The New York Times   Reprints

August 24, 2010

In History-Rich Region, a Very New System Tracks Very Old Things

By RANDY KENNEDY

The field of archaeology and the timeworn Middle East would not seem the obvious places to look for a wiki revolution. But next month in Jordan, officials who oversee that country's vast store of antiquities will begin an experiment aimed at bringing 21st-century tools to the task of protecting ancient sites, which is an especially pressing need in neighboring Iraq, where looting is once again on the rise.

Over the last four years the Getty Conservation Institute in Los Angeles, with financing from the World Monuments Fund and help from the Jordanian Department of Antiquities, has built an ambitious Web-based system that will allow archaeologists and conservators there, for the first time, to gain access to decades' worth of records about Jordan's sites and to monitor the condition of those sites much more easily.

Known by the slightly science-fiction-ish name MEGA — for Middle Eastern Geodatabase for Antiquities — the system functions in both English and Arabic, and the information in it is obtained via Google Earth satellite images. These let users find any of Jordan's more than 10,000 sites, from the ancient city of Petra to tiny unearthed remnants from antiquity, like wine presses, threshing floors and burial grounds dating to the Neolithic period.

While field reports on those sites — with information about potential threats, like development, livestock or looting — were previously cataloged on a local database in Jordan, the new Web-based system allows this information to be found and updated much more quickly and easily. The system would not keep tomb robbers away by itself but would allow Jordan — and other countries, if the system catches on — to track damage, theft and other changes and to respond with a more efficient use of resources.

"The classic rule in preservation is that you can't preserve something until you~~~~~~~~~~~~~ it," said Timothy P. Whalen, the director of the Getty Conservation Institute, a~~~~~~~ Paul Getty Trust. "This kind of tool to do that does not exist anywhere right n~~~~

The system is scheduled to open in September, but only to authorized users. M~~~~~

archaeologists say they hope it will eventually become open to a much broader group of scholars and conservators around the world to view and add to, or comment upon, the information in the database.

"It's a kind of openness that is still a very new concept in parts of the Middle East," Mr. Whalen said.

Ziad al-Saad, the recently named director general of the Jordanian Department of Antiquities, said in a telephone interview from Amman that the country — where security and access to official information are touchy topics — was actively considering making the system freely accessible. "We want to be able to share what we have here with everyone," he said.

He added that he considered the system an important step forward in how antiquities-rich countries like his will safeguard their treasures. "Tourism is a prime sector of our economy, and our archaeological sites are key to that," he said. "We like to call Jordan an open museum. You find antiquities wherever you go here."

The project, which cost about $1 million to develop, was not initially intended to begin in Jordan, but in Iraq, where the looting of the National Museum in Baghdad in the wake of the 2003 invasion set off international alarms about the threat to some of the world's oldest artifacts. With so much attention on the museum, Mr. Whalen said, the Getty and some others in the antiquities field decided that they could help most by focusing on the threat to archaeological sites, which were also being cleaned out wholesale by thieves in the chaos after Saddam Hussein's government was toppled.

But the chaos and violence in Iraq ultimately prevented the Getty from being able to work with officials there to create what was originally planned to be a local database program, not one that utilized the Web.

"The idea of shipping a couple of big computers to Iraq and hoping that they would get there and that it would all work just seemed too crazy," said Alison Dalgity, a senior project manager at the Getty who helped develop MEGA.

And so the institute accepted an invitation from Jordan to develop the system there first, a plan that coincided with a sea change in Web-based mapping tools and the rise of open-source software, meaning that the system could exist on the Web and be built and updated cheaply.

The need for such a monitoring system in Iraq is dire. The looting of ancient sites has increased again after several years of relative calm, largely because of the withdrawal of American troops and the failure of a new Iraqi antiquities police force, which is vastly understaffed, to step into

the breach.

Even Jordan, which has been effective at protecting and preserving its sites, struggles with the incursions of modernity upon antiquity — among them thieves, construction projects that unearth and destroy mosaics, and unfenced livestock that wander in and damage sites. Ms. Dalgity, who traveled many times to the Middle East over the last several years as the system was being built, said that on her most recent trip to Jordan, in late July she visited the remains of a 1,300-year-old Umayyad palace near Amman, whose frescoes were marred with graffiti.

Last February conservators from the Getty met in Cairo with Iraqi antiquities officials to plan instituting the system in Iraq after it became operational in Jordan. Even though Iraq has stabilized greatly since the Getty first began working to establish a monitoring system, Mr. Whalen said, security problems and shifting lines of bureaucratic authority remain as hurdles to putting the program in place.

"It's still too early to even speculate about it," he said, about expanding to Iraq. "We'll just have to see what kind of stability develops."

But the official who oversees archaeological sites in Iraq said that from his perspective the country was fully prepared to move ahead as soon as the Getty was ready.

"I think that the security situation makes the other side think twice before they start working," Qais Hussein Rashid, the director of the State Board of Antiquities and Heritage in Iraq, said in an e-mail interview. But he added that "we are ready, our sites are ready, our teams can reach to any point in Iraq," and that as soon as the Getty agrees to a memorandum of understanding about the project, "we will start the very next day."

Mr. Whalen said that if the program proved effective in the Middle East, it could be easily adapted for use almost anywhere by plugging in different maps and adjusting categories used by local archaeological field teams.

"We could just turn off the Arabic switch," he said, "and even, you know, Canadians could use it if they wanted to."

Duraid Adnan contributed reporting from Baghdad.