

Location	Fort Alice, Sri Aman	Ref No.	SA/WS/AR008
Subject	Site Visit to Fort Alice	Date	26.03.2014
		Time	2.00pm – 3.30 pm
Attended by	Refer to attached attendance list	Conducted by	Mike Boon
Recorded by	Goh Tze Hui & Teo Hui Kun	Coordinated by	Lee Kao Choo & Nelly Soh

Since the programme started on 28.05.2013, the participants had seen the Fort in its dilapidated condition before the fabrics were carefully dismantled. They have witness the processes of the structural 'skeleton' being reconstructed from ground zero. This is the first time the participants were brought inside the building under reconstruction, as a preview to how the interior of the fort would look like after the conservation.

After safety briefing and distribution of safety helmets, Ar. Mike Boon gave a briefing on the conservation process to 42 regular participants; 3 members of Sarawak Heritage Society (SHS); 2 members of Friends of Sarawak Museum (FOSM) and 2 representatives from NS Bluescope Lysaght (Sarawak) Sdn Bhd.



View of Fort Alice from Jalan Istana.



Reconstruction in progress - the roof is partially covered with belian shingles.

**Training for potential voluntary guide**

Jackie Chan Ka Man, a regular participant from a local school, told the new-comers and his peers that the site visits have always been an invigorating experience. He felt more connected with the fort after learning its history and witnessing the reconstruction processes. Jackie said that he is becoming more confident to tell the story of the fort to his friends and visitors.



Jackie Chan enthusiastically sharing his experience with the participants, showing the quality of a competent guide for the conserved fort.



Exchanging views on the look of the fort.

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**Mystery in the recipes of lime wash**

The participants were shown the unsatisfactory experimental results of coatings on belian, where different bonding agents (such as melted cowhide, soap and starch) were added to lime wash. When exposed to weather, these 'modified' lime-wash have difficulties in adhering to the belian board surface. During the site visit, another recipe of lime wash with addition of 5% casein (a kind of protein) was applied to damp surface of roughen belian board. The lime wash was applied in multiple thin layers. The sample panel was left to dry for 30 to 45 minutes, depending on weather condition, before application of the next layer when it was just wet to touch. The sample panel was then hung under roof eaves to simulate the condition of wall claddings to be lime washed. Hopefully a more favorable result could be shown in the next site visit.



Unsatisfactory results of previous modified lime wash recipes on test panel.



Casein is a common supplement taken by body builders.



Casein is also used in food production. It smelled like milk powder.



Casein melted in warm water before adding to lime wash.



Modified lime wash applied in thin layer.

**Sustainable reuse of Belian off-cuts**

The Belian off-cuts were cut into block, hand split into rectangular 'sticks', then shaped into cylindrical dowels using a 'sickle-like' traditional paring knife with long thin wooden handle. Dowels of various sizes were made for different timber connections, eg.20-25mm diameter for structural connections or 15-18mm diameter for floor or wall panel fixing. The used of these dowels on the reconstructed structures were pointed out to the participants on site.



Available locally at RM18 each.



Craftsman anchored his right hand to his leg. The belian piece was dragged across the blade to shape it into a cylindrical dowel.



Final product looks like short drum stick.



Demonstrating how the dowels are used on joineries.

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**Inside the building**



The participants were taken to first floor of the fort in 2 groups. Taken in by the panoramic view from the fort, they can imagine why Charles Brooke had chosen this vantage point to keep surveillance on the Lupar River.

They learn to identify the basic roof framing components, such as roof beam, tie, King post, rafter, batten etc. Ar. Mike Boon also pointed out the elements of Chinese and Malay carpentry traditions, such as the intermediate tie (below ridge beam) in-between King posts is a unique feature in traditional Malay house; whereas the scarf joint and cross-top plates details were of Chinese origin.



Intermediate beam - a common detail found in traditional Malay house.

Cross-top plate and scarf joint – a traditional Chinese carpentry tradition found in old local timber construction.

He explained that old belian shingles dismantled from the old roof were reused as the under layer of the reconstructed roof to achieve a visual interpretation of the original roof. Although the ideal practice is to use hand-split belian shingles for the roof covering, machine-cut shingles (6x100x45mm) were used. The project team found out that it is uneconomical and not sustainable to produce hand-split shingles nowadays. The wastages is very high because the belian is not being conditioned for this type of production before it was harvested. The project team was being told by the supplier that, in the old days, skin around the base of belian tree was removed and it was left standing over a prolong period to drain out water, before it was cut down to process into hand-split shingles.



Belian shingles dismantled from the old roof were used as underlay for visual interpretation of the original roof.



Belian shingles moved under different weather conditions. They warped when dry and levelled up when wet.



First time visitors from SHS and FOSM.



The participants being brought inside the fort for the first time.



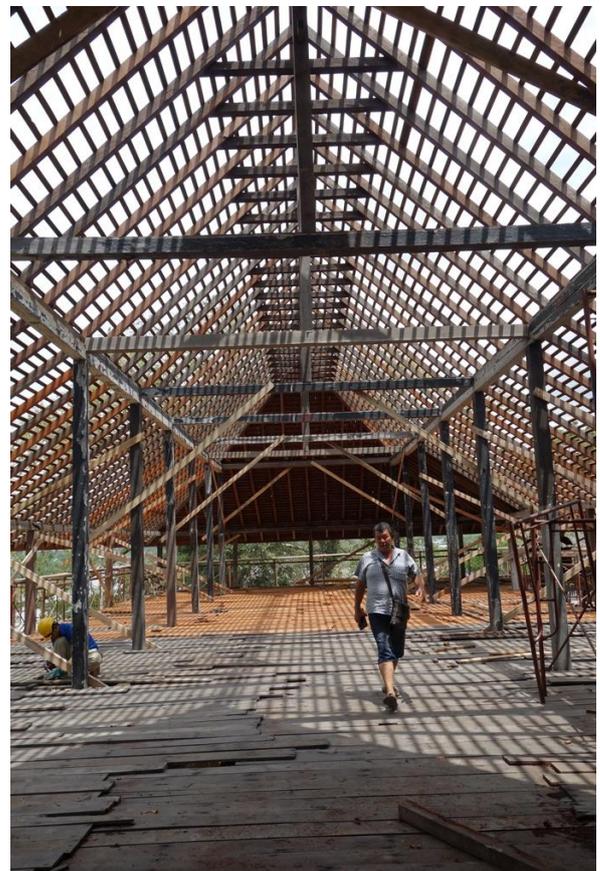
A quick lesson on roof construction.



Temporary bracing for the roof framing components.



View of roof at the courtyard.



Master carpenter, Ting Nik Sing, inspecting the floor boards laid for the reconstruction of the old court room.



Group photo at the end of the site visit.

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