were some razorlike obsidian blades, which the archeologists believe were used in the butchering. Nearby they also discovered piles of human skulls, which apparently had been broken open to obtain the brains, possibly a choice delicacy reserved for the priesthood, and to mount the skulls on a ceremonial rack.

Through cannibalism, the Aztecs appear to have been attempting to reduce very particular nutritional deficiencies. Under the conditions of high population pressure and class stratification that characterized the Aztec state, commoners or lower-class persons rarely had the opportunity to eat any game, even the domesticated turkey, except on great occasions. They often had to content themselves with such creatures as worms and snakes and an edible lake-surface scum called "stone dung," which may have been algae fostered by pollution from Tenochtitlán. Preliminary research seems to indicate that although fish and waterfowl were taken from the lakes, most of the Aztec poor did not have significant access to this protein source and were forced to be near-vegetarians, subsisting mainly on domesticated plant foods such as maize and beans.

The commoners theoretically could get the eight essential amino acids necessary for building body tissues from maize and beans. (A combination of the two foods complement each other in their essential amino acid components.) However, recent nutritional research indicates that in order to assure that their bodies would use the eight essential amino acids to rebuild body tissues, and not simply siphon off the dietary protein as energy, the Aztec commoners would have had to consume large quantities of maize and beans simultaneously or nearly simultaneously year-round. But crop failures and famines were common. According to Durán, a sixteenth-century chronicler, poor people often could not obtain maize and



beans in the same season, and hence could not rely upon these plants as a source of the essential amino acids. How did the Aztecs know they needed the essential amino acids? Like other organisms perfected under natural selection, the human body is a homeostatic system that, under conditions of nutritional stress, tends to seek out the dietary elements in which it is deficient. Without this innate capacity, living organisms could not survive.

Another Aztec dietary problem was the paucity of fats, which were so scarce in central Mexico that the Spaniards resorted to boiling down the bodies of Indians killed in battle in order to obtain fat for dressing wounds and tallow for caulking boats. While the exact amount of fatty acids required by the human body remains a subject of uncertainty among nutritionists, they agree that fats, due to their slower rate of metabolism, provide a longer-lasting energy source than carbohydrates. Fatty meat, by providing not only fat, which the body will use as energy, but also essential proteins, assures the utilization of the essential amino acids for tissue building. Interestingly, prisoners confined by the Aztecs in wooden cages prior to sacrifice could be fed purely on carbohydrates to build up fat.

In contrast to the commoners, the Aztec elite normally had a diet enriched by wild game imported from the far reaches of the empire where species had not been so depleted. But even nobles could suffer from famines and sometimes had to sell their children into slavery in order to sur-

vive. Not surprisingly, the Aztec elite apparently reserved for themselves the right to eat human flesh, and conveniently, times of famine meant that the gods demanded appeasement through many human sacrifices.

At first glance, this prohibition against commoners eating human flesh casts doubt on cannibalism's potential to mobilize the masses of Aztec society to engage in wars for prisoners. Actually, the prohibition was, if anything, a goad to the lower class to participate in these wars since those who single-handedly took captives several times gained the right to eat human flesh. Successful warriors became members of the Aztec elite and their descendants shared their privileges. Through the reward of flesh-eating rights to the group most in need of them, the Aztec rulers assured themselves an aggressive war machine and were able to motivate the bulk of the population, the poor, to contribute to state and upper-class maintenance through active participation in offensive military operations. Underlying the war machine's victories, and the resultant sacrifices, were the ecological extremities of the Valley of Mexico.

With an understanding of the importance of cannibalism in Aztec culture, and of the ecological reasons for its existence, some of the Aztecs' more distinctive institutions begin to make anthropological sense. For example, the old question of whether the Aztecs' political structure was or was not an "empire" can be reexamined. One part of this problem is that the Aztecs frequently withdrew from conquered territory without establish-

ing administrative centers or garrisons. This "failure" to consolidate conquest in the Old World fashion puzzled Cortés, who asked Moctezuma to explain why he allowed the surrounded Tlaxcalans to maintain their independence. Moctezuma reportedly replied that his people could thus obtain captives for sacrifice. Since the Aztecs did not normally eat people of their own polity, which would have been socially and politically disruptive, they needed nearby "enemy" populations on whom they could prey for captives. This behavior makes sense in terms of Aztec cannibalism: from the Aztec point of view, the Tlaxcalan state was preserved as a stockyard. The Aztecs were unique among the world's states in having a cannibal empire. Understandably, they did not conform to Old World concepts of empire, based on economies with domesticated herbivores providing meat or milk.

The ecological situation of the Aztecs was probably an extreme case of problems general to the high population pressure societies of Mesoamerica. Cannibalism encouraged the definition of the gods as eaters of human flesh and led almost inevitably to emphasis on fierce, ravenous, and

carnivorous deities, such as the jaguar and the serpent, which are characteristic of Mesoamerican pantheons. Pre-Columbian populations could, in turn, rationalize the more grisly aspects of large-scale cannibalism as consequences of the gods' demands. Mesoamerican cannibalism, disguised as propitiation of the gods, bequeathed to the world some of its most distinctive art and architecture. The temple-pyramids of the Maya and the Toltecs, and of the pre-Aztec site at Teotihuacán in the valley of Mexico, resemble those of the Aztecs in appearance and probably had similar uses. Even small touches, such as the steepness of the steps on pyramids in Aztec and other Mesoamerican ruins, become understandable given the need for efficiently tumbling the bodies from the sacrificial altars to the multitudes below. Perhaps those prehistoric scenes were not too dissimilar from that which Bernal Díaz described when his companions were sacrificed before his eyes in Tenochtitlán:

Then they kicked the bodies down the steps, and the Indian butchers who were waiting below cut off their arms and legs and flayed their faces, which they after-

wards prepared like glove leather, with their beards on, and kept for their drunken festivals. Then they ate their flesh with a sauce of peppers and tomatoes.

Gruesome as these practices may seem, an ecological perspective and population pressure theory render the Aztec emphasis on human sacrifice acceptable as a natural and rational response to the material conditions of their existence. In *Tristes Tropiques*, the French anthropologist Claude Lévi-Strauss described the Aztecs as suffering from "a maniacal obsession with blood and torture." A materialist ecological approach reveals the Aztecs to be neither irrational nor mentally ill, but merely human beings who, faced with unusual survival problems, responded with unusual behavior. □

Skulls of sacrificial victims at the Aztec site of Tlatelolco, Mexico City. Mexican archeologists believe that the holes were made both to remove the brains and to mount the skulls on a rack.



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