

ADF Annual Summary Report 2017

Please find below the 2017 ADF annual summary report for both the archaeology and the development components.

ARCHAEOLOGY:

Maintenance and conservation program:

- Land Mine & UXO removal program

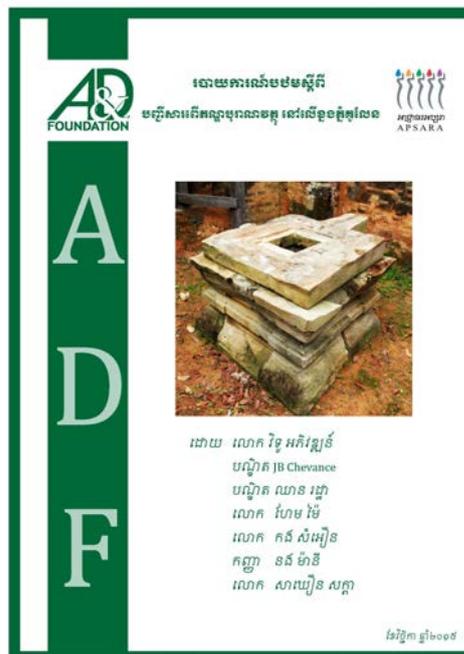
The annual demining program set up by ADF, in collaboration with CMAC and APSARA, allows to implement safely the regular clearing, the maintenance and the caretaking of the archaeological sites in Phnom Kulen. In many cases, it also allows a better knowledge of the sites. This concern lands on archaeological sites (for maintenance by APSARA team & excavation by ADF/APSARA), and often, areas in the villages, all benefitting the local population of Phnom Kulen.

As no archaeological excavations were organised for 2017, ADF did not required any demining team. In 2016, ADF funded and collaborated with 1 CMAC team, in order to secure several selected areas, prior to the excavations. 2.15 additional hectares were secured from 15th of February until the 25th of March 2016. This is to be added to the 36 hectares previously secured in Phnom Kulen since 2008.

- Assistance to the APSARA National Authority for the heritage management in Phnom Kulen

ADF continued its assistance to APSARA for the conservation and the maintenance of all the archaeological sites in Phnom Kulen. ADF maintains a regular coordination with the APSARA deputy director, heads of departments, archaeologists and workers in charge of Phnom Kulen, and provides assistance and advices for a better heritage management of the archaeological sites. This concerns also the ongoing maintenance and conservation of the monuments and sites and their respective Archaeological Protected Areas (APA, 800 hectares, see below).

- The final version of the complete sandstone artefacts inventory (460 entries, using standard methodology) for the Phnom Kulen archaeological sites was submitted to APSARA in November 2017. The printing of this report was subject to discussions with the APSARA Authority in 2017 and it was agreed that APSARA would request funds for this in 2018.



Cover of ADF report, artefact in Phnom Kulen archaeological sites 2017.

- The complete topographical surveys of the 1000 linga site and Kbal Spean (covering known and unknown bas-reliefs, settlement system of the ancient carving, ancient inscriptions and associated sites...), and the information signboards design were finalized in 2016. The texts should be written in both Khmer and English in 2018 and will constitute for APSARA a better tool to manage this very frequented area and will enhance the public's knowledge of these sites.
- ADF has facilitated the restoration project of an Angkorian dike (Thnal Dac), requested by the villagers since 2012 and funded by the APSARA National Authority in 2016. The objective of this restoration undertaken by APSARA (Department of Water Management) was to rehabilitate the earthen dike retaining the adjacent reservoir supplying the water for the villagers. This project was completed in June 2016 but due to heavy rains in June and September 2017, APSARA requested ADF to specify the location where extra soils could be manually extracted without damaging archaeological sites, to refill some of the section previously restored. The work was not fully completed in 2017.
- The project of the road crossing the Phnom Kulen plateau was initiated by the Cambodian Government in 2017, as stated by the Minister of Environment during the ICC in June 2017. ADF advised the APSARA Authority and the Ministry of Environment to minimize the impacts on the archaeological sites by suggesting that the road should be kept on its actual track. 3 bypasses were proposed and punctual archaeological preventive operations were suggested. These bypasses are left to the consideration and the approval of the APSARA Authority and the MoE. Construction work begun from Svay Leu town, up to the village of Ta Peng in August 2017 on a very wide section (>30m). This part was visited on a few occasions between August to September by ADF team, and with a visit with representatives of the construction company, APSARA and ADF on September 14th 2017.
- Archaeological protected areas (APA)
This activity was initiated by ADF in 2011 and finalized in January 2015, within the framework of the Ambassador's Fund for Cultural Preservation (US-AFCP, "Mapping, documentation and preservation of newly discovered Angkorian sites on Kulen Mountain"), granted to ADF in July 2013 by the Department of State, and started in October 2013. The main objective of the project was to protect the immediate environment of the archaeological sites in Phnom Kulen from damaging agriculture practices, deforestation, uncontrolled fires and erosion. The identification of archaeological sites thanks to the LiDAR data was also one of the outcomes, as well as to built awareness towards the population and the local authorities on their cultural heritage and the natural environment.



Maintenance of APA cement post, August 2017.

No additional APA was demarcated in the Phnom Kulen National Park (PKNP) during the year 2017. However, ADF has collaborated closely with the APSARA team to undertake a systematic survey of the perimeter of each APA, from 14th August to 1st October 2017. The objective was to establish the conservation state of the posts demarcating each area, and to repaint the APSARA logo, number and APA mention on each post. The final objective is to demonstrate that these zones are maintained and regularly checked. ADF submitted a report in Khmer to APSARA on the 1st of October 2017. After their official recognition by the APSARA National Authority, the Ministry of Environment and the provincial authorities of Siem Reap (May and June 2015), these zones still need a jurisdictional framework and a clear definition of the responsible authority. The Management Plan of PKNP, to be implemented with the Action plan from 2018, should be the occasion to ratify their existence.

- Restoration of sandstone and metallic artifacts

No artifacts (sandstone, ceramic) required restoration/conservation in 2017. Some metallic objects were sent to the Phnom Penh National Museum (metal laboratory), after being sampled by the IRANGKOR team, for future restoration (see below).

Archaeological research, diffusion/communication and training:

- Field verification of features from the 2012 and 2015 Lidar campaign:

The Phnom Kulen 2012 Lidar Campaign was undertaken within the KALC project, covering Angkor, Koh Ker and 30 km² in Phnom Kulen, funded by ADF. The 2015 Lidar campaign was initiated by EFEO under the CALI project (Dir. Dr Damian Evans) and covered 5 major archaeological sites in Cambodia. The largest acquisition area was the entire range of the Phnom Kulen National Park (975 km²), from Varin district to Beng Mealea temple. As in 2016, ADF was in charge of the field verifications, focusing on the top of the plateau, in close collaboration with the CALI/EFEO project.

A progress report in Khmer was submitted on 28th February 2017 to APSARA. It explains the objectives, methodology and results; and summarizes the number of inventoried and visited features. At the date of this report, 426 features were inventoried. In March 2017, ADF team, in association with the APSARA Authority archaeologists, finalized the ground verifications and the inventory of the archaeological features revealed by the Lidar campaigns from 2012 and 2015. The digitization of discovered features was then finalized and made coherent with the CALI system. ADF employed a GIS specialist for 3 months (mid-February to mid-May) to undertake this mission. In total, more than 3200 archaeological features have been identified and digitized. The objective is to create a comprehensive archaeological map of Phnom Kulen. Articles summarizing the results of the research will be published in 2018.



Archaeological survey in March 2017.

- Excavation campaign and topographical survey

There was no archaeological excavation campaign and topographical survey during the year 2017. ADF archaeological team took this opportunity to work on the data from the previous excavations and Lidar campaigns. Ms Hong Raneth, expert on Khmer ceramic, finalized the work on the ceramic from the 2016 campaign (drawing, digitizing, database entries). In August 2017, all the 2009 field drawings relevant for a future publication on Prasat Rong Chen, the only mountain-temple in Phnom Kulen were checked and made coherent with equivalent standards. Simultaneously, pictures taken during the 2009 campaign were organized, identified and recorded from the field notes. Further specialized studies (ceramic, radiocarbon from charcoal samples, stratigraphy), reports and publications will be achieved in 2018, according to ADF planning and budget.

- Roof tile studies

Numerous roof tiles were found during ADF previous excavations, particularly in Prasat Rong Chen (2009), the Royal Palace/Banteay (2010 and 2012 campaigns), Poeng Tbal (2009 and 2012 campaigns), Prasat Damrei Krap (2010) and KL0138 (2014). In 2017, ADF completed the full study (pictures, inventory, drawing, typology) for Prasat Damrei Krap (May-June 2017) and Banteay (Kruh Pteah Chas). Prasat Rong Chen and Poeng Tbal roof tiles were studied in 2016.

Ms. Myonduk Choi (PhD candidate, from Université Lumière Lyon 2, UMR-5138, CNRS) undertook these studies, assisted by Mr Mike Hem, archaeologists from APSARA. This work will lead to further specialized publications. According to the ADF-APSARA MoU, stating that artifacts should be transferred after studies, ADF has requested APSARA to proceed to the transfer of 54 containers (11 boxes and 43 baskets) containing exclusively roof tiles fragments from ADF office in Siem Reap to the APSARA deposit. This transfer was done on the 25th of July 2017.



Roof tile inventories, 2017

- IRANGKOR project

ADF is collaborating with the IRANGKOR project. This project, funded by the French National Research Agency, aims to evaluate the role of iron (production, trade and consumption) during the Khmer empire (9th to 15th century). Among the 31 selected objects from ADF previous excavations, it was agreed between ADF and IRANGKOR team that 14 samples would be taken off for scientific analysis and dating. They were selected according to their quality (metal not corroded) and the context of the objects.

The IRANGKOR team in ADF office did the sampling at ADF office on the 24th of February 2017, and the objects were then taken for restoration in the National Museum in Phnom Penh (metal laboratory)

on the 4th of March 2017, to fill the gap corresponding to the samples during the year 2018. After the APSARA approval for analysis in April 2017, the samples were taken to France by IRANGKOR team. The study will last until the end of 2018.

- Diffusion and communication:

The publication of scientific articles remains the ultimate goal for ADF. During the year 2017, the ADF archaeological team worked on future publications for the following years, and particularly on the Lidar results in Phnom Kulen and the related capital from the IXth century, the hydraulic features, Prasat Rong Chen, the 1000 linga and Kbal Spean sites.

In May 2017, ADF representative JB Chevance was invited to the Dumbarton Oak centre, Trustees for Harvard University, (Washington D.C) for the Garden and Landscape Studies Symposium (May 4 – 6, 2017) on “Landscapes of Pre-Industrial Cities” to give a presentation entitled “The Phnom Kulen’s capital: a singular and early case of urban planning in ancient Cambodia”. The proceedings of this symposium will be published in 2019-2020. ADF also participated to the seminar entitled “Gestion des eaux d’Angkor: Bilan des études et perspectives”, organized by the Association des Amis d’Angkor in Paris, on November 10th 2017 with a presentation by JB Chevance entitled “La cité angkoriennne du Phnom Kulen: organisation et impact sur l’environnement”. ADF has participated to the online training course organized by the French Government (Ministry of Culture and Communication) for the Cambodian site managers, with a training presentation entitled “Patrimoines et paysages du Phnom Kulen”. It is translated in Khmer and accessible after registration online here: www.e-patrimoines.org/patrimoine. Two others presentations entitled “Heritage conservation and Management, the example of Phnom Kulen” were given by Mr. Sakada Sakhoeun, ADF Archaeologist and National Manager for the Hong Kong University (SPACE Postgraduate Diploma in Cultural Heritage Management Field Study) on the 16th of January 2017 and for the Texas A&M University (School of Law) on the 26th of May 2017.

In 2017, ADF continued to report and advise the ICC UNESCO experts about Phnom Kulen issues with various field visits (21st-22nd of January 2017), focusing on deforestation, Archaeological Protected Areas and Community Protected Areas, encroachment, waste problem at Preah Ang Thom, tourism problematic in Phnom Kulen and home stay (eco-tourism), alternative livelihood, small-scale farms and breeding, cashew nut producers and retailers. ADF attended the 23rd ICC plenary session (25th of January 2017), the 27th ICC technical session (24th of January 2017), the 29th ICC technical session (December 13th) and the 24th plenary session (December 14th 2017). ADF team presented its activity reports and perspectives at the 28th technical session (21st and 22nd of June 2017). Finally, ADF archaeological work in collaboration with APSARA Authority was mentioned in the press media such as Cambodia Daily, Le Figaro Magazine and Smile, the in-flight magazine of Cebu Pacific Airlines.

- Training of the Cambodian archaeologists

A close collaboration between the APSARA Authority and ADF archaeologists during the various activities provided a platform for field training to the APSARA local staff (archaeologist and local workers). Three APSARA archaeologists in charge of the Phnom Kulen sites were involved in all archaeological activities (archaeological surveys, APA surveys and management, site management, artifacts studies...), improving their skills and experience.

ADF has renewed its MoU with the APSARA Authority, for 3 additional years, from October 2017 to October 2020. It was signed on the 2nd of October 2017.

DEVELOPMENT:

Since its creation, ADF has set up several components under the development program to address the Phnom Kulen issues: Income Generation/Alternative Livelihood; Nutritional Health & Hygiene including an Emergency Support; Educational Support including Water and Sanitation and Environmental Support. They are all tailored-made to the Phnom Kulen problematic and are presented below. They are implemented in close coordination with the Khnong Phnom Commune Development plan.

Income generation (IG)/alternative livelihood program

As for the previous 7 years (since 2010), ADF is continuing the support to local communities and villagers with the objective of proposing an alternative to the existing environmentally destructive agricultural practices (e.g. slash & burn combined with cashew nut mono-culture), by sustainable alternatives and environmentally friendly sources of incomes for the population of Khnong Phnom commune. ADF propose technical assistance and materials for the families to undertake animal raising (chicken: 24 families; fish: 7 families), small-scale mushroom farming (2 families) and seasonal vegetable growing (mostly during the cool season, from the end of October and reducing by the end of February; 27 families: 2 in Thmey village, 18 in Anlong Thom village, 1 in Thma Chruogn village, 3 in Sangke Lak village).

In 2017, ADF closely monitored the incomes and expenses of each of these 60 beneficiaries. The objective is to transform these producers into independent local entrepreneurs. ADF is encouraging them to contribute with their incomes to the costs. This will allow taking ownership for their business, ensuring sustainable alternative income.



Training session for the IG beneficiaries, 2017.

The mushroom production centre in Preah Ang Thom village, set up in 2014 was acting as a cooperative and training centre. In 2016, the main constraint was climate changes and an insect infestation, reducing the production. The centre was transferred on the 5th of April 2017 to the MoE/Provincial Dpt of Environment, with a long-term plan that the structure would be serving the community, through the Khnong Phnom Commune. The PDoE staff chose quail raising (*Coturnix Coturnix*), implemented for 2 to 3 months and activities stopped. In 2018, discussions will be hold

between ADF, the Commune Council and PDoE to decide about the future of the existing infrastructures. The objective is to ensure that the centre will be used for the community and to the benefit of the National Park.

ADF advised on the 8th of August 2017 the GIZ Bio-diversity Based Products project (BBC) with a site visit. Since August 2015, ADF advised the GIZ team for assessments and identification of products. Due to the slow implementation of this project and the lack of ADF human resources, ADF management team decided at the end of the year 2017 to focus on other activities already funded and functioning.

During the year 2017, ADF IG and management teams were in close contacts to set up a potential project with AGRISUD International, an important International agricultural NGO in Cambodia. The objective is to combine our respective experiences and work together with the indigenous population of Phnom Kulen to develop a larger IG project. The IG supervisor attended two training sessions (March and October 2017), from the capacity-building program entitled “Advisory service activity for sustainable agriculture”, implemented in the context of the “Agro-ecology and diversification of peri-urban family farms in Siem Reap Province” AGRISUD project, ongoing since May 2016.

Other high level visits to the IG component and ADF in general were organized with the United Nations Development Program (UNDP) and the World Bank (17th may 2017) for potential future projects.

Development of eco-tourism and presentations to visitors

The collaboration with Terre Cambodge travel agency (TC) and Frangipani Spa continued in 2017. Their strong and faithful support helped the continuation of the IG activities stated above. In order to create another source of income for the villagers, ADF helped Terre Cambodge to select families who are willing to develop home stays in Anlong Thom village. TC provided facilities (toilets), training (hygiene, cooking) and is purchasing products from the IG beneficiaries to cook for the visitors. ADF also advised Terre Cambodge to select motivated villagers to act as local guide. In return to TC support, ADF provides presentations about its activities to supporting groups of travellers.

Nutritional health & hygiene program

The objective of this component was to improve nutritional health and wellbeing of the women and children, between two and five years old, in order to decrease child morbidity and mortality rates. The original “Strive and Survive” project (SAS), supported by AUSaid, was initiated in March 2011 and continued until 2013 in 5 of the poorest villages in Khnang Phnom commune, on the Phnom Kulen plateau. Thanks to a private donor, ADF was able to continue its efforts from 2014 until mid-2017 to fight the malnutrition in Phnom Kulen villages with the “Start Me Up” project, designed as a continuation of the SAS project.

Mid 2017, ADF was therefore at the end of the second long-term funding phase and the management team decided to proceed to an assessment of this program. ADF signed an agreement with the Karolinska Institute (Stockholm, Sweden), one of the most recognized medical universities, and two students made an extensive review and evaluation of this program, from May to mid-July 2017, under the supervision of their teachers. It was recommended to ADF to change the nutrition project into a hygiene project (see below).

Emergency support

In 2017, ADF close collaboration with the Commune Health Centre allowed to continue the assistance in case of severe health cases, providing funds for transportation to Siem Reap hospital and related costs.

ADF continue to supervise the **rice bank** committee in Tmma Chruogn village (35 families, 210 people), to alleviate food insecurity. 27 families borrowed 7350 Kg in May 2017 and gave it back in Dec. 2017 and Jan. 2018. The ADF input and support for the Rice Bank is now mainly of a technical nature, guidance, monitoring, recording and additional minor costs for the maintenance of the Rice

Bank building.

Educational Support/ Water and Sanitation

The objective of this component is to enhance local school facilities and resources, to provide a favourable educational environment in Khnong Phnom commune. During the year 2017, ADF continued the “Kurere” project (for Kulen Rehabilitation and Regeneration), started in late 2016. It focuses one sole primary school, corresponding to the needs of the most neglected school of the plateau: Sangke Lak primary school.

The “Kurere” project was defined and approved by the teachers, the village chief and the commune, to enhance the school facilities and to encourage good hygiene and environmental practices. It was supported by Terre Cambodge and TDS Voyage, comprised training session about basic hygiene (washing hands and brushing teeth), the setting up of two water system for the school, the construction of toilets, wash bay, a tree nursery and an incinerator all built in 2017. Additional facilities such as a playground of 5 items, cement table and benches, bins, kitchen, cooking cement table, and tree planted to provide shade, some punctual upgrading of a wood class building and solar panel set were also installed.

An additional support from the Siem Reap Human Resource Club and Panasastra University in Siem Reap, allowed ADF to built water tanks in Anlong Thom primary school tree nursery and the Ta Peng tree nursery was rehabilitated. 5 water filter acquired by Sustainable Communities Cambodia (local NGO) were delivered by ADF to Ta Peng primary school and Sangke Lack primary school.



Water system and Tree nursery, under construction at Sangke Lak primary school.

Environmental Support

ADF was involved in 2017 in the environmental protection of Phnom Kulen National Park by combining data to the geo-database about the environmental threats, and by disseminating them to the relevant authorities (Ministry of Environment, APSARA Authority, District and commune authorities...). ADF continued in 2017 to integrate in our GIS system all illegal-logging points and recently burned plots of forest for cultivation purposes within the Park and reported them to the

Ministry of Environment (MoE) and APSARA.

ADF team continued to be one of the main actors to provide information from the field for the design of the Phnom Kulen Management Plan and the Phnom Kulen Action Plan, under the supervision of the MoE, with the assistance of UNDP. In this framework, as well as within the “Forest and Landscape Restoration Mechanism, Capacity Development Workshop on National Forest Funds (NFFS) and Payment for Ecosystem Services (PES) including REDD+”, ADF management team met representatives from the Ministry in Phnom Penh and Siem Reap, attended to various meetings at national level and gave presentations.

Payment for Ecosystem Services (PES):

Within the PES project, ADF provided an in-depth visit to UNDP and MoE experts in July and Sept. 2017. ADF director was later selected with a national consultant for the preliminary studies for the implementation of a PES project in Phnom Kulen National Park (PKNP).

Three important reports were produced from September to December 2017, with the assistance of Mr Sakhoeun Sakada and Miss Nina Hofer.

- 1) “Phnom Kulen National Park: Land and Resource Use Analysis by Dr. Jean-Baptiste Chevance and Dr. Pheakkdey Nguon”, United Nations Development Programme, December 5, 2017.
- 2) “Phnom Kulen National Park: Ethnography and socio-economic assessment” by Dr. Pheakkdey Nguon and Dr. Jean-Baptiste Chevance, United Nations Development Programme, December 5, 2017.
- 3) “Phnom Kulen National Park: Institutional and Governance Analysis” by Dr. Jean-Baptiste Chevance and Dr. Pheakkdey Nguon, December 5, 2017.

A fourth report is due by another international consultant in 2018 and other meetings will then assess the situation of a potential PES in PKNP. Within the first study, a series of important maps were produced on general data, biomass and land use in the PKNP, over the last 17 years.

UNDP, Small Grant Project:

ADF and ABCT local NGO applied to a Small Grant Program-Global Environmental Fund (UNDP-SGP, GEF) in June 2017 with a project entitled “Community for Environmental Empowerment” (CEE project). The project was among the short-list selected projects and representatives of both organisations attended to several meeting in Phnom Penh with the UNDP staff to re-orientate the project proposal, handed over in November 2017. The final decision by UNDP as per the selection and funding of this project will be taken in late 2018.

Reforestation activities:

ADF participated and facilitated several activities related to tree planting activities in PKNP: selection of the area to be planted, organisation and logistic on the field, design of signboards. They were undertaken within the framework on the UNEP-Adaptation Fund project (“Enhancing Climate Change Resilience of Rural Communities living in Protected Areas of Cambodia”). A total of 32 ha were planted with the UNEP project in April, on the 23rd of May (with H.E. Say Sam Al, Minister of the Environment), June and July 2018.



Planting tree ceremony, 23rd of May 2017.

“Green Zone project” in Preah Ang Thom:

The Min. of Environment requested assistance to ADF to design a new layout for the waterfall area with new shops, pick-nick huts, parking and toilet. ADF coordinated with the MoE and APSARA Authority for this new layout. Different options of the project were submitted to MoE and PDoE and a final one was selected, to move forward to the funding and the construction phases.

Additional Support to Provincial Department of Environment (PDoE):

ADF has supported ranger patrol in PKNP and offered 6 GPS, with additional training. ADF conducted a survey of the Preah Ang Chup pagoda to assess the extension of the buildings and the access road in June 2017, as well as for the site selected for the incinerator for wastes from Preah Ang Thom area, providing corresponding maps.

School for Field Studies:

During the year 2017, ADF continued to define and facilitate the studies implemented by the School of Fields Studies, with a research collaboration program focusing on natural resource governance and management; livelihoods; and the environment interface in the Phnom Kulen National Park.

Road construction project across PKNP:

ADF advised the PDoE and APSARA Authority about the road construction project across the PKNP. Before the construction started, a field visit was organised to visit the archaeological features and sites, and the proposed bypasses. Regular visit to the construction site were also done on the eastern slope of Kulen in August and September 2017. ADF was not invited to the field visit with the UNESCO-ICC expert in December 2017.

Actual situation:

Despite the dynamic on PKNP initiated by the MoE and followed by PDoE during the year 2017, the traditional destructive agricultural practices (slash & burn combined with cashew nut farming) and the illegal logging were still largely used in Phnom Kulen National Park. PES preliminary studies shows that about 20% of forest cover left will disappear in the next few months, if no other major alternative solutions are implemented on a large scale, and if the environmental laws are not enforced. Illegal logging and land encroachment, particularly around the Phnom Hop area, are still continuing. The implementation of the Phnom Kulen Management Plan and the Action plan is therefore an emergency. For the year 2018, ADF will reinforce the activities of this component to support this dynamic.



Slash and burn plot, march 2017, PKNP.