



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute  
1999 Volume II: Art and Identity in Mexico, from the Olmec to Modern Times

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## **The Maya Culture Of Mesoamerica: Art Works in Time and Space**

Curriculum Unit 99.02.05  
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### **Introduction**

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What are some of the ways that a culture records its history? What messages do we leave to future generations? Where are these messages inscribed or depicted? Who passes this generational knowledge and in what ways is the passing of these messages accomplished? How is that knowledge different from previous cultures in time?

These are some of the questions that I ask myself as I study one of the most important surviving cultures in the Americas: the Maya. As a second grade teacher working in a bilingual classroom in a community where over 55% of the students are Hispanic I find it important to bring new material that will get them excited about learning about our different heritage. Although most of the students come from the Caribbean, especially Puerto Rico, I want my students to explore these questions with me as we study a culture that we have not yet fully comprehended. I want my students to think about how the Maya left a mark in the history of human kind through the use of a written language, architecture, the arts, and the extensive collections of artifacts and how it is that we can leave such a mark in future generations.

One culture that left a clear mark on the history of Mesoamerica and the world is the Maya. The term Mesoamerica was first used by Professor Kirchhoff to refer to those pre-Spanish cultures that had settled in Central America. There are many aspects of Mesoamerican cultures that have survived the ages and have become part of the human heritage that make us who we are. As an example, contrasting the western and eastern hemisphere cultures of antiquity, we can observe that there are more remains of Maya cities than there are of ancient Egypt. Maya cities, traditions, and crafts have survived for over 3,000 years in remote villages. Among their achievements is the development of the concept of zero in mathematics (often depicted in stelae and monuments as a shell or a half flower); the elaboration of an intricate calendar equal in accuracy to our own; the charting of the night skies to predict solar and lunar eclipses and to track the orbits of planets such as Venus. Additionally, the Maya left a prodigious artistic heritage in monuments, sculptures, and other pictorial evidence of their commanding culture.

The Maya culture once extended from the Caribbean to the Pacific; from southern Mexico, to Belize, Guatemala, Honduras, El Salvador and all the way to parts of Costa Rica. Although this region encompassed such climatic, biological and geological diversity, there are two distinct settings that differentiate the Maya people of highlands and lowlands. The Maya highlands by definition include those areas over 1,000 feet and

are interspersed with volcanoes. This area stretches from the southeastern Chiapas region toward the lower part of Central America and is designated by a defined rainy season lasting from May through early November. The farming practices in these areas are very distinct from the lowlands with deep soils that support high concentration of populations and are rich in vegetation. The main farming techniques of cutting patches of the forests allowed the Maya to work the land for up to ten years with a rest period of up to 15 years.

It is, however, the Maya lowlands that are of greater importance for the rising of the Maya civilization. The climate of the lowlands is hot and has an unreliable rainy season from April to October that varies widely from the dry north to the wet south. In the north, the lack of lakes made the dependence on water holes (cenotes) more important and it is among these naturally created reservoirs that the major centers of Maya settlements occurred. In the south, abundant water supplies of rainy season were preserved for the dry season. These areas are rich in fauna and flora. Animals such as deer, turkey, howler monkeys, tapir, and peccary were once abundant. Plants such as the breadnut tree and the avocado, among the many fruit trees, enriched the dietary staples of the Maya even though it was once believed that they relied mainly on intensive maize agriculture.

The Maya people had many commonalities with what seemed to be shared ancestors. They share some of the same cultural beliefs of previous peoples such as the Olmecs, who lived along the Gulf Coast of Mexico, and made them part of their own heritage. These commonalities would explain the similarities that these groups have with one another. Their ancestors came across the Bering land from Siberia to Alaska settling in Mesoamerica more than twelve thousand years ago. As part of the shared ancestral heritage we have remains of religious practice, altars, and early writing, among others.

The Maya were well aware of the depiction of artworks and their use of materials, as is evident by the many vestiges of their culture, and they are evident in the representations on buildings as well as pottery and ornamental pieces that have withstood the passage of time. Their remains depict many stories where we have yet to uncover their hidden meanings. The use of new technologies, new discoveries in hieroglyphic writing and new sites previously unknown have made the Maya a better understood culture. However, the passing of time and the political instability of some of the countries that maintain the remains of such a culture have made very difficult the piecing together of what was once a great culture and the reasons of their decline.

The arts and the written depiction of images and texts passed from one generation to the next are important remnants of a culture. From the thousands of artifacts uncovered in old Maya ruins, and the writing of pictographs and hieroglyphics, we can learn of the historical events that took place and of the prevailing ruling class of the times.

It is unfortunate that much of the written retelling of the Maya history has been lost in time and space due to factors such as the medium they used (codices), climatic factors, in addition to the coming of the Spaniards who destroyed much of what had remained. The Maya wrote many books called codices which they treasured as sacred objects. These books were written on paper made from fig-tree bark and there are only four that have survived. However, of the remains we have, each medium seems to retell different parts of ancient Maya life and thought. Often these retellings are complementary. In other cases they are unique and original. When we look at the hieroglyphics left on monuments, stelae and sculptures, the main concern seems to relate historical and mythological events that took place to support the ruling class. In the pictorial representations of vases, plates, and jars uncovered in tombs and graves, the purpose of the narratives seems to be focused narratives or sometimes aspects of the lives of the well-off.

From the writings that we have been able to decipher we get much of the knowledge about what the Maya thought of the created objects, their names, their uses, and even the names of the people who created them.

The depicted images found in the ceramic images go from delineation of the underworld to the genesis of the ancient Maya as outlined in the Popol Vuh, the Maya creation myth. A particular example of this deciphering process can be seen in the collaboration among Maya experts through the use of computers and new technologies. It has only been recently that some of the major breakthroughs, due to the use of new technologies and the collaborative process among scholars, have made it possible to step forward in the understanding of the many hieroglyphics that make up the Maya heritage left to us in the many ceramic vessels, pyramids, architectural sites as well as sculpture.

## **Purpose and Objectives**

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The purpose of this unit is to bring a different understanding to elementary school children of the significance of Maya art and their traditions as they relate to our daily life. This will be accomplished throughout the study of representative art and artifacts of the Maya culture of the first millennium. For such a purpose I propose to study some of the most representative vases, vessels, sculptures and artistic representations of Maya art as samples of one of the most important cultural centers in the Americas with the goal of better understanding humanity's artistic and human legacy. In the process of meeting this objective I want to directly focus on providing the students with the tools necessary to start seeing these artifacts, and by extension the world around them. For this purpose I will weave in our discussions the most important visual elements of art: position, size, color, shape, line, texture, and density which will allow the students to better appreciate the world around them.

I intend to cover the important factors that need to be present in a culture to be able to flourish and give rise to a cultural heritage that is passed from generation to generation. As part of this study the setting in which the culture rises, the materials they used, the social order in which it takes place, the beliefs and costumes of its people, and the materials and uses they give to their representations become another focus of study.

This unit will be an integrated unit ranging from language arts to social studies. This unit will be centered on district wide goals of literacy and social development through the focused study of above mentioned aspects of the Maya culture. My focus in artifacts that have survived the passing of history, the materials they used, the purposes they gave to such artifacts, and the messages they portrayed will allow my students to look for and to create samples in our time and culture that tell future generations who we are, what is important to us, and the reasons why these artifacts are representative of our own history.

I will describe the rich and ancient traditions by looking at the artistic and cultural heritage of Mesoamerica as represented by model artifacts of the Maya culture that gave way to modern Mexico and surrounding countries. For such a purpose, I will focus on the materials that the Maya used, including the purposes which ascribed them. Thus, the study of the available materials to the Maya represents a geological study of the areas that the Maya settled and the make up of the artifacts that they left. An example of the importance that the available materials had in Maya culture can be seen in their use of flint, a very hard, fine-grained quartz, and obsidian, a volcanic glass the color of dried blood. The Maya fashioned their tools, knives, spatulas, blades, from flint and their weapons in the form of arrow-heads and spear tips from obsidian. Other materials, such as clay and limestone, were also used in the creation of both useful and decorative objects such as vases, vessels, estelae, whistles, and monuments.

The influences that native Maya peoples have had in other cultures such as the United States, as well as in its

own people, will better help my students to understand themselves and other people. Through the study of representative cultural artifacts of the Maya my students will have a better understanding of the importance that the Mexican culture has, including its languages, artistic representations, symbols, images and style of living, and the influence that has had in our modern civilization. The students will make visual and written representations of their lives through the use of the arts to relate current events which they want someone in the future to “read.”

As part of the hands-on component, the students will be able to create their own interpretations of the areas of study. Thus, the students will create a series of sculptures, vases, and glyphs that will be representative art works and that speak of the essence of the lesson. For example, when we study the costumes of the Maya people the students will create a sculpture to reflect some of the facts that we have learned. We will make use of the same materials and methods of creating our art objects as did the early Maya. When we study chocolate, and the importance it had in the Maya culture and its history up to modern times, the students will create a container for storing it where we would depict our own life stories in a similar way to the ones we observed at the art gallery.

As an example, following the Maya pictorial pottery, cylindrical vases were approached by the Maya painter in one of two ways. In the first one, the painter divided the vessel in two: an obverse and a reverse, usually divided by a line of hieroglyphics and with the same imagery in either side; or in a continuous image wrapping around the vessel forcing the viewer to rotate it in order to see the whole picture. This second type of vessel included long hieroglyphic lines of text usually depicting and retelling the occasion why the vessel was created, the purpose it had, to whom it had been offered, and at times it also had the name of its creator.

I feel that there is no substitute to seeing the actual art objects. Therefore, I will be focusing on a few representative objects held in the Yale Art Gallery and the Yale Peabody Museum. Among these objects we will encounter samples of cylindrical vessels that record daily Maya life. A simple lesson on what a museum and its purpose is would precede our visit to the gallery. This will allow the students to start thinking about what is representative of our culture and times, as well as seeing in person the actual Maya objects. However, one of the drawbacks of ancient objects, art collections, and museums in general, is that they are very fragile and so valuable that do not allow the students to touch or get close to the object. Also, objects are normally at the adult’s eye level making it almost impossible for children to appreciate and study in detail. Today’s technology does offer an answer to at least the second problem in that it is possible to “zoom in” to those vases in such a way that much more detail can be shown and observed. At Clinton Avenue school we are lucky to own an LCD projector which allows us to project onto a large screen anything that we can view on the computer screen or a VCR. Therefore, another important resource we will be able to use in the school, via the internet, will be the many one web sites that depict the vessels in a two dimensional way, allowing us to view the whole image. This will provide the students with a complete view of the composition. The museum will provide us with an actual size object while the internet will allow us to explore more closely those objects. An excellent resource for this purpose in studying the Maya vases is that of the Kerr Maya Vase Archives. It can be accessed by World Wide Web. The archives includes over 1,200 vases depicted through the use of peripheral photography (rollout photographs of cylindrical objects) which are grouped by similar characteristics, styles, and elements in the following categories:

- white background with black line painting, black rim
- individually carved
- codex style: light background with dark painting, red rim

incised: fine line detailing

molded: pressed from mold so as to make multiple copies

polychrome: many colors and combinations

This database allows also for keyword searches allowing the viewer to observe the same theme represented in one vase by more than a different scribe making it possible to compare the styles. The above characteristics also will provide the students with a rule to categorize other Maya objects we will study throughout the unit.

One of the most important aspects of viewing art, and this is a skill which at this early age we are continuously working on, is that of making visual observations. This skill carries on to all the areas of the curriculum and we can say that those students that pay close attention to the details, no matter whether it is an animate or inanimate object, a mathematical equation or a piece of art, are able to problem solve more effectively than those who are unable to do so. Even the student who does not write or read will benefit of being able to verbalize those observations placing them at the same level than those who are literate. This unit, therefore, will emphasize the thinking skills necessary for problem solving through the development of observational skills, without the need to read or write the labels that explain what the object is, and will allow all the children to succeed.

In looking either at the actual object or at a picture on the internet of one of these vessels, the children will first describe through visual observations what they see; the composition, color, elements, materials, and finally will hypothesize what the vessel may be and what the intended use was. As an example, the students will look at a vessel with a simple realistic composition such as: K1599 "Two noblemen bring flowers to an ahau" (Davis,1999). Here it is possible to begin by asking the children to describe what they see. How many people are there in the picture? What are they doing? What colors do they see? Is there any writing?, etc., Then, we can click on the picture and have it augmented to get much more detail in the way that it would be difficult to get when observing the vase in person. The children will, in cooperative groups, make a list of all the objects that they could recognize and then compare notes to see what each of them observed. One of the central figures in this vase is that of the scribe. If the children did not recognize the brush on the headpiece, I will bring it to their attention and will ask what is his occupation. This will be the point of departure to talk about painting, writing, etc. We will proceed by looking at other samples of vases, sculptures, etc., that depict the scribe and provide them with some background knowledge of what he did; how at times he was represented by an animal, the hieroglyphics associated with them, etc.

Another advantage of using technology such as the internet is that many of the art pieces are already categorized by topic in such a way that the lead themselves to making observations. One clear example of this is the group of rollout pictures depicting the ball game. The children will be able to easily come up with the essential elements of ball playing by looking at the different vessels that depict the game.

I will add at least one other art object, so as to allow the students to be able to make some simple comparisons regarding differences in materials, purpose, make up, and visual elements . It will allow the

student to synthesize what they have learned and to start making comparisons to other art objects.

## Materials and Social Context

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Among the most important natural resources of the Maya people we encounter construction materials including limestone, obsidian, flint, chert, jade, and volcanic rocks brought from the highlands. Other resources such as salt played an important dietary supplement to the Maya diet. Each of these materials was utilized in the making of the architectural monuments, farm working tools, ornamental artifacts, and in the creation of useful tools to carve the limestone such as in the production of “manos” and “metates” for grinding maize. Other resources such as the tail feathers of the quetzal were of great importance in costume creation for the Maya rulers.

One of the primary and most important samples of Classic Maya pictorial representations is in the form of polychrome ceramics. The ceramic vessels have survived the passing of time due to the use of low fired ceramic techniques and the refuge that the contents received in ceremonial burying grounds where they were found. The paintings in polychrome ceramics give us an incomplete but important view of the artistic traditions, Maya social divisions, and the historical and mythological events that made them possible.

The Maya shared similar traits with other Mesoamerican cultures of the time, which were rare or absent elsewhere in the New World. Among these traits we have the use of hieroglyphic writing, books made from deer skin or tree bark, a permutation calendar, understanding of astronomical events, the ball game, human sacrifices, and a pantheistic religion that included divine deities as well as deities of royal descent (Coe, 1993)

The dependency of native Mesoamerican cultures on maize, beans, chili peppers, and squash, to this day, make up their diet. As we will see, this diet played an important role in where and how these cultures came about.

Because of the deficiency of essential amino acids and niacin in maize, the discovery of the process of its enhancement through the use of mixing it with lime to produce nixtamal would prove to be invaluable since this technique allowed the release of niacin and enhanced the amino acids present in it. This technique made it possible for the Mesoamerica cultures to rise.

The study of the Mesoamerica cultures is divided into periods based on the apex of Maya culture, this being the Classic period (AD 250- AD 900). Consequently, the Preclassic period (2,000 BC - AD 250), otherwise termed Formative period, and Postclassic period (AD 900 - AD 1530), serve as chronological markers of the events that took place. In creating a timeline with the children labels will be used to place the objects of study in the context of their lives. As part of this timeline we will include the birth of Christ, the founding of the city of New Haven, the year the students were born, and the year that the children entered the grade level in which this unit is being implemented.

## Seeing and viewing the world around us

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The content included in this unit regarding Maya culture is a necessary and integral component of the unit; however I feel that this unit will meet another very important purpose: that of teaching students to see art as active viewers looking at the components and visual elements of the objects which we will explore .

Art is a way of knowing about the outside world through reaching into our own experiences and as a way out between reality and ourselves. Unlike language, which is read from left to right, sequential, and which depends upon signs to communicate and express, the visual arts are spatial, non directional and we first see it as a whole. The various components are presented as a whole. It is only after we perceive the total configuration that we begin to experience the individual elements and the relation to each other and to the whole. This experience is, however, more than the individual parts. It is in the interrelation and interdependent function among the different parts, as well as the individual parts, that make us perceive the art object.

In describing objects through language I have used to this date the characteristics of a series of manipulatives that probably every teacher in the elementary classroom has: attribute blocks. These blocks consist of five shapes (triangle, square, rectangle, circle and hexagon); three colors (red, blue, yellow); two sizes (large, small); and two thickness (thin, thick). These blocks provide the students with a very concrete vocabulary and a model to describe and categorize most of the objects that surround us. However, the attributes are limited in scope and are not entirely useful in describing and viewing art objects because they focus on the parts and not the whole. I want to be able to expand this limited formula and make use of a broader model to see everything that surrounds us.

Weismann describes three different kinds of seeing: operational, associational, and pure (Weismann, p.18). In the “operational” way of seeing there are no remembered feelings, ideas concerning the object, and leave the object unexplored. An example of this type of seeing is crossing the street looking at the cars going by where your eye sees but does not perceive any characteristics related to the object. In the “associational” type of seeing, a chain of reactions is unleashed when the viewer associates the object with a word. To follow the example of the cars going by, the object is related to the word “car” and the viewer in his or her mind might think how once got close to been hit by one and how he heard the breaks screech and later tried calming down by sitting on the curve. In the “pure” mode of seeing we are interested in the “how” the object is; in the specific qualities of the object. This mode of viewing is a learning discovery process through the study of the qualities, characteristics, and attributes of the object,

When we look at the world around we respond to the visual elements of: position, size, color, shape, line, texture, and density. We perceive and are affected by the position of things in relation to ourselves. The relationship between things, which can be large, small, or equal in size, affects our visual awareness. One of the most significant visual elements of an object is that of color and it is the most difficult to deal with in words. Color has two attributes, value and intensity. The intensity of color refers as the brilliance of color. The hue or chrome, refers to how much lightness (tint) or darkness (shade), on an ideal scale ranging from between white and black.

The shape of an object or geometrical figure refers to the “external form or contour”(Weismann, p.26). The endless diversity of shapes is perceived in two or three dimensions. We refer to a three-dimensional shape as an object that occupies more than one plane and a two-dimensional shape as being located in a single plane. In the use of three-dimensional shapes we talk of “positive” and “negative” shapes. The former is the shape

composed of the material substance (clay, limestone, marble, etc.) and the later refers to the non material shapes (the inside of a vase). One of the most important visual elements is that of line referring to the “threadlike mark produced with a pen, a pencil fine brush, or anyone of a variety of engraving and marking tools.”(Weismann, p.31).

In discussing texture, as a visual element, the reference is to how light shows in the surface of things and it is therefore texture of surfaces. It is the degree of smoothness and roughness. It comes to us via our vision and our touch. The texture can also be implied (made to look like cloth, as an example) versus the actual texture (clay). The final of the visual elements, density, is the “degree of occupancy of the format”. These elements do not exist in isolation from each other, but in an endless combination making an infinite number of configurations possible.

In looking at the Maya works that we will be studying, I will incorporate the above elements in a way that the children will include in their oral and written descriptions the seven elements of position, size, color, shape, line, texture, and density to begin to see those works in a “pure” manner. All of the Maya artifacts that will be study will belong to one of the following types: altar, ball-court sculpture, column, cornice, fragment, hieroglyphic stairway or step, jamb, lintel, monument, mural painting, panel, pilaster or pier, stela, tablet, throne, or zoomorph.

## Methods

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This unit is written for children in the elementary classroom. I plan to use as a model to write the lessons the one adopted by Library Power for the City of New Haven which is based on the work by Mike Hibard from District 15, in Southbury, Connecticut: a performance base learning assessment task model. I follow the universal planning tool that uses content standards as the core of the performance task to be performed and where the assessments are built throughout the completion of the task and as part of the learning process. The list of all the content standards in the areas of language and visual arts, mathematics, social studies, and library media and technology targeted are refered by number in Appendix A.

This unit is being written with the content standards for the visual and language arts, social studies and social development which are content specific to the elementary grades (Kindergarten to grade 4). For example, some of the tasks the child should be able to perform are: create an artwork using diverse mediums and techniques; design a physical structure; identify mountains, lakes and rivers; retell personal stories through the use of the writing process. The students will make special projects requiring a hands-on art project and an oral presentation. Because the main topic is art, the social development standards will be worked in through the use of how to provide feedback, expressing feelings through the arts, etc.

The work habits that the unit will focus on will be attending to details and accuracy. This will be accomplished through questioning techniques, retellings, oral and written reports, as well as through the use of games. The thinking skills that will be focused on the area of initial understanding will be to sequence, and list different passages of their personal stories which will end being depicted through the use of the arts.



## Classroom Activities

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The following are some of the activities in which the students will participate to meet the goals and objectives of this unit. The activities are written in chronological order and are based, as a point of departure, on the legend "The boy who cried tears of Jade" (Madriral, 1997). On the first day that the unit is started I will read aloud the story and introduce some of the background and vocabulary which we will be using. Our journey will begin by locating on a map the setting in which the legend takes place: Tikal, Guatemala. It will be necessary to show a map of the world, to find where we are in relation to Mesoamerica, the part of the world where we will be traveling to as we study the Maya and we will zoom in to that part of the world where the story takes place.

This story is filled with many elements of Maya traditions and its history. It goes to explain how the gods made man from maize (introduce the hieroglyphic for maize) and how the first medicine woman originated when Ixchel, the goddess of the moon and medicine, came down to earth and took the first woman to the sky to teach her how to cure its people. The protagonist of the story, Mayel, was born under the Ixchel sign and when she turns twelve joins her grandmother to become a medicine woman. Her grandmother, Itza, makes her a figurine of clay and places two chips of jade as eyes. Then, she bakes it by placing it on an open fire. Mayel names the figurine Balam, "sacred jaguar", when it comes to life after she leaves him outside on a rainy night. The story describes how when the boy discovers pain and begins to cry, his tears turn into jade. The people of that time sought jade to offer to the mighty rulers and the gods so Itza makes a necklace, wraps it on maize husks, and when the time comes to give the offerings places it in the ruler traders hands. The story describes the types of offerings that people made to the rulers: flowers, medicinal herbs and teas, seeds, fine weavings and feathers. The rulers, in their greed, search for the medicine woman and emprison Balam to make him give more jewels of jade. Itza, prays to the nine lords of the night to help rescue Balam who appear in their dreams and ask her to create a potion that Balam is to drink when the moon is full. After he takes the potion a loud roar is heard and when the captors open the cell, where Balam, is held to see what is was, they encounter an enormous jaguar with eyes as green as the forest green. Since that time Itza and Mayel here the roar of the forest lord of the night, the jaguar, in the safety of the forest, its new domain.

Once I read the story we will talk about it and about the accomplishments of the Maya people. I will discuss how they used a different type of writing, hieroglyphics, that has been handed to us via their depictions and carvings in objects such as monuments, vases, stelae, and other artifacts. This background knowledge will be necessary to provide the students with some of the informaton that will allow the children to begin to understand Maya culture. I will introduce what a timeline is and place in it some of the dates previously discussed: birth of Christ, the founding of the city of New Haven, the year the students were born, and the year that the children entered the grade level in which this unit is being implemented. Following the placement of these events I will place lines that represent the preclassic period (2000 BC- 250 AD), classic period (250-900), and postclassic period (950-1500) as time periods that divide the significant events that occurred in the Maya civilization. At this point, I will discuss how Maya people are the most numerous group of native Americans that still maintain alive much of their heritage and culture.

I will follow by showing the students a few pictures of some of the objects where the writing is depicted and will hand out a few hieroglyphics that directly relate to the story. For this purpose I would introduce balam (jaguar), yax (green/blue ), na (house), chan (sky), k'in (sun), and witz (mountain). I will also put them on the overhead projector and we will begin to describe them. I will let the students know that we will be learning to write our birthdates using hieroglyphics, how we will be studying and creating different types of vases using

clay where we will depict some part of our lives, how we will create a mural enlarging a hieroglyphic (see appendix C), and we will create a replica of an ancient monument using the milk cartons from our breakfast and lunches as we study the Maya.

Map reading. Students locate in a map of the Americas the areas of Maya influence. Understand and are able to differentiate between land mass, rivers, lakes, and oceans. (see performance task 1.)

Symbolic writing. Students read and make use of five of the most common hieroglyphics relating to numbers (specially the zero), cardinal points and colors associated with them, and animals such as the jaguar. The students will use these to sort, create repetitive and growing patterns, counting, and make graphs (see performance task 2.)

Mosaics and murals. Students study different murals in architectural monuments, mosaics, and pictorial representations in vessels to create their own historical depiction of personal experiences for future generations (see performance task 3.)

Building materials. Students experiment with different building and construction materials such as various clays, soapstone (as a jade and limestone substitutes), and wood to create art works (see performance task 4.)

Building techniques. Students learn about different painting, hand building, and carving techniques similar to the ones used by Maya scribes and artists to create works of art using different materials (See performance task 5.)

Story telling. Students write in their own words narratives that relate events in their lives as a precursor to artistic representations of such events (see performance task 6.)

Making a headress piece for Halloween parade celebration.

Making chocolate.

## **Universal Planning Tool**

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Title: Maya areas of influence

Standards: Social Studies (4.1, 4.2); Language Arts (5.2); Library media and technology (2.3)

Question connecting content to purpose: Why did the Maya culture rise in Mesoamerica and not anywhere else?

Work Habits: Attending to details and accuracy

Thinking skills: locate in a map of the Americas the areas of Maya influence. Understand and differentiate between land mass, rivers, lakes, and oceans.

Format of products and/or performance(s): Create a map.

Audience: Another adult in the school

Role of learner in task: Cartographer

Instructional arrangement: Small cooperative groups

Technology or resources suggested: Galvin, Irene Flum (1997). *The Ancient Maya*. Tarrytown, New York, Benchmark Books.

Bickman, Connie (1994). *Children of Mexico*. Edina, Minnesota, Abdo and Daughters.

Garrett, Wilbur E. (1988). "The Peopling of the Earth." *National Geographic Society* 174, No. 4(October 1988): 434-476.

Shupe, John F. (September, 1994). *A traveler's map of Mexico*. Washington, D.C., National Geographic Society.

Garver, John B. (October, 1989). *Land of the Maya. A traveler's map*. Washington, D.C., National Geographic Society.

## Performance Task 1

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Title: Maya areas of influence

Background: The Americas were inhabited thousands of years ago by groups of people who came across the Bering land from Siberia to Alaska, to the rest of the continent. These groups of people settled giving rise to the different civilizations such as the native Americans people of North, Central, and South America. Different civilizations raised and fell giving way and adding to the next culture. The Maya people settled and flourished in an area called Mesoamerica.

Task: To create a map of Mesoamerica that includes the location of Tikal and a legend that describes rivers, lakes, and oceans through the use of color.

Audience: Classmates

Purpose: To inform.

Procedure:

Look at the map of the world and locate the United States in North America.

Locate South America and write the name of three of the countries.

Locate Central America and write the name of three of the countries.

Find two of the resources listed above and compare to the map you are using.

Using the overhead transparency, draw a star where Tikal is located.

Using color pencils: color the oceans, lakes, and rivers blue, name them; color the mountains brown

Title your map

Create a legend that shows the different parts of the map (cities, lakes, rivers, oceans, mountain ranges).

Extensions: As the unit progresses and new sites are discussed the students add the locations to it.

## Performance Task 2

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Title: Maya hieroglyphics

Background: The Maya were a rich civilization that originated in the Central American region. The Mayan culture overextended in its origin from the Caribbean to the Pacific; from Mexico, to Belize, Guatemala, Honduras, El Salvador to parts of Costa Rica. They created a complex writing system through the use of pictures called hieroglyphics. We have already seen the hieroglyphics to represent animals, places, and certain elements such as fire, sky, sun, water, mountain, and stone.

Task: You will learn the hieroglyphics associated with the cardinal points (North, South, East, and West) as well as the colors that go with each of them.

Purpose: To learn the hieroglyphics of the cardinal points and the colors associated with each of them by playing a game and creating a pattern.

Procedure: Using a compass find where North lays.

Write the name of the cardinal point and glue the hieroglyphic.

Repeat with the rest of the cardinal points (South, East, and West).

Glue the hieroglyphic of the color associated with it under each of the cardinal points and color with a crayon.

Audience: Classmates and teacher

Assessment: See Appendix B for sample Assessment List.

Extensions: Create a pattern using 2 of the cardinal point hieroglyphics following the pattern:

ABABAB

AABAABAAB

ABBABBABB

Create another pattern using the color hieroglyphics associated with the pattern that you just created.

increase the difficulty of the pattern using 3 or 4 hieroglyphics.

Create a growing pattern (ABAABAAAABAAAAB)

Create your own hieroglyphics and make a pattern.

Create a mask using one of the hieroglyphics.

## Performance Task 3

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Title: Your Mayan Date

Background: The Maya wrote the events that were taking place in their history through the use of hieroglyphics. They counted dates by the number of days that had passed from the beginning of times which according to them it was on 3,114 BC. You will run the program and come up with your own which you will make use of it to add to the other activities that will take place throughout the rest of the unit.

Task: You will work with another partner to print from the computer the hieroglyphics associated with the event of your birth.

Purpose: To come up with the hieroglyphics related to your birth date.

Procedure: First, write the day of the month when you were born.

After, write the name of the month when you were born.

Then, write the name of the year in which you were born.

Later, go to the library and using Netscape, select the bookmark "Your Mayan date" and type the month, day, and year when you were born.

Finally, click on the "submit" button and when your Mayan date appears on the screen print a copy of it.

Assessment: See Appendix B for sample Assessment List..

Extensions: The students will be able to list as many dates as they wish to add to the different vases and vessels which will be created in the following activities. The dates can be increased in size to color using fabric paints that later can be affixed to any material such as a t-shirt or a hat.

## Performance Task 4

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Title: Making a Vase

Background: We have been looking and studying some representative Maya artifacts that have survived the passing of time. Among these artifacts we have seen many samples of vessels with different shapes and sizes and we have discussed how they were made, the materials, and some of their possible uses.

Task: You will create your own vessel that describes a significant event, or events, of your life for future generations to learn about you. You have to include some writing as well as a picture that talks about you.

Audience: Classmates

Purpose: To describe significant life events.

Procedure: Think about something that tells other people something about you. This maybe something you like alot, you are very good at, or tells other people about you. Think of the purpose of the vessel or vase. What is it going to be used for? Write it down.

Draw a picture of the shape that is going to have.

What are you going to include in the outside of the vessel that says something about you? Write it down.

Choose from the different hieroglyphics that we have study those that you are going to add. Where do they go in the vessel?

Write a few sentences using the previous questions explaining your project.

Draw in a piece of paper what the object is going to look like at the end.

Begin creating your object using coils with the help of your sketch.

## Performance Task 5

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Title: Making a physical structure

Standards: Mathematics (8.3)

Question connecting content to purpose: Why did the Maya use limestone to build their structures?

Audience: Other students at the school

Role of learner in task: Arquitect

Background: All over Mesoamerica there are many arquitectural remains of temples. pyramids, stelae, and other structures that are the remnants of Maya history. These stuctures have survived the passing of time because of the materials that were used in their construction. We are still learning what these purposes were and everyday that goes by we learn some more about the civilization who built them.

Task: You are going to design and build a physical structure that has some of the elements that are characteristic of the Maya culture. Think about the different monuments that we have studied, and create your own using milk cartons as a building block. You will later draw and color it with those elements that should be included to tell us something about the Maya.

Procedure: Think of the purpose of the physical structure. What is it going to be used for? Write it down.

Draw a picture of the shape that is going to have.

What are you going to include in the outside? Why? Write it down.

Write a few sentences using the previous questions explaining your project.

Begin creating your structure using 1 pint milk containers following the sketch you drew.

## **Bibliography**

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Mary E. Miller, Karl Taube (1993). *The gods and symbols of ancient Mexico and the Maya: an illustrated dictionary of Mesoamerican religion*. London, Thames and Hudson.

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Morley, Sylvanus Griswold (1975). *An Introduction to the Study of Maya Hieroglyphs*. New York, NY, Dover Publications, Inc.

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Turner, Wilson G. (1980). *Maya Design Coloring Book*. New York, Dover Publications, Inc.

Weisman, Donald L. (1970). *The visual arts as human experience*. Englewood Cliffs, N.J., Prentice-Hall.

## **Student Resources**

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Bickman, Connie (1994). *Children of Mexico*. Edina, Minnesota, Abdo and Daughters.

An easy reader book for the beginner reader. Discusses social life and costumes of Mexico. It includes a map, table of contents, an index, and beautiful up to date photographs depicting the day to day life of children in Mexico.

Cameron, Ann (1996). *The Most Beautiful Place in the World*, Random House.

This book explores the life of Juan, a seven-year old boy from Guatemala, who is abandoned by both of his parents and goes to live with his grandmother. The book weaves throughout the story Maya beliefs and traditions. An excellent read aloud book that explores real life issues of rejection and abandonment.

Galvin, Irene Flum (1997). *The Ancient Maya*. Tarrytown, New York, Benchmark Books.

A good children reference book on the Maya. It discusses the history, beliefs, and legacy of the Maya with beautiful color photographs. Includes a table of contents, index and a list of bibliographical references.

Madrigal, Antonio Hernández (1997). *The Boy Who Cried Tears Of Jade*. The Eagle and the Rainbow. Timeless Tales from México. Golden, Colorado, Fulcrum Publishing: 21-33.

This is the story of Mayel whose grandmother makes her a clay doll who comes alive, Itza, and has the gift that his tears turn into beads of jade. An excellent read aloud story that incorporates many Mayan traditions. A must read book.

McCunney, Michelle (1997). "Mario's Mayan Journey.". Greenvale, NY, Mondo Publishing: 32.

Mario is awoken by the stars and meets two Mayan friends with whom they explore the land of the ancient Maya. It includes full color pictures and appropriate for the emergent and fluent reader.

Palacios, Argentina (1993). *The Hummingbird King: A Guatemalan Legend*, Troll Associates.

A young chief who is protected by the hummingbirds turns into a quetzal after he is killed by a jealous uncle. Recommended for the fluent reader or as a read aloud book. It has beautiful color illustrations that will captivate the reader and provide a good background knowledge of Maya culture.

Sanchez, Enrique O. (1995). *Abuela's weave*, Lee and Low Books.

A grandmother teaches a young girl how to weave. It is an excellent book in that it shows how Maya traditions and the art of weaving are kept alive in this day and age. Beautiful colorful pictures. Recommended for the fluent reader.

Turner, Wilson G. (1980). *Maya Design Coloring Book*. New York, Dover Publications, Inc.

A coloring book which includes simple captions under each of the black and white illustrations on a diversity of artifacts from funerary bowls and hieroglyphics to columns and stelae.

Wisniewski, David (1995). *Rain Player*, Clarion Books.

This story of a young Mayan ball player who challenges the Rain God to a ball game. Beautifully illustrated through colorful three dimensional collages it provides the reader with good background knowledge on Maya beliefs and culture. Good as a read aloud or for the emergent and fluent reader.

## Electronic Resources

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There is an immense wealth of electronic resources on the World Wide Web regarding Maya culture. The following list consists of those resources which I found most useful in implementing the goals and objectives of this unit.

"Curriculum Framework Sections", New Haven Public Schools, <http://www.nhps.net/main/curriculum/framework/documents.htm>, (9 September, 1998), Includes curriculum frameworks and performance standards for all the curricular areas in the New Haven Public Schools. They can be downloaded in Microsoft Word format and are broken down by elementary, middle and high school levels.

"Maya", Lords of the Earth, <http://www.realtime.net/maya/index.html>, (1 July, 1999), A Web site, which deals with the



Archeology and Anthropology of the Americas. The link to Maya resources includes very curious information. The article on Roof Eyes compares the use of the eyes in architecture on diverse cultures. "The Maya Vase Database", Foundation for the Advancement of Mesoamerican Studies, Inc., [http://www.famsi.org/rollout\\_photography.htm](http://www.famsi.org/rollout_photography.htm), (7 July, 199), This is the gateway to Justin Kerr's rollout picture database of more than 1200 Maya vases. The database is searchable by keyword, topic, or element.

Alvarado, Raphael C., "The Glyph Catalog", MED: Mayan Epigraphic Database Project, <http://jefferson.village.virginia.edu/med/home.html>, (4 July, 1999), Consists of a relational database of glyphs, images, phonetic values, and semantic values. Bürglin, Thomas, "Precolumbian Link Page", Mesoamerican Archaeology WWW Page, <http://copan.bioz.unibas.ch/meso.html#pic>, (29 June, 199), You will find collected scholarly files, links, resources, software and reports relevant or interesting to Mesoamerican and Pre-Columbian Archaeology. A must see with a ton of links ! Davies, Stevan, Maya Art Pages, <http://home.epix.net/~miser17/art.html>, ((July 7, 1999)), Includes some of the finest painting and sculpture produced by the Mayan civilization during its classic period (400-800 A.D.). The paintings include 130 roll-out photographs of Maya Vases. The sculptures are presented through a photographic journey of the classic Mayan site of Copan, located in Honduras. Davies, Stevan, Mayan Masterpieces of the Classic Period, <http://www.miseri.edu/users/davies/maya/masters.htm>, (9 July, 1999), Includes six of the masterpieces of Maya vase painting in one page. Excellent tool to compare the diverse styles and designs of Maya painting. Giese, Paula, "Jaguar Takes Little Skunk Hunting", Maya Culture -- Traditional Storyteller's Tales, Maya Village Life Now; Sounds, phrases, numbers, <http://indy4.fdl.cc.mn.us/~isk/maya/mayastor.html>, (25 May, 1999), This collection is 41 tales, fables, myths and legends of the Q'anjob'al-speaking people of the Cuchumat'n Mountains of Guatemala. There are animal stories, strange encounters with Lords of the Hill, tales of deceit and wonder, and origin legends. Great for read aloud. McNelly, Nancy, "Calendar Notes", Rabbit in the Moon, <http://www.halfmoon.org/index.html>, (2 July, 1998), This page has an excellent description of how to create your own stela and how to go about reading it. The explanations are very clear and concise. McNelly, Nancy, "Mayan Date Calculator", Rabbit in the Moon, <http://www.halfmoon.org/index.html>, (2 July, 1998), This calculator will give a long count, calendar round, and night god for any date from 1903 onwards. Services, Technology and Information Educational, "Lesson Plans/Classroom Activities", MayaQuest Teacher to Teacher Center, <http://www.ties.k12.mn.us/~mayatch/mq96/welcome.html>, (5 July, 1999), Includes an immense wealth of resources including lesson plans for all curriculum areas. Although it is part of the MayaQuest '96 project, many of the links are active and with very good lesson plan ideas.

## Appendix A - Curriculum Standards

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### Math

Performance Standard 1.2

Performance Standard 2.1(a,b,c,e)

Performance Standard 3.4

Performance Standard 6.5

Performance Standard 8.3

### Language Arts

#### Reading

Performance Standard 1.3

Curriculum Unit 99.02.05

Performance Standard 1.6

**Writing**

Performance Standard 2.2

**Speaking**

Performance Standard 3.1

Performance Standard 3.2

Performance Standard 3.3

Viewing:

Performance Standard 5.1

Performance Standard 5.2

**Social Studies**

Performance Standard 1.3

Performance Standard 3.1

Performance Standard 3.2

Performance Standard 4.1

Performance Standard 4.2

Performance Standard 5.3

**Library Media and technology**

Performance Standard 1.1

Performance Standard 1.2

Performance Standard 2.1

Performance Standard 2.2

Performance Standard 2.3

Performance Standard 2.5

## Appendix B - Assessment Lists

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### CLASSROOM ASSESSMENT LIST

#### MAYA hieroglyphics - ELEMENTARY SCHOOL

##### 1. CARDINAL POINTS

T: - I have found all the cardinal points using the compass.

O: - I have found some of the cardinal points using the compass.

. W: - I haven't found any of the cardinal points using the compass.

##### 2. PATTERN USING CARDINAL POINTS

T: - I have created a pattern using the hieroglyphics for 2 of the cardinal points.

O: - I have created part of a pattern using the hieroglyphics for 2 of the cardinal points.

W: - I have not created a pattern using the hieroglyphics for 2 of the cardinal points.

##### 3. PATTERN USING COLORS

T: - I have created a pattern using the hieroglyphics for 2 of the colors.

O: - I have created part of a pattern using the hieroglyphics for 2 of the colors.

W: - I have not created a pattern using the hieroglyphics for 2 of the colors.

Did I do my best work?

Terrific OK Needs Work

### CLASSROOM ASSESSMENT LIST

#### MAYA DATES - ELEMENTARY SCHOOL

##### 1. Data

T: - I found the day, month, and year I was born.

O: - I found some of the information about my birthday.

. W: - I don't know the day, month, and year I was born..

##### 2. Netscape

T: - I was able to open Netscape and know where to find the bookmarks.

O: - I opened Netscape but did not find the bookmarks.

W: - I was unable to open.

### 3. Printing

T: - I printed the glyphs associated with my birthdate.

O: - I entered the information but could not print.

W: - I have not entered the information or printed the glyphs.

Did I do my best work?

Terrific OK Needs Work

### Appendix C - Graphics

These hieroglyphics are drawn by myself based on the pictures of David Stuart.

bih (road)chan (sky)tun (stone)kah (town, area)ha' (water) k'in (sun)witz (mountain)tok (flint)nal (place)bak (heron)chan (snake)k'uk' (quetzal)sotz' (bat)balam (Jaguar)bak (heron) k'ak' (fire)xaman (north)lak'in (east)nohol? (south)chik'in (west) k'an (yellow)yax (green,blue)sak (white)ek' (black)chak (red) ©© 1999 P. Mendia-Landa Model for the creation of a Mosaic

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