

Chapter 3 Restoration Work

Section 1 Restoration of the South Stairways of the Central Sanctuary

Prior to reassembly the Southern Sanctuary, the south stairways of the Central Sanctuary were partially restored, as it would be buried within the foundation. The stairways were buried in the earthfill of the foundation of the Southern Sanctuary when the sanctuary was built, and N18 was paved on top of the lower platform of the Southern Sanctuary. On top of N18 stood the main structure of the sanctuary. Platform stone SN133 and two other stones paved immediately below the structure were cracked or fractured in the southwest direction, corresponding to the settlement and inclination direction of the entire structure. In the recent restoration work, these three blocks were restored and returned to their original positions.

The west half of SN133N18 shown in Fig. 38 was broken, so the original block was bonded together. SN137 behind it was also broken in the southwest corner, but unlike SN133, it was broken into small pieces, so it was bonded using new materials. Immediately below SN133, the stone block with moldings that was found among the edging stones of N19, was used as it is, as the stone itself was only minimally damaged. The N20 stone panel displayed a special state of damage in the southwest corner as shown in Fig. 39, so that portion was replaced with new material. On the west side of the stone panel, as shown in Fig. 41, details of the moldings were damaged and the stone was cracked into three pieces. Judging that sufficient strength cannot be restored even if the block is bonded, it was replaced with a new material.



Fig. 37: South stairways of the Central Sanctuary after restoration



Fig. 38: Before restoration



Fig. 39: Damage to a stone panel

Accompanying this restoration work, part of the south stairways of the Central Sanctuary was dismantled, and a diverted sandstone was discovered, as shown in Fig. 43. The fact that it resembles the diverted blocks found in N21 and N23, as will be discussed later, is a source of interest.



Fig. 40: South stairways of the Central Sanctuary after restoration (Left: west side, Right: south side)



Fig. 41: South stairways of the Central Sanctuary original stone of the west side of N20



Fig. 42: South stairways of the Central Sanctuary view of the west top surface after restoration



Fig. 43: South stairways of the Central Sanctuary diverted stone blocks on the inner side of the west sleeve area

Section 2 Bonding of Sandstone Blocks

In conjunction with the dismantling of the Southern Sanctuary, damaged stone blocks were bonded one after the other. Two holes 10 ~ 20 cm deep were made in the bonding faces, stainless steel bolts were inserted in them, and the two parts were secured with epoxy resin. This method is commonly used in the restoration of the Angkor monuments, and was also adopted as the method for bonding stone blocks in this project. Gaps between the bonded faces were filled with spacer material made of epoxy resin and sandstone powder, and the excess resin that leaked out from the edges was scraped away after it hardened.

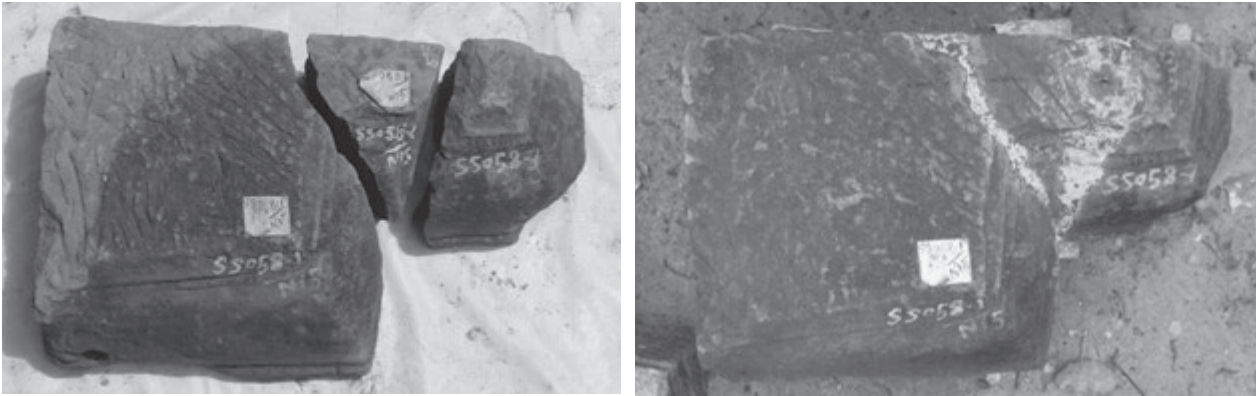


Fig. 44: Restoration of stone block SS058N15 left: before restoration; right: after restoration

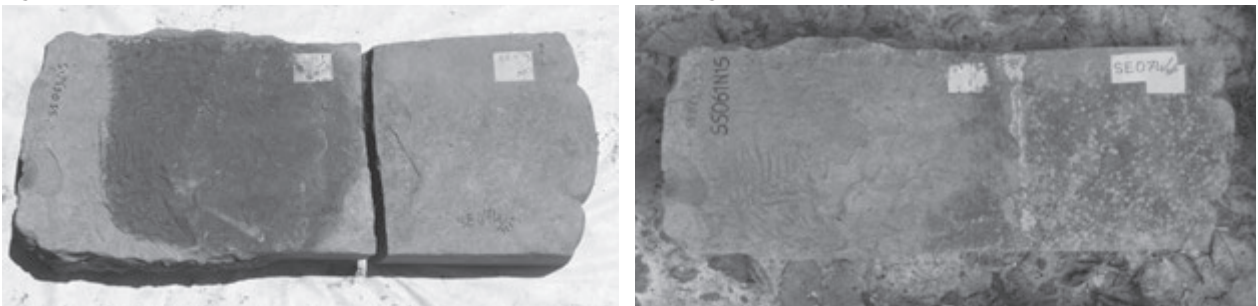


Fig. 45: Restoration of stone block SS061N15 left: before restoration; right: after restoration



Fig. 46: Restoration of stone block SN101N15 left: before restoration; right: after restoration

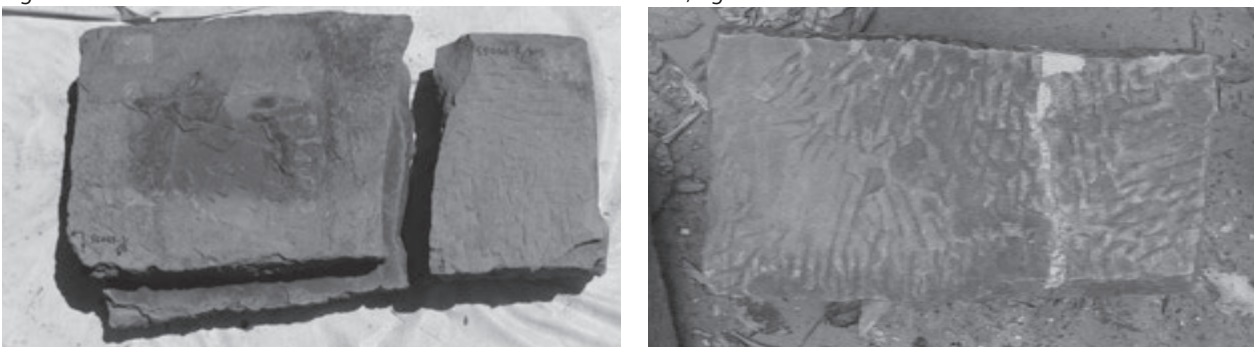


Fig. 47: Restoration of sandstone SS065N15 left: before restoration; right: after restoration