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## **Ruth Benedict, “Configurations of Culture in North America”**

Abstract By: Julio Garcia

In *Configurations of Culture in North America*, Ruth Benedict states that cultural traits emerge from core values that reflect worldviews. Benedict compares the Pueblo Indians, the Hopi and Zuni, with the Plains Indians, the Blackfoot and Cheyenne. She contrasts Pueblo Indians as Apollonian—who are more reserved, do not drink in excess, and have a collective balance—with the Plains Indians as Dionysian—who do things in excess, such as drinking and orgies. Benedict argues that different cultures have different cultural traits that reflect different core values. It is significant to analyze the core values of the Apollonian and Dionysian because geographically they are closer together; however, the Apollonian is culturally islanded, having opposite core values from the surrounding Dionysians. This is also significant because it disputes the diffusion of core values. Both of these cultures have their own cultural traits. The Apollonian do not seek authority, rather, authority is given. For example, the chief priest is prescribed seasons where he can practice religious prayers, and if he does not follow these rules, then the Apollonian accuse the priest of practicing sorcery. This is opposite to the Dionysian who do seek authority.

Cultures have different configurations, such as the emotions that are expressed in opposite ways in the Apollonian and Dionysian death rituals. The Dionysian are exaggerated, louder, and more violent, while the Apollonian are quieter and more conservative, emphasizing the immediate forgetting of a person's death. Benedict argues that cultural traits reflect individual core values and they reflect worldviews.

## **Leslie White, "Energy and The Evolution of Culture"**

Abstract By: Gabriel Jones

In *Energy and The Evolution of Culture*, Leslie White demonstrates how culture develops and evolves through the use of energy. He believes that culture serves as an adaptive strategy for humans to survive and interact with their environment. White stresses that culture is not genetically inherited, but rather it is transmitted through the use of symbols. White introduces a formula that explains cultural development:

$E \times T = P$ ; in which the amount of energy used (E) and the extent to which the energy is utilized efficiently through technology (T) defines the rate at which cultures develop (P). From this formula, White produces cultural laws stating that the rate of cultural development depends directly upon either the amount of energy that is expended and effectively utilized, or the degree to which technological advances increase the efficiency of energy use.

After a brief overview of the evolution of culture, White reveals that the amount of available energy, both within humans and externally, sets limits on cultural development. Only by expanding the overall efficiency of this energy, through the use of technology, can cultures further progress and form higher social systems. However, social systems

can also inhibit technological advances since socioeconomic structures (e.g. feudalism or capitalism) sometimes do not permit an increase in the use of energy. Conflicts between technological and social systems can lead to the destruction of a social system or the restriction of technology. White believes that his theory clearly follows other evolutionary theories proposed by Morgan and Tylor, and that it should be used to progress the “science of culture.”

## **Marvin Harris, “Anthropology and The Theoretical and Paradigmatic Significance of the Collapse of Soviet and Eastern European Communism”**

Abstract by: Nima Khorram

*In Anthropology and the Theoretical and Paradigmatic Significance of the Collapse of Soviet and East European Communism*, Marvin Harris uses the theory of cultural materialism to analyze and describe the Soviet collapse. Marvin Harris determines the collapse of the Soviet Union was because of a deterioration in infrastructure, which brought about changes in the consciousness of people. Harris uses a cultural materialist analysis to describe the Soviet collapse. Cultural materialism refers to the material objects in life that determine how life is run socially, politically, and spiritually. According to Harris, infrastructure is a population’s mode of reproduction and mode of production. The mode of reproduction consists of activities impacting the reproduction of the human species such as birth control and mortality rates. The mode of production consists of the effort to stay alive, by gathering food, using technologies, and storing food. Harris also discusses the concept of structure which consists of the

political economy and the domestic economy. The political economy is how different domestic units are differently linked, and the domestic economy simply refers to the household economy. Harris also states the concept of superstructure, which consists of a culture's religion, values, and sports. Harris argues that changes in the infrastructural realm will bring about changes in the structural realm, and changes in the structural realm will bring about changes in the superstructural realm.

Communism in the Soviet Union failed because the efficiency of its heavy industry factories declined, there was a decrease in energy, and crops were lost before they reached the stores. Economic growth per capita during perestroika was zero or negative, there was environmental degradation such as pollution, and technological innovations lagged, because of insecurity from the Communist party not because of "technical know-how and resources." The crisis of the infrastructure mostly affected the Central Asian and Transcaucasus republics in the Soviet Union. The Soviet Union collapsed because of infrastructure not working properly, which affected the psyche of many people.

## **Marvin Harris, "Anthropology and The Theoretical and Paradigmatic Significance of the Collapse of Soviet and Eastern European Communism"**

Abstract by: Gabriel Jones

In *Anthropology and The Theoretical and Paradigmatic Significance of the Collapse of Soviet and Eastern European Communism*, Marvin Harris examines the collapse of the Soviet Union through the lens of cultural materialism. This theory asserts

that the most basic of human needs (infrastructure), including subsistence strategies and reproductive technologies, affect the social organization of societies (structure) which, in turn, influence ideologies and worldviews (superstructure). Harris outlines numerous examples of the declining Soviet infrastructure: the decrease in energy and technological production, inadequate means of distribution, zero or negative GDP, environmental deterioration, and high mortality rates in certain Soviet republics. While some scholars believe that the Soviet Union's demise disproves materialist theories, Harris contends that this occurrence strengthened those theories because the decay of the Soviet infrastructure exacerbated the economic and political conditions at the structural level.

Harris notes how Soviet "top-down" economics promoted inventory surplus, over-employment, and poor investment strategies while simultaneously producing low quality goods. Likewise, the absence of incentives for innovations did not allow technology to further advance at a successful rate. Harris argues against models that blame politics for the Soviet downfall by predicting that under "similar infrastructural conditions" former Soviet republics will mobilize and replicate the socioeconomic systems of Europe, Japan, and the United States. Harris concludes by stating that the causal nature of infrastructure, the transition from basic human needs to social organization, does not entail decreased freedom or the removal of human consciousness.

## Clifford Geertz, “Ritual and Social Change: A Javanese Example”

Abstract by: Alexxandra Salazar

In *Ritual and Social Change: A Javanese Example*, Clifford Geertz argues that discontinuity between culture and social structure is the primary cause of social change, and discusses the *slametan* funerary ritual as an example. He asserts that standard functionalist theories, either associated with Radcliffe-Brown or Malinowski, cannot properly account for social change because they do not give proper weight to both culture and social structure, which are both independent and interdependent. Geertz defines culture as the framework of symbols and meaning that influence human action and how humans understand their world. Social structure is culture put into action, the social interactions that affect the overall function of society. To further explain, Geertz utilizes Sorokin’s definitions of “logico-meaningful integration”—the unifying nature of cultural beliefs and meaning; associated with culture— and “causal-functional integration”—the organismic unity found when parts function as a whole; associated with social structure.

To provide an example in which the factors of social change can be analyzed, Geertz describes the chaos surrounding the *slametan* funeral of a young Javanese boy. A *slametan* is a syncretic “communal feast” that incorporates Islamic, Hindu, and animist features, and is held for significant events in life. Geertz explains how this previously effective ritual, created by a “balanced syncretism,” became ineffective when increasing religious differences were combined with rising political conflict among the community. Geertz demonstrates that a portion of the population became associated with the



Masjumi, a purist Islamic political party that rejected Hindu and animist religious beliefs; and another portion became associated with the Permai, a Hindu/animist political party that rejected Islamic religious ideologies. Geertz states that at the funeral and slametan family members of the deceased are traditionally calm and reserved, displaying a demeanor of *iklas*, and that neighbors come together to create *rukun*, a form of “communal harmony.” However, this particular slametan funeral was disrupted because of conflicting political and religious beliefs.

Geertz argues that the social change that was exhibited at the slametan was the result of lack of consistency between the cultural values and social structure of the community, but not due to their disintegration. Geertz asserts that the standard functionalist theory cannot discern this difference, and thus cannot explain social change accurately.

## **Sherry B. Ortner, “On Key Symbols”**

Abstract by: Mario Castillo

In *On Key Symbols*, Sherry B. Ortner argues that cultures have key symbols that imbue cultural meaning and provide a human action. Cultural symbols are considered “key” if: 1) informants say that the symbol is important, 2) informants are “aroused” by the symbol, 3) the symbol appears in different social contexts, 4) the symbol has “greater cultural elaboration”, and/or 5) the symbol has restrictions or sanctions regarding the symbol’s misuse. Examples of key symbols are the cross to Christians, cattle to the Nuer and Dinka, and the *slametan* ritual in Java. Such key symbols provide rules for “cultural thought and action.” According to Ortner, key symbols can be

separated between either "summarizing" and "elaborating" categories. Summarizing symbols, like the Christian cross, condense different meanings in a thorough manner. In contrast, elaborating symbols provide guidelines for thought and action. Furthermore, elaborating symbols are separated between "root metaphors" and "key scenarios." Root metaphors provide conceptual schemes which people reference, whereas key scenarios establish rules for social action. An example of a root metaphor is cattle to the Nuer and Dinka because the physical properties of the cow provide chromatic references which they apply to the physical world. An example of a key scenario is the Horatio Alger "rags to riches" myth which provides clear cut rules for appropriate social action in American culture. In conclusion, Ortner suggests that a standardized method of analyzing cultures by examining key symbols can provide insight into the thoughts and actions of individuals within the context of their culture.

## **Eric Wolf, "Facing Power—Old Insights, New Questions"**

Abstract by: Kevin Burciaga

Wolf's argument in his lecture emphasizes the need that anthropology should reassess the relationships of power and how these relationships are seen within societies. Wolf identifies four specific modes of power which are: 1) personal power, "ego" 2) the ability to "impose its will" on others, 3) tactical power, and 4) structural power. Wolf recognizes that tactical and structural power are the most significant. Wolf views tactical power as a way to allow individuals to demonstrate their skills and abilities, also demonstrating ways in which to interact among each other. Structural power operates

within different settings of culture, as well as “organizes and orchestrates.” These modes of power are responsible for the establishment and reinforcement of social norms, allowing certain behaviors to be possible, while making others unlikely or impossible. Structural power is associated with social organization. It is marked in relationship between controlling a portion of necessary resources and the distribution of rewards. Wolf argues that social organization is not a static outcome, but rather a constantly evolving process. Wolf explains that the outcome of the process results in the individual’s knowing and understanding the roles and meanings within their society, suggesting that power is recognized and reinforced within the society. Wolf concludes by restating that anthropology is a cumulative approach toward examining power, and therefore uses all available anthropological data.



## **“Knowledge is Power: the Palm Leaf-books of the Khmer”**

By: Omar Toledo

### ***Introduction***

*Satraa* is the Khmer word for the palm leaf book (Trung 2007:1). The tradition of inscribing texts onto dried palm leaves is quite old, and was in practice since before the Angkor Period. Sakphan Keam, the key informant for this paper, identified two structures flanking the central temple at Angkor Wat as libraries that, some twelve hundred to eight hundred years ago, were filled with *satraa*. This collected bank of knowledge is known as the [*kom pi*].

The creation of palm leaf books is a cultural practice that is recognized and protected by UNESCO (United Nations Educational, Scientific, and Cultural Organization). Originally from India, the practice of inscribing palm leaf books spread through Southeastern Asia and is found in Burma, Thailand, Laos, Cambodia, and into Vietnam with Hinduism and Buddhism (UNESCO N.d.:2).

To the Khmer people, *satraa* are more than books. The *satraa* are a symbol of the Angkor period and all the abundance, prosperity, and honor associated with it. This symbolism could have been strengthened by the genocide in which many of the books were destroyed, those who could create the books were killed, and the Khmer people as a whole were stripped of their past by the atrocities of the Khmer Rouge (McGinnis 2009:64). This paper argues at its conclusion that legitimate *satraa* are so rare, and

their makers so few, that the satraa themselves have become items of reverence. Furthermore, these items are so revered that their possession empowers a sense of legitimacy to the owner.

### ***A Short History of Cambodia***

According to the CIA world fact-book (2010), ninety percent of the population of Cambodia identifies itself as ethnic Khmer. By Carl L. Bankston's (2010) account, the first record of Khmer civilization is the Funan state of 200 A.D. The Funan chiefs had adopted Indian influences introduced via trade, and oversaw the development of an intricate canal system. This early state encompassed most of what would later become the Khmer Empire. The empire would come to dominate a region encompassing all of Cambodia, parts of Thailand, Laos, and Vietnam. The Angkor period, from approximately 800-1400 A.D., saw the cementing of the Khmer Empire, the erection and the eventual decline of their power (Bankston 2010).

In the latter part of the fifteenth century, increasing portions of the Khmer Empire came under the control of then Siam and Vietnam (Bankston 2010). The gradual erosion of land to its enemies stopped when what remains of the Khmer King's dominion is passed to the French by means of a Protectorship. Secular and government life changed significantly under French rule. Under pressure from the Second World War, and the involvement of Japanese military, France temporarily withdrew from Cambodian affairs, and King Sihanouk declared independence (Bankston 2010). Independence was short-lived and France regained control of the territory until it officially withdrew again from Cambodia in November of 1953. Escalation in the Vietnam Civil war, and American involvement, severely weakened King Sihanouk politically, and

in 1970 a military coup saw him exiled (Bankston 2010).

The military coup that ousted King Sihanouk was itself driven from power by a counter-coup launched by the Khmer Rouge in April of 1975 (Dean 1990 283). The Khmer Rouge immediately set to a ruthless plan for social engineering in which wide swathes of citizens were declared enemies of the state and were killed. The ensuing genocide killed at least one and a half million Cambodians (Hinton 1998: 93), doing irreparable damage to the country's historical records, cultural knowledge (Dean 1990:283), and generally wrecked the Cambodian people (McGinnins 2009). The Khmer Rouge remained in power for four years until deposed by a Vietnamese invasion in 1979. The Vietnamese withdrew from Cambodia ten years later, and today's Cambodia was established as a constitutional monarchy in 1993.

The Cambodian Genocide displaced over one hundred and fifty thousand refugees into the United States for resettlement over a period of fifteen years (Bankston 2010:). This traumatic divorce from their homeland, and the horrific realities that caused it, left communities of people looking for a way to reconnect with the culture they left behind (McGinnis 2009:63). One of these significant cultural practices is the creation of satraa, or palm-leaf books.

### ***The Art Form***

Satraa may vary greatly, but on average they measure approximately eighteen to twenty inches in length and approximately three to four inches in width. Smaller books of five to six inches in length are not uncommon. Satraa may be inscribed in Pali or Khmer, and the language of the text will differ based on the subject of the book. These subjects vary greatly, and were described by Sakphan as the “Cambodian Bank of

Knowledge.” Satraa recounting the teachings of the Buddha, or the life of the Buddha, are generally written in Pali, with a few exceptions. Other subjects include the natural sciences, mathematics, medicine, or folklore. These latter subjects may be written in either Pali or Khmer, but tend to be written in Khmer.

Trung Hieu, a contributor to Southeast Asian Archeology Newsblog, reports that the practice of creating palm-leaf books by Khmer monks is desperately close to disappearing. Now 65-year-old Chau Ty is the only known Khmer Buddhist monk who actively inscribes the leaves, and he has done so for over 40 years (Trung 2007:2). According to the article, Chau Ty has not been able to find a suitable successor to carry on the practice. In 2007, Trung reports that Chau Ty had taken a two-year break from the search. Chau Ty describes the inscription process as very demanding. He warns that a single page can take as long as entire day to inscribe.

In spite of their relative resistance to submersion in water, the assembled books tend to deteriorate relatively quickly in Cambodia's extremely humid and hot climate. The books may continue to deteriorate for approximately one hundred years until they become too fragile to be handled (Dean 1990:288). Both the Dean and Trung article identify the oldest books still around to be approximately one hundred years old. The short life span of the books necessitates frequent recopying.

### ***The Exhibitor***

Sakphan Keam was born in Pursat in the Pursat Province of Cambodia in June of 1951. His father worked in rail service maintenance/repair in addition to farming his own lands. Sakphan describes his mother as a known spiritualist in the region, and he explains that she was sought by locals as a medium and a healer of respected ability.

Sakphan described his early life on the family farm warmly and expressed a general sense of satisfaction and fulfillment from memories of the time. Sakphan's father had developed a close relationship with the local temple when not at work or in the fields. Sakphan explained that it was this relationship between his father and the monks of Pursat that brought his family into possession of the few satraa in his home. Throughout his childhood, Sakphan helped in the fields and in his father's workshop. He described in detail the many vehicles he and his father returned to working order. These included a motorcycle and a boat for Sakphan to use in festivals. After Sakphan finished high school, he entered into law school instead of the monkhood.

On one afternoon in 1974, Sakphan's older brother had been walking home in Pusat. He was stopped by a Cambodian Army truck, and instructed to get on. A few days later, Sakphan's family informed him that his brother had been pressed into military service. Fearful of being pressed into service himself, Sakphan accepted a commission with the Cambodian Navy a year short of completing law school. He was twenty-one years old.

Sakphan was living in the United States when the Khmer Rouge coup seized power in Cambodia, and he took a job as a counselor in the refugee camps along the border. He returned to the United States before the Vietnamese invasion removed the Khmer Rouge from power. Sakphan is currently self-employed as a Khmer translator, a position he has held for some time now.

Sakphan is an avid collector of all things Cambodian. His home contains no less than two life-sized statues of court dancers, which are displayed prominently as you enter the home. Aside from those, a myriad of other artifacts line the shelves, the



mantel, and curio cabinets throughout the house. A large altar sits in the main living room. Various statues and images of the Buddha sit facing the east on the five foot by four foot altar. Two satraa are also prominently displayed on the altar; both were given to him by his father. In addition to the Buddhist iconography, Hindu images can be found. Statues of Vishnu, Shiva, and Ganesha are included throughout the collection.

Sakphan admitted that he began collecting in order to reconnect with the culture he lost. He wanted his home to feel like Cambodia, a feel, he says, that is mostly achieved. As part of this desire to reconnect, and also motivated by the palm leaf books already in his collection, Sakphan began to investigate the process of creating satraa, learning mostly from text and some trial and error.

### ***The Art Process***

The leaves of the Boun tree are identified as the primary material in the construction of satraa. The Boun tree is a close relative of the common Palmyra palm tree with leaves that are considerably wider and far more suitable for the purpose of making these books. Once the leaves are gathered, they are left to dry, needing no other preparations prior to drying. It should be noted that other traditions prepare the leaves by polishing them with sand, or boiling them prior to drying (UNESCO N.d.:3). Sakphan, however, did not indicate that these things were necessary when asked. While the leaves dry, attention can be turned to the creation of the pigment. The pigment is created by mixing soot into an oil base until the oil is very dark.

Once the leaves are sufficiently dry and the pigment is ready, the leaves are cut to the appropriate dimensions. The prepared leaves are delicately inscribed using a tool very much like an ice pick. Ideally, the inscribing tool will be a thin, sharp spike of iron or

wood which terminates in a pommel for more precise control. In addition to the material of the text, a marking could also be made to indicate the sheet's order for later assembly. However, Sakphan produced a couple of books numbered in pencil as an alternative. The tool used to work the pigment into the leaves is a short, four- to five-inch-long, dowel with a wad of cloth tacked to one end. Another piece of fabric is woven over the wad to create a smooth outer surface on the exterior. The wadded dowel is wetted in the pigment and then rubbed over the characters following the grain of the leaf. This is repeated until all the characters are filled with the pigment. Carefully, the oil is then wiped off with a new cloth until only the pigment filling the characters remains. Alternatively, the excess ink can be wiped away with a fresh wadded dowel wetted with un-pigmented sap to aid in the strengthening of the leaf. The leaves are then left to dry. This process can be repeated again should some of the characters not take fully or should they fade while drying.

The final assembly of satraa is done once the inscribed and inked leaves have again dried. Each sheet is punctured with one or two small holes in the same location on each sheet. The sheets are compiled and a thin cord is threaded through each sheet until the entire book is assembled in series. Two thin wooden boards are added to protect the sheets, and the cord is tied off.

### ***Analysis***

Observations for this analysis were made in a series of four, hour long interviews conducted on Wednesday nights (5:30 p.m.) at the informant's home. The interviews were conducted one-on-one. Sakphan noted in the final interview that some of the objects he keeps in his home are considered taboo by Cambodians. He explained that

the satraa are believed to contain spirits within them, and that these spirits required a suitable environment or else they will be displeased. These spirits, he went on, could provide protection if properly cared for, which he felt he could provide. Generally, the temple is the only “safe” place to keep the satraa. In addition to the satraa, Sakphan identified certain statues that were also taboo to keep at home. In Cambodia, any statue too large to comfortably rest in a cupped hand is expected to be in the care of a temple or a museum. This is significant. If possession of satraa, or symbols of past glory in general, empowers a sort of authority to the bearer, then institutions such as temples and museums (read: government) would want them for the legitimizing effect of possession.

To the Khmer, knowledge is power, prosperity, and protection. The cornerstone of this understanding of the satraa's place in Khmer society is the story of Preah Ko, Preah Keo, their loss to Siam, and the subsequent collapse of the Khmer empire. Below, a summary of the tale is reconstructed from various sources (Daravuth and Muan 2001; (Matahari 2007).

Preah Ko and Preah Keo are twin brothers born of a pregnant woman who fell from a mango tree she had climbed against the warnings of a spirit medium. Preah Ko is a speaking cow with magical powers, and Preah Keo is a Khmer boy. The pair have adventures in eating magical feasts, escaping mobs by flying through the air, conjuring castles, and wooing princesses. The tone of their adventures changes when the King of Siam begins to make designs on the Khmer Empire, and challenges the Khmer Emperor to a rooster fight with their domains at stake. The Khmer Emperor

loses the first fight and demands a re-match. Urged by the princess, Preah Ko intervenes in the re-match by turning himself into a rooster and wins. When he returns to Siam, the King is informed by a fortune teller that he has been tricked, and the King learns of Preah Ko. More importantly, the Siamese King learns that Preah Ko is the source of Khmer prosperity. Armed with this knowledge, the Siamese King challenges the Khmer Emperor to more rematches, and the emperor agrees. For the final match, the Siamese King constructs a mechanical bull that Preah Ko cannot defeat. Sensing a trap, Preah Ko, Preah Keo, and Preah Keo's wife escape the losing fight by flying away as they had done in the past. This time, however, Preah Keo's wife loses her grasp of Preah Ko's tail and falls to her death. The pair evade the Siamese troops in the forests of Cambodia for some time, and eventually take refuge in a castle. The Siamese army come upon their fortress, but take pause. The castle is surrounded by a bamboo forest, and the general fears this features leaves his army unnecessarily exposed. To overcome this obstacle, he formulates a cunning plan. The general instructs his soldiers to fire silver coins into the forest using their guns and cannons, and withdraws. In their hurry to collect the silver, local peasants cut down the bamboo, clearing a path to the castle which the re-emerging army uses to easily overrun the defenders. The brothers are taken captive and transported to Siam.

Sakphan identifies Preah Ko as the knowledge of the Khmer (the [kom pi]), and Preah Keo as the scholar that interprets it for the people. He stresses that one without the other is incomplete, and Cambodia will never again be prosperous until the two are returned. Responses to the story published online only repeated Sakphan's understanding (Matahari 2007). To impress the point, Sakphan explains that a Khmer temple is not legitimized unless it owns satraa, and that the satraa are often stored in secret locations within the temples. The satraa is that symbol that connects the temple to the legitimate authority of the past, and, in essence, to the glory of Angkor. The satraa is the physical manifestation of [kom pi]. It is the physical manifestation of the hope that the Khmer will return to their former glory.

Satraa are available for purchase by tourists in Cambodia. However, these palm leaf books are regarded as replicas, and are not accorded the same respect as the monk-produced satraa created before the 1975 Khmer Rouge coup. This is significant because in spite of sharing the same data source as the “respected” satraa, the sub-status of the tourist's satraa can be linked to its method of fabrication. The tourist's satraa are not manufactured in the “traditional” manner by monks. Frankly, these satraa lack the weight of history to sanctify them.

Ultimately, this understanding of satraa will fade with the survivors of the genocide. Satraa will continue to exist, and be constantly produced for a hungry tourist market. But as the scars of the genocide heal, or as those that survived it die with their secrets, the context which elevates the satraa will likewise fade. Though Sakphan knows how to fabricate the books, it is hard to imagine that he ever will. If he did, it is hard to imagine that a satraa produced by him would be accorded the same honors as

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those that survived the genocide. In Cambodia, Chau-Ty, the monk mentioned in the Trung article, is the only known person who can produce “true” satraa (2007:1). No such person exists in Long Beach. Though, Sakphan could likely be called upon to restore any old satraa should more members of Long Beach's Khmer community learn of his expertise.



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## **“The Aztec and Their Calendar Stone”**

By: Patricia Marie Alonzo Cuellar

The Aztecs claim their place of origin to be a mythological place called *Aztlan* or “the place of reeds.” Archaeologists still have not discovered where *Aztlan* resides, yet it is believed to be somewhere northwest of the valley of Mexico City. In the year AD 1111 they left their original home (Coe and Koontz 2008), a place known as the *Chichimec* region. After they departed from their homeland they searched for a new home. On their journey they passed through *Chicomoztoc*, the “Seven Caves,” where it is said *Huitzilopochtli*, the god of war, was born (Coe and Koontz 2008). This god, known only to the Aztec, is said to name them the *Mexica* and to guide them to a place where they would build their empire: a place where an eagle sits on a prickly pear cactus with a rattlesnake in its beak (Coe and Koontz 2008). An uninhabited island that sat in the middle of Lake Texcoco became the Aztec capital *Tenochtitlan* in the year 1325. The Aztec’s transformed the marshy island into an enormous empire; they slowly gained control over other surrounding tribes. In less than two hundred years the Aztecs had built a grand empire which grew to as many as 200,000 to 300,000 inhabitants (Coe and Koontz 2008).

The arrival of the Spaniards came in the beginning of the 16<sup>th</sup> century; according to myth a high priest warned the Aztec ruler *Moctezuma* of danger that would come by boat. According to legend, *Moctezuma* ignored his warning because that same year a



man arrived by the name of Hernan Cortes along with his Spanish conquistadors (Miller 1985). *Moctezuma* at first mistook this man to be Quetzalcoatl; the feathered serpent god who is told one day would return to take over the kingdom. *Moctezuma* declared the prophesy of his ancestors fulfilled and he acknowledged the arrival of Cortez (Miller 1985). The Spaniards were amazed by the splendor and beauty of the Aztec empire and for months the Spaniards enjoyed all the riches the Aztecs had to offer. As time passed *Moctezuma* grew less convinced that Cortes was the god he had originally thought him to be. Soon tension rose and battle fell onto the great empire. *Moctezuma* was taken hostage and died in 1520 (Miller 1985). By the year 1521 the Spaniards had defeated the Aztec in a long and deadly battle (Miller 1985). The Spaniards now controlled the land once ruled by the Aztec and established a colony in which they named New Spain.

Recently, archaeologists have made many great discoveries that have allowed them to piece back together Aztec history and culture. This essay examines the Aztec Calendar stone in detail to further understand a piece of Aztec history that lives on as a symbol in many forms today. In the year 1790 a round disk was discovered by diggers working in Mexico City, a large circular stone that came to be known as the Aztec Calendar Stone (Klein). The Aztec calendar has gained so much popularity that it is now a huge iconic symbol of the Aztec people and replicas are hung throughout many households. The original stone disk is on display in Mexico's national museum; it weighs 24 tons, and is four feet thick and 12 feet in diameter.

The Calendar stone is a huge disk with eight pointed projections which resemble the rays of the sun (Klein). Around the rim of the disk are two serpents whose heads

meet at the bottom half of the stone. They seem to be identical, but a closer look at their faces shows slight differences (Klein). The central deity on the disk is highly debated. While many think it is the sun god, others would argue that it is the face of an earth monster. Whoever the central deity may be it is portrayed as having large round eyes, a nose pendent, and a tongue of an obsidian flint knife (Klein). The disk is full of imagery and when studied in great detail can explain Aztec cosmology, creation, and destruction.

The Aztec had a 360-day solar calendar as well as a 260-day sacred calendar; both can be read on the calendar stone. According to the Aztec, there were 20 days in one month. The innermost ring on the calendar contains the symbols, named *tonalpouhque*, for all 20 day signs. The next ring moving outward is a ring of symbols called *quincunx*, each square in this ring represents a month (Jimenez and Graeber 2006). Day one, *Cipactli*, begins near the top of the innermost ring and the rest of the signs can be read counter clockwise till day 20, *xochitl*, is reached (Jimenez and Graeber 2006). Unlike our 7-day week, the Aztec week consisted of 13 days (Jimenez and Graeber 2006). Multiplying the 13 days of the week by the 20 days in one month would equal a year of 260 days ( $13 \times 20 = 260$ ) (Jimenez and Graeber 2006). This 260 year period was called *Tonalpohualli*, also know as the sacred calendar (Jimenez and Graeber 2006). This particular calendar was used in religion and ritual to foresee fate. Lucky and unlucky days could be foretold with this calendar. According to the Aztec, there were 18 months in one year; multiplying the 18 months of the year by the 20 days in the month gives a total of 360 days in a year ( $18 \times 20 = 360$ ) (Jimenez and Graeber 2006). The 360 days is called a solar year, however, five or six “unholy days” were often added to this year (Jimenez and Graeber 2006). These unholy days were added to

keep track of the solar path in the sky. An Aztec solar year usually consisted of 365 days a year, the same calendar that is used today (Jimenez and Graeber 2006).

Near the end of the tail of each serpent that surrounds the calendar stone is a square with four types of bindings (Jimenez and Graeber 2006). This square symbol represents the 13 years of four bindings (Jimenez and Graeber 2006); 13 years multiplied by 4 bindings equals 52 years ( $13 \times 4 = 52$ ); this is known as *Xiuhmolpilli*, the 52 year cycle (Jimenez and Graeber 2006). The last day of this 52 year cycle must have been a frightening one because, according to Aztec legend, on this day when night fell many believed the demons would rise. In fear of this, many did not sleep on this night. The start of the New Year began with sacrifice and a ritualistic fire drill, these practices guaranteed a new 52 year cycle (Jimenez and Graeber 2006). The Aztec must have been highly educated in mathematics and in astronomy to be able to create such a highly complex calendar based on the path of the sun and used for a variety of purposes.

Within the center of the calendar stone, four squares surround the central deity. These four squares are called *Nahui Ollin*, or four movements (Jimenez and Graeber 2006). This particular part of the calendar stone describes the origins of the world beginning in the top right square named Four Ocelot and moving counter clockwise ending with the lower right square named Four Water (Jimenez and Graeber 2006). The first movement *Nahui Ocelotl*, or Four Ocelot, is a time when giants roamed the earth until they were attacked and killed by wild cats (Jimenez and Graeber 2006). During the following period, called *Nahui Ehecatl* or Four Wind, those who roamed the planet lived by agriculture until they were swept away and destroyed by terrible winds (Jimenez and

Graeber 2006). Within this third movement, called *Nahui Quiauhuitl* or Four Fire-Rain, came a fairy rain that fell from the sky; those who lived in this period were also destroyed (Jimenez and Graeber 2006). The fourth movement was called *Nahui Atl* or Four Water; those who lived among this time were swallowed up by the waters (Jimenez and Graeber 2006). Each of these four movements was created by the gods and each was destroyed in a different way (Jimenez and Graeber 2006). The gods decided to create a new movement; the time in which some believe we still live in today (Jimenez and Graeber 2006). This new movement is known as the fifth sun called *Macuilli Tonantih*, and also know as *Nahui Ollin* or Four Earthquakes, which can be seen on the calendar stone as a combination of the four prior movement squares. This period was expected to eventually be destroyed just as the others were only this time through a series of deadly earthquakes (Jimenez and Graeber 2006).

A few pre-Colombian manuscripts have been discovered and closely examined; one such includes that of the Codex Borgia. The Codex Borgia was originally painted on animal skin and with pigments used from the earth. It is probable that the artist of this manuscript was a high priest, one who was contracted to establish this document in order to record the gods and details of the 260-day sacred calendar. This manuscript was used to represent religion possibly to obtain structure in the Aztec society. The gods played a heavy role in everyday Aztec life, because they provided rain, wind, sunshine, and all that was needed. The Codex Borgia is a colorful script densely decorated of pictures and symbols. Just as the Aztec calendar stone, this manuscript was also used to foresee the future, document the past, and also served as a guide to the high priest. The Codex Borgia is a useful tool which can be used to understand much of the

symbolism on the Calendar stone. A full color restoration of the Codex Borgia took seven years to complete.

The Aztec calendar is a continuous cycle, one after another, a system of life which continues to work and grow. It is possible that the calendar served primarily for religious and ceremonial purposes, however, to the Aztec people it gave meaning and direction with each new day, each new-year, and each new cycle. Religion can be used by any society to turn it into a structured society, and the calendar stone was a necessary tool in this process for Aztec society. Not only did the Aztec calendar record dates, it also foresaw many aspects of Aztec life. Although the stone is highly complex to read it is amazingly crafted with precision, and is a historical masterpiece that allowed the Aztec to tell both the past and the future. The Aztec culture was incredible and their engineering was amazing, the calendar stone is proof of their mathematical intelligence.

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## **“Community-Based Participatory Research: A Tool for Promoting Environmental Justice”**

By: Gabriel Jones

### ***Introduction***

Studies have shown that constant exposure to environmental hazards can produce negative health effects (Jerrett et al., 2009; Jerrett et al., 2005; Morello-Frosch, Pastor and Sadd, 2001; Morello-Frosch et al., 2000). Typically, communities of color and lower-income neighborhoods in Los Angeles face higher exposure to hazardous materials, such as treatment, storage, and disposal facilities (TSDFs) and ambient air pollutants (e.g. particulate matter, ozone, nitrous dioxide, carbon monoxide, etc.), due to discriminatory siting practices and residential segregation (Morello-Frosch and Lopez, 2005; Pastor, Sadd and Hipp, 2001). African Americans and Latinos living in industrialized areas are often disproportionately affected by the placement of TSDFs and air pollution (Morello-Frosch and Jesdale, 2006; Morello-Frosch et al., 2002). Consequently, ethnic minorities are more susceptible to respiratory and cardiovascular diseases, which are exacerbated by environmental pollutants as a result of genetic predispositions, psychosocial stressors, racism and lower socioeconomic status (American Lung Association, 2001; Williams and Collins, 1995).

Recently, large bodies of environmental health scientists, policy makers, civil rights activists, and educators have sought to address the disproportionate amount of

environmental hazards imposed on marginalized communities in the United States. While some studies have not found a substantial amount of evidence suggesting racial divides among the siting of environmental facilities on a national scale (Anderton et al., 1994; Stretesky and Hogan, 1998), others indicate that ethnicity is a factor when assessing environmental and health inequalities (Morello-Frosch and Jesdale, 2006; Morello-Frosch and Lopez, 2005; Lee, 2002). Social inequality and racial discrimination, therefore, seem to be prevalent forces in the distribution of environmental risks.

There is a general consensus as to the connection between ethnicity, socioeconomic status, and health, and how those variables intersect. Usually, people of lower socioeconomic status simultaneously tend to be ethnic minorities. Socioeconomic status has also been linked to health inequalities (Morello-Frosch and Jesdale, 2006; O'Neill et al., 2003). In their investigation of health disparities between minority populations and whites, and the differing health statuses along the socioeconomic bracket, Williams and Collins (1995) determined that racism, along with other social structures, does in fact produce health inequities. Similarly, Evans and Kantrowitz (2002) found that socioeconomic status and ethnicity are proportionally related to inconsistent exposures to environmental hazards such as toxic wastes, air pollution, and other risk factors, in addition to the health consequences of these exposures.

It is no surprise then that a larger number of pollutants could be found in regions that contain higher densities of ethnic minorities. Thus, the notion that “poor environmental quality is associated with economically depressed regions wherever they are located” (Cutter, 1995) clearly depicts the current situation in our society. In light of



this phenomenon, low-income communities of color and other concerned citizens have sought to amend these social injustices.

### ***Background of Environmental Justice***

Advocates of environmental justice contend that no group of people, including ethnic minorities and low-income communities, should bear a disproportionate burden of exposure to environmental hazards (American Lung Association, 2001). Most scholars agree that the push for environmental justice began in 1982 in Warren County, North Carolina when residents, who were mainly poor African Americans, protested the siting of a landfill for PCB contaminated soil (Cutter, 1995). Despite the eventual placement of the facility, the national struggle to safeguard civil rights and the environment led to the groundbreaking studies (1983) conducted by the United States Government Accountability Office (USGAO) and the United Church of Christ's Commission for Racial Justice (1987), which provided empirical evidence suggesting discrepancies in the distribution of hazardous waste sites (Cutter, 1995). From these early studies came a myriad of studies that examined farther aspects of environmental justice, including the placement of industrial and waste facilities and air pollution (Morello-Frosch, Pastor, Sadd, 2001). The accumulation of activist pressure and mounting scientific evidence necessitated governmental response. In 1994, President Bill Clinton initiated an executive order which required legislation from federal organizations that addressed issues of environmental justice (Morello-Frosch, Pastor and Sadd, 2001). Yet, even today these enacted policies and regulations do not adequately enforce codes to ensure the health of all individuals, especially marginalized urban communities.

***Community-Based Participatory Research***

In the face of increasing environmental degradation, researchers have sought to include members of afflicted communities as active participants in the research process to influence policy making and raise awareness about environmental health concerns (Minkler et al., 2008). A growing number of institutions and funders have recognized the merit of implementing community-based participatory research (O'Fallen and Dearry, 2002; Eisenger and Senturia, 2001). This type of research is action oriented and, as such, it could potentially foster studies that will directly impact policy making and regulatory practices.

Various scholars describe *community-based participatory research* (CBPR) differently (Minkler, 2005; Wallerstein and Duran, 2006), yet the National Institute of Environmental Health Sciences (NIEHS) defines CBPR as “a methodology that promotes active community involvement in the processes that shape research and intervention strategies, as well as in the conduct of research studies” (O'Fallon and Dearry, 2002). Generally, six major principles are emphasized when conducting CBPR: the recognition of a community as a unit of identity; the building on strengths and resources within the community; partnerships are constructed, problems are defined, and the community is involved throughout each step of the research process in a cyclical manner; the integration of knowledge and action that benefits all bodies involved; the fostering of a co-learning process; and the dissemination of findings in a useful and culturally appropriate manner to all partners (O'Fallon and Dearry, 2002; Israel et al., 1998).

In their assessments of CBPR, Minkler et al. (2005) and Israel et al. (1998) have provided evidence which demonstrates that using CBPR can provide numerous benefits. Further, Israel et al.'s extensive review denotes how this methodology "offers a means to reduce the gap between theory, research, and practice" (1998). In addition to the heightened extent to which the community is involved, CBPR signifies a problem of direct importance to the community and aims to ensure that the results will have a positive effect (Israel et al., 2005). The level of community involvement in the design and implementation of the study and the dissemination of results truly advocates for a specific problem that is affecting people's health. In this regard, partnerships with community members, who were all too often the subjects in studies (Israel et al., 2005), can be strengthened and future research can be conducted with the premise of improving urban health.

***Case Studies***

Investigators have reviewed findings from multiple cases that all indicate there is a clear benefit in using a CBPR approach for matters related to environmental health (Israel et al. 2005; O'Fallon and Dearry, 2002; Eisenger and Senturia, 2001). One study investigated four cases across the U.S. in which collaborations between community organizations and universities advanced environmental justice goals, and applied Goodman et al.'s and Freudenberg's concept of community capacity (Minkler et al., 2008). This study provides a feasible theoretical model since thoroughly assesses nearly every step of the process involved in CBPR in a relativistic manner. Other studies have demonstrated similar results (Minkler, 2005; Morello-Frosch et al., 2002).

Culture is a factor that must be taken into account when working with members of a community. In their assessment of specific research projects funded by the NIEHS, O'Fallon and Dearry (2002) reviewed a case in which researchers working with the families of migrant workers in Oregon sought to eliminate the causeways of pesticide exposure in Latino children. Due to the highly mobile nature of the community, information had to be distributed through meetings and collective data sharing (O'Fallon and Dearry, 2002). Thus, effective communication is established because the dialogue between researchers and community members is culturally relevant, information is made understandable to all partners, and the community is engaged in every step of the research process. Furthermore, the study investigates the Preventing Agricultural Chemical Exposure (PACE) project in North Carolina in which NIEHS-funded researchers developed a model for conducting CBPR that consists of five levels of interaction:

*a)* partnership with a community-based organization; *b)* a project advisory committee; *c)* community forums for residents more active in the research process; *d)* public presentations for less active residents; and *e)* formative data collection [O'Fallon and Dearry, 2002]

This approach towards CBPR ensures that both active and non-active members of the community are both engaged and properly informed about the processes.

In more recent times, Minkler et al. (2010) investigated the means by which CBPR in Old Town National City, California successfully led to a shift in policy to address issues of environmental justice. The Environmental Health Coalition's Toxic Free Neighborhoods Campaign, funded by the California Endowment, the James Irvine

Foundation, and grants from the NIEHS, was successful in that the data collected from academic sources and community members gained media attention and “were cited in testimony before the City Council and other bodies to help capture the key concerns and priorities of residents and in turn help shape the Specific Plan” (Minkler et al., 2010).

### ***Challenges and Limitations Presented***

Although a community-based approach can be highly advantageous in promoting environmental justice, certain barriers may rise. This section reveals the challenges that implementing CBPR could present. Establishing the area of need can be cumbersome for all partners involved. Researchers engaging in CBPR enter the partnership under the assumption that the community has already identified an issue, yet in the event that the issue is not of relative importance or is not the true source of a problem, researchers can work with members by making sure that community organizations properly specify a problem that is of direct significance to a community that they acknowledge (Minkler, 2005). Other restraints may include the degree to which community involvement becomes unproductive to the overall process. Minkler et al. (2005) refer to a study in which members of the Mohawk community disputed over the use of questionnaires. However, a more qualitative methodology was synthesized through negotiations after evaluating the reasons for the clash.

The eventual spreading of the results may pose several problems. Participants and community members must effectively agree as to how information will be disseminated among the community respectively, and the purpose the information will serve as well. In this regard, the dissemination of results justifies the “action component

of CBPR” (Minkler, 2005). Disagreements between scholarly-researchers and community partners as to the rate at which findings should be translated into action or activism could agitate members of both parties, and action might not be permitted under government grants (Minkler, 2005). Essentially, the key to resolving any challenges is negotiation. Each partner must actively listen and consider each other’s input, and find a solution that guarantees the quality of the research will not be tainted.

***Discussion***

Despite any ethical or other trials that CBPR may present, it is still a tremendously powerful approach that can bolster further research and impact communities in a truly unique way. Collaborative research between community organizations, universities, and community members is imperative to address the adverse health effects found among African Americans and Latinos in Los Angeles who reside near toxic facilities and in areas with higher concentrations of ambient air pollution (Morello-Frosch, Pastor, Jr., Porras and Sadd, 2002; Morello-Frosch, Pastor and Sadd, 2001). Often, campuses in Los Angeles are situated in or within a close radius to these afflicted communities. In order to raise awareness of these issues and invoke action, partnerships must be formed to achieve environmental justice in the affected areas of Los Angeles County. In a diverse urban setting, an approach that ensures that findings are distributed in a culturally appropriate manner is critical to advancing the goals of environmental justice.

CBPR is an effective tool in the mitigation of the environmental health inequalities among ethnic minorities and the poor. Unlike most studies, CBPR serves to further environmental health studies by connecting knowledge and application (Israel et al.,

1998). CBPR offers an alternative strategy to address the current environmental health disparities and promotes action and results for all partners involved. Through this methodology, individuals engage in meaningful research with the ultimate goal of attaining policy change.

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## **Cambodia Town Culture Festivals**

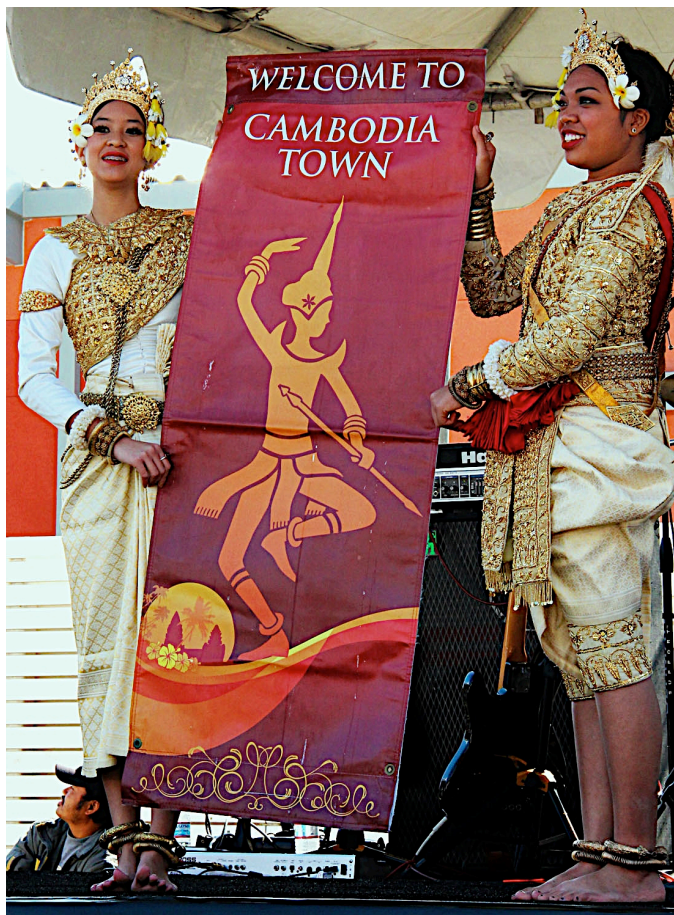
Photographs By: Marko Germono and Alexx Salazar

Written By: Alexx Salazar

The Cambodian community of Long Beach, California is made up of refugees, survivors of the Khmer Rouge atrocities, and their descendants who settled in Long Beach primarily between 1975 and 1990<sup>1</sup>. Since their resettlement, Cambodians in Long Beach have produced many community cultural events and celebrations (e.g. culture shows, festivals, pageants, parades, and other performances) to practice and maintain their culture, while openly sharing their culture with each other as well as with non-Cambodians in surrounding communities. Cultural events, such as the festivals, have become cherished annual celebrations that bring the community together, encourage cross-cultural communication and understanding, and provide a young generation of Cambodian-Americans with an accessible space to learn about and practice their cultural heritage. The following pictures were taken at the Cambodian Arts and Culture Exhibition in November of 2011 and at the Cambodia Town Culture Festival in April of 2012. These festivals celebrate Cambodian culture and the Cambodian New Year by performing, displaying, and sharing Cambodian living traditions, including dance, music, food, arts, religion, sports, language, and more.

<sup>1</sup>Needham, Susan, and Karen I. Quintiliani. *Cambodians In Long Beach*. Charleston, SC: Arcadia Publishing, 2008.

**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Khmer Arts Academy  
dancers welcome visitors  
to the festival at McArthur  
park in Long Beach.*

*Cambodian Arts and  
Culture Exhibition,  
November 2011*

*Photo by:  
Marko Germono*



*Upwards of two thousand people attended the Cambodian New Year festival.  
Cambodia Town Culture Festival, April 2012*

*Photo by: Alexx Salazar*



**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Dancers from Khmer Arts Academy performing the Khmer classical dance known as Buong Suong.  
Cambodian Arts and Culture Exhibition, November 2011  
Photos by: Marko Germono*



**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Dancers from Khmer  
Arts Academy  
performing Buong  
Suong.*

*Cambodian Arts and  
Culture Exhibition,  
November 2011*

*Photos (above) by:  
Marko Germono*

*Photo (left) by:  
Alexx Salazar*



**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Robam Choun Po (Blessing Dance) performed by Spirit of Khmer Angkor,  
Cambodian Association of America.*

*Cambodian Arts and Culture Exhibition, November 2011*

*Photo (top) by: Alexx Salazar*

*Photo (bottom) by: Marko Germono*



**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Trot performed by the Cambodian Culture and Arts Council  
Cambodian Arts and Culture Exhibition, November 2011  
Photos by: Marko Germono*



**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Trot performed by the Cambodian Culture and Arts Council  
Cambodian Arts and Culture Exhibition, November 2011  
Photos by: Marko Germono*



**STUDENT RESEARCH**  
**OBSERVATIONS FROM THE FIELD**



*Chhayam procession performed by Kampuchea Krom Federation.  
Cambodian Arts and Culture Exhibition, 2011  
Photo (top) by: Marko Germono  
Photo (bottom) by: Alexx Salazar*



**STUDENT RESEARCH**  
OBSERVATIONS FROM THE FIELD



*Chhayam procession performed by Kampuchea Krom Federation.  
Cambodian Arts and Culture Exhibition, November 2011  
Photos (top right & below) by: Marko Germono  
Photo (top left) by: Alexx Salazar*



**STUDENT RESEARCH**  
OBSERVATIONS FROM THE FIELD



*Above: A baysei prayer alter exhibited at the festival.  
Cambodia Town Culture Festival, April 2012  
Photos by: Alexx Salazar*



*Left: The baysei prayer ceremony (Tway Bongkum  
Preah Baramay) performed at the festivals.  
Cambodian Arts and Culture Exhibition,  
November 2011  
Photo by: Marko Germono*



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**OBSERVATIONS FROM THE FIELD**



*Above: A section of the festival  
dedicated to Theravada  
Buddhism.  
Cambodia Town Culture  
Festival, April 2012  
Photo by: Alexx Salazar*



*Left: Gardening and sugar  
cane juice at the festival thanks  
to the Cambodian Senior  
Nutrition Program.  
Cambodia Town Culture  
Festival, April 2012  
Photo by: Alexx Salazar*



## **The Archaeological Site Los Guachimontones of the Teuchitlan Culture, Summer 2012**

Photographs By: Patricia Marie Alonzo Cuellar



*Teuchitlan is a relatively small town located in Jalisco, Mexico and is home to the Archaeological site of Los Guachimontones.*



*The town is located near the Volcano de Tequila.*



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*The Interpretive Center at the site of Los Guachimontones is a center where visitors can come and learn about the site and the Teuchitlan Culture in an interactive manner.*



*Los Guachimontones are circular structures built by the Teuchitlan culture and they were likely used as ceremonial centers. The tradition dates from 300 BCE until about 400 CE.*

*The Guachimonton shown is Circle 2 of the site and is named "The Iguana." It is the second largest structure at the site and the largest structure that has been reconstructed.*



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*Circle 1 is named "El Gran Guachi" and is the largest of the site. Although it has not been reconstructed, there is a path that allows visitors to climb to the top.*



*The view from the top of Circle 1, "El Gran Guachi," is beautiful. The entire site is visible, as well as a view of the town Teuchitlan.*



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*There are two ball courts at the site. The largest ballcourt is the longest in Mesoamerican, for the late formative and early classic period.*



*Due to close proximity to the Volcano of Tequila, obsidian is very rich in the area and served as tools for the Teuchitlan culture.  
Pictured in photo: Patricia Alonzo*



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*Pictured in photo: Nichole Abbott and John Wagner*



*A ring of rectangular platforms surround the circular structures of Los Guachimontones. It is still uncertain what purpose these platforms served, yet it is currently thought that they may have been built by different family groups.*



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*Analysis is performed on the different materials that were previously excavated at the site.  
Pictured in photo: Patricia Alonzo*



*Dr. Chris Beekman observes a nearby obsidian workshop.*

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*Pictured in photo: Israel  
Alejandro Ramírez Collazo*



*Pictured in photo (from left to right): Juan Jose Cortes Guzman, Jorge Herrejon Villicana,  
Israel Collazo, Abel Rosales, Nichole Abbott, Patricia Marie Alonzo, Dr. Chris Beekman,  
Laura Bailey, Catherine Johns*



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*The discovery of Los Guachimontones offered a new window into our understanding of Mesoamerican societies. Ever since, archaeologists and students eager to learn have been working to understand what is now called the Teuchitlan culture.*