



Global Assets

37th Session of the Unesco World Heritage Committee
Phnom Penh, June 16 - 27, 2013

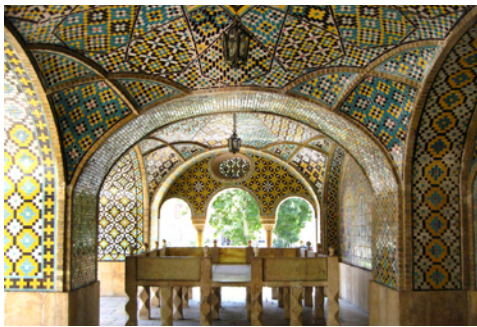




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Mount Etna in Sicily, Italy, has been nominated as a World Heritage site.

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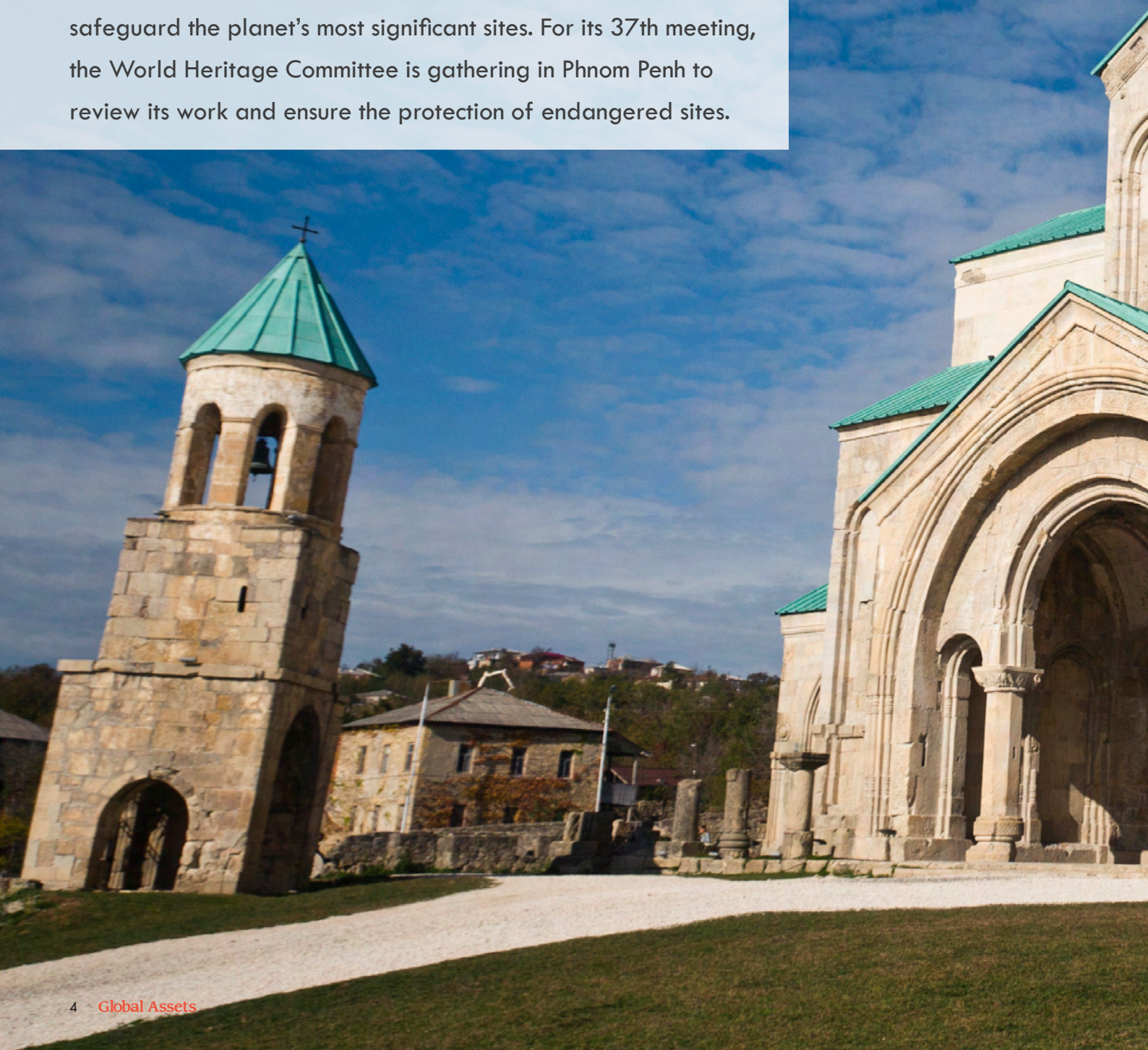
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Cover photos: World Heritage sites reflect millennia of human creativity. Clockwise from top left: bas relief of Angkor Wat monument in Cambodia; Brazil's city of Brasilia conceived in 1956; Alta's prehistoric painting in Norway; Vietnam's Ha Long Bay; sculpted feature in Peru's ancient city of Chan Chan; Canada's Rocky Mountain Parks. Center: the 2,000-year-old site of Palmyra, Syria.

Contents photos: Clockwise from top left: An arcade inside the Golestan Palace in Tehran, Iran. (Creative Commons) The Sydney Opera House in Sydney. (Creative Commons) Specialists assess ceramic fragments from a dig in Siem Reap at the offices of the Institut de Recherches Archeologiques Preventives (Inrap) in 2012. (Inrap) A bas relief from Banteay Chhmar temple in Banteay Meanchey province. (Lauren Crothers/The Cambodia Daily)

History of Heritage

The World Heritage Convention was adopted in 1972 to safeguard the planet's most significant sites. For its 37th meeting, the World Heritage Committee is gathering in Phnom Penh to review its work and ensure the protection of endangered sites.





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Belonging to the “golden age” of medieval Georgia, the Bagrati Cathedral was an education and science center.

មហាវិហារបាក្រាទី ជាមជ្ឈមណ្ឌលផ្នែកអប់រំនិងវិទ្យាសាស្ត្រ នៅប្រទេសហ្សឺរដ្ឋី។

About 1,300 delegates from 125 or so countries are expected in Phnom Penh this weekend to take part in the 37th World Heritage Committee meeting.

At stake during the 11-day session starting Sunday night will be historical and natural sites from around the globe that countries attending the event will either fight to have put on, or argue to keep on, the World Heritage List.

The committee, consisting of representatives from 21 countries, is charged with implementing the World Heritage Convention intended to provide, as the text reads, “an effective system of collective protection of the cultural and natural heritage of outstanding universal value, organized on a permanent basis.”

It will be only the fourth time since the convention was adopted in 1972 that the committee holds its annual meeting in Asia. In 1994, committee members gathered in Phuket, Thailand. In 1998, they went to Kyoto in Japan, and in 2004,

to Suzhou in China.

This time, the meeting, chaired by Cambodia’s Deputy Prime Minister Sok An, will take place at the government’s Peace Palace in Phnom Penh.

The agenda will include reports on measures taken to protect historical sites that the committee previously inscribed on the World Heritage List; requests from countries wishing to get new sites on the list; and reviews of endangered sites. More than 150 sites are scheduled to be studied, which will make the job of keeping to the schedule no small task for the chair, observers say.

This will be the first time that Cambodia presides over a U.N. committee. “This is sending a strong message to the world that the kingdom is more than just a peaceful nation that attracts tourists and investment, but that Cambodia is also playing a greater role at the global level,” said Ek Tha, the Cambodian government spokesman for this event.

The Convention and the World Heritage List

The “Convention concerning the Protection of the World Cultural and Natural Heritage” was

adopted during a conference of the U.N. Educational, Scientific and Cultural Organization (Unesco) in November 1972 because delegates felt, the text states, “that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction.”

International measures were warranted to help countries protect “properties” that are identified as being of “outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.”

“This, for me, is not only an obligation through the convention: It is a right of those generations to the heritage we have inherited,” said Mechthild Rossler, deputy director of the World Heritage Center created by Unesco in Paris to help implement the convention. Through those sites being preserved, she said, “the diversity of the world’s heritage is being brought to the foreground.”

Once a property is declared a World Heritage site by the committee representing the General Assembly of countries that have ratified the convention, it is put on the World Heritage List.

There are currently 745 cultural sites on the list ranging from Chavin de Huantar in Peru whose civilization goes back 3,000 years and the millennia-old Kasbah of Algiers in Algeria, to the 16th century royal castle of Kronborg in Denmark and the 18th century Hwaseong Fortress in South Korea.

The list also comprises 188 natural sites including Ha Long Bay in Vietnam, Socotra Archipelago in Yemen, the Canadian Rocky Mountain Parks, and the Durmitor National Park in Montenegro.

Finally, 29 sites are deemed mixed properties such as the Tongariro National Park in New Zealand, described on the World Heritage List as a “cultural landscape” due to the mountains’ religious and cultural significance for the Maori people who have lived in the region for more than 1,000 years.

The decision to include both cultural and natural heritage in the convention was based on a theory regarding the emergence of human culture, said Anne Lemaistre, Unesco representative in Cambodia who previously worked at the World Heritage Center. “The idea was that culture is born of nature, which is true as we are who we are because of our environment. We invent strategies—which are cultural factors—to adapt to our environment, to valorize, love, totemize it. Therefore man’s vision is a cultural act regarding nature and is therefore linked to it,” she said.

The convention’s other innovation was to make the protection of world heritage an international responsibility, Ms. Lemaistre said. “A country has sovereignty over its World Heritage site. However, when it comes to its protection, the country has the international community’s support to take action and protect what the international community considers a marvel deserving to be safeguarded for the planet’s common good.”

One of the best examples of the international community coming to the rescue has been Angkor, the seat of the powerful Khmer empire founded 1,200 years ago, she said.

When the World Heritage Committee



Reuters

Yemen’s Socotra Archipelago in the Arabian Sea has an exceptionally rich and distinct flora and fauna.

ប្រជុំកោះសូកូត្រាប្រទេសយ៉ែន មានជីវភាពរុក្ខជាតិសម្បូរជាងគេបំផុត



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Founded in the 5th century, Mali's city of Timbuktu has been an important spiritual and intellectual capital in Africa.

ទីក្រុងទីមបុកទូនៃប្រទេសម៉ាលី ជាទីក្រុងបែបសាសនានិងអប់រំដ៏សំខាន់នៅក្នុងតំបន់អាហ្វ្រិក។

agreed—against all odds—to put Angkor on the list in December 1992, it was obvious that Cambodia would need a great deal of support not only to save the site but also to meet basic requirements for inscription on the World Heritage List.

The Paris Peace Agreement signed a year earlier had put an end to two decades of war and conflicts in Cambodia, prompting the U.N. to embark on a gigantic rescue mission and manage the country until a national election could be held in 1993. Angkor park had been heavily mined during the war, its millennium-old structures often used as camps by soldiers. The country, whose researchers and experts had been systematically killed in the Khmer Rouge genocide, was in no position to restore this vast site.

The inscription of Angkor on the World Heritage List led to the creation of the International Coordinating Committee (ICC) of Angkor: Specialized teams from several countries who took on the restoration of various monuments and assisted Cambodians to develop and manage the 401-square-km Angkor park.

“Since the establishment of the International Coordinating Committee in 1993, Cambodia has received assistance of more than \$250 million from 17 countries and 28 international institutions to implement more than 60 different projects for the preservation and development of the site,” government spokesman Ek Tha said.

“As a result, Angkor was removed from the List of World Heritage in Danger in 2004,” he said. “This is a Cambodian model in terms of protection and preservation of cultural heritage...a

successful model for safeguarding heritage sites [which could be applied] in other parts of the world with its concept of close cooperation between the government, international institutions and Unesco.”

The Committee Meets in Cambodia

The ICC celebrating its 20th anniversary this year is one of the reasons why Cambodia was eager to host the World Heritage Committee meeting so that delegates could see what international cooperation has accomplished over the last two decades, Mr. Tha said.

But being in a position of having the meeting in Phnom Penh took some long-term planning on Cambodia's part.

Since the World Heritage Committee only holds its annual meetings in countries represented on the committee, a country must first be voted in by the General Assembly of country signatories—currently totaling 190—to accede to the committee.

Every two years, member countries divided into five geographic areas—Africa, the Arab States, Asia and the Pacific, Europe and North America, Latin America and the Caribbean—elect committee members from their respective regions for a mandate of four years. The convention stipulates a six-year mandate but elected members agree to step down after four years to give other countries a chance to sit on the committee.

“As soon as Cambodia was elected to the committee in 2009, the country asked to host the committee,” recalls Ms. Lemaistre who was

chief of policy unit and statutory meetings at the World Heritage Center at the time. “But we knew that obtaining this would not be especially easy.”

Some countries were expected to object on the grounds that, being on the list of the world's 49 least-developed countries, Cambodia did not have the resources to host such a meeting, Ms. Lemaistre said.

In addition, there was the conflict between Cambodia and Thailand over the Preah Vihear temple, a World Heritage site in northwestern Cambodia next to the Thai border, she said. Some Thai political and military factions have used the two countries' long-term disagreement over the monument for domestic political gains, and the fact that Thailand was elected to the World Heritage Committee along with Cambodia in 2009 meant that Thailand could block Cambodia's bid since it is the committee members who select countries for their meetings.

At first, Thailand opposed Cambodia's request by offering to host the meeting itself. However at last year's committee meeting in Saint Petersburg, Russia, Thailand did not renew its offer, sparing committee members the difficulty of having to choose between the two countries and opening the door for Cambodia's proposal, Ms. Lemaistre said.

As far as Cambodia is concerned, a great deal is at stake with this meeting. “We are thrilled to host such an event in the sense that Cambodia [will prove itself] capable of handling and hosting a large number of delegates from different parts of the world,” Mr. Tha said.



Unesco/G. Boccardi

One of the ancient monuments of Kyoto, Japan's cultural center for more than 1,000 years.

វិមានបុរាណមួយនៃក្រុងក្យូតូ ជាមជ្ឈមណ្ឌលវប្បធម៌ដែលមានចំណាស់ជាង១០០០ឆ្នាំរបស់ប្រទេសជប៉ុន។

"We want them to remember, after the event, that this is new Cambodia on old land," he said. "In the past, what most outsiders heard of Cambodia was the Killing Fields, Pol Pot and the Khmer Rouge—the dark side of the country. But today, Cambodia is developing quite fast. We are moving from war to wealth. You can see a mushrooming of construction, booming tourism and bountiful crops. On top of that, the country's political stability and macroeconomic stability are playing a vital role...[for] this kingdom to become a tourist destination and investment radar."

In other words, the Cambodian government is eager to show delegates the country at its best.

In terms of logistics, holding the meeting and assisting the 1,300 or so delegates will be no small task.

"We have a huge media center for national and international journalists who cover the event," Mr. Tha said. "Internet links will be provided and, on top of that, you can follow the proceedings live on the Internet."

Struggling to Save Endangered Sites

During its annual meeting, the World Heritage Committee may analyze more than 150

properties, reviewing the preservation measures taken at sites on the list, making decisions on properties submitted for inscription, and taking steps when needed regarding sites in peril.

During such discussions, expert assessments compiled after extensive field visits and in-depth investigations will be presented to the floor.

For example, the report on the Manovo Gounda Saint Floris National Park in the Central African Republic, which is listed as a World Heritage in Danger, notes that the park's wildlife has decreased by 80 percent due to illegal grazing and uncontrolled poaching by armed groups that affect security in the park and has halted tourism. The committee will be voting on the report's recommendations requesting an emergency plan to be drafted by the country.

Members will also decide whether properties such as the rainforests of the Atsinanana in Madagascar, the Bagrati Cathedral and Gelati Monastery in Georgia and the Chan Chan Archaeological Zone in Peru should remain on the list of endangered sites.

Once on the World Heritage List, a property must be managed in ways that ensure its protection and guard the physical space around it so that it can retain its "wholeness" and "intact-

ness." This is one of the reasons why Cambodia's Angkor Archeological Park was set at 401 square km in 1992. World Heritage experts revisited the notion of "visual integrity" at a workshop in India last March and will present at the Phnom Penh meeting their recommendations that include factoring into a site's management plan the protection of its "key views, viewpoints, panoramas."

If a country does not respect the terms of the convention to the point of jeopardizing the safeguard of a property, that property may have to be dropped from the World Heritage List.

"Unfortunately, we have seen two cases of delisting in the past decade: one in Germany, one in Oman," said Mechtild Rossler, deputy director of the World Heritage Center. "This is a clear loss for all of us, as we had the duty to protect these sites and we failed."

In 2007, Oman's Arabian Oryx Sanctuary became the first property to be taken off the list due to Oman reducing the sanctuary site by 90 percent and letting the number of Arabian Oryx drop due to poaching and habitat degradation. Then in 2009, Germany's Dresden Elbe Valley was taken off the list when it was defaced by the construction of a four-lane bridge in the heart of



Unesco/F. Bandarin

New Zealand's Tongariro National Park has both active and extinct volcanoes.

ឧទ្យានជាតិកុងហ្គារីរ៉ូ របស់ប្រទេសនូវីលេសេឡង់ មានទាំងភ្នំភ្លើងសកម្ម និងភ្នំភ្លើងងប់។

the cultural landscape.

"The convention considers that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world," Ms. Rossler said.

As time goes by and the global population increases, protecting the planet's marvels for future generations becomes more and more difficult.

"The convention notes that both the cultural heritage and the natural heritage are increasingly threatened with destruction," Ms. Rossler said. "This is one of the reasons that the convention came into being: to protect this diverse heritage of humankind for the future."

Accomplishing this in conflict zones may prove next to impossible.

"We saw the intentional destruction of heritage of the Buddhas of Bamiyan in Afghanistan," Ms. Rossler said. The Buddhas were destroyed in 2001 by the Taliban who ignored pleas from the international community to spare the statues. The Bamiyan Valley was later put on the World Heritage List and, Ms. Rossler said, "The World Heritage Center works very closely with the authorities on the restoration of the remains in the [statues'] niches."

"We have been dealing with many conflicts in the past," she said. "In the region of former Yu-

goslavia, we had up to five sites on the Danger List, including Dubrovnik which was bombed during the war and subsequently restored through Unesco's efforts and the support of many countries.

"In ongoing conflict situations such as Mali, we have made enormous efforts to address the protection of the heritage of humanity both on site as well as through major donor conferences and specific actions plans," she said.

In Mali, at least 11 of the 16 mausoleums of Timbuktu, which was founded in the 5th century, were systematically destroyed in the ongoing crisis.

At the Phnom Penh meeting, the committee will also discuss the situation in Syria where conflict is putting in jeopardy the country's six World Heritage sites. In her appeal for help on June 2, Unesco's Director-General Irina Bokova stressed how crucial such sites may be for people caught in war.

"Amidst conflict and civil strife, heritage provides a much-needed sense of continuity, dignity and hope in better times, all of which can reinforce the processes of reconciliation," she said.

At every meeting, committee members review new requests from countries hoping to add new sites to the World Heritage List. For this meeting, a total of 34 complete nominations were submitted by the February 1, 2012, deadline. They include Iran's Golestan Palace, India's Great Himalayan National Park and Italy's Mount Etna.

With dozens of new sites being submitted each year and many of them added to the list, Ms. Rossler said, "The biggest challenge is the growing World Heritage List and the diminishing resources for conservation and safeguarding in many nations and at the international level."

Those thinning resources make the notion of managing heritage sites in a perspective of sustainable development the more attractive. This notion developed and tested by the International Coordinating Committee (ICC) of Angkor in

Cambodia has since been adopted as a strategy at the World Heritage Center.

During their visit to Cambodia, delegates will have the opportunity to see how the ICC and Cambodian authorities have put this concept to work as the meeting's closing ceremonies on June 27 will take place at Angkor in Siem Reap province.

"We hope that the World Heritage Committee meeting in Phnom Penh will give a new impetus to World Heritage conservation," Ms. Rossler said. "We need to have all stakeholders on board, from the national to the local authorities, from the site management to the communities living in and around the sites. Sustainable development and World Heritage need to go hand in hand: This is an important message." ♦

Listen In

A live broadcast of the World Heritage Committee meeting will be accessible on the World Heritage Center website: whc.unesco.org. The video streaming will be available with interpretation in French or English, or with no interpretation.

On the day following each session of the meeting, a recording of the session will be available on the site.

Since the committee's working languages are French and English, many interventions will be in those languages although participants are allowed to use other languages.

The meeting agenda and documents are available in French and English on Unesco's website.



Reuters

On any given day, tourists compete for the best angle to photograph Angkor Wat in Cambodia.
ទេសចរប្រជ្រៀតគ្នាថតប្រាសាទអង្គរវត្ត នៅប្រទេសកម្ពុជា។

A Mixed Blessing

A world heritage inscription can boost tourism, but it can also endanger sites

By SIMON LEWIS
THE CAMBODIA DAILY

While the stated aim of listing as a Unesco World Heritage site is conservation, it cannot be ignored that many sites on the prestigious list experience a boon of a very different kind.

Cambodia's Angkor is a prime example of the tourist surge, and spending, that can be expected alongside the many other, non-monetary benefits of recognition as a World Heritage site.

Since the inscription of Angkor Archeological Park in 1992, the nearby town of Siem Reap has developed into a fully-fledged city and the area is now the country's main tourist hub with more than 2 million visitors expected this year alone.

What was a sleepy and somewhat conflict-worn town in the mid-1990s, Siem Reap is now packed with luxury hotels, bars, restaurants and souvenir stalls.

Siem Reap International Airport accommodates more flights than Phnom Penh International Airport, and some in the capital jealously eye the northern city's growing infrastructure and commerce.

Visitors to the temples not only pay a substantial site entrance fee (a percentage of which goes to the government), stay at nearby hotels, and dine at local eateries, but they also partake in other activities in Siem Reap that have sprung up with the surge in international interest in the area's archeology.

In February, the Battambang City-based performing art organization Phare Ponleu Selpak launched daily theater, dance and circus performances in Siem Reap, taking advantage of the droves of tourists to the city.

"Now it's one of the most developed towns in Cambodia," said Huot Dara, Siem Reap co-director of Phare Ponleu Selpak, referring to contemporary Siem Reap City.

"Tourism does have a positive impact on income generation," said Mr. Dara, who was born in Siem Reap, and describes the change brought by tourism to his hometown as nothing less than striking since the World Heritage listing in 1992.

And although it can be argued that a site like Angkor would, in peacetime, draw tourists with or without the World Heritage badge, examples worldwide indicate that local business gets a boost from their inscription on the World Heritage List.

A 2008 study for Australia's Department of the Environment, Water, Heritage and the Arts looked at the economic impact of managing 15 of Australia's 17 world heritage areas, which include the Sydney Opera House and a number of areas of natural beauty. The 15 sites added nearly \$6.8 billion in "annual direct and indirect regional output or business turnover" and were directly responsible for the creation of almost 43,000 direct and indirect jobs across Australia, the study found.

In Mexico, according to figures cited in a 2006 New York Times article, the colonial fortified city of Campeche saw its tourist numbers almost double in the five years after inscription as a World Heritage site in 1999.

"[R]eceipts from tourism almost doubled in those years; and the number of available hotel rooms increased 45 percent," The New York Times reported, explaining that Campeche authorities had made a point of capitalizing off their World Heritage recognition.

"In some places, the inscription is highly promoted as part of the tourism strategy, and it is then linked to economic development," said Lisa Ackerman, executive vice president of the World Monuments Fund, a New York-based organization that works to preserve important



Simon Lewis/The Cambodia Daily/Creative Commons

Top: Visitors at the Preah Vihear monument, a World Heritage site in Cambodia. Below: Spanish colonial buildings in Campeche, Mexico.

architectural and cultural heritage worldwide.

“In other instances the World Heritage designation doesn’t mean much as it’s a site people would visit no matter what. There is not necessarily any concrete correlation between World Heritage designation and economic benefit, but it’s certainly an important tool for cultural heritage tourism.”

Ms. Ackerman also pointed out there can be downsides to inscription, namely “uncontrolled tourism,” which ultimately can undermine conservation, which is the reason for listing in the first place.

“In fact, that is up to the local authorities to figure out how best to manage visitors. So the best combination for a World Heritage site is a strong tourism and education program combined with well thought-out visitor services and circulation patterns,” Ms. Ackerman said.

“Thus, the benefit to the visitor is a positive experience and the benefit to the site is good recognition with managed impact on the fragile resource.”

Cambodia’s second World Heritage site, Preah Vihear temple, was inscribed in 2008 and has been the site of sporadic fighting since then with Thailand, which has claimed land around the temple falls within its borders. The oft-tense situation has impeded both conservation efforts at the 11th-century temple, and the take off of a significant tourism industry.

Although tourist numbers have grown during the relative peace of the past year or so—

(រូបលើ) ទេសចរទស្សនាប្រាសាទព្រះវិហារ ជាទីតាំងបេតិកភណ្ឌពិភពលោកនៅក្នុងប្រទេសកម្ពុជា។
(រូបក្រោម) អគារសម័យអាណានិគមអេស្ប៉ាញ នៅក្នុងទីក្រុងខាម៉េន ប្រទេសម៉ិកស៊ិក។

visitor numbers grew 75 percent to 92,300 in 2012 compared to the previous year—Preah Vihear is still considered off the standard route for most tourists passing through Cambodia.

There are still no hotels or restaurants near the temple, and the surrounding economy remains almost exclusively agricultural. But when visitor numbers to Preah Vihear temple grow, there will be a need to ensure they are managed properly.

Elinor Betesh, communications manager at the California-based Global Heritage Fund, said that World Heritage sites need strict management to ensure the positives of listing are maximized. And government involvement was key to minimizing the downsides.

“If well managed, the upsides to World Heritage listings can far outweigh the negatives and there are successful examples of this,” Ms. Betesh said in an email.

“But as we’ve seen, the overwhelming surge of opportunity can also create chaos to the site and the local economies of surrounding communities,” she said.

“Almost daily we read about: a lack of proper site management (corruption, lack of authority involvement), development pressures, uncontrolled development, lack of law enforcement (graffiti, waste, abrasion of stone via carelessness), access conditions, etc.,” she wrote in an email, referring to World Heritage sites in general.

“In a rush to make a site accessible, sometimes the most critical elements are overlooked, for example roads or accommodations, resulting in a missed opportunity for local economies or in other instances, heavy damages that could have been avoided with proper planning, execution and regulation.”

With more than 900 World Heritage sites worldwide, there is plenty of experience to be drawn on to ensure that sites are managed in a way that ensure economic benefit alongside preservation.

“It’s a careful balancing act that takes time to master, much through trial and error and by learning via the challenges of other heritage sites,” Ms. Betesh said. ♦

What Lies Beneath

How preventative archeology is helping save Cambodia's heritage



Inrap

An aerial view of an archeological dig at the Prasat Prei temple site inside the grounds of the Siem Reap International Airport last year.

ទីតាំងកំណាយបុរាណវិទ្យានៅឯប្រាសាទព្រៃ នៅក្នុងតំបន់អាកាសយានដ្ឋានអន្តរជាតិសៀមរាប។

By SIMON MARKS AND KUCH NAREN
THE CAMBODIA DAILY

In 1931, at the height of the French colonial period, work began on a landing strip for aircraft in close vicinity to the precious monuments and temples of Angkor. Little did those building the runway know, but the land on which the first airplanes were destined to land in Siem Reap was once a thriving Angkorian community.

Learning about the project, Henri Marchal, who since 1916 had worked with the Ecole Française d'Extrême Orient (EFEO) to conserve and renovate Angkor's largest temples, decided to intervene.

He demonstrated that the land in question contained valuable artifacts as well as the ruins of a 10th century temple known as Prasat Trapeang Ropou. And so, just 21 years after the Wright brothers sent the first commercial flight into the sky in the U.S., it was agreed that work would only go ahead on the Siem Reap airport once measures were put in place to avoid the destruction of the area's archeological heritage.

These efforts by Mr. Marchal and his team marked the beginning of what is known today as preventive archeology, a process whereby surveyors and archeologists probe the land and conduct digs to preserve zones of significant historical value before infrastructure projects such as roads and airports are built.

"Henri Marchal was in many ways the one who invented the concept of preventive archeology in Cambodia during his time working at the airport," said Pierre Baty, a scientific manager for the Institut de Recherches Archeologiques Preventives (Inrap), a body run by the French government to identify and study archeological heritage affected by development and infrastructure projects.

"Authorities at the time wanted to completely raze the entire [Siem Reap airport] site as there was no system in place to conduct prior checks for the preservation of the area's heritage," he added.

During the dig, Mr. Marchal located a 10th century sanctuary on which the words "Travan Rvau," which literally means the pumpkin basin, were inscribed on the wall. To the south and west of the temple eight buttes were located, originally built to protect the villagers during the monsoon season.

The objects recovered by Mr. Marchal were sent to La Conservation d'Angkor, a research body created by the EFEO in 1908. Everything has since gone missing, apart from the head of a sandstone statue.

The archeological study allowed the ruins to remain intact and made sure that those building the airport were able to avoid destroying the area's cultural heritage.

But the threat to the ancient ruins that were beneath the ground where the passenger terminal in Siem Reap now stands—a zone that

last year catered for more than 2 million passengers—did not stop there. In 1966, work began on an extension to the runway. Further construction work also went ahead at various stages in the 1980s and 1990s. But on these occasions, no preventive studies were carried out and excavators churning up the ground below seriously damaged the ancient ruins in the area.

In 2004, Vinci Group, France's largest construction company—which had won the contract to operate the Siem Reap International Airport—financed a project to be implemented by Inrap to avoid any more damage being done.

"The first phase of diagnosis allowed us to discover certain sites and so we directly entered into an excavation stage, notably the excavation of a temple which was in an Angkorian village at Trapeang Thlok," Mr. Baty said. "The site is directly underneath the feet of the passengers, where the terminal now stands."

"This was the first time that a whole village, including a temple, has been excavated in its entirety. This was not something over a few meters square, but over a huge surface area" measuring nearly two hectares, he added.

All the objects recovered from the site since 2004 have been kept at Inrap's offices in Siem Reap and will eventually be sent to the Apsara Authority. The material includes fragments of ceramic pottery, iron artifacts, bone fragments, charcoal and soil samples.

Without conducting such work large development projects, from roads to airports to new

businesses, risk eradicating important traces of history. Evidence of societies from a bygone age that for centuries have remained buried under ground can just disappear.

"If we construct a new road or railway, it evidently has an ecological impact on the landscape, but also on the social, anthropological and archeological landscape. So it's very important to intervene before these large infrastructure projects are built in order to record historical details from the ground and to assemble these details for researchers or non-specialists," Mr. Baty said.

During the digs at the airport in Siem Reap, archeologists also rediscovered Prasat Trapeang Ropou, the site that was originally excavated in the 1930s by Mr. Marchal.

Archeologists were able to detect holes in the ground proving that homes between the 10th and 12th centuries in Angkor were placed on stilts in order to keep them dry during the rainy season. The team also discovered an entire range of everyday objects that are currently being studied by the Apsara Authority, the government body in charge of conserving the entire Angkor Archeological Park.

After the first two digs in the immediate vicinity of the airport came to a close in 2010, Vinci and Inrap signed another agreement in 2011, this time to undergo a five-year excavation program to conduct searches over approximately 40 hectares inside the airport's grounds.

"This allows us to make conclusions, make comparisons between several villages and temples and to study the interactions between the villages, between the temples and the villages and between the villages and the countryside," Mr. Baty said. "With photographs taken from the sky, we can detect the former locations of rice fields. They are very clearly marked, so we can perfectly see the different groups of paddy fields and we are more or less able today to draw the cadastre of the region on which we are working."

So far, roughly 4 hectares of land at the airport have been entirely excavated and studied in digs that can go as deep as 1.5 meters underground.

Globally, preventive archeology is a relatively new phenomenon and has only been formally recognized by experts for about 30 years. Today, Inrap conducts digs all over the world and is currently working on a project where plans are underway to build an underground transport system in Algiers, Algeria.

In Cambodia, and especially in Siem Reap, the need for preventive archeology is greater than ever. The city of Siem Reap has grown more than 10 times in the past 20 years. Hotels and restaurants are being developed at a rate never before experienced, very often with little awareness about what lies beneath the ground.

To raise understanding about the issue, the French government has financed numerous projects since 2001 to train Cambodian archeologists working for the Apsara Authority.

An example of preventive archeology having worked in Cambodia was seen during the rehabilitation of National Road 6 between Phnom Penh and Siem Reap. When the Asia Development Bank put up the funds for the project in 2005 it soon became clear that the newly refurbished road would do severe damage to 10 Angkorian bridges that once connected the Khmer empire to the Champa and Wat Phu kingdoms in present-day Vietnam and Laos.

Archeologists decided that the cultural heritage would be lost if the road was renovated over the top of the bridges and consequently decided to divert the road around the ancient structures.

Christophe Poitier, director of EFEO in Bangkok, who has spent 18 years at the head of the institute's center in Siem Reap, said the need for trained archeologists and heightened awareness on the subject of preventive archeology is greater than ever. Despite Cambodia's law on the protection of cultural heritage, which orders people who discover property such as ruins, ancient objects, burial sites and monuments to stop work immediately and make a declaration to the local police, there are many examples across Cambodia of important sites being destroyed due to unscrupulous construction companies.

"It's true to say that development will often go before conservation. In the Angkor region, the value of the archeological heritage is extremely important. It's the most significant area in the country and the urban expansion of the city is leading to the destruction of archeological sites," Mr. Poitier said.

He explained that while the archeological sites in question are usually not areas where droves of tourists are going to visit—old walkways, canals and rivers—they are archeologically valuable as they teach us about the way people of the time lived and how they organized their communities.

"The aim is to document and study the findings before they are destroyed. That is the main aim of preventive archeology," he said.

Mr. Poitier admitted, however, that preventive archeology was also rather new in Europe and would, therefore, take time to gain traction in less developed countries such as Cambodia. "It's a way of thinking, a philosophy. That takes time to put in place," he said.

Mao Loa, director of the Apsara Authority's

department of conservation and preventive archeology, said the body encounters many instances when they have to intervene and engage with building companies that stumble across precious artifacts.

"Very often, we are contacted or informed by provincial authorities or the construction companies whenever the project is situated in a suspected archeological site," she said.

However, she said that while the Apsara Authority would rarely conduct its own digs, as officials tend to only allocate plots of land for construction work in non-archeologically sensitive areas, there are many firms which simply do not inform authorities when they stumble across archeological sites.

"For construction projects—both big and small—we can only control 50 percent of them because in some cases the construction firm does not inform us," she said, adding that any artifacts that are recovered are either sent to museums or placed in pagodas in local communities.

Jean-Baptiste Chevance, who worked as a consultant for the Apsara Authority between 2002 and 2004 and also assisted with the excavations at the airport, said preventive archeology not only has the benefit of uncovering ancient artifacts that otherwise would never have been found, but it also provides an opportunity to learn more about the livelihoods of our ancestors.

"In Siem Reap, we know a lot now about the temples, but not as much about the habitants during the period," he said.

The work that began in 2004 has also helped the Apsara Authority take a more hands-on approach to preserving Angkor's rich cultural heritage, he said. For example, preventive archeological digs have been carried out on plots of land where public toilets and ticket booths now stand inside the park.

"In these areas, it depends enormously on the quality of the ruins. If it is really something exceptional, we'll conserve it," he said. ♦



Inrap
Specialists assess ceramic fragments from a dig in Siem Reap at the offices of the Institut de Recherches Archeologiques Preventives (Inrap) in 2012.

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Two More Temples

Cambodia pins hopes on World Heritage listing for Banteay Chhmar temple in Banteay Meanchey province and Sambor Prei Kuk in Kompong Thom province



Lauren Crothers/The Cambodia Daily

Most of Banteay Chhmar lies in disrepair after 800 years of neglect.

ប្រាសាទបន្ទាយឆ្មារ ស្ថិតក្នុងសភាពខូចខាត បន្ទាប់ការបោះបង់ចោលអស់រយៈពេល៨០០ឆ្នាំ។

BY DENISE HRUBY
THE CAMBODIA DAILY

More than 20 years ago, Cambodia listed 10 sites on the Tentative World Heritage List, while the Angkor Archaeological Park was being approved as a World Heritage site.

Since then, Preah Vihear temple has been included on the World Heritage List in 2008. The Cambodian government is working to list some of those remaining nine sites, hoping that the prestige will generate new funds for restoration and revenues through tourism.

Though none of the sites are on the agenda to be discussed when Cambodia hosts this year's World Heritage Committee meeting, the government hopes to see Sambor Prei Kuk in Kompong Thom province listed by 2014, and will then likely work on the listing of Banteay Chhmar in Banteay Meanchey province. At both sites, local residents are already profiting from the steadily increasing number of tourists, and experts have worked for years to preserve what is left of the temple complexes hidden in

Cambodia's forests.

Banteay Chhmar

More than 800 years of neglect has left its mark on the temple of Banteay Chhmar, and most of its vast structures now lie in ruins in a remote area in Banteay Meanchey province, more than an hour from Sisophon town, and reachable only via a red dirt road studded with potholes.

The small but steadily increasing number of tourists who take the bumpy ride are rewarded with what has become scarce around Angkorian temples: A feeling of adventure while exploring the temple almost alone, and in silence that is only interrupted by the sounds of the dense forest surrounding the towers and bas reliefs.

The temple holds many secrets, said architect John Sanday, regional director for the Global Heritage Fund's Asia and Pacific department, who heads a team of 45 staff working to preserve Banteay Chhmar.

"Why it was built there is a big question mark, because Banteay Chhmar is classified as arid land," Mr. Sanday said, explaining that all other Angkorian temples were built within the vicinity of rivers or lakes, which were used to in-

stall wide-ranging irrigation systems.

"There is no water source, and it was also built without any direct access to any of the great Angkorian roads," Mr. Sanday said of the temple built by King Jayavarman VII to commemorate his son.

With its many bas reliefs and sculpted stone faces, of which only about 20 percent have withstood the ravages of time, Banteay Chhmar was commissioned by Jayavarman VII in the late 12th or early 13th century, its face towers serving as prototypes for the face towers of the Bayon temple at Angkor.

To save the monument from the depredations of tropical weather and time, Mr. Sanday and his team, in cooperation with the Ministry of Culture and the University of Heidelberg, Germany, have developed a scanner that feeds precise data on the surface of each single stone into a database.

"Because of the way they carved them, no two stones are the same," he said of Angkorian structures. When a storm destroyed one of the eight remaining face towers at Banteay Chhmar, the database and Mr. Sanday's training as an architect came in handy.

"The tower was damaged almost to the point of collapse by a very severe storm in 2006. We decided to take the whole tower down, measured and numbered and stored each stone, and then started the process of rebuilding it again," he said.

"Because I am an architect and not an archaeologist, that was my approach," he added.

A crane helped a team of local men hired by Global Heritage Fund to remove all the stones within a day, a task that used to take them 10 days per stone. While disassembling the tower, a pinnacle and the head of a statue were found in between the walls—artifacts that would have been the subject of looting had they been easily found.

Over the past years, Mr. Sanday has witnessed a steady increase in visitors to Banteay Chhmar, which he estimates to be around 200 per month in the cooler months of the year. Typical tourists, he said, are people seeking a quieter trip around Angkorian temples.

Almost 10 families in the area offer "home-stay" accommodation, and locals have been trained to guide tourists through the jungle around the temple.

"This is something [the residents] have never had before: a steady income to some of the about 13,000 people in the area," Mr. Sanday said of the grassroots tourism projects.

The most basic infrastructure in the area is still in the works, and the government is currently constructing a road from Sisophon to Banteay Chhmar to increase tourism potential. However, the area still lacks access to water or electricity—just like it did 800 years ago—which sets a limit to big tourism revenues despite a soon-to-be pothole-free road.

"This is something that only some tourists will tolerate," Mr. Sanday said.

Sambor Prei Kuk

Hidden in the forests and overgrown by weeds and trees about 40 kilometers from Kompong Thom city lies the cradle of Khmer culture: The ancient City and temples of Sambor Prei Kuk, the capital of the vast Chenla kingdom.

At the height of their power, the kings of Chenla ruled over most of Cambodia, southern Laos and Thailand from within these now mostly crumbling halls, where archaeologists hope to find out how elements of Indian culture were adopted and developed by the people of Chenla.

"The Sambor Prei Kuk site will show the starting point of Khmer culture," said Ichita Shimoda, an archaeologist who, together with his team from Waseda University in Tokyo, has been working to restore and research the spread-out temples and structures since 1998.

"Khmers received a strong influence from the cultures from India, and they accepted and changed them by their own sense. The Sambor Prei Kuk site will show the starting point and the birth of Khmer culture," he said.

Eventually, these adaptations would culminate in the temples of Angkor, which remain Cambodia's national symbol and became the country's first site to be given a World Heritage listing in 1992.

"Needless to say, the group of Angkor monuments is the significant heritage in Cambodia. And Sambor Prei Kuk is an important site to clarify the development of the indigenous or localized Khmer culture to the Angkor civiliza-



Lauren Crothers/The Cambodia Daily/Waseda University

Above: A bas relief at Banteay Chhmar temple. Below: archaeological researchers work at Sambor Prei Kuk.

(លើ) ចម្លាក់លើជញ្ជាំងប្រាសាទបង្ហាញឆ្មារ (ក្រោម) អ្នកស្រាវជ្រាវបុរាណវិទ្យាធ្វើការនៅប្រាសាទសម្បូរណ៍ព្រៃគុក។

tion," Mr. Shimoda said.

Sambor Prei Kuk is one of the first temples where lions take a significant role as stone entrance guards, proving the Hindu influence throughout the centuries that can be seen at other temples in the country.

One of the site's three main areas is called Lion Temple Group after four large lion statues situated on the top of the temple, which face in all four directions. The lions' front legs are raised and their mouths are wide open, ready to defend the temple.

"Their faces are comical expression and offer a sense of affinity," said Mr. Shimoda, adding that it was difficult to date the construction of the Lion Temple Group, as there were no inscriptions.

"As there are no lions in Cambodia, their expression is more far from the real one," he said, adding that an archaeological survey was only conducted in the area in 2009, leaving much to still be researched.

"It's a very important and one of the most valuable sites in Cambodia.... Roof tiles and ceramics were detected by the excavation survey and pedestrian survey on the ground," Mr. Shimoda said.

Historic Chinese descriptions suggest that about 20,000 houses were located in and around the city of Isanapura—Sambor Prei Kuk's historic name—adding up to a population of more than 100,000 in the 7th century.

Besides efforts to research and restore the site, it has also been opened to tourism, which is slowly increasing. After the huge tourism boom at Angkor, where millions of people from all over the world have visited, raising concerns over possible damage from foot traffic, archaeologists and the government now take a less commercial approach in advertising Sambor Prei Kuk.

Currently, Mr. Shimoda and the Ministry of Culture are pushing for Sambor Prei Kuk to be the next Cambodian temple complex to be listed as a World Heritage site. And connecting tourism and responsible sustainable development, Mr. Shimoda said, holds great opportunities for all parties involved.

"We have an experience from Angkor that shows the good and bad aspects after opening up to a large wave of tourism. If we can prevent the strong commercial effect, Sambor Prei Kuk will develop into a unique cultural site to combine the history, nature and Cambodian local life," he said. ♦