Dancing in Time: Bailando al compás del calendario Maya
Lynn Fernandez

Table of Contents

Lesson Plans
Methods of Assessment
List of Resources and References
PowerPoint Notes
PowerPoint Image Credits

Separate Documents

Student Notebook (handout)
PPT 1 Intro
PPT 2 Numbers
PPT 3 Calendar Round
PPT 4 Agriculture
PPT 5 Cosmovision
PPT 6 Art
PPT 7 Calendar
PPT 8 History
PPT 9 Cosmic Time
Dancing in Time  
Bailando al compás del calendario Maya  

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Grades 10-11  

INTRODUCTION  
The ancient Maya were fascinated with time; it permeated every aspect of their lives. This lesson explores Maya civilization through the lens of their concept of time – cyclical time, linear time and cosmic time. The lesson itself is a cycle, discussing and then returning to several topics in turn, viewing each one from a different perspective each time.  

Number of lessons in the unit: 7  

Time frame to allow for unit: Approximately twelve 50-minute class periods  

Unit Teaching Objectives:  
Students will be able to answer the Essential Questions via class discussion, research and presentations.  

Unit Essential Questions:  
1. How did the Maya perceive and portray time?  
2. Why were the Maya so fascinated with time, and how did a concern with time permeate every aspect of their lives?  
3. How is it similar and how is it different from your own perception of time?  
4. How does this relate to us and why is it important?  

Prior to Teaching This Lesson  
Students will research and prepare short presentations, either individually or in pairs, on various aspects of Maya life and thought. (see detailed description of requirements and resources). The presentations could be delivered live in the classroom, or prepared on Voicethread.com, a presentation vehicle similar to PowerPoint that allows collaboration, viewer participation and voiceovers of slides.  

1. Prepare a wiki on wikispaces.com containing lists and links to appropriate books, articles, websites and images to guide their research.  
2. Giving the students adequate lead time, assign the presentations and prepare a calendar to indicate which day each presentation is due based on the lesson plan.  
3. Prepare a collection of images from the Powerpoints on Pinterest.com that students will refer to throughout the unit to compare, analyze and interpret in light of what they have learned about the Maya world view. Most of the images will be studied, compared and analyzed again and again as students gain a deeper understanding of the Maya notion of time.
UNIT 1: CYCLICAL TIME

Lesson 1: Cyclical Time and the Maya Calendar

Teaching Objectives for Unit 1 Lesson 1:
Students will be able to answer the Essential Questions via class discussion, research and presentations.

Essential Questions for Unit 1 Lesson 1:
1. Who are the Maya and why do we study them?
2. How does the Maya system of writing numbers work?
3. What is the nature of cyclical time?
4. How did the ancient Maya record cyclical time?

1. Lesson 1 Activity 1: Who are the Maya and why do we study them? (15 minutes)
[PowerPoint 1 Intro, CD of jungle sounds, Maya Student Notebooks]
   a. Put on a CD of jungle sounds. Show PowerPoint 1 (Intro) of photos of the jungle to orient students and give them a feel for the climate and geography of the Maya region.
   b. Give students a few minutes in small groups to write down in their notebooks as many reasons as they can think of why it is important to study Mesoamerica in general and the Maya in particular. Discuss their reasons as a class. Some ideas: Understanding other cultures is important in today’s global world; The Maya are significant from a historical perspective as one of five nuclear areas of the world, the others being Egypt, Mesopotamia, the Indus Valley, China. (O’Neil); The ability to view things from multiple points of view is important (your college professors will expect this); Mesoamerican contributions to the world affect your life in a very immediate and profound way.
   c. Explain that the Maya were fascinated with time; time permeated every aspect of their lives. In this curricular unit we will look at the Maya through the lens of their concept of time.

2. Lesson 1 Activity 2: Numbers (30 minutes)
[PowerPoint 2 Numbers, Maya Student Notebooks]
   a. Discuss with students some of the reasons why we need numbers (counting things, weighing things, calculating things, showing relationships, passage of time). Have them jot these down in their notebooks.
   b. Give students a few minutes in small groups or individually to list in their notebooks as many ways they can think of that we use to write numbers. Call on groups to share. Are these all base 10 systems? Do they all rely on relative placement to determine value?
   c. Use PowerPoint 2 (Numbers) to explain how to read Mayan numbers. Students should take notes in their Notebooks.
   d. Discuss how this system of writing numbers is similar to our system (place system determines value- 1’s, 10’s, 100’s, etc.), and how it is different (base 20 instead of base 10; uses 3 symbols – dot, bar, zero - instead of 10 symbols – 1, 2, 3, 4, 5, 6, 7, 8, 9, 0). Students should jot down ideas in their Notebooks.
3. **Lesson 1 Activity 3: The Calendar Round** *(30 minutes)*
   [PowerPoint 3 Calendar Round, Maya Student Notebooks]
   
   a. Discuss with students their ideas about the nature of time.
      i. Do you wear a watch? How many times a day do you look at a clock? How important is time to you? Why is it important to you? Are there consequences of not paying attention to time? What are they?
      
   b. Use PowerPoint 3 (Calendar Round) to explain the Maya Tzolk’in calendar, or sacred calendar of 260 days
      i. The number 13 has significance for the Maya – it is one of the numbers upon which their sacred calendar is based.
   
   c. Use PowerPoint to explain the Maya Haab’ calendar, or solar calendar of 365 days
      i. 5 leftover days at the end of the year are days of great anxiety – days of chaos
      ii. The intersection of these calendars is called the calendar round (la rueda calendárica)
   
   d. Have students watch the following youtube videos for homework. Assign them to take notes or write one to three good questions in their Notebooks about the videos. (See Notebook for links)

4. **Lesson 1 Activity 4: Looking at Images** *(10-15 Minutes)*
   
   a. Have students look at and discuss the images you have assembled on pinterest.com, comparing, analyzing and interpreting these images in light of what they have learned in this lesson.

**Lesson 2: World View and Ritual in Cyclical Time**

**Teaching Objectives for Unit 1 Lesson 2:**
*Students will be able to answer the Essential Questions via class discussion, research and presentations.*

**Essential Questions for Unit 1 Lesson 2:**

1. How were the cycles of time important and relevant to the Maya on a most basic, life or death level?
2. How did the Maya view the creation of man and the nature of the cosmos?
3. How and why did the Maya need to interact with the cosmos as it relates to cyclical time?

1. **Lesson 2 Activity 1: Agriculture and Indigenous Foods** *(60 minutes)*

   [PowerPoint 4 Agriculture, Maya Student Notebooks]

   a. Advance preparation: Give students a few minutes to list 13 of their favorite foods in their Notebooks (I have chosen the number 13 because it is significant to the Maya calendar and world view). They should ignore for the time being the column that says ¿Comida indígena? 
   b. Student Presentations (see Guidelines for Presentations)
      i. Explain the rhythm of the seasonal cycles in the tropics
      ii. What were the agricultural practices of the Maya?
      iii. What was the most important food for the Maya?
      iv. What is the Popol Vuh? How does it explain the creation of human beings?
      v. Bees (interesting but optional)
      vi. Chocolate
   c. Use PowerPoint 4 (Agriculture) to explain foods that were indigenous to the Americas and their importance to Maya culture. Students should do a small drawing of one of the indigenous foods in each square of the grid in their Notebooks.
   d. Have students go back to their list of favorite foods and check off which ones contain foods that are native to the Americas in the column ¿Comida indígena? 
   e. Have students reflect in their Notebooks: How was the calendar (passage of time) relevant on a most basic level; why was it of vital, life and death importance? (Success of agricultural cycles determined whether communities had enough food; it was vitally important to do everything they could to sustain these cycles.)
   f. Bring in (or have students bring in) Mexican-style chocolate for the students to sample. 
   g. Optional Lotería game: Use the grid in their notebooks where they have done drawings of indigenous foods. Divide the class into 16 groups, pairs or individuals; assign each group one of the items. They must come up with a riddle, a rhyme, a rap or some other clever clue to their item. These will be used to play Lotería (similar to Bingo) on the grid. Students will have to understand the clue in order to be able to mark their square when it is called.

2. **Lesson 2 Activity 2: Cosmovision, Ritual and Cyclical Time** *(60 minutes)* 

   [PowerPoint 5 Cosmovision, Maya Student Notebooks]

   a. Student Presentations
      i. Explain the Maya concept of the sky level of cosmos
      ii. Explain the Maya concept of the earth level of cosmos
      iii. Explain the Maya concept of the underworld
      iv. Importance of Jaguar
      v. What was the role of the Kings in Maya society?
      vi. What was the role of the shamans?
vii. How did they get captives for sacrifice and who were the most desirable captives?

b. Discuss the following and have students note ideas in their notebooks: How is this world view similar to ours? How is it different?

c. Show PowerPoint 5 (Cosmovision): Rituals were necessary to keep the cycles going; cyclical time requires sacrifice to continue. Sacrifice could be human victims, autosacrifice (bloodletting). Rituals could also be an offering of flowers. Have students take notes in their Notebooks. (See notes on PowerPoint 5 for further information.)

3. Lesson 2 Activity 3: Looking at Images (10 minutes)

b. Have students look at and discuss the images you have assembled on pinterest.com, comparing, analyzing and interpreting these images in light of what they have learned in this lesson.

Lesson 3: Artistic Expression and Cyclical Time

Teaching Objectives for Unit 1 Lesson 3:
Students will be able to answer the Essential Questions via class discussion, research and presentations.

Essential Questions for Unit 1 Lesson 3:
1. What can we learn about the Maya obsession with cyclical time from examples of their artistic expression: writing, art and architecture?
2. How did the Maya acquire their knowledge of cyclical time in the first place?

1. Lesson 3 Activity 1: Writing (30 minutes)
[Maya Student Notebooks]

a. Discuss with students how we use writing. Have them jot down ideas in their Notebooks.

b. Student Presentations
   i. What kind of writing did the Maya use?
   ii. What is the Dresden Codex? What kind of information does it give?

c. Have students recap the information on the codices from the youtube videos they have watched for homework. They should make notes in their Notebooks.

2. Lesson 3 Activity 2: Architecture (20 minutes)
[PowerPoint 6 Art, Maya Student Notebooks]

a. Use PowerPoint 6 (Art) to talk about how Maya writing and architecture reflects their preoccupation with cyclical time. Recap the youtube videos the students have already watched. Have students make notes in their Notebooks.

3. Lesson 3 Activity 3: Looking at Images (10 minutes)
UNIT 2: LINEAR TIME

Lesson 1: Linear Time and the Maya Calendar

**Teaching Objectives for Unit 2 Lesson 1:**
Students will be able to answer the Essential Questions via class discussion, research and presentations.

**Essential Questions for Unit 2 Lesson 1:**
1. What is the nature of linear time?
2. How did the Maya mark linear time?
3. What importance did linear time have for the Maya?

1. **Lesson 1 Activity 1: The Long Count Calendar** (40 minutes)
[PowerPoint 7 Long Count Calendar, Maya Student Notebooks, PDF Activity]

   a. Discuss with students the various ways we mark linear time (BC, AD, BCE, CE). Have students jot down ideas in their Notebooks.
   b. Use PowerPoint 7 (Long Count Calendar) to explain the Maya system of marking linear time – the Long Count Calendar. The end of time periods were times of great anxiety - did we do enough to keep the world OK?
   c. Discuss with students the fears we experienced in our culture about Y2K at the turn of the millennium, especially related to computers and technology; you might have them interview their parents to find out what their parents experienced.
   d. Use Powerpoint 7 to discuss the significance of December 21, 2012 in the Maya calendar.
   e. For homework have students calculate their birthdays in Long Count notation with the help of worksheet (see sources)

2. **Lesson 1 Activity 2: Looking at Images** (10 minutes)

d. Have students look at and discuss the images you have assembled on pinterest.com, comparing, analyzing and interpreting these images in light of what they have learned in this lesson.

Lesson 2: World View, Ritual, Artistic Expression and Linear Time

**Teaching Objectives for Unit 2 Lesson 2:**
Students will be able to answer the Essential Questions via class discussion, research and presentations.

**Essential Questions for Unit 2 Lesson 2:**
1. What can we learn about the Maya concern with linear time from examples of their artistic expression: writing, art, architecture?
3. **Lesson 2 Activity 1: Genealogy and History** *(40 minutes)*
   
   *PowerPoint 8 History, Maya Student Notebooks*
   
   a. Student presentations
   i. How were kings determined in Maya culture?
   ii. Explain the story of the Hero Twins from the Popol Vuh
   
   b. Use PowerPoint 8 (History) to explain the following:
   i. The importance of genealogy to the Maya
   ii. The role of the shamans in linear time (to preserve the traditions, the morals, the stories, the histories of the culture)
   iii. How the Maya used long count dates and historical narrative in painting, pottery, relief sculpture to show linear time
   
   c. Have students reflect in their Notebooks on how the Maya ritualistically portrayed the Hero Twins.

4. **Lesson 2 Activity 2: Looking at Images** *(10 minutes)*

   e. Have students look at and discuss the images you have assembled on pinterest.com, comparing, analyzing and interpreting these images in light of what they have learned in this lesson.

**UNIT 3: COSMIC TIME**

**Lesson 1: Cosmic Time and the Maya**

*Teaching Objectives for Unit 3 Lesson 1:*

*Students will be able to answer the Essential Questions via class discussion, research and presentations.*

*Essential Questions for Unit 3 Lesson 1:*

1. *We can look at time as being absolute and linear, but could it be understood in a different way completely, a more fluid notion that defies traditional western European thinking?*

2. *Did the Maya have a different view of time, and if so, how can we interpret their artistic expression in light of that view?*

1. **Lesson 1 Activity 1: Cosmic time and the Maya World View and Artistic Expression** *(30 minutes)*
   
   [Maya Student Notebooks]

   a. Provide a definition of “cosmic;” What does this really mean? Not only big but also fluid, not bound by linear or cyclical rules. Cosmic: adjective; “Of or from or pertaining to or characteristic of the cosmos or universe; inconceivably extended in space or time.” *(Image or text from the Visual Thesaurus, Copyright ©1998-2012 Thinkmap, Inc. All rights reserved.)*

   b. Have students read the following articles about time and discuss in small groups their own thoughts about whether time is absolute or fluid. Have them write ideas in their Notebooks.
Pickford, Clifford. “Traveling Through Time,”
http://www.pbs.org/wgbh/nova/physics/traveling-through-time.html
“Carl Sagan Ponders Time Travel.”

f. Student Presentations  
   i. Veneration of ancestors  
   ii. The World Tree  
   iii. The Vision Serpent

g. Show PowerPoint 9 (Cosmic Time). Discuss with students the idea that rituals were not just symbolic actions. For the Maya the rituals were perpetual recurrences of the action (see PowerPoint notes for further information)

2. Lesson 1 Activity 2: Looking at Images (20 minutes)

   a. Have students look at and discuss the images you have assembled on pinterest.com, comparing, analyzing and interpreting these images in light of what they have learned in this lesson.

3. Lesson 2: Coda

   Teaching Objectives for Unit 3 Lesson 2:  
   Students will be able to answer the Essential Questions via class discussion and final essay.

   Essential Questions for Unit 3 Lesson 2:
   1. How did the Maya perceive and portray time?
   2. Why were the Maya so fascinated with time, and how did a concern with time permeate every aspect of their lives?
   3. How is it similar and how is it different from your own perception of time?
   4. How does this relate to us and why is it important?

1. Lesson 2 Activity 1: Wrapping it Up (40 minutes)  
   [Maya Student Notebooks]

   a. Have students consider and discuss the final questions in their Notebooks: How did the Maya perceive and portray time? How do we see that in their artistic expression? How is it similar to your own perception? How is it different? How does this relate to us? Why is it important?

   b. Have students reflect in their Notebooks on how the creation stories and the story of the Hero Twins reflect the Maya cosmovision. Relate this to Maya thought about cyclical time, linear time and cosmic time.

2. Lesson 2 Activity 2: Final Essay (30-40 minutes)

   a. Have students choose two or three of the images you have assembled on pinterest.com (or have them choose their own), and turn in a written essay comparing, analyzing and interpreting these images in light of what they have learned in this Lesson.
Method(s) of Assessment (formative and summative)
1. Student Presentations
2. Maya Student Notebooks
3. Final Essay

Handouts
1. Prior to teaching the unit
   Handout 1: Maya Student Notebook
   Handout 2: Guidelines and Requirements for Student Presentations
   Bibliography for Student Presentations
2. Unit 2 Lesson 1 Activity 1
   Handout 3: Long Count Calculation Worksheet (see sources)

LIST OF RESOURCE MATERIALS AND REFERENCES USED

<table>
<thead>
<tr>
<th>Reference</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortez, Constance. “New Dance, Old Xius: the “Xiu Family Tree” and Maya</td>
<td>Cultural Continuity After European Contact.” In *Heart of Creation: the</td>
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<tr>
<td>Cultural Continuity After European Contact.” In *Heart of Creation: the</td>
<td>Mesoamerican World and Legacy of Linda Schele,* ed. A. Stone. Tuscaloosa:</td>
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**Lectures Yale University**

**Developing Global Citizens: Ideas and Practice of IB Teachers Across the World:** Dr. Merry Merryfield, Professor Emerita, School of Teaching and Learning, Ohio State University (July 9, 2012).

**Introduction to Maya and Mesoamerican cultures:** Megan E. O’Neil (July 9, 2012).

**Ancient Maya Mural Painting Workshop:** Heather Hurst, Assistant Professor of Anthropology, Skidmore College (July 9, 2012).

**Maya Numbers and Some of Their Uses:** Anna Blume, Associate Professor of the History of Art, School of Liberal Arts, State University of New York, FIT (July 9, 2012).

**Brief Introduction to Maya Hieroglyphs:** Megan E. O’Neil, Institute Director (July 10 2012).

**The Second Discovery of America: Nineteenth-Century Encounters with the Ancient Maya:** R. Tripp Evans, Prof. of Art History and Mary L. Heuser Chair in the Arts, Wheaton College (July 10, 2012).

**Session at Beinecke Library with Tripp Evans,** Wheaton College, and George Miles, Curator, Western Americana Collection. *Beinecke Rare Book and Manuscript Library* (July 10, 2012).

**Maya Kings, Courts, Commoners, and Countryside:** Charles Golden, Associate Professor, Department of Anthropology, Brandeis University (July 10, 2012).

**A Painted Deerhide from Oaxaca, Mexico:** Who, What, When, How, and Why? Mary Ellen Miller, Dean of Yale College and Sterling Professor of the History of Art, Yale University. *Sterling Memorial Library Map Department*

**Yale University Art Gallery, Ancient Americas collection**, led by Megan Doyon, Yale University Art Gallery, and Megan O’Neil, Institute Director (July 11, 2012).

**Colonial Worlds: Maya and Europeans:** Byron Hamann, Assistant Professor, Department of History of Art, The Ohio State University (July 11, 2012).

**The Maya in Regional Context, Or, Mesolore: Exploring Mesoamerican Culture:** Byron Hamann, Assistant Professor, Department of History of Art, The Ohio State University (July 11, 2012).

**Xiu Family Chronicles and the Conquest of Yucatan:** Constance Cortez, Associate Professor, School of Art, Texas Tech University (July 12, 2012).

**Pre-Columbian Iconography in Modern and Contemporary Chicana/o Art:** Constance Cortez, Associate Professor, School of Art, Texas Tech University (July 12, 2012).

**Mayan Cosmovision and Communities in Resistance in Chiapas:** June Nash, Distinguished Professor Emerita of Anthropology, City University of New York (July 12, 2012).

**Visit to Peabody Museum West Campus Ancient Americas collections, led by Roger Colten,** Yale Peabody Museum, and Megan O’Neil, Institute Director (July 13, 2012).

**Mayans and Migration:** Regina Bateson, PhD Candidate, Department of Political Science, Yale (July 13, 2012).
More


Thinkmap Visual Thesaurus at [www.visualthesaurus.com](http://www.visualthesaurus.com)

The Mesoweb site at [www.mesoweb.com](http://www.mesoweb.com)

FAMSI (Foundation for the Advancement of Mesoamerican Studies, Inc.) website at [www.famsi.org](http://www.famsi.org)

For further information on the Maya calendar and a link to print the current month’s calendar with long count dates, [http://www.famsi.org/research/calendrics/index.html](http://www.famsi.org/research/calendrics/index.html)

The Ancient Maya: Tools of Astronomy
[http://www.youtube.com/watch?v=2P7MaGCyuwk](http://www.youtube.com/watch?v=2P7MaGCyuwk)
[http://www.youtube.com/watch?v=5V5l4iFec88](http://www.youtube.com/watch?v=5V5l4iFec88)
[http://www.youtube.com/watch?v=GQcDqdGD8eU](http://www.youtube.com/watch?v=GQcDqdGD8eU)
[http://www.youtube.com/watch?v=5pYUy9P2OIl](http://www.youtube.com/watch?v=5pYUy9P2OIl)
[http://www.youtube.com/watch?v=x6fv8q83JE8](http://www.youtube.com/watch?v=x6fv8q83JE8)

Long Count Calculation Worksheet:

2012


Questions About the Unit

1. What new technology will you use in this unit as a result of attending the Yale Summer Institute?
   - pinterest.com
   - wikispaces.com
   - voicethread.com

2. How will you incorporate museum artifacts, virtual collections and primary sources in the unit:
   - Teacher presentations: virtual collections and images of museum artifacts
   - Student research and presentations: primary sources, virtual collections and images of museum artifacts
   - Assessment: compare, analyze and interpret images of museum artifacts in light of what has been learned about Maya thought
### PowerPoint Notes

#### PowerPoint 1: Intro
1. The Maya have lived in Mesoamerica since about 1000 BC, and their descendants live there still. Many of the accomplishments for which they are best known happened during what is considered the classic period, from AD 200-1000.

2. Map of Mesoamerica
3. Map of Maya Region
4. The geography of the Maya region varies from semi-arid plains in northern Yucatan...
5. ...to the fairly temperate highlands of Chiapas and Guatemala...
6. ...to the tropical rainforests of the lowlands of Chiapas and Guatemala.
7. Selva Lacandona
8. Selva Lacandona
9. There were some large polities like Tikal, about 500,000 people.
10. Most were much smaller – 30,000 – 50,000. “A closer parallel might be the city-states of Classical Greece: little countries that were politically autonomous, yet culturally, socially, and economically interdependent.” (Schele p. 57)
11. The distance from edge of a kingdom to the capital is usually not more than a day’s walk. In ancient times there would have been well-worn paths through the jungle. (Golden)
12. Selva Lacandona
13. The Maya traded widely for luxury items such as obsidian, jade and cacao. They built wide roads or causeways to link parts of their kingdoms but not highways between kingdoms. In the jungle and mountains and without the wheel highways did not make sense; they traveled along paths instead. (Schele)
14. The main arteries of transportation were rivers via canoe. (Schele)
15. Palenque
16. Palenque
17. Howler monkey, Palenque
18. El fin

#### PowerPoint 2: Numbers
1. Maya numbers
2. How many ways do we have to write numbers?
3. Have students study the first two examples and come up with the value for a dot (1) and a bar (5). Then have them solve the next two problems, writing their answers in bar and dot notation.
4. Look at these examples of Maya glyphs. What numbers do you see? (Note that there are some curved shapes that resemble dots, but they are in fact just designs to fill the space.)
5. Have students study the first math problem and figure out what the single dot up above represents. Then see if they can solve the other two problems in Maya notation. (The Maya system depended on placement to determine value, just as ours does. Once 4 bars (20) are accumulated on the lower level, they move to the next level as one dot, which is worth 20.)
6. Have students solve this problem in Maya notation, and then convert it to Arabic numbers.
7. Students should be able to use what they have learned to figure out that the next highest place has a value of the previous level times 20, or in this case 400.
8. Have students determine the value of these numbers.
9. The Maya system is similar to ours except that it is a base-20 system instead of base-10.
10. El fin.
### PowerPoint 3: Calendar Round

1. The Maya had two cyclical calendars, one a sacred or ritual calendar, and the other a calendar that marked a solar year, similar to ours.

2. The Tzolk’in, or ritual calendar consisted of 20 days names that were paired with the numbers 1-13 to create the cycle of days. After 13, the numbers start again at 1 to complete the first cycle of 20 days. In the second cycle the day names start over, but the numbers continue from the previous cycle.

3. This slide shows one complete cycle of unique day name/number combinations. After 260 days the day names start again from the beginning.

4. The number 13 is significant for the Maya because of its association with the calendar.

5. The Haab’ or solar calendar has a cycle of 18 months of 20 numbered days plus one month of 5 days, which were considered days of danger and chaos.

6. If you overlay the 260-day calendar and the 360-day calendar, you have days that are named for both calendars – for example, 1 Imix (the first day of the 260-day calendar), 0 Pop (the first day of the 360-day calendar).

7. Using both calendars to name the days, it would be 52 years before the date 1 Imix 0 Pop comes around again.

8. An example of the date 4 Ahaw (260-day calendar name) 8 K’umku’ (360-day calendar name) in Maya glyphs.

9. A glyph showing the date 7 Ajaw

10. El fin.

### PowerPoint 4: Agriculture

1. Seasonal cycles are different in the tropics. For us, winter is a time of death, spring is a time of rebirth. For the Maya, spring is a time of drought and the burning of the fields in preparation for planting; trees dry out, the sky fills with smoke. The dry season is also the time for wars; would not endanger the work of the farmers since planting could not be done; also could move around easier in the swamps during dry season. In the summer the rains come and planting commences. There is a rhythm to tropical life that flows through the experience of all beings living there. In the rich abundance of life that thrives in the forest, in the coming of the rains, and in the terrible consequences of drought, there is a contrast of life and death, of abundance and deprivation, that teaches the lessons of life and cyclic time in metaphors of undeniable power and elegance. Their metaphor is not ours – a spring rebirth timed by the equinox. It is instead the coming of the life-giving rains timed by the summer solstice.” (Schele p. 62)

2. Many of the foods we eat today are native to Mexico, Central and South America, and were unknown in the rest of the world until the Spanish ships arrived in the 16th century.

3. Corn, beans and squash are known as “las tres hermanas,” the three sisters, because they form the basis of the Mesoamerican diet.

4. Corn, beans and squash can be grown together in the milpa, or corn field. The corn provides a trellis for the squash vines to climb and the beans planted in between help keep down the weeds.

5. Maya kings and nobles are often depicted as the maize god. The Maya maize god is epitome of masculine, youthful, elegant beauty: elongated forehead, hair/headdress tied up in bundle like corn silk; the maize god dies every year just like corn and is reborn out of a crack in the earth. (O’Neil)

6. Have students look at this example and discuss what they see. It is an image of the maize god depicted as a scribe. Note the sloping forehead and the hairstyle. After they have discussed their ideas, click to show caption.
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| 7. | Have students look at this drawing of a panel from Palenque and discuss what they see. After they have given their ideas click to show caption.  
**Description:** Composite reconstruction of limestone panel fragments. Profile of a male facing left who wears an elaborate counterweight earflare and a large bead necklace. His upswept hair is held with a headdress like that worn by Itzamnaaj or God D. The associated glyphs name K’inich Janaab Pakal, *Palenque* Ajaw. “(Famsi.org)  
8. | Have students look at these panels and discuss what they see. (Note hairstyles.)  
9. | The backward sloping forehead associated with the maize god was achieved by physically shaping a child’s head as an infant with a flat board or similar object, as shown in this sculpture. Shaping the head in this way did not adversely affect the child’s brain.  
10. | Some of the many foods native to the Americas.  
11. | Foods native to the Americas.  
12. | Foods native to the Americas.  
13. | Chewing gum is made from chicle, a plant native to Mexico and Central America. Rubber has been harvested from Rubber trees native to the Gulf Coast Lowlands for three thousand years or more, and was used to make rubber balls that could bounce for the Mesoamerican ballgame.  
14. | Chocolate was important to Maya culture. Cacao beans were considered so precious they were used as money.  
15. | Have students study this rollout image of a chocolate pot and describe what they see. Based on their observations they should speculate on why it was made, what it was used for, and what it tells us about the importance of chocolate in Maya life. After they have discussed their ideas, click to show caption. The Maya mixed chocolate with water, vanilla, chiles, and beat it to a froth. It was a drink used in everyday life by the wealthy, and also for ceremonial purposes such as marriages. We see here a Maya ruler on a throne; the one on his knees is a commoner giving an offering of chocolate; the ruler is holding hand out; 3-legged vessel on the floor contains tamales (corn).  
16. | Have students look at this chocolate drinking vessel and discuss what they see. Based on their observations they should speculate on why it was made, what it was used for, and what it tells us about the importance of chocolate in Maya life. The hieroglyphic band around the rim is typical of Maya pottery. It was often a dedication giving dates, the name of the person who made it, for whom it was made, and for what purpose – in this case for drinking chocolate.  
17. | The Maya glyph for kakaw, or cocoa. The syllable “ka” was the word for “fish,” hence the fish-like appearance of the glyph. The two dots at the beginning indicate the syllable is to be repeated twice, followed by the suffix glyph for “wa” (the final “a” is silent). This gives us the three syllables “ka-ka-w(a).” (Coe)  
18. | El fin.  

**Slide #** | **PowerPoint 5: Cosmovision**  
1. | Cosmovision: The Maya vision of the cosmos.  
2. | Ancient Maya society was comprised of two distinct social groups, the nobility and commoners, with family origin the determinant of group membership and sacred lineages the source of identity among noble families. Only nobles were permitted to perform religious ceremonies and to be craftsmen, war chiefs, and scribes. Commoners, who belonged to non-sacred lineages, not only had to work for their own subsistence but also had to pay tribute to the *ajaw*. Such tribute could be in kind (food, supplies, weapons or tools) or in labor, the latter of which permitted the construction of the numerous buildings of the city. Commoners also participated in the military campaigns organized by the nobles. Some important personages became lineage ancestors after their death.
As a means of justifying its power, the ruling lineage highlighted the divine origin of its ancestors. (Palenque museum)

3. The kings were responsible for the prosperity of the community, and built great plazas and pyramids to demonstrate the wealth and power of the polity.

4. Toniná

5. The king was called “K’uhul Ajaw” — “holy lord” or most powerful ruler. It was the reciprocal interpersonal relationships between kings and nobles, and between nobles and commoners that held the kingdom together. It was very exhausting to be king, to maintain all those relationships, to perform the dances, the bloodletting rituals, etc. Yet it was the king’s rituals that kept the world going. (Golden)

6. There were many rituals and festivals, especially at the end of each cycle of time, such as the end of a katún (about 20 years). These rituals were often performed by the king on 4-sided platforms (representing the 4 cardinal directions). This was a complex cycle of events kept track of the the shamans (sacerdotes). Many monuments make references to kings being (for example, in the case of Pakal) a “5 katún king,” meaning he was in his 5th katún (about 20 years), or somewhere between 80 and 100 years old. This probably reflects a perceived intimacy between the ajaw (king) and the time periods themselves. (O’Neil)

Platforms such as this one were oriented toward the 4 cardinal directions, each of which had its associated color. “East was red and the most important direction since it was where the sun was born. North...was white and the direction from which the cooling rains of winter came. West, the leaving or dying place of the sun, was black. South was yellow and was considered to be the right-hand or great side of the sun. In the Maya conception east, not north, should always be at the top of maps. (Schele p. 66)

7. Human sacrifice was an important ritual demanded by the gods in order to keep the agricultural cycles and the cycles of time itself going. The kings went to war with other polities for many reasons, one of which was to acquire high-ranking captives for sacrifice.

Have students look at this panel and discuss what they see. Why do you think a king would have had this panel carved?

Description: Limestone panel from Temple XVII, with glyphs and two figures. A captive kneels before a standing warrior who holds a flint spear and wears a war headdress. The large text to the left records an event at Palenque that occurred in AD 490 by Ahkal Mo’ Naab’ I. The small text above the kneeling figure gives the name of a person captured. The text to the far right describes an event involving Kan B’alam sitting on a jaguar-covered bench or pillow. (Schele @ famsi.org)

8. Have students look at this panel and discuss what they see. Relief carvings of captives at Palenque. After discussion, click to show caption.

9. Have students look at this panel and discuss what they see. Pay special attention to the attitude of his body and how he is dressed. After discussion click to show caption.

Relief carving of captive at Toniná. Part of the ritual was to humiliate the captives by stripping them of their finery – clothes, jewelry, etc. Headdresses of especially high-ranking captives were left on to show their status. Captives are usually shown bound, and with paper strips in their ears where their ornamental ear flares have been removed. (O’Neil)

10. Have students look at this panel and discuss what they see. Why do you think the king would have had this panel carved?

Description: Temple Side image, Stela 11 depicting Bird Jaguar standing inside a corbeled arch frame, his captives squeezed under the lintel in front of him and bound together like those of the Kimbell panel. Bird Jaguar is dressed as Chac-Xib-Chac and holds our God K with his left hand, as if the god were his ax. (famsi.org)
<table>
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<th><strong>Description:</strong> Monument 122. K'inich K'an Joy Chitam II, named as lord of <strong>Palenque</strong> in text on leg, is shown in the bound posture of a captive. The secondary caption records a date and a Star War event that suggests the <strong>Palenque</strong> ruler was captured by Tonina. (<a href="http://famsi.org">famsi.org</a>)</th>
</tr>
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</table>
|   | **Bloodletting was another important responsibility of the kings and nobles. What do you see happening in this image?**
| 12. | A noble woman typically let her own blood by drawing a barbed rope through her tongue and letting the blood fall onto a pottery offering bowl filled with paper, which would then be burned to nourish the gods. ([Cortez](http://cortez.com))
|   | The sculpture depicts a sacred blood-letting ritual which took place on 26 October 709. King "Shield Jaguar" is shown holding a torch, while Queen "Lady Xoc" draws a barbed rope through her pierced tongue. |
|   | **What do you see happening in this image?**
| 13. | A king typically let his own blood by perforating his penis, also letting the blood drip onto the paper in an offering bowl. |
|   | **Have students look at this panel and discuss what they see. After discussion click to show caption.**
| 14. | As a result of the pain and loss of blood the king would then go into an ecstatic trance and would perform a dance on top of a pyramid for his people. These rituals were necessary. Cyclical time requires sacrifice to continue; sacrifices are reciprocal relationships between the lords and the gods. They assured the continuation of the agricultural cycles, which assured the survival of the people. ([Schele](http://schele.com))
|   | **Description:** Carved limestone panel with three figures. The central figure, K'inich K'an Joy Chitam II, stands in a dancing posture holding aloft a serpent-footed axe and wearing the shell ear-piece of Gli. His father, K'inich Janaab Pakal (right), and mother, Lady Tz'akbu Ajaw (left) sit flanking him. Pakal holds a small, full-figure K'awiil and Lady Tz'akbu Ajaw holds a personified Jester God. The text records an anniversary of the death of his ancestor, K'an Joy Chitam I. ([Famsi.org](http://famsi.org))
|   | As we can see, everyday life was grounded in the cycles of time; kingship was the very foundation of daily life. ([Schele](http://schele.com)) |
|   | **What do you think these are? What is their purpose? After discussion click to show captions**
| 15. | Other rituals also included offerings (such as flowers, or sometimes blood) placed on altars such as these. ([O'Neil](http://oneil.com)) |
|   | **The Maya had rubber, and so were able to make balls that bounced, allowing them to play a ballgame similar to basketball or soccer on ball courts such as this one in Toniná. The ballgame was both a sport and an important ritual for the Maya. It is thought that the movements of the ball represented a reenactment of the movements of the sun and moon. ([O'Neil](http://oneil.com))** |
|   | **If the shape of the pyramids represented sacred mountains, what might the shape of the ball court represent? Click to activate animation. (An entrance to the underworld.)**
| 17. | **Have students look at this panel and discuss what they see. What do you think this panel was carved? After discussion click to show caption.**
| 18. | On this panel from a hieroglyphic stair we see “a richly attired ballplayer on one knee facing a ball that rolls down a set of stairs. The ball contains the image of a bound captive and glyphs identifying the sacrificial victim. Text describes Itzamnaaj B'alam II (Shield Jaguar) playing ball at the Six Stair Place.” ([famsi.org](http://famsi.org))
|   | **What do you see here? After discussion click to show caption.**
| 19. | On another image from the same hieroglyphic stair is “a richly attired ballplayer on one knee facing a ball that rolls down a set of stairs. The ball contains the image of a bound captive and glyphs identifying the sacrificial victim. An individual named as Bird Jaguar plays ball against a stairway with six steps.” ([famsi.org](http://famsi.org))
The jaguar is an important symbol for the Maya, associated with kings and nobles, and often associated with Xibalba, the Maya underworld.

Na bolom, or “House of the Jaguar” is a museum in San Cristobal de las Casas, Chiapas.

Jaguar image at Na bolom.

What do you see here? What do you think is happening in this panel? What is with the jaguars?

Description: Oval Palace Tablet from House E, Palace. Lady Sak K’uk, wearing a jade net skirt and cape, offers the Drum Major headdress decorated with a Jester God of rulership to her son K’inich Janaab Pakal. Janaab Pakal sits cross-legged on a double-headed jaguar bench. The captions name both figures. (famsi.org)

El fin.

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**PowerPoint 6: Art**

1. La escritura.

2. Maya writing describes people, gods, celestial bodies and events, dates, numbers, counting. (Blume) Books were (and still are) very important to the Maya. There were probably hundreds originally, but shortly after the Spanish arrived in Yucatan a Franciscan monk, Diego de Landa, ordered them burned to prevent what he termed “idol worship.” There are only four known Maya codices remaining. The ones we have are astronomical almanacs, calendric notation, genealogy, cycles of moon and Venus.

3. Have students look at this piece and discuss what they see. Why do you think they put hieroglyphs on their pottery?
The Maya also left hieroglyphic texts on their pottery, often a dedication of the pot indicating who made it, for whom it was made, what it was for, dates, and so on. Pottery was often buried in tombs with the dead.

4. Art

5. Have students look at this mural and discuss what they see related to cyclical time and rituals. This section of the Bonampak murals shows captives of war destined for the sacrifices that will ensure the continuation of the cycles of life.

6. Have students look at this relief sculpture and discuss what they see related to cyclical time and rituals.

We have seen this relief before: it shows a Maya ruler depicted as the maize god - important for the continuation of the agricultural cycles.

7. Architecture

8. We can see Maya writing not only inscribed on the architecture, but as a part of the architecture also. These windows are in the form of the glyph for “wind,” so they are what they say. (O’Neil)

9. What do you think this is? After students speculate click to show caption.

This shows part of the aqueducts at Palenque. Many Maya sites, such as Tikal, built large reservoir systems that filled during the rainy season and were essential to their survival during the dry season. Palenque had the opposite problem: it was surrounded by abundant water sources and needed a system to handle excess water during the rainy season. (French)

10. Recap from video homework: The pyramid of Kulkulkán in Chichén Itzá has exactly 365 steps and is oriented so that on the equinoxes the light from the sun and the shadow cast by the steps show the form of the feathered serpent (Kulkulkán) on the side of the staircase.

11. Recap from video homework: “El caracol” observatory in Chichén Itzá; used to study the movements of Venus and other heavenly bodies.
12. Palenque also had an observatory tower, shown here.
13. Observatory, Palenque
14. Have students recap what they learned previously about this structure. Platforms such as this one were used to celebrate the passage of time, especially the end of a katún (about 20 years).
15. Have students recap what they have learned previously about the ball court. The movement of the ball in the ballgame represented the cyclical movements of the sun and the moon.

Slide # | PowerPoint 7: Long Count Calendar
--- | ---
1. | Long Count Calendar
2. | We mark historical time in a linear fashion, using the number of years before or after our year zero (an arbitrary decision to call a year zero based on the life and death of Jesus Christ, a belief system). The Maya also marked time in a linear fashion. It is called the Long Count Calendar. (Blume) So, now we have a total number of days, but a total number of days marked from when? Going back to our numbers, how many days does this number represent? Each level is a place that determines value, just like our numbering system. Except that this is a base 20 system, while ours is base 10. So the bottom level is the ones, the second level is the 20’s, and so on, each level increasing by a factor of 20. EXCEPT, the tun level, which only increases by a factor of 18, probably so that number of days would come closer to the length of a solar year.
3. | The Maya had a year zero, too, also an arbitrary decision based on a belief system. In the year zero, corn first came to earth, which was the creation of people, according the the Popol Vuh, a sacred Maya text. This year zero corresponds to our date August 11, 3114 B.C.
4. | Long Count Calendar
5. | Here again we see the significance of the number 13 in the Maya calendar – the bak’tun of the year zero.
6. | Long Count Calendar
7. | This is a modern adaptation of the Long Count Calendar. It is a stela outside the entrance to the Toniná Museum indicating the date of the dedication of the Museum. The Maya did not invent this system; it was used as early as 1000 BC, but the Maya did invent the visual notation for zero (a shell shape); the Maya also used it to write much bigger numbers. Use of the Long Count ceased around AD 900.
8. | So, what do you think will happen on December 21, 2012?
9. | Cartoon
10. | Cartoon
11. | The Maya calculated many years into the future and s well as into the past, which shows that 2012 was not considered to be the “end of the world,” simply the end of an era.” (Stuart) Again, we see that the number 13 has great significance for the Maya “So, the 2012 date of the Maya calendar is not actually the “end” of anything; rather, it’s a mathematically predetermined recurrence of the date of ancient Maya Creation. To reiterate, there will be a number of such repetitions in the distant future as well. “ (Stuart)

Slide # | PowerPoint 8: History
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1. | History
2. | The Maya also left many texts in the form of elegantly executed relief sculpture that not only gives dates, but historical narrative that tells us what happened.
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<td>3.</td>
<td>Have students study this drawing and see if they can find a long count date. Click to show answers.</td>
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<td>4.</td>
<td>What do you think the other hieroglyphs are talking about? After discussion click to show caption. <strong>Description:</strong> Text from Stela 11, Structure 40, that record accession of Bird Jaguar III on May 3, AD 752. (famsi.org)</td>
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<td>5.</td>
<td>We have seen this panel before. Let’s look at the hieroglyphs this time and describe what you see. <strong>Description:</strong> Limestone panel from Temple XVII, with glyphs and two figures. A captive kneels before a standing warrior who holds a flint spear and wears a war headdress. The large text to the left records an event at <strong>Palenque</strong> that occurred in AD 490 by Ahkal Mo’ Naab’ I. The small text above the kneeling figure gives the name of a person captured. The text to the far right describes an event involving Kan B’alam sitting on a jaguar-covered bench or pillow. (Schele @ famsi.org)</td>
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<td>6.</td>
<td>Genealogy was of paramount importance to the Maya, especially for the purpose of establishing the right to kingship. This altar shows the dynastic lineage for the polity of Copán. Sixteen kings of Copán are shown, four on each side of the monument. This was a form of propaganda, intended to show that the king was just as worthy of rule as the first leader.</td>
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<td>7.</td>
<td>Stelae were usually the historical depiction of the kings - planted in the ground to resemble trees. Why do you think kings would commission these stelae?</td>
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<td>8.</td>
<td>Stela showing the mother of King Bird Jaguar. Since she was not the first wife of Bird Jaguar’s father, there were possible questions about Bird Jaguar’s right to be king. Much of the art commissioned by him at Yaxchilán was an attempt to legitimize his right to be king. (O’Neil)</td>
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<td>9.</td>
<td>Why do you think Bird Jaguar would have commissioned this stela? (Confirming his right to be king, historical narrative) <strong>Description:</strong> Temple Side image, Stela 11 depicting Bird Jaguar standing inside a corbeled arch frame, his captives squeezed under the lintel in front of him and bound together like those of the Kimbell panel. Bird Jaguar is dressed as Chac-Xib-Chac and holds our God K with his left hand, as if the god were his ax. (famsi.org)</td>
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<td>10.</td>
<td>We have seen that the role of the shamans was keep track of the cycles of the calendar. They also played a role in keeping track of time in a more linear fashion, preserving the stories, traditions and history of the culture.</td>
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<td>11.</td>
<td>We have seen this drawing before. What do you think is happening here in terms of what we have talked about today? (Art showing historical narrative, right to kingship) <strong>Description:</strong> Oval Palace Tablet from House E, Palace. Lady Sak K’uk, wearing a jade net skirt and cape, offers the Drum Major headdress decorated with a Jester God of rulership to her son K’inich Janaab Pakal. Janaab Pakal sits cross-legged on a double-headed jaguar bench. The captions name both figures. (famsi.org)</td>
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<td>12.</td>
<td>What is happening in this mural? Why would they record this in a mural? (Genealogy, heir to throne, historical narrative) Bonampak mural depicting the presentation of a new heir. These types of historical narratives placed the kings and nobles within the framework of history. (Schele)</td>
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<td>13.</td>
<td>What is happening in this mural? (Historical narrative)</td>
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<tr>
<td>14.</td>
<td>We have seen this mural before. What is happening? (Captives destined for sacrifice, historical narrative)</td>
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<td>15.</td>
<td>Look at this piece and discuss what you see. What story does this pot tell? What information does it give? Why would they create something like this? What do you think it was used for?</td>
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<tr>
<td>16.</td>
<td>Look at this pieces and discuss what you see. What story does this pot tell? What information does it give? Why would they create something like this? What do you think it was used for?</td>
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<td>17.</td>
<td>Pyramids were often built on top of older pyramids. It was thought that by doing so the pyramid would accumulate sacred power from all the pyramids that had been built there before.</td>
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<td>18.</td>
<td>El fin.</td>
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1. “The Maya were preoccupied with demonstrating historical action as the inevitable result of cosmic and ancestral necessities.” (Schele p. 66)

2. How do we view Maya writing in terms of cosmic time? “The art of writing for the ancient Maya was not only the sequence and structure of worlds, but included making the image of the world itself. Writing was a sacred proposition that had the capacity to capture the order of the cosmos, to inform history, to give form to ritual, and to transform the profane material of everyday life into the supernatural.” (Schele, p. 55)

3. The Popol Vuh tells that people were created from corn. For the Maya the act of planting corn is actually a re-creation of the world; it’s not just symbolic; it is actually happening each time one plants corn.

4. What do you see here? Sacrifice was the re-enactment of the sacrifice in the Popol Vuh, but also the actual creation of the world over and over.
   Description: Cylinder vessel illustrating Celestial Bird seated atop human sacrifice. (famsi.org)

5. Each time an object is made – pottery, weaving, etc. – it is an act of creating the world; not a copy, actually creating it again. (O’Neil)

6. When Maya art depicts someone, usually a ruler or maybe a battle, doing something, the Maya perceive that it is not just a representation of something that happened in the past. The action is perpetually going on through the art. Depictions of people are always in perpetual motion; you are actually there with them and they are actually there with you. (Golden)

7. Here at Palenque the captives depicted in these relief carvings are being perpetually humiliated by being walked on every time someone passes across the top of the stairs.

8. The Maya painted what they painted and carved what they carved to show that it was what was happening and is happening (Golden)

9. What do you see happening here? When you look at the carvings of people, you are actually looking at the landscape – how the landscape was changed by what the rulers did – who they married, who the took captive, who they defeated, etc. These pictures didn’t just represent the landscape, they were the landscape (Golden)

10. Remember that stelae were images of kings planted in the ground like trees. Eventually a polity would be planted with a forest of these kings. These were not just historical representations of kings who lived in the past, they continued to live among us. Interacting with time in this way is how you keep it going (Golden)

11. “Scenes of scattering rites or other period-ending ceremonies typically appear on stelae erected in plazas or in front of temples. The size and dimensions of some of these monuments suggest they might have been considered as stand-in “bodies of the performing king, living portraits engaged in public ceremonies out in the open. The well-preserved monuments that still stand in the plaza of Copan offer a good case in point. Here the images of the ruler were erected on many period endings over the course of two decades, accumulating over time to the point where the multiple statue-like portraits resemble and ancient diorama. All of them show the Copan king Waxaklahuun Ubaah K’awill in different ritual guises at different points during his reign. By the end of this rule (he was captured in war by the king of Quiriguá), the plaza had become a place where one could see his images “frozen” in time, each engaged in a perpetual ritual performance. Many monuments at Maya sites operated on this principle, I think, where artistic images and royal portraits conveyed more than mere representation; they were themselves animate embodiments of the king, extensions of the kingly self that always “acted” to ensure the perpetual renewal of time and the cosmos.” (Stuart)

12. 
13. The natural landscape was depicted in the architecture. Pyramids represented a witz, or mountain; when you go in the temple you go into the mountain; the mountains are alive. (Golden)
“The architecture of ritual space thus replicated the features of sacred geography – the forest, the mountain, and the cave.” (Schele 72)
“...the pyramids and in the plazas of the May cities, which replicated in symbolic form the sacred landscape generated by the gods at creation.” (Schele 70)
As we have discussed, the Maya kings would often build new pyramids on top of old ones, thereby taking advantage of the accumulated sacred power of the site. Many Spanish churches were often built on top of Maya pyramids for the same reason. The height increases visibility, and there is a connection to former sacred space; the power associated with the stones taken out of the former sacred spaces transfers to the new church. (Cortez)
“So powerful were the effects of these rituals that the objects, people, buildings and places in the landscape in which the supernatural materialized accumulated energy and became more sacred with repeated use. Thus, as kings built and rebuilt temples on the same spot over centuries the sanctums within them became ever more sacred.” (Schele 72)

14. The ceiba tree is what the Maya considered the World Tree. The world tree was an axis that passes through all three layers of the cosmos; the center of existence. “This axis was not located in any one earthly place, but could be materialized through ritual at any point in the natural and human-made landscape. It was materialized in the person of the king, who brought it into existence as he stood enthralled in ecstatic visions atop his pyramid-mountain. There were two great symbolic representations of this center axis: the king himself, who brought it into being, and his natural analog, the World Tree. The act of communication between the human world and the Otherworld was represented by the most profound symbols of Maya kingship: the Vision Serpent and the Double-headed Serpent Bar. In the rapture of bloodletting rituals, the king brought the great World Tree into existence through the middle of the temple and opened the awesome doorway into the Otherworld.” (Schele, p. 68)

15. Do you see a World Tree in this drawing of a carved panel?
**Description:** Panel from the Temple of the Cross. Both individuals stand on a skyband. At right, K’inich Kan B’alam II, named by the accession text directly in front of him, holds a small Quadripartite Badge. The larger individual, left, holds a K’awiil figurine. At center, a World Tree rises from a Quadripartite Badge. The Celestial Bird, “Itzam-Ye,” perches atop the World Tree while a double-headed serpent curls through the arms of the tree.

16. The Temple of the Inscriptions was built as a tomb for Palenque’s king Pakal. There is a chamber deep inside the pyramid that contains his sarcophagus. The chamber is accessible by a narrow stone staircase.

17. The sarcophagus of Pakal.

18. What do you see?
Sarcophagus of Pakal. He is sitting in a container with the World Tree coming up. Auto-sacrifice items just below where he is sitting – stingray spine, obsidian blade, symbol representing death. He is surrounded by all his ancestors who are supporting him. (Cortez)
**Description:** Sarcophagus cover inside the Temple of the Inscriptions. Shown is the double-headed serpent that undulates through the branches of the tree, with enlargements of the K’awiil (“God K”) and Jester God figures who emerge from the open jaws of the serpent. Below is the image of K’inich Janaab Pakal and the Quadripartite Monster.

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<table>
<thead>
<tr>
<th>Slide #</th>
<th>PowerPoint 1: Intro</th>
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<table>
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<tr>
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### PowerPoint 5: Cosmovision

<table>
<thead>
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### PowerPoint 6: Art

<table>
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### PowerPoint 7: Long Count Calendar

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<td><strong>PowerPoint 8: History</strong></td>
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