

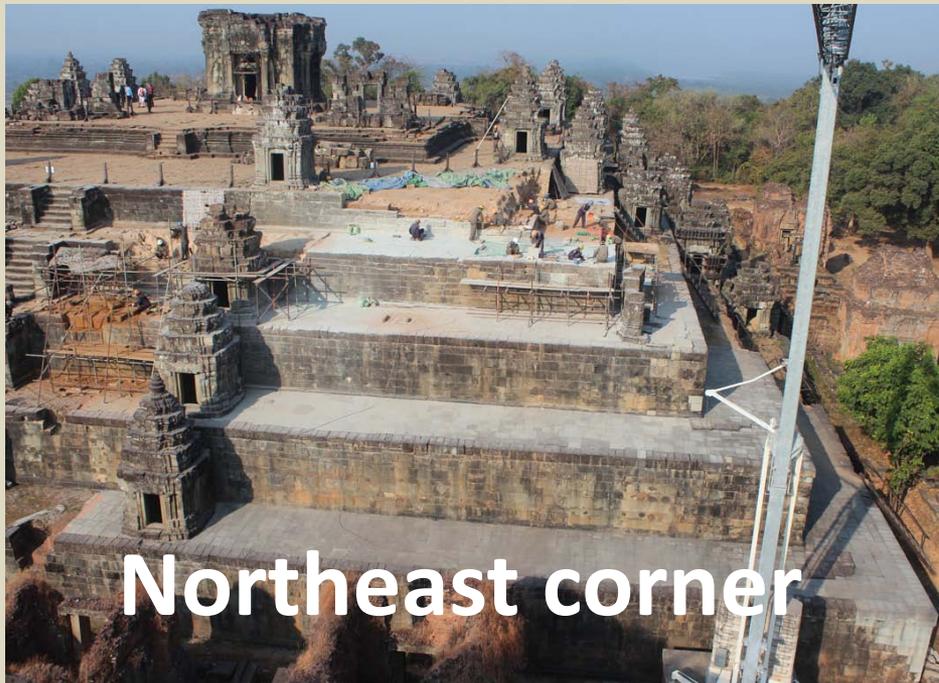


Phnom Bakheng Conservation Project Update

April 2014

In recent months work at Phnom Bakheng has focused on repairing the Northeast and Southeast corners of the structure. Terrace stabilization, waterproofing, and wall reassembly were all major concerns.

In early February structural engineer Donald Friedman, who works closely with WMF on a number of projects, visited the site and advised on the structural review protocol, proposing solutions to structural issues and helping to prioritize future tasks.



Northeast corner



Southeast corner

Northeast Corner

After extensive restoration on its multiple levels, work at the Northeast corner of the temple is nearly complete.



To repair the decayed bedrock and stabilize one layer of the terrace, the conservation team inserted more than 600 new laterite blocks. An orange waterproofing membrane, visible in the photo below, was laid on top of the new foundation.

Pavers, visible on the left side of the photo, were placed on top of the waterproofing membrane. Since most of the pavers are new, craftsmen are tooling the surface to give them a more weathered appearance and accelerate the formation of a patina to ensure visual harmony with the rest of the structure.



In another area of the temple, the WMF project team dismantled one of the shrines and discovered severely eroded bedrock in the foundation. Conservators removed parts of the bedrock and filled gullies in the surface with laterite. Side faces of the rock were connected using steel pins. Photos below show the shrine being dismantled (left), the condition of the bedrock underneath (middle), and the installation of supporting pins (right)



The final task on the Northeast corner of the temple was to reassemble a section of wall. The shrine visible in the photo on the left previously sat on a foundation of crushed laterite and bedrock. Structural analysis revealed that the front walls were incapable of providing necessary support.



After discussing multiple options, the conservation team chose to insert laterite blocks into the foundations underneath the front walls of the shrine (right) to assure proper stability.

Southeast Corner

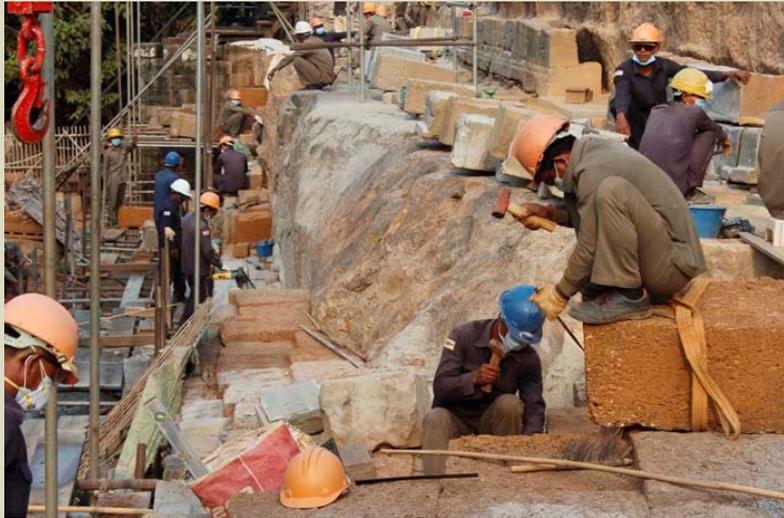
Work continued on the repair of the southeast corner at Phnom Bakheng. Recent efforts have focused on reassembling the two bottom layers of the temple. In total, the restoration effort will require 742 blocks, many of which have already been collected from historic blocks scattered on the site of the hill



After dismantling the bottom layer of the wall, conservators found that the bedrock underneath was severely eroded. To repair the damage, bedrock was cut (left) and a sandstone shim was inserted underneath the stones before continuing with the wall reassembly (right).



So far, 278 stones have been inserted to replace the missing or damaged units in the south terrace wall.



Continuing Work at Phnom Bakheng

A priority for the upcoming months is to complete reassembly of the south side of the temple. Collecting stones from the side of the hill was temporarily suspended due to the discovery of numerous land mines in the area surrounding Phnom Bakheng where WMF project team members were assessing the utility of stones and hauling them to the plateau for potential use in the conservation program. The Deputy Director General at APSARA helped facilitate demining in the area so the majority of reconstruction work should be complete by the next UNESCO Ad Hoc site visit in early June 2014.

WMF is appreciative of the support of the US Embassy in Phnom Penh and the Ambassadors Fund for Cultural Preservation.