

MAYAQUEST: AN INTERACTIVE LEARNING EXPEDITION

[**Editor's Note:** What happens when you link teachers and students in North American classrooms with a team of adventurers and archaeologists bicycling across Mexico and Central America in search of the lost Maya Civilization? For three months in 1995, and again in 1996, the MayaQuest team travelled over 2,000 miles through Guatemala, Mexico, Belize and Honduras. Through satellite phone hookup and Internet and Prodigy connections, classrooms in 42,000 U.S. schools traveled with them. This was no ordinary e-mail project but a highly orchestrated and complex undertaking that included on-line-chats (though not with team members themselves), user groups exchanging over 77 lesson plans in English and Spanish, World Wide Web pages, dialogue with on-line experts, live student-produced TV broad-casts and CNN weekly updates. *AnthroNotes* first reported on MayaQuest in the fall of 1994; what follows are the assessments of an archaeologist, computer specialist, and educator involved in the development and implementation of MayaQuest.]

The Archaeologist's Perspective

I had agreed to give a school talk on Classic Maya archaeology to an elementary school participating in MayaQuest. But I was running late, and annoyed that it was taking time away from my planning for Minnesota Archaeology Week. Arriving out of breath and several minutes late, I began to set up my slides, only vaguely aware that a lot of noisy kids were trooping into the room that was being enlarged as teachers folded back partitions.

When I turned around to face the class, I just stood there, amazed, and stared. What I experienced completely validated my decision to help develop MayaQuest; the students I was visiting clearly were participating in an exciting adventure-learning project that had captured their imagination and led them on their own personal quest. My experience that day highlighted all the positive aspects of being involved in this public education project.

The scene before me was a completely transformed environment. Behind the dividers, the room had been turned into a jungle--paper trees and vines, birds and New World monkeys hanging from the ceiling. Palenque's Temple of the Inscriptions was there, complete with Pacal's tomb behind a tiny cardboard flap. These students had not only been following the MayaQuest bicycle expedition; they had been living and breathing the ancient and modern Maya and their environment for weeks. My talk became a reinforcement of their experiential learning and discovery through MayaQuest. These one hundred kids were with me every step of the way. They had good questions, were prepared to learn, and wanted to use me to check the accuracy of their data. My visit was an integrated component of their unit on the Maya. It was an exciting moment of validation for me that the impact this experiment had had on these enthusiastic students was well worth the effort many of us had put into it.

This project teaches us that we must look for partnerships and be open to opportunities. We have to guard against the temptation to feel as if we are selling out by collaborating with nonarchaeologists in the teaching of archaeology and history. Teachers are professionals in their own fields and welcome us for the rich content we can contribute to their teaching. In the case of MayaQuest, the use of computer technology helped us achieve this partnership.



The Technology Coordinator's Perspective

With the wealth of resources available on the Internet, how do teachers find projects like MayaQuest and integrate them into their curriculum? The best Internet applications are made up of unique partnerships. For MayaQuest, the Internet provided a means to mediate communication on behalf of the kids, the team, and the scientist, whose input was essential in raising the students' level of learning. One student's reaction last year was: "Having David Friedel respond to our question was like getting batting practice from Babe Ruth."

We now have the opportunity to forge strong partnerships between K-12 education specialists, experts in the field, and informal education centers (e.g. museums, zoos). By adding this additional layer to the schools, science centers, and the field professionals, we not only forge new alliances but justify their existence. How can scientists warrant the additional time required to expand their work to include K-12 education? What better way than to have an audience of students who are not only engaged in the study of these professionals, but also advocating informally for more and broader participation at a public level. In an interview with Maya expert Linda Schele, she declared that MayaQuest did more to attract kids to the field than all her book sales and lectures in the past 25 years.

One of the problems with the Internet is its creation of a certain infatuation with the technology itself. We are now seeing a tremendous amount of information being generated with an over-use of the technical bells and whistles. Fortunately, we will reach a time when these technologies will become common-place, like the telephone, and then the effective use of the Internet will be easier to measure. In the meantime we need to be diligent and critical consumers of the resource and the information, and ask ourselves, "Is this improving student learning"? If we cannot answer yes, then there is no need to force its use.

With MayaQuest, kids became connected with another culture. They realized that the people in Latin America had a rich culture history before

Columbus. They saw connections between environmental degradation and cultural decline. They experienced a myriad of ways to learn about issues and they saw that experts don't always agree. They wrestled with ethical issues and clarified their own values. What conclusions could archaeologists and educators draw?

Part of the assessment of these projects will need to take place in 15-20 years. Will we look back at this time and be able to identify professionals in scientific fields whose first introduction was a participation in MayaQuest or similar project? If we answer yes, then the value of these activities can certainly be measured. Will we be able to look back in 20 years and identify cultural shifts in peoples' attitudes towards supporting the sciences? If we can answer yes, then these efforts have not been in vain.

The Educators' Perspective

MayaQuest 1995 - The year we threw out the textbooks and traveled to the remote regions of Central America without leaving the classroom; a year for magic and incredible insights. By participating in the MayaQuest Project, we learned that our students had an insatiable hunger for knowledge and they were dying for us to fill them up. But first we had to get their attention.

In February, several teachers embarked on a three month expedition throughout Central America. We brought with us 300 1st, 2nd, 4th and 6th graders from Como Park Elementary School in St. Paul, Minnesota. It wasn't the usual travel adventure; we didn't get bug bites, sunburn or even Montezuma's Revenge. What we did get was an opening into the world of the Maya culture through an on-line adventure called MayaQuest.

Our goal was to have the kids experience the sights, sounds, food, history, and people of the Maya civilization in the same way the team did, except we stayed in Minnesota. One hundred fifty teachers-strong, we were able to simulate a Maya community by using Maya arithmetic in our math class, building a rain forest with authentic birds, plants and animals, deciphering hieroglyphs, and writing Maya-style

poetry. The beauty of this experiential style of teaching is its virtually painless application. Students hardly realized they were "learning," because they were too busy discovering and trading information.

One of the most gratifying aspects of this program was watching these young minds come alive with their own imaginations. The kids learned about Mayan culture, and that learning triggered an unbridled range of theories pertaining to Mayan life-and death. For instance, a great enthusiasm arose from discussions on why and how the Maya civilization collapsed. Some said it was due to famine or disease, while one student believed it was due to alien abduction. Wild hypothesizing, yes, but it let us know that these kids were thinking imaginatively. They were synthesizing information; using the facts they'd learned as a foundation for creative thinking of their own.

How did we pull this off while staying within our curriculum? By using a little creativity and thinking in the most untraditional ways possible! We turned our classrooms into living labs for discovery every day. As a collaborative effort among teachers, we built a school-wide curriculum centering on the Maya culture. It covered the basics of readin', writin', and 'rithmetic, but we went far beyond that to cover a wide variety of other disciplines, including math, science, geography, art, architecture, history, anthropology and archaeology. It was clearly an experiment that worked for us!

Lots of kids, for instance, have a tough time with math, and many are not at all interested. Not so during these three months! The students were thrilled to learn how the Maya figured things out in their mathematical base 20 system. Once the kids were comfortable with the numbers, they converted their classroom numbers with the three Mayan symbols: the shell, the bar, and the dot. Soon all the classrooms had Mayan numbers on their doors. The converting process was a big hit. Students began converting their birthdays and telephone numbers to Mayan numbers.

The students also did a lot of reading, but not from the most conventional sources. One sixth grade

special education class became the experts at deciphering hieroglyphs. Not only were the students able to read the glyphs, they were able to create their own personal stories through them. With a color printer, they designed frameworthy reproductions of these glyphs, which they posted all over the school. This same industrious group, with the help of a skilled teacher and carpenter, designed and built a six foot tall majestic Maya Ruin in honor of the site, Tikal.

Meanwhile, sixth graders corresponded, through MayaTalk on the Internet (the MayaQuest Listserv), with students all over the globe, from Australia to Belize. Before and after school and during recess, the students visited the computer resource center to gather clues about the ancient Maya.

We had to take risks, such as the decision to abandon our textbooks and hide our work sheets. The students enjoyed the risks; they were thrilled with the connections they made with an ancient civilization, but more importantly, the connections they made with each other. The learning was not traditional; it was serendipitous. The students were the explorers; we just gave them a little guidance finding their own path.

Resources:

- MayaQuest <http://www.mecc.com/mayaquest>
 Society for American Archaeology <http://www/saa/org>
 TimeTraveler <http://id-archserve.ucsb.edu/timetraveler/main.html>
The Maya. Lawana Hooper Trout, Chelsea House Publishers
 ISBN 1-55546-714-8
The Ancient Maya. 5th ed. Robert J. Sherer. Stanford University Press ISBN 0-8047-2310-9



Phyllis Messenger is Senior Education Archaeologist at the Institute for Minnesota Archaeology and an original consultant on MayaQuest.

Joel Halvorsen is Educational Technology Fellow, Science Museum of Minnesota.

Kathy Kraemer is Internet Curriculum Specialist, Technology and Information Educational Services (TIES)