

A River

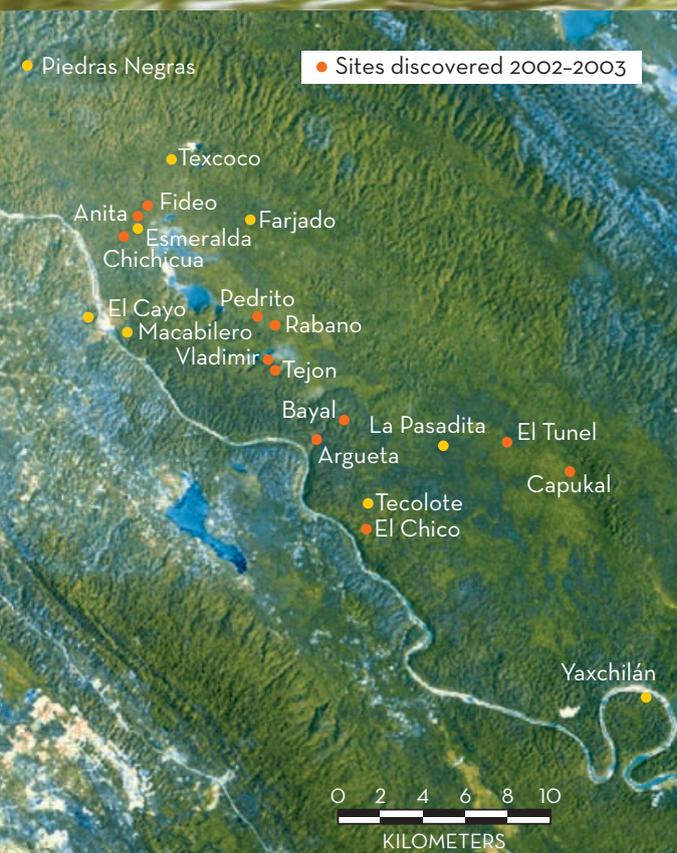
Runs Through It

NEW DEVELOPMENTS IN THE USUMACINTA CULTURAL LANDSCAPE

For more than a thousand years, the Usumacinta River served as a vast commercial highway linking Maya cities in the highlands of what are now the Petén region of Guatemala and the Mexican state of Chiapas to the Gulf of Mexico. Among the most prominent cities to prosper from the lucrative riverine trade in salt, cacao, cotton, obsidian, and exotic feathers were those of Yaxchilán and Piedras Negras, which rose to preeminence on the banks of the Usumacinta in the sixth and seventh centuries A.D. These sometime rivals and erstwhile allies reached their apogee in the mid-eighth century when most of the temples, palaces, pyramids, and ballcourts we see today were constructed.

In the millennium since their abandonment, both Yaxchilán and Piedras Negras have been damaged by erosion, exposure to the elements, exuberant vegetation, and the predations of looters. In the case of Piedras Negras, further destabilization was wrought by archaeologists using outmoded excavation techniques in the 1930s. Yet the greatest threat to these extraordinary sites emerged in more recent years with the proposed construction of a hydroelectric dam on the river.

So dire was the situation that in 2000, the ancient site of Yaxchilán was included on the World Monuments Watch list of 100 *Most Endangered Sites*. In 2002, Yaxchilán was joined by Piedras Negras, some 40 kilometers downstream. Subsequent listing of the sites in 2004 was augmented to include the dense jungle that embraces the ancient cities—rich not only in its biodiversity but in its cultural material, little of which had been documented, and all of which was at risk of being lost forever should plans to dam the Usumacinta move forward.



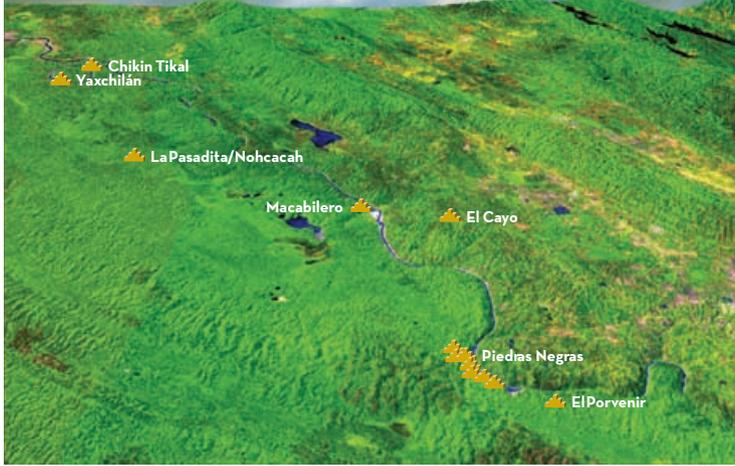
Following the 2002 listing, WMF embarked on a two-fold effort to safeguard the entire Usumacinta River Cultural Landscape. Firstly, it was important to assess the true impact of the dam on the landscape. Was it possible to accurately predict the proposed dam's path of destruction? And what was at risk beyond Piedras Negras and Yaxchilán—one or two smaller sites or dozens of ancient cities—should the dam project proceed? Despite more than a century of exploration, the region remains one of the least known, archaeologically speaking. Secondly, WMF was determined to engage those involved in preservation and legislative protection at the local and national levels on both sides of the river in a discussion over the region's future. Key components of this effort were the carrying out of emergency conservation and stabilization work at both sites and the launching of a program to train those who live in the shadow of these cities to properly care for, manage, and maintain their archaeological remains.

Over the past three years, WMF has made significant progress on all fronts, made possible in large part through a collective commitment of \$500,000 from American Express; the Selz, Klein, and Kaplan foundations; and WMF through its Robert W. Wilson Challenge to Conserve our Heritage. These funds have been complemented with additional support from Banamex, Mexico's largest bank, and that country's Instituto Nacional de Antropología e Historia (INAH).

To assess the potential impact of the dam on the area, WMF commissioned a study carried out by a team of remote-sensing specialists well versed in water management issues. Earlier studies had suggested that construction of the dam would simply result in a higher water level on the Usumacinta, but little else. Given the porous limestone bedrock of the region, however, this seemed highly unlikely according to those in water management and environmental conservation, who noted that rising waters would not be confined to the riverbed—as proponents of the dam believed—but would spill over at structural weak points in the riverbanks, pooling and draining into low-lying areas, sometimes kilometers away from the river itself. By merging data



A LATE CLASSIC BUILDING AT TECOLOTE, WHICH HAS ONLY RECENTLY BEEN DOCUMENTED.



TODD BERENDES FOR WMF

A VIRTUAL REALITY IMAGE OF THE USUMACINTA CULTURAL LANDSCAPE, TOP, SHOWS THE CURRENT RIVER LEVEL. THE IMAGE ABOVE IS THE FLOW PATTERN OF THE USUMACINTA, SHOULD A DAM OF 90 METERS BE CONSTRUCTED.

THE SIERRA DEL LACANDÓN REGIONAL ARCHAEOLOGICAL PROJECT TAKES TO THE FIELD, BELOW. A NEW-FOUND BUILDING IS EXCAVATED, BELOW RIGHT.

gleaned from satellite imagery and aerial surveys with sophisticated hydrographic modeling software, the team was able to simulate the flow pattern of rising waters. As predicted, any dam with a height greater than 30 meters would have a disastrous impact on the entire Usumacinta region. Based in part on these assessments, plans for the dam appear to be on hold.

In concert with this work, a remote-sensing team from NASA's Jet Propulsion Laboratory, using coordinates provided by WMF, overflowed a 60-kilometer stretch of the river, scanning both sides for any possible evidence of archaeological remains, which might be detectable with Airborne Synthetic Aperture Radar (AIRSAR). With its long wavelength, AIRSAR is an all-weather imaging tool able to penetrate clouds and forest canopy. Data from that flight, which took place on March 4, 2004, are currently being analyzed.

Meanwhile members of the Sierra del Lacandón Regional Archaeology Project (SLRAP), directed by Charles Golden of Brandeis University in Massachusetts, began surveying ground between the two sites on the Guatemalan side of the river, using satellite information and following up on reports of sightings of ruins deep within the jungle. During the 2002 fieldseason, four sites came to light (see *ICON*, Summer 2003), two of which, Texcoco and Tecolote, were known to archaeologists but undocumented, the others, Esmeralda and Fajardo, discovered for the first time. As of this writing, the locations and layouts of some 16 "new" sites on the are now known, a dozen entering the archaeological record in the last few months.

Of the 16 sites identified by the SLRAP thus far, five have been mapped and test-pitted: Tecolote, Esmeralda, Fideo, Anita, and

Chichicua. Excavations at all of these sites, as well as at La Pasadita, and ceramic samples taken from associated caves suggest two distinct periods of occupation, initially in the Middle to Late Preclassic Period (ca. 1000 B.C.-A.D. 250) and again in the Late Classic Period (A.D. 600-800), with little evidence of settlement in between. These data suggest a pattern of people moving from the countryside to the growing urban centers of Yaxchilán and Piedras Negras at the end of the Preclassic, and only expanding again into the countryside during the Late Classic, a dynamic cycle common to many urban centers and their hinterlands elsewhere in Mesoamerica and around the world.

Even at this an early stage in their exploration, the new-found sites are already yielding a wealth of new information on the political landscape of the Usumacinta region during the Late Classic Period. Archaeological and epigraphic data collected at the sites points to a clear political boundary between the two major centers, particularly during the Late Classic Period. La Pasadita and Tecolote appear to have been subordinate to Yaxchilán while Piedras Negras held hegemony over El Cayo and Texcoco and through these mid-sized entities held sway over Fajardo and Esmeralda. The remaining sites identified appear to be smaller hamlets, representing a fourth tier on the settlement hierarchy.





NASA/JPL FOR WMF

REMOTE-SENSING SPECIALISTS FROM NASA'S JET PROPULSION LABORATORY SURVEY THE USUMACINTA USING AIRSAR IN EARLY MARCH 2004. THE RIVER AS IT LOOKS FROM THE AIR, RIGHT. ONE OF THE MANY MAYA FREEDOM FIGHTERS THAT TOOK REFUGE IN THE DENSE TROPICAL JUNGLE DURING THE GUATEMALAN CIVIL WAR (1954-1995). SINCE THE BEGINNING OF THIS YEAR, THE AREA HAS BEEN ENGLUFED IN A DRUG WAR.

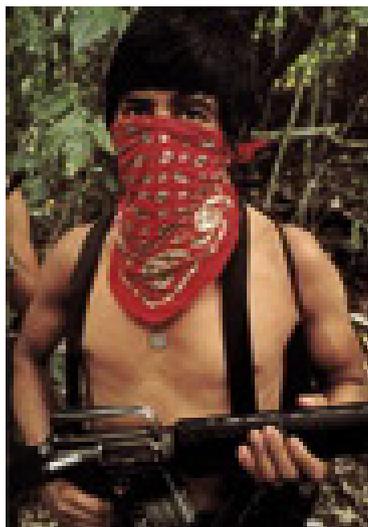
Reconnaissance of the area, which has been underwritten in part with funds provided by the J.M. Kaplan Fund through WMF, has also revealed a series of what appear to be defensive walls distributed across the study region from east to west. Although defensive features are not unknown at Lowland Maya sites, they typically are found in the immediate environs of a site center. On the basis of epigraphic data, the area under investigation has been hypothesized to represent the Late Classic border zone between Piedras Negras and Yaxchilán. If these walls, in fact, delimit a political boundary, it would represent an unusual phenomenon in the Maya Lowlands. The presence of, or rather need for, defenses in this area also suggests that travel through the region may have been frequently on foot through the karst hills rather than strictly limited to riverine transport as some have contended.

In tandem with these exploratory missions, conservators have been carrying out emergency restoration work at both Yaxchilán and Piedras Negras. At Yaxchilán, WMF will be working with INAH to consolidate several buildings on the site's South Acropolis, following a structural analysis of the ancient temples. In addition, WMF is aiding INAH in the development of an integrated management plan for the site, based on a model drafted for Piedras Negras, as well as enhancing visitor access to the site for both safety reasons and to limit damage to the archaeological remains. Similar conservation work is to be carried out at Piedras Negras.

Throughout the investigation, WMF has been working closely with the cultural officials in both Mexico and Guatemala in an effort to reach consensus on the future of the Usumacinta Cultural Landscape. A memorandum of understanding has been signed by representatives of the two countries

in partnership with USAid for the creation of a binational initiative to protect the region's biodiversity and cultural resources. This stretch of the river is home to several endangered species, including the scarlet macaw and the jaguar, and is a major bird migration route. Together, the countries hope to develop a management plan for the area that provides for its long-term conservation as well as the needs of its 7.5 million inhabitants.

Both Mexico and Guatemala are currently seeking inclusion of the Usumacinta Cultural Landscape (Cuenca del Rio Usumacinta) on UNESCO's World Heritage List. A dossier has been prepared by each country for their respective side of the river. If we are lucky, such designation along with continued vigilance on the part of the international conservation community will ensure that construction plans for the dam stay shelved for good. In the meantime, new challenges have emerged as this stretch of the Usumacinta, particularly in the vicinity of Piedras Negras, is now engulfed in a drug war. ■



PHOTOGRAPHS COURTESY CHARLES GOLDEN(S)

