

Location	Fort Alice, Sri Aman	Ref No.	SA/WS/AR009
Subject	UNIMAS Archaeology Students' Site Visit to Fort Alice	Date	25.04.2014
		Time	2.30pm – 4.30 pm
Attended by	Refer to attached attendance list	Conducted by	Mike Boon
Recorded by	Mike Boon	Coordinated by	Mike Boon / Prof Nancy White & Nicholas Gani (UNIMAS)

A field trip to visit Fort Alice was organised for the UNIMAS archaeology course students by their Visiting Professor, Dr. Nancy White, from the Anthropology and Sociology Programme in the Faculty of Social Sciences, Universiti Malaysia Sarawak (UNIMAS).



Photographs taken by Goh Tze Hui (volunteer)

Prof Nancy has written to JKR Southern Region for entry permission and liaised with Mike Boon on the visiting programme which is reprinted below:

**UNIMAS Course: Introduction to Borneo Archaeology, SSY 2013, Prof Nancy White, with Nicholas Gani**

**FIELD TRIP: FORT ALICE, SRI AMAN**

**DATE: Friday 25 April**

**SCHEDULE: 7:30 AM leave UNIMAS campus by bus (board bus at BHEP building)**

11:00 AM arrive Fort Alice, have lecture/discussion about archaeological and heritage issues in general, such as community, diverse stakeholders, who owns/controls the past, restoration vs. reconstruction, public archaeology, conservation of cultural materials, construction staff on archaeological and historic sites vs. archaeologists on construction sites, political uses of the past, nationalism, historic preservation, etc., **Taman Panorama Benak AV room.**

12:00 – 2:30 PM lunch (students bring or find in town; can visit mosque)

2:30 – ca.4:00 PM tour by architect Mike Boon. Issues of historic preservation, funding, restoration vs. reconstruction, as well as historical story of the fort, stakeholders involved in the project (did they all agree on things?)

Students are assigned to research the Fort ahead of time, read the information posted on Morpheus, and prepare intelligent questions to ask. Students are obliged to take notes, and later (on quiz or final exam) will be asked at least one question about the field trip (with alternative question for those who did not go).

Anything else to do if we have time? Town layout, commerce, other monuments, famous buildings? Famous river with the tidal bore.

4:00 PM leave Sri Aman

7:00 PM arrive back at UNIMAS

Students should dress appropriately, in long trousers or jeans if possible, with sturdy, closed, thick-soled shoes for walking; **bring your own water**, umbrella or other rain gear, lunch if you don't want to buy it, reading material or other things to occupy your time during the 6 hours round trip on the bus.

**STUDENTS MUST RESEARCH THE HISTORIC SITE OF FORT ALICE AHEAD OF TIME IN ORDER TO KNOW A LITTLE ABOUT THE REASON FOR CONSERVATION AND THE HISTORY OF THE PLACE, AND TO BE ABLE TO ASK GOOD QUESTIONS.**

The notes issued by Professor Dr. Nancy White to the students prior to the visit are reprinted below:

**UNIMAS FIELD TRIP TO FORT ALICE, SRI AMAN**

**FRIDAY 25 APRIL 2014**

**Archaeology SSY2013**

**SRI AMAN AND FORT ALICE: SUMMARY**

(compiled from Wikipedia, articles in the Star online, the Borneo Post, other online sources)

Coordinates: 1°14'7"N 111°28'11"E UTM coordinates Zone 49, N5513800, E137026

Local area government(s): Majlis Daerah Sri Aman

Population (2010): 26,110

Nickname: The Benak Town

**Sri Aman** is a market town and port, and the capital of Sri Aman District and Sri Aman Division in Sarawak. Also called **Bandar [city] Sri Aman**, it was formerly known as **Simanggang**. Sri Aman means "town of peace." Located on the Lupar River, it is 193 kilometers, a three-hour drive, from Kuching. It is a trade center for the timber, oil palm, rubber, and pepper of its mostly agricultural district.

Sri Aman is famous for the **benak**, or **tidal bore**, of the Batang [trunk] Lupar River. The tidal bore comes in from the river mouth and fills up the river very rapidly, in about 10 minutes. The wave crest at Sri Aman is up to 2 to 3 metres high. This is one of approximately 400 rivers and estuaries in the world where this phenomenon happens. There is a timetable at the river which has the time and dates for when the tidal bore will occur; really big ones occur only a couple of times a year.

Sri Aman is also a gateway for tourists to the Batang Ai National Park, and cultural tours to the Iban longhouses along the rivers.

**Fort Alice**, built in **1864**, is the **oldest** heritage building in Sri Aman, constructed following the **victory** of Rajah **Charles Brooke**, the **second Rajah** of Sarawak, **over Rentap**, the last of the major **Iban chiefs**. The Fort was named after Charles **Brooke's wife, Margaret Alice** Lili de Windt. It served as a defensive structure controlling the **Lupar River**.

The fort (kubu) structure was built on a strategic **hilltop** position 200 m from the town center. It had a commanding view of the river with cannons bearing down to stop any threats coming from upriver. It played a major role in **suppressing piracy, slavery, and head-hunting**, while **encouraging trade and expanding the authority of the Rajah**. Fort Alice was the Simanggang administrative center, housing various government departments and even a prison. Later in its life it was a center for peace-time community services, holding a police station, prisons department and community welfare department offices. Alterations in its rooms and structure were done over time. But then its deteriorating condition forced out all the tenants.

The 145-year-old structure is rectangular, with an open centre courtyard, a drawbridge and a lookout tower at each corner of the building. The whole building is protected by a spiked iron perimeter fence. This typical Brooke-era fort was built almost entirely of belian timber, with thick walls to withstand attacks – usually not raids from the ground but assailants from the river (the main mode of transport at that time). It served to prevent the Skrang Dayaks from going down the river to join the Saribas Dayaks in their raids on coastal areas, an activity prevalent in the head-hunting days. The highest part of the fort was mounted with cannons aimed at the river. Simanggang (Sri Aman) was a vital point where the raiders and everyone had to pass through to get from the interior to Kuching. Rajah Charles presided at the fort as the judge, settling disputes among the local Ibans during his many visits to Simanggang.

LEAD ORGANISER



CO - ORGANISER



PAM Sarawak Chapter

LOCAL PARTNER



Simanggang  
Soon Heng Society

CORPORATE PARTNER



NS Bluescope Lysaght  
(Sarawak) Sdn Bhd

PROJECT SUPPORTERS



THE TALENT & ART  
PERFORMING GROUP



JABATAN MUZIUM SARAWAK

Much of the belian (ironwood) used to build Fort Alice was taken from an earlier fort, Fort James Brooke, which had been built farther upriver in Nanga Skrang. However, Fort James was built on lowland and was

hard to defend. This was proven in 1853 when one of the Rajah's officers, Alan Lee, lost his life in an attack by the Iban chieftain Rentap.

It was decided to dismantle Fort James and to reconstruct it in a more strategic and more defensible site in Simanggang District (now Sri Aman Division). Thus Fort Alice was built. Most of the original structure remains substantially intact. However, but it became extremely dilapidated and run-down, in need of urgent restoration work. Many newspaper articles were written to highlight the sorry state of the grand old

historic structure. Pledges by the government to restore it were made. Business and community leaders and tourists complained and asked why the old fort was left to ruin. It was a public eyesore and an embarrassment for the authorities. It was decaying and vandalized, dangerous to be around, and a haven for drug users.

In 1971, the fort was listed as a **historical monument** under the care of the Sarawak Museum. The state wanted full restoration work on the decaying building under the 9<sup>th</sup> Malaysia Plan, but there were no funds. Sri Aman Resident Abang Shamshudin Abang Seruji, whose office is opposite the fort, hoped that funding would be available under the 10<sup>th</sup> Malaysia Plan so that there would be no further delay to the restoration work. He suggested turning the fort into a museum and cultural centre after it was restored. The fort was on many tours, including Bau goldmining region tours, even in its deteriorating condition. Government officials also complained anonymously through newspaper articles. Tourist dollars could be gained by restoration. A tourist reported on a 2004 website (still available online) that the run-down fort was used by the locals as a hangout area, a safe place for drug users. A tourist said "I was led by a couple of kids inside the structure" to the tall tower. Newspaper photos showed garbage everywhere. The building had parts falling down, parts covered in wild plants, and water collecting in some places, providing mosquito-breeding spots.

Meanwhile, on the hillside facing the river, construction and beautification work on an esplanade and benak (tidal bore) observation centre had been completed. The annual **Benak Festival held between April and May** attracts thousands of visitors.

Finally funding was approved for Fort Alice, some MR 5 million. Sri Aman Member of Parliament Masir Kujat welcomed the move as he had been fighting for the money over the years. "The restoration will give back Sri Aman its identity, the symbol of a people-oriented government. It will also boost tourism, paired with the Tidal Bore Festival (Pesta Benak) held here annually," he said. Teacher Joseph Junting said it is a building of great historical and cultural significance and should be conserved to allow younger generations to know and learn about it. "The younger generation need to know our history that has paved the way for the future," he added. Businessman Kong Yew Teck said it was high time that the government seriously looked into our historical buildings, which remained the old charms of this state. "It can be turned into a tourism product to attract visitors and tourists," he said of the fort. He suggested that a craft centre be set up there to allow tourists to gain further insight into Sri Aman's history and bring home some souvenir to remember the unique culture.

Sarawak Museum Director Ipoi Datan got consultants to research the best way to restore the fort, so it took time. Finally the work began to conserve the fort, after appropriate methods were researched, with the goal of reinstating its original design and fabrics. The conservation project started in June 2013 and is taking approximately 18 months to complete. The pre-restoration process included labelling/tagging, dismantling, and storage of the pieces that remained, a very important step in providing information for the reconstruction stage. The designers working on this have done similar projects, like Fort Margherita.

The original Fort Alice structure is stronger than the newer added-on materials, making it easier to tell the old from the new. The dismantled parts were carefully inspected and labelled while some of the rotting timber was replaced and the still-hardy materials reused.

LEAD ORGANISER



CO - ORGANISER



PAM Sarawak Chapter

LOCAL PARTNER



Simanggang  
Soon Heng Society

CORPORATE PARTNER



NS Bluescope Lysaght  
(Sarawak) Sdn Bhd

PROJECT SUPPORTERS



THE TALENT & ART  
PERFORMING GROUP



JABATAN MUZIUM SARAWAK

According to architect Mike Boon, consultant for the Fort Alice restoration project, progress has been made, with the contractor having already put up the main framework. The structure sits on a new reinforced-concrete pad footing and some of the buried decaying lower parts of the columns, which have spliced on the existing woodwork, have been replaced with new belian materials. "The columns have irregular connections because when the originals were coated with modern acrylic paint or bitumen, it was not permeable (the timber can't breathe) and rotting started to occur from the inside, moving upwards. That's why we are replacing the bottom parts of the columns" he said.

"We cut away the rotted parts bit by bit until we reached the solid part of the old column. Then we made a new piece of timber with the same shape and slotted it in like a jigsaw piece," he explained. Some of the bottom column parts, requiring bigger belian pieces, were left hanging with the help of props until the new parts arrived. If not propped up, reconstruction would be delayed because all the parts are interlocked with bearers tying the frame together. When the bigger timber arrived, all that had to be done was slotting them in from the side, he explained. The next step was putting in the floor joists.

Tar extracted from plants was melted, and parts of the timber were covered with it. The purpose is to prevent water seeping into the wood. This is important since the timber parts will be planted in the ground, while the face of the timber and the joints are exposed to the elements. Even the bolts have to be dipped in tar. The very hot tar was poured into the spliced timber and the excess scraped off. Once cooled, it solidifies and caulks the gaps.

Thick oil will be painted on the column face to make it waterproof. The timber will soak up the oil slowly, just below the surface of the wood, and will be repainted with thick oil over time to create a thicker waterproof layer.

Boon said, "Paint is not a good idea because it will not bond but peel off over time. Besides, constant repainting will cause the layers to crack, allowing water to seep in and cause bubbles on the surface of the wood and affect the timber."

The process of lime-wash application was also studied. Research shows the fort had been lime-washed when constructed. This was the finishing used during that time – before the invention of modern paint. Boon said the method was introduced by the Brookes and usually used on masonry up to 1960. Based on the illustrations left by the Brookes, there was a formula for a waterproof lime-wash as an exterior coating. The formula apparently originated from Queensland, Australia, and the waterproof version was introduced after government officers at the time complained about the hassle of lime-washing the Fort every year.

Based on the recipe, glue is needed besides lime and water, but there is no specific ratio for the ingredients. Thus, a series of experiments was necessary to determine the correct quantity. "The original lime-and-water recipe produced weak bond, and there was no clear indication what the glue really was. In Vietnam, cowhide or cartilage gelatin is used. So we include cowhide gelatin in our experiments. Other items used are soap and starch," Boon said. "Soap has good bond but is powdery to the touch when dried. We worry the rain might wash it all off. Cowhide gelatin, mixed with water and boiled to glue-consistency, works well, and we are trying to figure out how much is the correct amount to use, he added, since too much cowhide gelatin would make the mixture impermeable, hence defeating the purpose of the wash.

This was followed by a third experiment to show how timber is cured or seasoned, by boiling belian materials for four to six hours. When boiled, the hard wood leaks a sap that is colored from light reddish to almost dark brown. "We need to season the wood claddings (wall planks) before using them so that when we paint the lime-wash, they will not turn red," Boon explained. When Boon's son, David, an architecture student, visited the site for the first time, he really loved the trial-and-error part of the project in contrast to modern construction which has strict guidelines. He enjoyed watching the lime-wash mixing and the tar wood treatment which, he said, were "very hands-on."

\*\*\*\*\*

LEAD ORGANISER



CO - ORGANISER



PAM Sarawak Chapter

LOCAL PARTNER



Simanggang  
Soon Heng Society

CORPORATE PARTNER



NS Bluescope Lysaght  
(Sarawak) Sdn Bhd

PROJECT SUPPORTERS



THE TALENT & ART  
PERFORMING GROUP



JABATAN MUZIUM SARAWAK

**QUESTIONS**

*Will photos of dilapidated fort be posted so community can see value of historic preservation long after this generation?*

*What about later historic alterations to the building – to make it more a community center. Are they restored or only the Brooke-era building?*

*Were modern guidelines and codes waived to permit construction in the old way?*

*What are those traditional tools being used – hand drill, adze. Harder without power tools. Is new tar coating traditional? Different paints shown in paint stratigraphy – lime wash, oil paint, modern acrylic. Traditional belian shingles on roof in Feb.*

*What are the archaeological and heritage issues in general? How is this public archaeology?*

*Who are the different stakeholders interested in the project? Ethnic groups? Different communities? Business leaders looking to make money – did they all agree?*

*What are the issues of “race,” identity, and labor (who were the actual workers building the original fort)?*

*Who owns/controls the past? Whose story is being told, or told favorably, and whose is not? What are political uses of the past? Elements of nationalism?*

*Issues of restoration vs. reconstruction, and the concept of authenticity vs. building codes, conservation of cultural materials.*

*Was any archaeology done on the ground before reconstruction? Was the ground disturbed by heavy machinery or anything else?*

*Issues of construction staff on archaeological/historic sites, and archaeologists and students on construction sites*

*What historic preservation laws and historic preservation funding exist for such projects?*

*What are old and new technologies used.*

*Heritage has now become, in some places, a commodity, to be sold and consumed, to be marketed to tourists as well as to those who are now resident in the particular region or whose ancestors were there. Is this ok?*

*Instead, should heritage just be an asset to the community? Or can it be both?*

*Were any oral histories done to collect people’s memories of the fort?*

+++++

*Mount Hosanna Chapel – another famous sight to see in Sri Aman? 33 km away from the main Sri Aman town. The lore is that it was a place where God spoke to the philanthropist who funded the church construction and healed her. Mount Hosanna Jesus Prayer Chapel is small, on top a hill. There’s a long staircase going up the hill to the chapel. The building has three conical shapes with the middle one much higher; all three look like old rockets painted stark white.*

LEAD ORGANISER



CO - ORGANISER



LOCAL PARTNER



CORPORATE PARTNER



PROJECT SUPPORTERS



JABATAN MUZIUM SARAWAK

UNIMAS also issued press release on the site visit to the local newspapers. The news was printed in the STAR, Borneo Post and Sarawak Tribune.

The press release in English read:

**UNIMAS First Archaeology Class Learns Historic Preservation At Fort Alice, Sri Aman**

*Sri Aman, 25 April 2014 – The first cohort of forty students from the first archaeology course ever offered by the University of Malaysia Sarawak took a 3-hour bus trip to Sri Aman to see the historical reconstruction of Fort Alice. The undergraduates were able to witness heritage conservation in person and up close. Architect Mike Boon led the field trip for the students, visiting professor Dr Nancy White, and lecturer Mr Nicholas Gani. They had come to see the real material evidence of how the fort is being preserved, including using many of the original beams and other construction material from the mid-19th century. The 145-year-old fort is a listed historical monument. On its strategic hilltop, it served to defend against "piracy" or invasion from the Lupar River, but mostly it became a government administrative center for Charles Brooke, the second Rajah of Sarawak. Fort Alice had fallen into ruin but is now a historic preservation success and case study. Boon showed the old and new technologies being used, for example, how the column faces will be coated with oil to make them waterproof, not paint, which hastens wood decay. Students were able to examine the traditional hand tools that workers were using in the reconstruction. They lifted belian wood timbers to see how heavy they are, and learned the layout of the original rooms. They saw the pre-restoration labelling, dismantling, and storage of the pieces of the fort that remained, very much an archaeological process in recording provenience (original location of an artifact), as well as a crucial step in providing information for the reconstruction.*

*The students became aware of how much extensive historic research was needed to learn of the fort's original design for accurate restoration. Most important, they discussed the concepts of heritage and community identity. They saw the material remains of the fort's first construction with a combination of Iban, Malay, and Chinese building techniques and styles, making it a monument to the many ethnic groups that make up the community. They learned how government, business, and community leaders, professional historians and archaeologists, teachers, children, and tourists are among all the many interested parties involved in and benefitting from this heritage project. Heritage can become a commodity, to be sold and consumed, to be marketed to tourists as well as to those now resident in the region or whose ancestors were there. Or, it can just be a general asset to the community. Ideally, it is both, as in the Fort Alice project. Most striking was the telling of the story, which included not only the British elites using the fort but the diverse everyday workers who built it and the people who lived around it.*

*The students were eager to make a return visit to the restored fort and museum when the project is finished.*

*UNIMAS currently offers a four-year undergraduate programme in Antropology and Sociology. Further details about the programme is available at <http://www.unimas.my>.*

The event was also reported in UNIMAS main website at the following link:

<http://www.unimas.my/index.php/en/headlines/100521-lawatan-sambil-belajar-kumpulan-pertama-pelajar-arkeologi-unimas-lawat-kubu-alice-di-sri-aman> :

**Lawatan Sambil Belajar :  
Kumpulan Pertama Pelajar Arkeologi UNIMAS Lawat Kubu Alice di Sri Aman**

*Sri Aman, 25 April 2014 - Seramai 40 orang pelajar kohort pertama bagi program Antropologi dan Sosiologi yang ditawarkan di Universiti Malaysia Sarawak (UNIMAS) telah menyertai lawatan ke Sri Aman bagi menyaksikan pembinaan semula Kubu Alice di lokasi berkenaan.*

LEAD ORGANISER



CO - ORGANISER



LOCAL PARTNER



CORPORATE PARTNER



PROJECT SUPPORTERS



JABATAN MUZIUM SARAWAK

Lawatan tersebut sebagai memberi pendedahan dan menyaksikan sendiri aktiviti-aktiviti perlindungan ke atas bangunan bersejarah di negeri ini dengan lebih dekat lagi.

Dalam lawatan berkenaan, para pelajar berpeluang melihat bukti-bukti artefak yang nyata tentang bagaimana kubu berkenaan dilindungi termasuk menguna-pakai bahan-bahan yang sedia ada (lama) sejak pertengahan abad ke19.

Kubu Alice merupakan bangunan yang tertua di Sarawak, yang telah dibina sejak 145 tahun dahulu dan dibina di atas bukit di tebing Sungai Batang Lupar. Ia pernah dijadikan sebagai Pusat Pentadbiran Rajah Charles Brooke.

Semasa lawatan tersebut, arkitek, Mike Boon telah menunjukkan kepada pelajar tentang penggunaan teknologi baru dan lama bagi kerja-kerja pembinaan semula kubu berkenaan.

Sebagai contoh beberapa permukaan lajur disalut dengan minyak untuk menjadikannya sebagai kalis air dan bukannya menggunakan cat, sebagai membantu mempercepatkan pereputan kayu.

Pelajar juga berpeluang mencuba dan memeriksa peralatan tangan tradisional yang digunakan oleh pekerja pembinaan berkenaan. Menerusi lawatan ini, pelajar menyedari betapa meluasnya penyelidikan bersejarah yang boleh dipelajari dan belajar mengenai reka-bentuk asal kubu bagi tujuan pembinaan yang lebih tepat. Selain itu, pelajar akan belajar untuk berdiskusi sesama sendiri tentang konsep identiti dan warisan masyarakat yang mana Kubu Alice antara contoh sesuai untuk melihat pembinaan yang menggabungkan elemen seperti masyarakat Iban, Melayu dan Cina.

Kumpulan pelajar ini telah diiringi oleh seorang profesor pelawat dari Case Western Reserve Amerika Syarikat, Profesor Dr Mary Nancy White, yang pakar dalam bidang arkeologi. Beliau bertugas di Fakulti Sains Sosial di UNIMAS selama setahun.

The press release was translated to Chinese by Goh Tze Hui:

### 砂大生考察爱丽丝堡，切身感受古迹修复过程

斯里阿曼，24 日讯 - 在砂拉越大学社会学系 (UNIMAS Faculty of Social Science) 导师 Mr Nicholas Gani 及来自美国的客座教授 Dr Nancy White 的带领下，该校 40 名首批考古学学生来到了斯省的爱丽丝堡(Fort Alice)，对其修复工程进行实地考察。

于 1864 年由盐木(belian)建造而成的爱丽丝堡，在 2013 年 5 月展开了修复工程。考察中，工程负责建筑师，温志坚先生，向学生们介绍了古堡与白人拉惹(White Rajah)及斯里阿曼开埠（早称成邦江(Simanggang)的联系，引起学生们的兴趣。

亲身体会木材料的构造及工具后，学生们纷纷赞叹老工匠的工艺与智慧。此外，学生们也了解了植物性油如何成为木材的防水膜、而一般的油漆又如何加速盐木的腐朽过程。在温建筑师的带领下，学生们更走进古堡二楼，一窥其内部构造及修复团队的工作实况。

透过这次的考察，学生们发现古迹修复与考古学有许多相似之处。两者都须在进行实地工作前做足史料研究，并对各原个木件（或文物）进行系统化的记录与存放。借此机会，学生们更探讨了文化遗产与社群身份的课题。而爱丽丝堡的建筑过程与风格更是完整地体现了本地文化与族群的多元性。

LEAD ORGANISER



CO - ORGANISER



LOCAL PARTNER



CORPORATE PARTNER



PROJECT SUPPORTERS



JABATAN MUZIUM SARAWAK