

Learning Object Workbook

Date: 11/24/04

Project Manager: Dan Schnaidt

Name of Learning Object: The Temple of the Cross Group at Palenque

PHASE 1: FACULTY REQUEST

Deliverable: Faculty Request

STEPS:

- Faculty discusses LO idea with PM
- Faculty requests LO in Portfolio
- If Faculty member provides sufficient input and collaboration with PM to build a proposal, project moves to **Phase 2**.

Project request

We propose a project which will present real and reconstructed views and models of the architecture of the archaeological site of Palenque, particularly focusing on the Temples of the Cross Group (c. 690CE), a complex of three pyramids said to be the birth place of the patron gods of Palenque's ruling dynasty. A 3-D reconstruction of the Cross Group will serve as an interface and gateway to additional historic, architectural, art historical, ritual, and epigraphic information about the site of Palenque as well as the mythology and artistic conventions of the Maya in general.

PHASE 2: PROJECT PROPOSAL

Deliverable: Proposal

STEPS:

- Project Manager (PM) meets with faculty to refine and develop request into proposal. This meeting should clarify the learning objective, and better inform faculty of the possibilities.
- PM initiates research with library, clearly identifying deadline.
- PM schedules **Review Session One** to review proposal. In attendance are:
 1. PM
 2. Faculty
 3. Designer
 4. Developer
 5. Mike
 6. Librarian
- If faculty and team agree that project contains a clear objective, is sufficiently defined, and seems feasible to do by deadline, project moves to **phase 3**.

Description of Learning Object

This description should draw on the request, refinements that have come from subsequent conversations, and results of library research.

Palenque, one of the best-known Maya sites, affords a number of opportunities to a project employing virtual reality. While the initial stage of the project focuses primarily on the Cross Group Temples, there is ample room for expansion to include some of the most important buildings of Maya architectural history, such as the Temple of Inscriptions, the tomb of K'inich Janab' Pakal, and the Palace complex. Recent excavations at the site have also revealed a number of lengthy hieroglyphic texts and vivid images that add to the already extensive corpus of inscriptions and sculpture for which Palenque is rightly famous. These inscriptions yield a detailed written history that augments archaeology and provides a list of people responsible for the building of Palenque's ceremonial architecture. These texts offer us as of yet the most extensive discussion of Maya mythology for the Classic period (250-900 CE). The imagery of architectural sculpture associated with these texts sheds extensive light on how myth was integrated with dynastic rituals and political power. This project will use all these lines of information to construct an accurate image of the buildings of the Cross Group. It will place them within their social context and recreate the rituals essential for their dedication and use.

Library research

What other works already exist that are similar? How would this learning object be different?

A search of learning object repositories did not disclose any resource which meets Professor Carrasco's objectives. There is one example of a 3D treatment of Palenque which leaves much to be desired. <http://home.tiscali.cz:8080/chichcalan/palenque.htm>

What features from other LOs would be 'borrowable'? What ideas from completely different types of projects could help? Include URLs, screenshots, and textual descriptions.

The tiered site structure of Mark Slobin's Afghanistan site makes sense for this project. The horizontal scrolling of images and text that Roderick Coover used in Cultures in Webs will be tried out.

Why the LO is needed

Why is the LO needed? Can this objective be achieved any other way?

Unfortunately, there have been surprisingly few attempts to map epigraphic documents to the archaeological record of specific structures. This learning object would be among the first and most visually compelling attempts at uniting these lines of information to present a view of art and ritual based on over eight years of research on the sculpture and hieroglyphic texts of Palenque. It adds to the present scholarship on Palenque by offering new annotated translations of the inscriptions from the Temples of the Cross Group and interpretations of the iconography of their sculptural programs.

Courses in which it will be used

List courses and frequency taught for all Wesleyan faculty who will use the LO.

ARHA219: From Royal Courts to Imperial Cities: Great Traditions in Mesoamerican Art and Culture (yearly)

ARHA293: The Art, Ritual, and Cosmology of the Ancient Maya (yearly)

Audience

What kind of learners or audience will use the LO?

Students in Art History and Archeology. Anyone with an interest in Mayan temples, inscriptions and writing.

Educational goals, activities

How will it be used? Give some examples of activities, lessons and assignments the faculty member proposes to construct around the use of the LO, and how that fits into the larger course structure.

Assignments will require students to move through, interact with, and experience the reconstructed space of the Cross Group and Palenque in general. Information, such as links to iconographic explanations and glyphic translations, will give students the opportunity to experience the architectural complex of the Cross Group as a whole and within its historic and religious context. Students, relying on the architectural, art historical, and epigraphic information built into the model, will be asked to contemplate the Cross Group through the worldview of the ancient Maya, which would be difficult even if they were actually at the site.

Students may be asked to take on the role of an ancient Maya “tourist” who has made a pilgrimage to the site of Palenque in order to attend the dedication of the Cross Group. After virtually experiencing Palenque they would be asked to write a paper in the form of a letter back to those in their home town.

Learning outcomes

How will faculty judge whether or not their students have learned what they are trying to teach? How will this improve upon other materials that they already use, or upon other ways of teaching the same materials?

An assignment like this engages students at a number of different levels. It asks them to try and think within the mindset of the ancient Maya, forces them to familiarize themselves with the site to the extent that they are able to write about specific details, and additionally asks them to integrate information generated from a number of different disciplines.

Adobe Atmosphere would create an interactive visual environment that possesses significant advantages over the traditional slide lecture or monograph, where images appear but only for a moment or are disconnected from their original context.

Content needed

List materials, quantities, sources, copyright and production required. Repeat headings as needed.

For example:

Material: Images, video, audio, etc

Quantity: number or minutes

Source: title/author of book, video, audio

Copyright: copyright owner, year, publisher
Production required: scanning, editing, digitizing, etc

Material: images, qtvr, animation
Quantity: approximately 100
Source: taken on site at palenque, scan from book
Copyright: mcarrasco or by permission
Production required: qtvr image assembly, image prep for web, maya animation export to atmosphere

Copyright and Intellectual Property

Who will own this material?

Wesleyan University.

What will be the terms of sharing this material? Can you use a Creative Commons license?

Anyone may access it on the web. Materials may be reused for learning or scholarship with attribution.

If the object uses copyrighted materials, who will do the work to license materials owned by others? Is there a cost anticipated with using copyrighted materials?

Dan Schnaidt with assistance of Art Librarian will research and obtain needed permissions.

Funding

Are there any grants or other possibilities for outside funding for this project?

Application has been made to Adobe/New Media Consortium

PHASE 3 PROJECT SPECIFICATION

Deliverables: Project spec (PM)
 Design concepts (Designer)
 Technology and tools needed (Technical Lead)

STEPS:

- PM revises proposal into spec, incorporating summary of librarian's research and revision and feedback from Review Session 1.
- PM creates scope and estimates in consultation with designer and programmer . PM schedules specification phase in LO schedule on dragon, including time for PM, design, and technical research.
- Designer sketches out design concepts; presents to faculty and project team
- Technical Lead explores possible technology solutions (e.g. shareware, integration issues, etc.)
- PM schedules **Review Session Two** to review spec; discuss how proposed design solutions support educational goals.

If team and faculty agree on scope, if PM agrees there are adequate resources to complete project as defined, and Dean gives approval, project moves to Phase 3.

- In attendance are:
 1. PM
 2. Faculty
 3. Designer
 4. Technical lead
 5. Mike
- Mike reviews project with Dean
- If team and faculty agree on scope, PM agrees there are adequate resources, and Dean gives approval, move to **phase 4**.

Project team

Who is available to work on the project? How much time can they commit? What will their roles be?

Roles	Person	Time commitment
Project Manager/Producer	Dan Schandt	as needed
Subject Matter Expert	Michael Carraasco	as needed
Graphic Designer	Anne Loyer	6 months
Digitization	Allynn Wilkinson	as needed
Animation	Luis Henao, Wolai Konu	6 months
3D-Modeler	Luis Henao	6 months
Programmer	Will Gladstone	6 months

Database Designer	Will Gladstone	6 months
Evaluator	Team	as needed
Metadata creator	Dan Schnaidt	as needed
Librarian	Susanne Javorski	limited
Technical lead	Will Gladstone	6 months
Student assistant	underlab students	as needed

Communications

How will the project team communicate?	Email, phone, meetings
How will documents be shared?	Shared directory on dragon
How will deadlines be established?	Work backward from 12/1 grant deadline

Scope of work

The following table will help to define the boundaries of the project and the work that everyone agrees to perform. Add to or expand the table as needed.

Video shooting
Video editing
Illustration
Graphics
Animation
3D Modeling
Map
Database design/programming
Search engine
Digitization of analog materials
Text writing and editing
Documentation
Library and/or web research
Copyright clearance/licensing

Scope of Work

The following table will help to define the boundaries of the project and the work that everyone agrees to perform. Add to or expand the table as needed.

component or major task	description	Quantity	hrs to complete	who will
Video shooting	none			
Video editing	none			
Illustration	map and site icons, graphics	4	6	wkonu
Graphics	panoramas	6	10	Anne, Mic
Animation	3D fly-through	1	6	Luis
3D Modeling	temple walkthrough	5	30	Luis

Map	interactive flash map	1	30	wkonu
html pages		35	60	anne
Database design/programming			12	will
Search engine			6	will
Digitization of analog materials		40	8	allynn, stu
catalog images		120	12	michea
Text writing and editing			10	micha
Documentation			5	anne, da
Library and/or web research			4	dan, suza
Copyright clearance/licensing			4	dan
research pano photography	prurchase soft, hardware		6	dan
planning, proj mgmt			20	dan
grant application			8	dan, anne, m
travel and site work	Palenque		50	anne, mic
	total estimated hours		287	

Scope of work comments

Add any clarification needed to the above table.

All times are estimates. Meeting and communications time are not reflected.

Risks

List risks which may interrupt or delay the project. For example, faculty sabbatical or leave, use of new technology, refusal of request for critical copyrighted material.

Difficulty getting permissions for Maudslay images; may have to pay for scans from Yale. We anticipate problems with Adobe Atmosphere and with exporting animation from Maya to Atmosphere.

Design concepts

Enter notes from designer's concept presentation at Review Session Two.

What techniques will be used to develop the prototype:

- Site Map
- Wireframe
- Storyboard
- Narrative Specification
- Use cases (description of learning activities)

Include URLs/scans/screenshots

Tools and technologies

List the tools and technologies that will be used.

Flash	yes
Html	yes
Javascript	yes
Perl	yes
Database (oracle, mysql, etc.)	yes
Cold fusion	no
Maya/3D studio max	- maya
Photoshop	yes
Illustrator	yes
Other?	-flash, Stitcher (panoramas), adobe atmosphere

- Are these well understood and supported?

Stitcher and Atmosphere are new. Atmosphere is not well supported.

- Will there be training needed for any of the team members? No training, but time needed to learn or improve understanding of these applications.
- Are there costs involved for software, hardware or training? If so, who will pay? Yes, panoramic tripod head and Stitcher software purchased out of Dan's budget. Will be repurposed for Arts computing.

Testing and Usability

Bug testing will be done by: Rob DeMuelemeester

Browsers/platforms to be tested: PC, Mac, IE, Safari, ?

Describe testing method: Rob will bring up every page and test every link, animation, etc.

How results will be reported: report to team

Usability testing will be done by: not planned for first phase, under tight deadline

Browsers/platforms to be tested: MAC, PC, IE, Safari, Firefox, ?

Describe testing method: to be determined

How results will be reported: to team

Is the LO accessible to people with disabilities?

Are you using Priority 1 or Priority 2 guidelines "<http://www.w3.org/TR/WCAG10/full-checklist.html>]from"<http://www.w3.org/TR/WCAG10/full-checklist.html> from the web accessibility initiative?

Metadata

Metadata will be recorded by: Dan Schanidt

Metadata will be recorded in:

LoLa: yes

Merlot: yes

GEM: yes

Other:

How will the uses of the learning object in a particular course be recorded?

Instructor will record use.

Evaluation

Who is doing the evaluation?

Michael Carrasco and Dan Schnaidt

To whom are the results being reported?

Mike Roy and Palenque team

What quantitative data will be collected?

Server logs: yes

Test scores: to be determined, but unlikely

Other:

What qualitative data will be collected?

Focus groups:

Surveys: mcarrasco will survey his students and colleagues

Interviews:

How will evaluation results be integrated into future designs?

To be determined.

Archive and Maintenance

What documentation is necessary?

All documentation will be embedded in the site.

If documentation is needed, who will write it?

Where will the source files for the project be stored?

learningobjects.wesleyan.edu/palenque/

Who will review project files to make sure that work can be re-started if there is a reason to do so?

Dan Schnaidt

Where do ideas for future enhancements/improvements get recorded?

Dragon/learningobjects/palenque

PHASE 4: PROJECT SCHEDULE/PRODUCTION

Deliverable: Project schedule

STEPS:

- Team and faculty agree on scope
- PM agrees there are adequate resources to complete project as defined
- Dean gives approval
- Project moves into production
- Project schedule is recorded in overall LO schedule on dragon; assign resources for production phase.

Project Schedule

The project schedule should be constructed in a way that best serves the needs of the project team. A simple spreadsheet, as given in example below, may be all that is needed to track a simple project. It is up to the project manager to come up with a method that is appropriate for project. Most important is that the schedule be kept up to date!

This spreadsheet excerpt is taken from the Palenque project schedule at <//dragon/learningobjects/palenque/schedule.xls>.

Task	Start Date	Task Duration /Hrs	End Date	Status x=done	Task assignmet /resource
Analysis, Strategy and Planning					
Review objective with faculty	4/8	3	4/30	x	MC, AL,DS
Library Research	4/30	3	5/4	x	DS, MC
Draft LO Proposal	5/2	5	5/31	x	DS, MC, AL
Submit proposal to NMC	6/2	1	6/2	x	DS
Acquire 3D panorama equipment, software	6/2	8	6/16	x	DS, AL
Plan trip to Palenque	6/2	3	6/10	x	AL, MC
Ascertain materials are / can be licensed	9/27	2	9/28	x	DS, SJ
Draft Project Schedule	12-Oct	3	10/12	x	DS
Review Session 1	8-Oct	6	8-Oct	x	DS, AL, WK, LH, MC
Interface design					
Develop sketches	2-Sep	3	15-Sep	x	AL
Plan content needs for design	2-Sep	3	15-Oct	x	AL, MC
Collect content for design	15-Sep	4	30-Sep	x	MC
Review content for design	30-Sep	2	15-Oct	x	MC, AL
Revise design	30-	3	3-	x	AL

	Oct		Nov	
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An alternative to having the PM define and track all tasks is to define and track only milestones, or higher level tasks which comprise a number of subtasks assigned to a single team member, who defines and reports his own subtasks. This method can be particularly useful if the team member is working with a technology of which only he has full command.

The following spreadsheet is a tabbed worksheet attached to the project spreadsheet above. The 3D models in the project schedule are all the responsibility of one team member, Luis Henao, who defined his own subtasks and reported his progress.

PROJECT NAME: Palenque
Developer/Designer: Luis Henao

Task	Subtask	Start date	Task duration /hrs	End date	Status X=done
3D model of Temples -SunTemple		2-Oct		30-Oct	
	Construct Temple Base		3	2-Oct	X
	Construct Ritual Rooms		3	16-Oct	X
	Construct Detail		3	30-Oct	X
	Design Map for Base		4	15-Oct	X
	Design Map for Ritual Rooms		3	23-Oct	X
	Design Map for Details		2	23-Oct	X
	Finalize		2		
3D model of Temples -Foliated CrossTemple		2-Oct		30-Oct	X
	Construct Temple Base		3	2-Oct	X
	Construct Ritual Rooms		3	16-Oct	
	Construct Detail		3		
	Design Map for Base		4	16-Oct	X
	Design Map for Ritual Rooms		3	27-Oct	X
	Design Map for Details		2	30-Oct	X
	Finalize		2		
3D model of Temples -CrossTemple		2-Oct		30-Oct	X
	Construct Temple Base		3	2-Oct	X
	Construct Ritual Rooms		3	16-Oct	X
	Construct Detail		3		
	Design Map for Base		4	16-Oct	X
	Design Map for Ritual Rooms		3	27-Oct	X
	Design Map for Details		2	30-Oct	X
	Finalize		2		

Meetings

Phase 1 Request

1. PM and faculty meet to discuss initial request in Portfolio.

Phase 2 Proposal

1. PM and faculty meet to refine and develop the request into a formal proposal using the workbook as a guide.

2. Review Session One – the following people meet to review the proposal

PM
Faculty
Designer
Technical lead
Mike
Librarian

Phase 3 Project Specification

1. Review Session Two — the following people meet to review the project specification, and discuss how the proposed learning object supports educational goals.

If team and faculty agree on scope, if PM agrees there are adequate resources to complete project as defined, and Dean gives approval, project moves to Phase 3.

PM
Faculty
Designer
Technical lead
Mike

Phase 4 – Project schedule and production

1. Project team meets to review project schedule and kick off production
2. Production review meetings are scheduled on a regular basis throughout the timeline to verify status and provide opportunities for feedback. The frequency of these meetings should be agreed upon by the team.

Postmortem

A meeting is called after the LO is launched to review performance and process. This can also be the time to collect /review good ideas that fell outside the scope, but might be considered for a second phase of development at a later time.