

## Temple Zone of Sambor Prei Kuk, Archaeological Site of Ancient Ishanapura (Cambodia) (C1532)

### I. Executive Summary of the report

#### **1. INTRODUCTION**

The Sambor Prei Kuk Archaeological Site, a UNESCO World Heritage Site, is being preserved through comprehensive efforts led by the National Authority for Sambor Prei Kuk (NASPK). This report highlights key activities from December 2022 to November 2024, focusing on site maintenance, conservation, archaeological surveys, and capacity-building. Ongoing maintenance has ensured the structural stability of the monuments, while conservation efforts have prioritized high-risk areas, including the northern satellite temple groups. Archaeological surveys, using LiDAR data and ground techniques, have expanded understanding of the site's history and urban planning. NASPK has also introduced three specialized training programs, building skills in heritage protection and conservation among students, archaeologists, conservators, and workers. Through an integrated approach, NASPK is securing Sambor Prei Kuk as a vital cultural resource for future generations.

#### **2. RESULT OF ACTIVITIES**

##### **2-1. SITE MAINTENANCE AND VISITOR ENHANCEMENT**

Efforts to maintain and enhance the Sambor Prei Kuk Archaeological Site focus on both preserving its integrity and improving the visitor experience. This includes regular weeding and plant maintenance, the expansion of visitor routes, and the improvement of educational materials.

##### **2-1-1. Periodic Weeding and Plant Maintenance**

Due to Cambodia's tropical climate, vegetation management is critical for preserving the structural integrity of Sambor Prei Kuk's temples. Regular weeding addresses the threat of invasive species, and targeted interventions, such as selective pruning and root management, are used to prevent plant growth from damaging the structures. Additionally, a tree risk map helps identify trees with large root systems that pose a risk to the temples, ensuring that only necessary trees are removed while maintaining the site's ecological balance. For trees growing on the temples, such as the *Ficus Benghalensis* at Prasat Bos Ream (N24) and Prasat Trapeang Ropeak (Tower Y),

proactive pruning before the rainy season helps alleviate stress on the structures. These combined efforts preserve the historical integrity of the site and maintain its natural beauty.

### **2-1-2. Enhancing and Expanding the Tour Itinerary**

In response to the expansion of conservation efforts, the visitor route has been extended to include the northern sectors and the moated city area. This expanded route provides visitors with a more comprehensive understanding of the site's cultural and environmental context, enhancing the educational experience. By linking the temple complex with the broader landscape, the route fosters a deeper appreciation of Sambor Prei Kuk's interconnected heritage.

### **2-1-3. Improvement of the Educational Materials**

To complement the expanded visitor route, new bilingual educational panels have been installed at key temple complexes, including Prasat Yeay Poan (S), Prasat Tao (C), and Prasat Sambor (N). These updated boards provide visitors with the latest conservation efforts, archaeological findings, and historical context in both Khmer and English. The initiative aims to enhance public awareness and provide visitors with meaningful insights into the site's cultural significance and the ongoing preservation work, ensuring a more informed and engaging experience for all.

## **2-2. CONSERVATION AND RESTORATION**

Since 2017, the Department of Archaeology and Conservation (NASPK) has been actively working on the conservation and restoration of the Sambor Prei Kuk archaeological site, addressing increasing structural challenges. Recent updates to the site's Risk Map highlight critical conservation needs, prompting focused efforts between 2022 and 2024 on key temple complexes, including Prasat Yeay Poan (S), Prasat Tao (C), Prasat Sambor (N), and satellite structures like Prasat Kbal Chrouk (N20-3), Prasat Bos Ream (N24), and Octagonal Tower Y at Prasat Trapeang Ropeak.

The conservation projects prioritize structural reinforcement and historical integrity, using techniques like grouting, repointing, and protective coatings to consolidate deteriorating brick masonry. Capacity-building efforts for local workers are integrated into these projects, also supported by international collaborations with Waseda University-Japan and Indian QIP grants.

Specific projects include:

**2-2-1. Prasat Yeay Poan:** The conservation of Prasat Yeay Poan focused on preserving the Main Sanctuary (S<sub>1</sub>) and Tower and Mandapa (S<sub>2</sub>). The Main Sanctuary's brickwork and high-relief decorations were consolidated, with a glass roof and environmental monitoring system installed to protect the interior. For the Tower and Mandapa, post-collapse restoration included stabilizing the brick tower and reinforcing the sandstone mandapa's texture and elements. Protective roofing and drainage systems were added to prevent moisture damage, ensuring the site's long-term preservation. These efforts were recognised by the 38th Technical Session and 30th Plenary Session of ICC-Angkor/Sambor Prei Kuk, held on 14th-15th March 2024, which praised the skill and quality of the restoration, particularly the brick structure conservation as a model of excellence.

**2-2-2. Main Sanctuary (C<sub>1</sub>), Prasat Tao:** Four-year project (2021–2024) focused on stabilizing the structure, restoring stairways, and securing a looting trench. The project prioritized minimal intervention, consolidating brickwork with reused and new materials to prevent damage from rain and plants. Notable achievements included restoring the platform and façades, reinstalling lion sculptures, and installing a polycarbonate roof with a digital monitoring system for environmental control. The project was praised at the ICC-Angkor/Sambor Prei Kuk 38th Technical Session for its respectful preservation approach.

**2-2-3. Prasat Sambor:** The conservation of the Prasat Sambor Group focused on towers N<sub>7</sub>, N<sub>12</sub>, and N<sub>13</sub>. Efforts included stabilizing cracks, rebuilding damaged sections, and reinforcing structures, particularly using stainless steel belts for N<sub>13</sub> to prevent further instability. The project, part of the Sambor Prei Kuk Conservation Project, also provided local conservation training.

At Ashram Maha Rusei (N<sub>17</sub>), conservation work included consolidating sandstone, reinforcing roof slabs, and repositioning damaged pillars. Archaeological excavations revealed three construction phases. The project also included training for NASPK staff and local workers in sandstone

conservation, supported by the Indian Grant Assistance for Quick Impact Projects.

**2-2-4. Prasat Kbal Chrouk (N20-3):** The conservation of Prasat Kbal Chrouk (N20-3), dating back to the reigns of Kings Bhavavarman II and Jayavarman I, addresses significant structural instability and deterioration. The project focuses on reinforcing cracked brickwork, clearing collapsed debris, and restoring stairways, decorative elements, and the landscape. Immediate conservation efforts aim to consolidate loose brickwork and protect the structure from rainwater and plant damage while minimizing the use of new bricks to maintain authenticity.

Future work includes restoring the stone mandapa, consolidating its structure, and strengthening its sandstone elements. If needed, decorative sandstone pieces will be stabilized, and a protective layer will be applied to enhance durability. The first stage of the project is set to complete by December 2024, with the sandstone mandapa conservation planned for early next year.

**2-2-5. Prasat Bos Ream (N24):** faces significant challenges due to the extensive root system of a *Ficus benghalensis* tree, which threatens the structural integrity of the temple. Conservation efforts focus on consolidating loose brickwork, strengthening deteriorated walls, and clearing debris while managing the tree's roots to prevent further damage. Previous interventions, including emergency consolidation and tree pruning, have helped mitigate damage. The current plan involves removing damaging dead roots while preserving the live tree, addressing cracks in the entrance vault, and consolidating the roof's loose brickwork. The project is expected to be completed by December 2024.

### **2-3. ARCHAEOLOGICAL SURVEY**

Since 2017, the Department of Archaeology and Conservation of NASPK has conducted critical archaeological surveys to preserve the Sambor Prei Kuk World Heritage site. These surveys have focused on the brick temple complexes, urban layout, and the continuity of structures from the pre-Angkorian to Angkorian periods. In 2019, the

research expanded to include the moated city area within the site's Buffer Zone, aiming to integrate it into the protected property.

Key excavations include:

**2-3-1. Excavation at Prasat Ashram Maha Russei (N17):** The excavation revealed a brick structure beneath the sandstone mandapa, confirming previous research. Three construction phases were identified: a two-tiered platform, reused brick pavement, and newer brick alignments. Finds included earthenware fragments and evidence of looting. Consolidation of the platform's top surface is planned, and educational panels will engage visitors with these discoveries.

**2-3-2. Excavation at Prasat Kbal Chrouk (N20-3):** Seven principles trenches uncovered three construction phases spanning the pre-Angkorian and Angkorian periods. A mandapa in front of the brick tower, dedicated to Lord Shiva, was found. It lacks exterior covering, suggesting outdoor use for specific rituals. Educational panels will be installed to explain the significance of these findings.

**2-3-3. Survey at Prasat Sra Tech (M.99) in Ishanapura:** This survey, following earlier work at Prasat Khnach Tol (M103), seeks to understand the urban and architectural development city moat zone of Ishanapura. Finds included inscriptions, ceramics, and a Buddha's head, marking the first evidence of pre-Angkorian Buddhist art at Sambor Prei Kuk. These discoveries highlight the site's importance from the 6th to 8th centuries.

**2-3-4. Preventive Archaeological Survey Along the Road to Prasat Robang Romeas:** A survey was conducted to improve accessibility while protecting archaeological sites along the route to Prasat Robang Romeas and Prasat Srei Krup Leak. Detour routes were established to protect key features. This initiative combines heritage conservation with community development, ensuring the preservation of these significant sites.

## **2-4. COMPREHENSIVE CAPACITY-BUILDING APPROACH**

Since 2017, NASPK has focused on building the capacity of Cambodian professionals and local community members for the conservation of Sambor Prei Kuk. This ongoing

initiative enhances human resources, ensuring sustainable preservation efforts. The program targets university students and local communities, integrating academic learning with practical conservation experience. Key elements include:

**2-4-1. Training Programmes:**

- **Local Community Student Training:** Since 2019, NASPK has conducted training for local students, incorporating theoretical knowledge and hands-on conservation activities.
- **University Student Training:** Collaboration with universities like the Royal University of Fine Arts in Phnom Penh enables students to engage in archaeological research and conservation, fostering skilled future professionals.
- **On-the-Job Training:** Local community members receive hands-on experience in conservation, enhancing their skills in brick restoration and site protection. This program also reduces urban migration by providing local employment opportunities.

**2-4-2. Workshops and Community Engagement:** NASPK organized workshops for the community, focusing on heritage value, legal protection, and the importance of cultural heritage preservation. These workshops foster active participation and community ownership of the site's protection.

**2-4-3. Capacity-Building Initiatives:**

- **Study Tours:** Technical staff participate in study tours to gain insights into best practices in conservation, enhancing their skills for addressing preservation challenges at Sambor Prei Kuk.
- **Capacity-Building Workshops:** Workshops for skilled workers focus on heritage values, archaeological techniques, and conservation practices, strengthening local expertise.
- **International Exchange:** Participation in international forums and training programs enriches NASPK's practices by sharing knowledge and adopting global best practices.

**2-4-4. Educational Materials:** The Public Educational Program for Sambor Prei Kuk, part of the Site Security Educational Program funded by the U.S.

Department of State, aimed to raise community awareness about the site's significance and promote preservation. This initiative included billboards and handbooks to engage the local population in safeguarding their cultural heritage.

- **Billboard Panel:** Were installed in ten villages within the protected zone to inform residents about heritage conservation. These panels, featuring clear visuals, were initially focused on archaeological features but later expanded to depict everyday activities affecting the site. They aimed to educate the community, particularly those near temples and moated zones, about the impact of daily practices, such as livestock management, on the heritage site.
- **Handbook Publications:** Two handbooks were distributed to educate the community on the historical, cultural, and environmental significance of Sambor Prei Kuk. "*Sambor Prei Kuk: Monument and Conservation*" offers a comprehensive introduction to the site's architecture, art, history, and conservation efforts, supporting local educational programs. "*Sambor Prei Kuk: Monument and People*" provides practical, illustrated guidance on daily activities, heritage protection regulations, and "Dos and Don'ts," ensuring accessibility for all, including those with limited literacy. Both handbooks were widely distributed within the protected area.

### 3. CONCLUSION

The efforts at the Sambor Prei Kuk Archaeological Site reflect a strong commitment to preserving its cultural and historical significance through conservation, restoration, and archaeological research. Central to these efforts is maintaining the structural integrity of the ancient temples and expanding training programs for local communities, ensuring a holistic approach to heritage conservation.

Capacity-building initiatives, including educational materials tailored to local needs, have enhanced community knowledge and skills. NASPK, under the Ministry of Culture and Fine Arts, has empowered local teams to participate actively in safeguarding their cultural heritage, fostering a sense of responsibility and ownership.

These efforts aim to protect Sambor Prei Kuk for future generations, promote sustainable practices, and reinforce local connections to historical identity. NASPK's

work, which includes effective plant and tree management, improved visitor routes, and vital conservation at Prasat Yeay Poan and Prasat Tao, exemplifies a comprehensive approach to heritage management.

Beyond preservation, NASPK's initiatives focus on community empowerment through training and workshops, creating a skilled workforce for ongoing conservation. Collaborations with international partners and bilingual educational materials raise local and global awareness of the site's value. These efforts ensure Sambor Prei Kuk's continued relevance as a cultural landscape, with local communities playing a key role in its stewardship.