



RICE PADDIES AS FAR AS THE EYE CAN SEE, AND MAGICAL TEMPLES MAKE CAMBODIA A SMALL TREASURE OF SOUTHEAST ASIA. THIS COUNTRY OF ABOUT 17 MILLION INHABITANTS, OVERLOOKS THE GULF OF SIAM AND LIES BETWEEN THAILAND, LAOS AND VIETNAM. IT IS A FASCINATING DESTINATION WITH WONDERS, TO BE DISCOVERED, SUCH AS THE FAMOUS ARCHAEOLOGICAL SITE OF THE TEMPLE OF ANGKOR WAT OR THE WONDERFUL LANDSCAPE OF THE PHNOM KULEN NATIONAL PARK AND ITS WATERFALLS. CONSIDERED BY THE POPULATION TO BE THE HOLIEST MOUNTAIN IN CAMBODIA, KULEN PHNOM IS A POPULAR PLACE DURING WEEKENDS AND FESTIVALS. MANY OF THE STONES USED TO BUILD THE TEMPLES OF ANGKOR ALSO COME FROM HERE, AND THE WATER FROM THE PARK'S WATERFALLS IS CONSIDERED SO SACRED, THAT CAMBODIANS BOTTLE IT AND TAKE IT HOME. FROM THE PURE AND UNCONTAMINATED LAND OF THE KULEN NATIONAL PARK FLOWS THE NATURAL MINERAL WATER ELAN, BOTTLED BY THE COMPANY KULEN SPRING CO. LTD. (PART OF THE ERAGOLD GROUP), WATER WITH PROPERTIES THAT GIVE GREAT BENEFITS TO THE HUMAN BODY, THANKS TO ITS HIGH PH OF 8.2.

KULEN SPRING

➤ **SECTOR: WATER**
KULEN SPRING CO LTD.
Siem Reap, Cambodia

➤ Integrated system for blowing, filling and capping
ECOBLOC® ERGON E EV

➤ Wrap-around case packer LWP 30 ERGON

➤ Automatic palletising system APS 1570 ERGON
and rotating table

➤ Conveyors




VIDEO

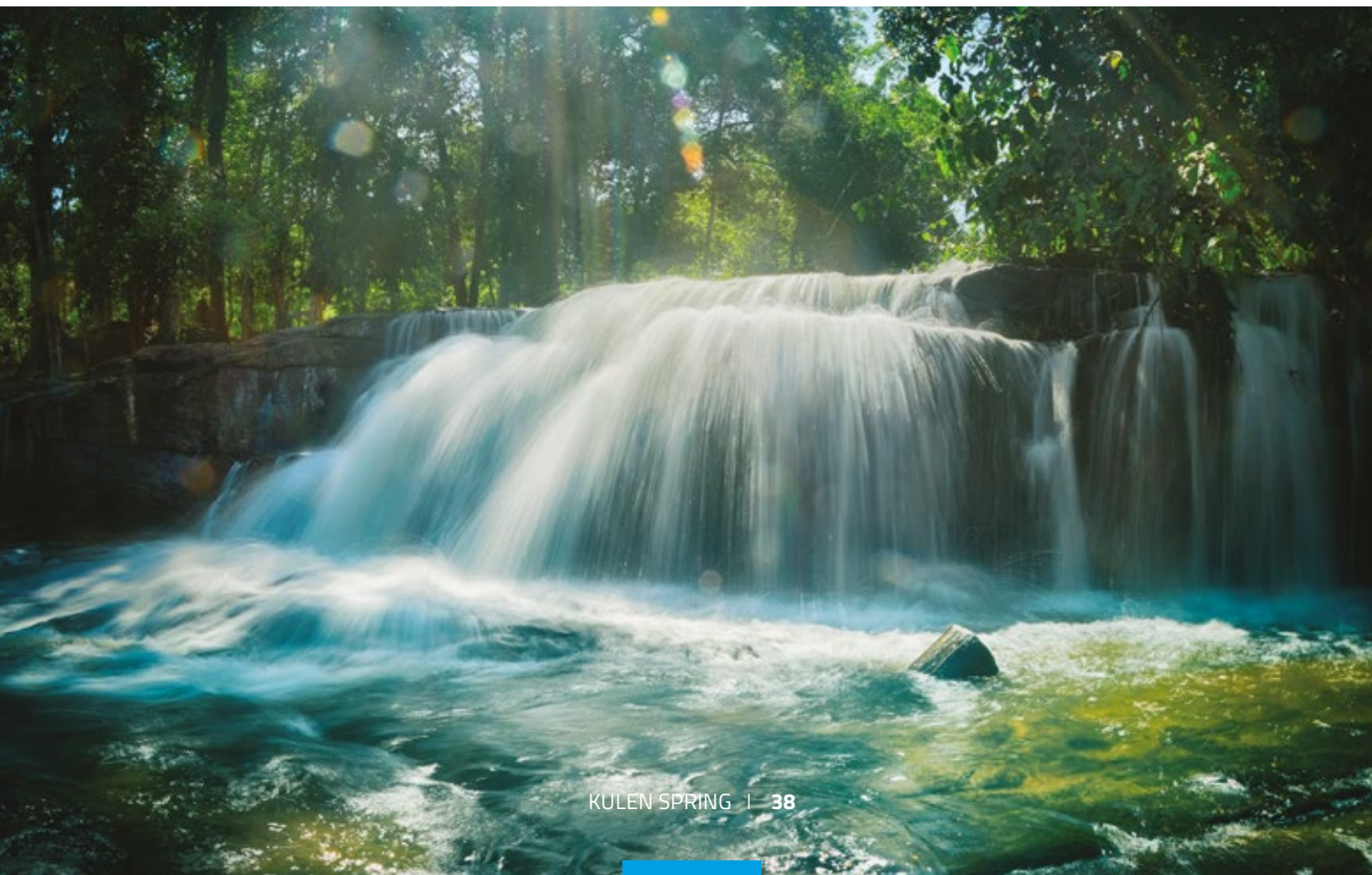

GEO LOCATION

KULEN SPRING AND ENVIRONMENTAL PROTECTION

TO MAINTAIN HIGH LEVELS OF HYGIENE, QUALITY AND PURITY, THE SIEM REAP COMPANY (THE SECOND, MOST POPULOUS, URBAN AREA IN CAMBODIA) ADOPTS STATE-OF-THE-ART PRODUCTION SYSTEMS, ABLE TO MATCH EUROPEAN QUALITY STANDARDS; AMONG THE MOST RECENT INVESTMENTS IN NEW TECHNOLOGIES IS THE NEW 31,800 BOTTLES/HOUR PLANT SUPPLIED BY SMI FOR BOTTLING AND PACKAGING ELAN WATER IN PET CONTAINERS, WHICH INCLUDES A BLOWING, FILLING AND CAPPING SYSTEM OF THE ECOBLOC® ERGON RANGE, A WRAP-AROUND CASE PACKER OF THE LWP ERGON RANGE, AN APS ERGON AUTOMATIC PALLETISING SYSTEM AND ALL THE CONVEYORS FOR HANDLING BOTTLES AND PACKAGES.

Kulen Spring Co. Ltd. is particularly attentive to the protection of the surrounding environment, because preserving the planet is an act of respect for a precious and essential raw material such as water. The attention to the environment pushes the Cambodian company to continuous investments in activities dedicated to the care of plants and forests and the territory from which the water, marketed under the Elan and Eragold brands, comes. In addition, the Kulen Springs' production facilities, use only energy from renewable sources, such as that produced by the recently installed solar panel system, that made the company the first industrial reality in the country

powered by solar, green energy. As a further demonstration of the attention to quality, well-being and respect for the environment, within its production facilities Kulen Spring also uses sophisticated analysis equipment, that allows microbial tests to be performed to measure the exact pH level of the water and preserve the properties that are good for health.



ELAN: THE PROPERTIES OF WATER THAT COMES FROM THE SACRED MOUNTAINS OF CAMBODIA

The human body has a pH between 7.2 and 7.3. When the pH level drops below 7.0, the body becomes acidic, especially in individuals who follow a poor diet. For these reasons, regularly drinking natural mineral water with a high pH level, such as Elan water (pH of 8.2), helps humans keep their body healthy and alkaline and reduce body acids.

Elan water, which originates from the springs of Mount Phnom Kulen at 496 meters above sea level, benefits from the healthy properties of the pristine land of Kulen National Park, a protected area with low population density and thriving agricultural activities.

The attention of Kulen Spring Co. Ltd. towards the surrounding environment, has also led to the launch of a reforestation program of the area, in order to protect the source from any form of external pollution.

Water under the Elan brand is rich in natural minerals, thanks to its unique mineralisation

process, ensured by the slow filtration of rainwater, through several hundred meters of sandstone; This process enriches the water with valuable minerals such as potassium, magnesium, calcium and many other nutrients, which are good for bone growth, blood circulation and the heart of people of all ages.

Thanks to these characteristics, the consumption of Elan water has spread more and more in Cambodia, and has made it necessary to increase the production capacities of the Banteay Srei District plant, in the province of Siem Reap, which is located near the archaeological site of Angkor Wat and the Kulen National Park.

The new investment in advanced technologies provided by SMI, has enabled Kulen Spring to automate the entire bottling and packaging process of the 0.5 L and 1.5 L PET bottle line, which can now produce almost 32,000 bottles/hour.



SMI SOLUTIONS

FOR KULEN SPRING



For the bottling and packaging of Elan and Eragold natural mineral waters, the Cambodian company turned to the experience of SMI which, through the Malaysian subsidiary SMI ASIA, provided a complete turnkey line, supporting the customer in the design, construction and installation phases of the plant.

The proposed solution includes an integrated system of the ECOBLOC® ERGON range for stretch-blow moulding, filling and capping operations of PET bottles combined with a wrap-around case packer for secondary packaging of the LWP ERGON range and an APS ERGON palletiser.



➤ INTEGRATED SYSTEM ECOBLOC® ERGON 16-48-18 E EV

Functions: stretch-blowing, filling and capping of 0.5 L and 1.5 L PET bottles of flat water with a production capacity of up to 31,800 bottles/hour (0.5L format)

Key benefits

- The operations of stretch-blow moulding, filling and capping of PET bottles are grouped in a single block and therefore does not require the rinsing machine and the airveyors between the blow moulding machine and the filler.
- Compact and flexible solution.
- Reduced energy consumption of the blow moulding machine, thanks to the preform heating module that mounts energy-efficient IR lamps and the stretch-blow moulding module equipped with a two-stage air recovery system, which reduces energy costs related to the production of compressed air at high pressure.

➤ LWP 30 ERGON CASE PACKER

Containers worked: 0.5 L and 1.5 L bottles in PET.

Packs created: the loose 0.5 L bottles are packed in corrugated cardboard wrap-around boxes in 4x6 formats, while 1.5 L bottles in boxes in a 3x4 format.

Key benefits

- Packaging process with wrap-around system equipped with a mechanical product grouping device, which offers the advantage of forming the cardboard box around the bottles in transit without making machine stops.
- Ideal solution to obtain impact-resistant packaging, able to protect the product during transport.
- Possibility to graphically customize the cardboard box to capture the attention of the consumer, offering the user of the plant more opportunities for marketing and product promotion.



➤ **AUTOMATIC PALLETISING SYSTEM APS 1570 ERGON**

Packs worked: wrap-around boxes of 0.5 L bottles in the 4x6 format and 1.5 L bottles in the 3x4 format, coming from the LWP 30 case packer.

Pallets created: 1100X1180 mm

Key benefits

- Single-column system with two Cartesian axes, extremely flexible and easily adaptable to the logistical conditions of the end-of-line area.
- System suitable for palletising boxes, bundles, trays and packs in general, consisting of different modules that can be configured individually according to palletizing needs.
- Reduced maintenance costs and low energy consumption, thanks to the mechanical simplicity of the machine and the use of robotics.
- Extremely simple automation and management control; Thanks to the intuitive human-machine interface, even the novice operator can efficiently manage all end-of-line palletizing operations.

➤ **CONVEYORS**

Function: transport of blown PET bottles leaving the ECOBLOC® ERGON integrated system; incoming and outgoing handling to/from the LWP ERGON case packer; handling boxes at the entrance to the APS ERGON palletiser.

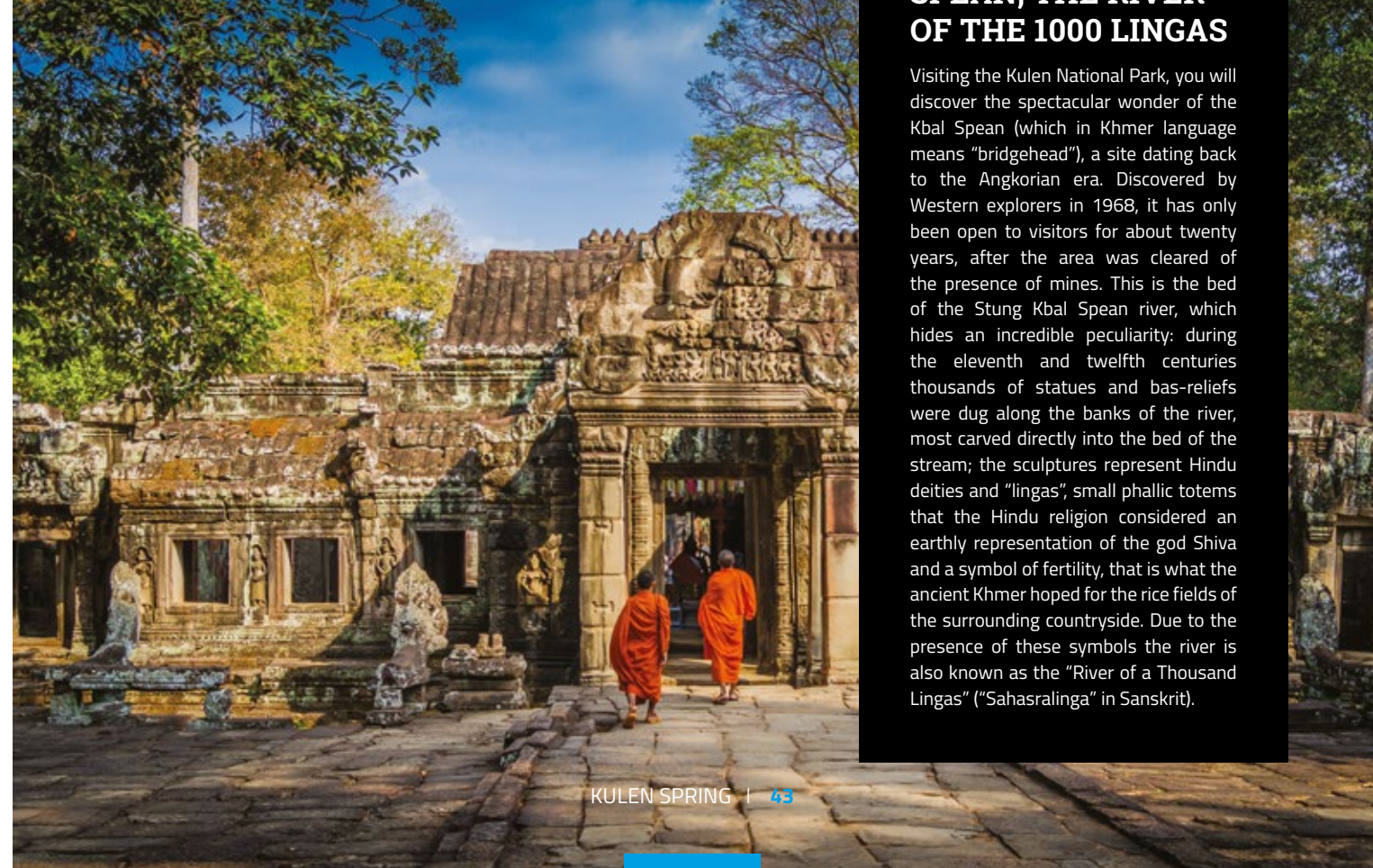
Key benefits

- The loose product conveyors installed at the Kulen Spring plant, ensure smooth and constant handling of the loose containers at the infeed of the LWP 30 and of the packs on the outfeed.
- Easy to use by the operator during the production cycle.
- Simplified maintenance operations.
- The modular structure and the high compatibility with other systems allow installation, start-up and testing operations to be carried out in an extremely simple way.
- Use of high-quality components and wear-resistant materials, which reduce friction and noise, preserving the quality of the transported packs.
- Reduced format changeover times for quick switching from one product to another.
- High reliability of the system, thanks to the AISI 304 stainless steel structure and components.



SCULPTURES AND BAS-RELIEFS ON THE RIVER KBAL SPEAN, THE RIVER OF THE 1000 LINGAS

Visiting the Kulen National Park, you will discover the spectacular wonder of the Kbal Spean (which in Khmer language means "bridgehead"), a site dating back to the Angkorian era. Discovered by Western explorers in 1968, it has only been open to visitors for about twenty years, after the area was cleared of the presence of mines. This is the bed of the Stung Kbal Spean river, which hides an incredible peculiarity: during the eleventh and twelfth centuries thousands of statues and bas-reliefs were dug along the banks of the river, most carved directly into the bed of the stream; the sculptures represent Hindu deities and "lingas", small phallic totems that the Hindu religion considered an earthly representation of the god Shiva and a symbol of fertility, that is what the ancient Khmer hoped for the rice fields of the surrounding countryside. Due to the presence of these symbols the river is also known as the "River of a Thousand Lingas" ("Sahasralinga" in Sanskrit).



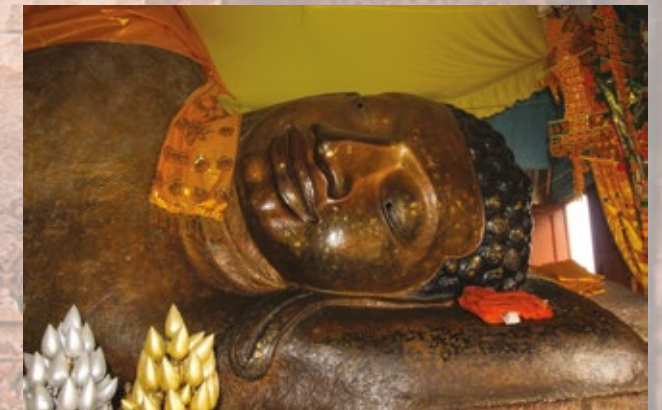
PHNOM KULEN NATIONAL PARK

Located about 60 km from Siem Reap, Mount Kulen, which in English translates to “Mountain of the Lychees”, is the main peak of Phnom Kulen National Park, one of the most interesting and pleasant National Parks in the country. It is in fact covered with dense vegetation and crossed by several rivers and streams that form pretty waterfalls on the slopes of the mountain. A “journey through time where it all began” is the one that takes the visitor to the place of origin of the most important empire in Southeast Asia; in ancient times, in fact, Phnom Kulen was called Mahendraparvata, that is “Mountain of Indra, the king of the gods”, because on the top of this mountain in 802 AD the sovereign Jayavarman II proclaimed himself “Universal Monarch” and founded Mahendraparvata, the first sacred city of the Khmer Empire, giving life to a kingdom destined to last over 600 years. Today Mount Phnom Kulen, considered the most sacred relief in Cambodia, which was also the main place of extraction of the sandstone used for the construction of the temples of Angkor (which are located about 40 km away), is the primary source for the city’s water supply.



THE TEMPLE OF THE RECLINING BUDDHA

Inside the Kulen National Park, on a hill overlooking much of the area, stands the Buddhist pagoda of Preah Ang Thom, built in the sixteenth century and famous for the large reclining Buddha more than 8 m long carved into the sandstone rock, which hosts hundreds of pilgrims from all over Cambodia every day. The entrance to the temple with the reclining Buddha is truly spectacular with its ramp of 160 steps that are lost among the branches of the large trees.



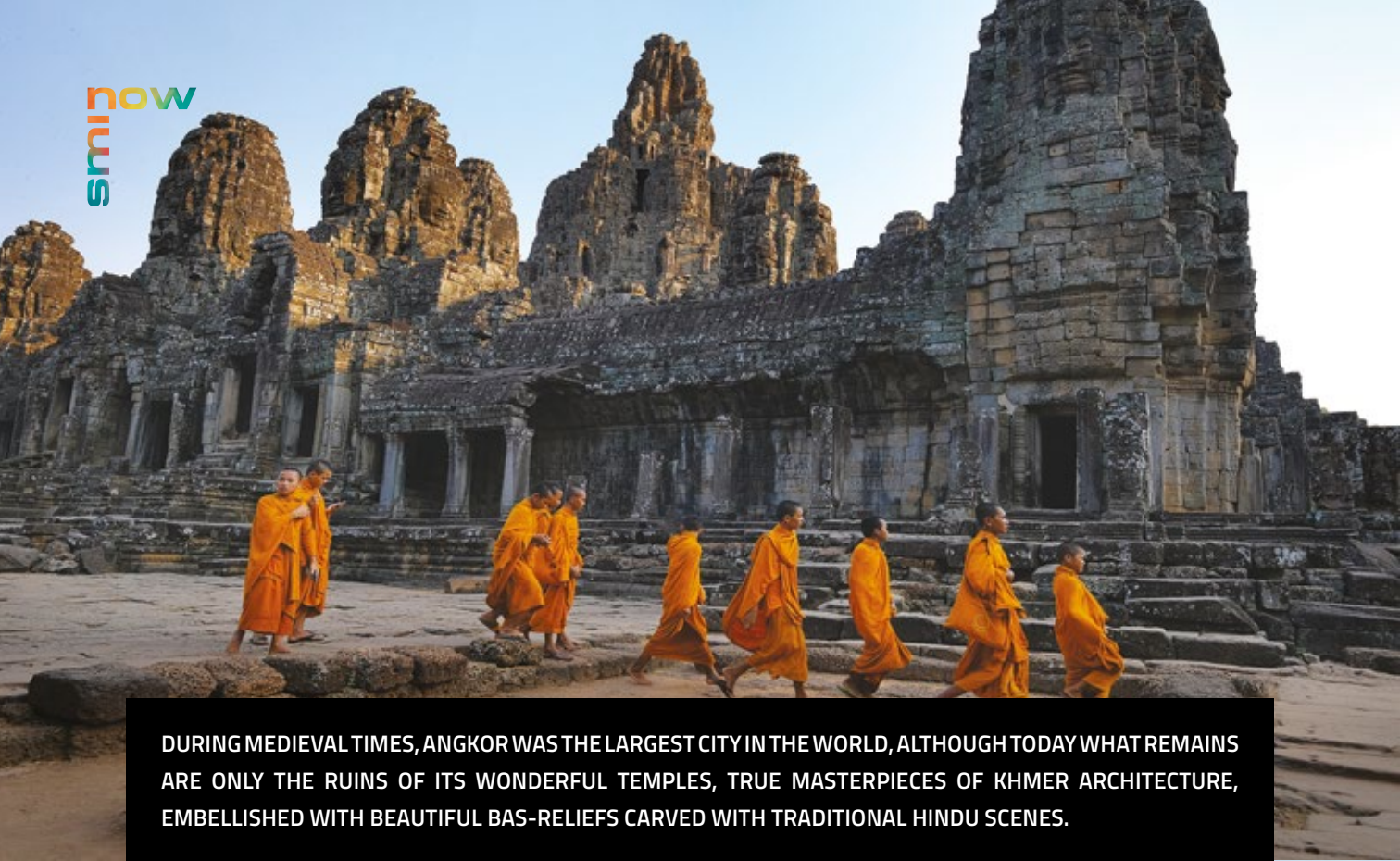
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NO TOUCHING

THE WONDERS OF ANGKOR WAT, THE CAMBODIAN TEMPLE OF GLOBAL FAME

The archaeological site of Angkor, located in the city of Siem Reap, is the largest religious structure in the world and takes its name from one of its main temples, the Angkor Wat ("temple that is a city"), which is the best preserved and most famous historical testimony in the country. The monument was ordered by Khmer Emperor Suryavarman II at the beginning of his reign, but was completed only after his

death; originally the temple was dedicated to Vishnu, one of the main deities of Hinduism, and then converted into a Buddhist shrine. At the end of the fifteenth century the Khmer empire began its unstoppable decline and the city of Angkor lost its role as capital depopulating in a short time, but the temple of Angkor Wat remained an important religious center for Buddhist monks for many centuries to come. The most famous temple in Cambodia is part of a vast

archaeological complex that stands near the city of Siem Reap and was built by a series of Khmer kings and emperors between the ninth and fifteenth centuries, inside which there are hundreds of temples on an area of 400 acres. The settlement, declared a World Heritage Site by UNESCO in 1992, is so vast that it is best explored by bike or "tuk-tuk", as the millions of tourists from all over the world who visit it every year know.



THE CITY OF SIEM REAP

Thanks to its proximity to the archaeological site of Angkor, the city of Siem Reap has experienced a rapid expansion that began around 2000 and is now the second most populous metropolitan area in Cambodia after the capital Phnom Penh, with a high concentration of commercial activities such as cafes, nightclubs and restaurants that make it a modern center, lively and cosmopolitan. In the Khmer language “Siem Reap” means “Destroyed Siam” (Siam is the current Thailand), in memory, it is said, of a military victory obtained by the Khmer army over the Thai one sent to invade the city in one of the many clashes of the millennial conflict between the two neighboring countries. During the day the city center revolves around the old Phsar Chas market, crowded with locals looking for everyday goods and ingredients for cooking, while in the evening there is the Art Center

Night Market, a riot of stalls and craft shops and objects of all kinds. Siem Reap is the starting point for sightseeing excursions to the archaeological site of ancient Angkor and the natural beauty of Phnom Kulen National Park, which tourists can easily reach by landing at the city’s international airport.

➔ DID YOU KNOW THAT...

- The country’s tradition is that Cambodia changes its name every time a new government takes office; this is why today we speak of the “Kingdom of Cambodia”.
- The Temple of Angkor Wat is the largest religious complex ever built.
- Cambodian is a figurative language and is expressed through concepts; For example, there is no term “milk”, but it speaks of “liquid that comes out of cows”.
- A lot of watches are sold in the markets; this is related to the psychological torture

of the cancelling of time, practiced during the more than three years of dictatorship of the Pol Pot regime (1976-1979).

- The head is the most important part of the body, while the feet the most impure; It is disrespectful to touch an adult’s head or turn your feet towards another person.
- The Phnom Kulen waterfall makes a brief appearance in the film “Lara Croft: Tomb Raider”, in which the protagonist, after escaping from the living statues of the Ta Prohm temple, runs to the top of the waterfall (which is actually more than 40 km away) and throws herself into the mirror of water below.

DURING MEDIEVAL TIMES, ANGKOR WAS THE LARGEST CITY IN THE WORLD, ALTHOUGH TODAY WHAT REMAINS ARE ONLY THE RUINS OF ITS WONDERFUL TEMPLES, TRUE MASTERPIECES OF KHMER ARCHITECTURE, EMBELLISHED WITH BEAUTIFUL BAS-RELIEFS CARVED WITH TRADITIONAL HINDU SCENES.

