



Bakheng Preservation Work - April 2009 Report

Since 1990, WMF has maintained comprehensive conservation and training activities at Angkor, focusing on long-term conservation needs of the temple at Preah Khan, critical intervention at Ta Som, detailed studies of the Angkor Wat galleries including a current project to repair the roofing system over the Churning of the Sea of Milk Gallery, and notably, the current conservation project at Phnom Bakheng. The temple city of Phnom Bakheng sits atop the highest spot in the area and overlooks Angkor's diverse temple complexes and surrounding landscape. The importance of Angkor's cultural treasures are well known and its inscription on the World Heritage list in 1992 has brought further international attention to assist APSARA in managing the sites, training Khmer professionals, and making the temples accessible to the public.

Phnom Bakheng was built as the state temple of the first city of Angkor after King Yasovarman decided to move his capital there at the end of the ninth century. The temple was built to represent the mythological Mount Mehru, the dwelling place of the Hindu gods, and was the first, and is one of the best, examples of this mountain-temple style. The central *quinqux* of towers of the temple, which depicts the five peaks of Mount Mehru, overlooks terraces adorned with 108 individual tower shrines. The conservation project addresses the entire site, including the tower shrines, the main temple, and surrounding areas and pathways.

In March 2009, WMF's Phnom Bakheng Conservation Project focused on site mobilization, emergency stabilization, necessary archaeological excavation in preparation for site work, and condition surveys and documentation of the section of the temple currently under examination. WMF is studying the EFEO archives in

order to gain a thorough understanding of the conservation history of Phnom Bakheng to further aid in planning the technical conservation work to be completed.



The mobilization of the site included the repair of the pathway to Phnom Bakheng and expansion of the existing workshop. These two images illustrate the repair work on the pathway that will allow it to be used efficiently for bringing materials and equipment to



the site. The team has reinforced the wooden bridge over the northern laterite stairs. APSARA has granted permission for a truck to be used for some work and this has accelerated the team's ability to mobilize the project. This bridge will be used to transport the tower crane, arriving at the end of May or beginning of June, up the hill to the site.



The existing site workshop was repaired and enlarged to store materials and technical equipment. These images below show the the workshop, which will be also used as a small field office.

Two emergency stabilization structures were installed at Phnom Bakheng in



March 2009. A section of the first platform wall at the northwest corner was perilously leaning and was in need of emergency stabilization. Wooden shoring was installed to prevent collapse. The foundation of brick shrine G10 was heavily deteriorated, and scaffolding and wooden props, shown here, were installed in preparation of the repair of the foundation.

The team completed on-site documentation of the platform floor plans within the work area and has begun surveying and documenting the existing conditions of the 16 sandstone shrines. They have prepared Auto CAD drawings of all of the elevations and almost all of the floor plans based on on-site documentation.



These auto CAD drawings will be combined to create a coherent plan of the temple section under conservation. Total Station equipment is being utilized for the preparation of comprehensive digital documentation of the temple.

The archaeological excavations at Phnom Bakheng have led to the clearing of the passageway between the temple and the brick shrines, to the exposure of architectural elements, and to the discovery of artifacts. The team has opened trench number 4 to clear the passageway between the temple and the brick shrine. Porcelain archaeological material and the head of a statue were found in the debris. This work confirmed speculation that accumulated debris in this trench was due to a natural collapse. Sometime during the EFEO's restoration work at Phnom Bakheng between 1920 and 1949, they created the ramp by shaping and reinforcing the remains of the collapse to transport material up to higher levels.



On March 23rd, 2009, John Johnson, the Public Affairs Officer at the U.S.



Embassy Phnom Penh, and Aaron Michael Otte, Public Affairs Assistant at the U.S. Embassy Phnom Penh, visited Phnom Bakheng. During this visit, it was agreed to have a meeting in June, if possible, with all stakeholders to discuss the extent of the archaeological excavation that will be necessary and how any resulting information will be interpreted for the public.