

**B**  **RRC**

**BORNEO REGIONALISM AND CONSERVATION**

## ABOUT US





Borneo Conservation and Regionalism Centre (BORC) is one of the Research Centres established at UCTS in line with the strategy to strengthen research and innovation activities.

The rationale to set up the centre is due to the existence of heritage buildings, structures and monuments in Borneo that need to be documented and conserved. There are around 70 buildings gazetted by Jabatan Muzium Sarawak (JMS) under the Sarawak Cultural Heritage Ordinance 1993. More buildings are planned to be gazetted by JMS. There are also many undocumented buildings, structures and monuments in Brunei, Sabah and Kalimantan, Indonesia.

The centre is unique due to the application of science and technology in conservation. This is also in line with UCTS's mission and vision in upholding science and technology as the forefront for teaching, learning, research and innovation.



## OBJECTIVES

-  To provide technical and scientific knowledge for conservation in Borneo
-  To undertake research and promote innovation in conservation
-  To collaborate with the neighbouring state and countries of Sabah, Brunei and Kalimantan, Indonesia
-  To provide consultancy services, expertise and human capital requirements to facilitate conservation practice in Borneo based on science and technology

## HISTORY

Borneo regionalism  
identity & characteristics

Local history in relation  
to conservation



## BORNEO REGIONALISM

Interpretations and  
concepts accepted and  
perceived as "Borneo"



## BUILDING EVALUATION & MANAGEMENT

Constant monitoring,  
physical measurement  
and on-site diagnosis  
for conservation



## BUILDING STRUCTURE & MONUMENTS CONSERVATION

Manage and monitor  
conservation process

Maintain architectural  
values of buildings and  
monuments to preserve  
authenticity



## SOCIO CULTURAL

Rich and unique  
socio-culture due to  
diversity of ethnic  
groups in Borneo

Tangible and intangible  
cultures



# R E S E A R C H F O C U S

## SCIENCE & TECHNOLOGY

Industrial Revolution 4.0  
(IR 4.0) through internet  
of things, artificial  
intelligence, and big  
data analytics for  
conservation



## BUILDING TECHNOLOGY & SERVICES

Technical processes,  
procedures, methods  
and application of  
technology in building  
and monument  
conservation



## BEST CONSERVATION PRACTICE

Set of standards,  
guidelines and protocols  
established for  
conservation works



## HERITAGE MANAGEMENT

Preserving, protecting  
and promoting heritage  
sites

Planning for financial,  
disaster and  
management of heritage  
sites



## BUILDING FORENSIC

Identify and locate  
defects for preventive  
measures and  
appropriate  
conservation process





## **History**

History is an important element in identifying Borneo Regionalism identity and characteristics. History is also essential in conservation, as conservation elements are reflections of past history and socio-culture of a society. There are historical accounts of Borneo at macro perspectives but lack the availability of historical documentations at micro level and if any, mainly disseminated orally and not scientifically documented. It is therefore the objective of this niche group to scientifically document and examine the empirical evidence of local history in relation to conservation.

## **Borneo Regionalism**

With globalisation and internationalisation, local identity has been gradually eroded, whether in terms of tangible and intangible culture. Regionalism brings back identity and addresses local context and specificity in the aspects of ecology, socio-economy and socio-culture of Borneo. This niche group focuses on fundamental questions by developing theoretical framework of “Borneo Regionalism” through interpretations and concepts that are accepted by the locals to what is perceived as “Borneo”.

## **Socio-cultural**

The main asset of Borneo is in its rich and unique socio-culture due to the large number and diversity of ethnic groups in Borneo. Socio-culture is embedded in the culture and traditions of its communities and also reflected in the built environment settings, food, languages, communication styles, arts, music, clothing, world view and belief systems. These are all expressed in local customs and social taboos. This niche is extensive and with respect to Borneo, this is a potentially exciting and inquisitive parts of Borneo Regionalism.

## **Building Technology and Services**

Buildings reflect the history, economy, social and culture of a society. It is important to document buildings which have significant value and impact to the society especially historical building and monuments. Advancement on building technology and services allow us to properly document and conserve historical buildings. Therefore this niche group focuses on the technical processes, procedures, methods, and application of technology in building and monument conservation.

## **Building Forensic**

Building forensic is a crucial process to investigate historical building and monument. Current technologies, together with the scientific method, will be applied for analysis to evaluate the conditions of buildings and monuments to detect failure and fault of materials and structure. A forensic investigation allows the conservator to identify and locate defects so that preventive measures and appropriate conservation process can be recommended.

## **Best Conservation Practice**

Best conservation practice will help to protect and preserve the cultural authenticity of tangible and intangible heritage in Borneo. A good set of standards, guidelines and protocol need to be established for conservation works in Borneo. Cultural and natural significance of Borneo is exceptional and need to be preserved for present and future generations for all humanity.



## **Heritage Management**

Heritage management is a practice of preserving, protecting and promoting tangible and intangible heritage in the public interest. It is to protect heritage against increasing threats like tourism, climate change, human conflict and resource constraints. The practice includes planning for financial, disaster and management of heritage sites.

## **Building Structure and Monuments Conservation**

Preserving national historical building and monuments is essential to Borneo, due to the cultural and heritage values of the building and monument and their potential for tourism and socio-cultural sustainability. A team of multidisciplinary professional are needed to manage and monitor the conservation process, only allowing adequate and appropriate intervention to ensure that buildings and monuments will last longer. It is also crucial to maintain the architectural values of the buildings and monuments to preserve authenticity.

## **Science & Technology**

Science and technology plays a vital role in transforming Borneo into a modern and industrialised society. Industrial Revolution 4.0 (IR 4.0), shaped by the integration of technical advances such as the Internet of Things (IoT), artificial intelligence (AI), and big data analytics is developing rapidly and influencing economic development globally. Borneo, which is the world's third largest island, offers many world-class venues, such as heritage sites, natural environment of lush rainforests, winding rivers, intricate cave systems, and rich wildlife. Such gifts provide an excellent diversity for an array of research, development and innovation by leveraging IR 4.0.

## **Building Evaluation & Management**

The building performance and operational require constant monitoring, physical measurement and on-site diagnosis. It involves empirical field work, inspecting and assessing the actual buildings as well as understanding its occupants. The knowledge acquired would assist the designers and building managers to derive more informed decisions for conservation, refurbishment as well as to upkeep the condition of heritage buildings.

**WHY CONSERVE?**

- **the importance of heritage – more recognition and awareness nowadays**
- **heritage need to be preserved – our history**
- **to preserve Borneo identity and cultural values**
- **to prolong the life of the artefacts/monuments/building/landscape for now and the future – part of sustainability**

# Cultural Heritage

# Cultural Heritage

physical artefacts & intangible attributes that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations

## Intangible

'the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities,

includes but not limited to traditional festivals, oral traditions, oral epics, customs, ways of life, traditional crafts, etc.

## Tangible

artistic creations, built heritage such as buildings and monuments, and other physical or tangible products of human creativity

includes buildings and historic places, monuments, artefacts, etc., which are considered worthy of preservation for the future. These include objects significant to the archaeology, architecture, science or technology of a specific culture.



# INTANGIBLE CULTURAL HERITAGE



















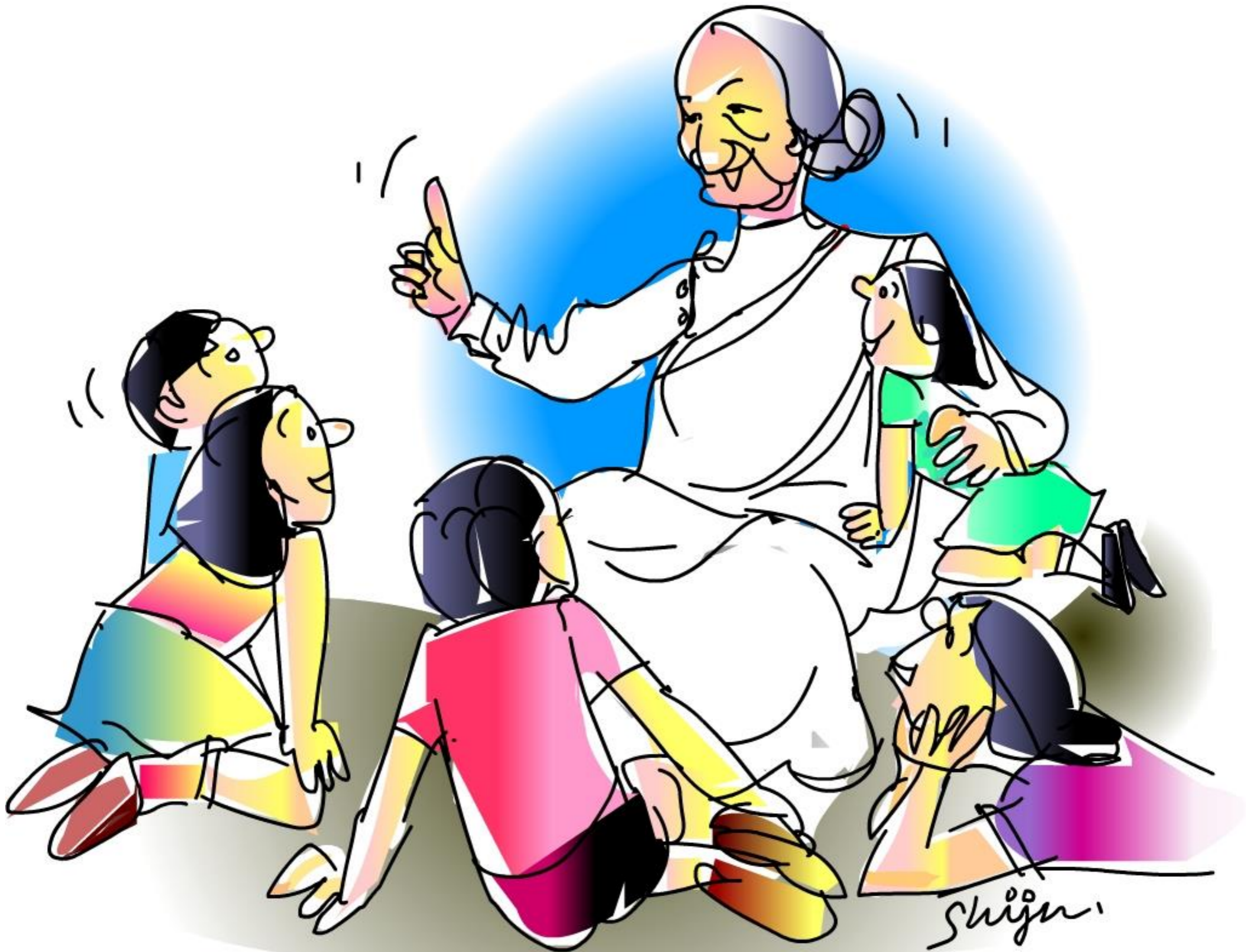
© SARAWAK TOURISM BOARD

KATEGORI	NAMA	BIDANG
ORANG HIDUP	Encik Mohd. Bahroodin Ahmad	Bangsawan, Boria, Ronggeng, Kebudayaan Baba dan Nyonya (Pulau Pinang)
	Encik Tan Hooi Song	Gendang Tradisi, Muzik Cina Malaysia
	Puan Losimin Majanil	Seni dan Budaya Kadazan Dusun
	Puan Vatsala A/P G.R.Kurup	Tarian Bharatsanadyan dan Katakali
	Tuan Haji Abu Bakar bin Jaafar	Boria
	Tuan Haji Ali Badron bin Haji Sabor	Penceritaan Rakyat Melayu
	Tan Sri Ahmad Othman Merican	Muzik
	Ramli Ibrahim	Tarian Klasik India, Tarian Balet Klasik, dan Tarian Moden
	Puan Mek Jah Binti Deris	Mak Yong
	Puan Jati Anak Ju	Penenun Pua Kumbu
	Datuk Mohd Nor Bin Khalid	Kartunis
	Puan Intan Sulga Binti KK Tiring	Tarian Tradisional Bajau Laut
	Encik Eyo Hock Seng	Wayang Kulit
	Nyonya Tan Binti Abdullah	Dondang Sayang
	Encik Kumaresan Karthigesu	Seni Muzik Sitar
	Encik Siri Neng Buah	Tokoh Budaya
	Encik Mathew Ngau Jau	Muzik Sape
	Puan Maznah Anak Unyan	Anyaman Kraftangan Tradisional Orang Asli
	Encik Romli Bin Mahamud	Awang Batil
	Dato' Aripin Bin Said	Lagu Rakyat









# TANGIBLE CULTURAL HERITAGE



**KUBU BROCKE NANGA MELIHAN, JULAU**  
 KUBU INI TELAH DIRUNDA PADA TAHUN 1952 BERTUNJUK KEPADA PEMBANGUNAN DAN DIBINA TUNJUK  
 ATAS BUKIT NANGA MELIHAN. PADA TAHUN 1952, TUNJUK TELAH BERTUNJUK KEPADA PEMBANGUNAN  
 OTHER BROCKE YANG MEMPERKALAKAN SISTEM DUNIA  
 PADA TAHUN 1952, TUNJUK TELAH BERTUNJUK KEPADA PEMBANGUNAN DAN DIBINA TUNJUK  
 KEMAJUAN BERTUNJUK TELAH BERTUNJUK KEPADA PEMBANGUNAN DAN DIBINA TUNJUK  
 PADA TAHUN 1952, TUNJUK TELAH BERTUNJUK KEPADA PEMBANGUNAN DAN DIBINA TUNJUK  
 TERSEBUT. PEMBANGUNAN KUBU INI PERLUH DUGAKAN BANGUNAN PEJABAT OLEH NANGA MELIHAN  
 PADA TAHUN 1952, TUNJUK TELAH BERTUNJUK KEPADA PEMBANGUNAN DAN DIBINA TUNJUK  
 PEJABAT PEMBANGUNAN DAN DIBINA TUNJUK

**FORT BROCKE NANGA MELIHAN, JULAU**  
 THIS WAS BUILT IN 1952 BY THE JERSEY GOVERNMENT. IT WAS BUILT AS A PART OF THE  
 DEFENCE STRATEGY FOR THE MALAY PENINSULA. THE FORT WAS BUILT ON A HILL  
 TO PROVIDE A STRATEGIC VIEW OF THE SURROUNDING AREA. THE FORT WAS  
 BUILT BY THE JERSEY GOVERNMENT AND WAS USED AS A MILITARY BASE  
 DURING THE MALAYSIAN EMERGENCY. THE FORT WAS BUILT IN 1952  
 AND WAS USED AS A MILITARY BASE DURING THE MALAYSIAN EMERGENCY.

**DATUK AMAR WILSON BINA DUNIA**  
 DUNIA BINA OLEH DATUK AMAR WILSON  
 PROGRAM BINA DUNIA MELIHAN, JULAU





18/07/2010 00:46







**The restoration and refurbishment of Heritage Buildings poses great challenge to those directly involved in the conservation.**

**Require inputs from the professionals, other specialists and experts**

**Need to be carefully carried out with minimum disturbance to the existing structures.**

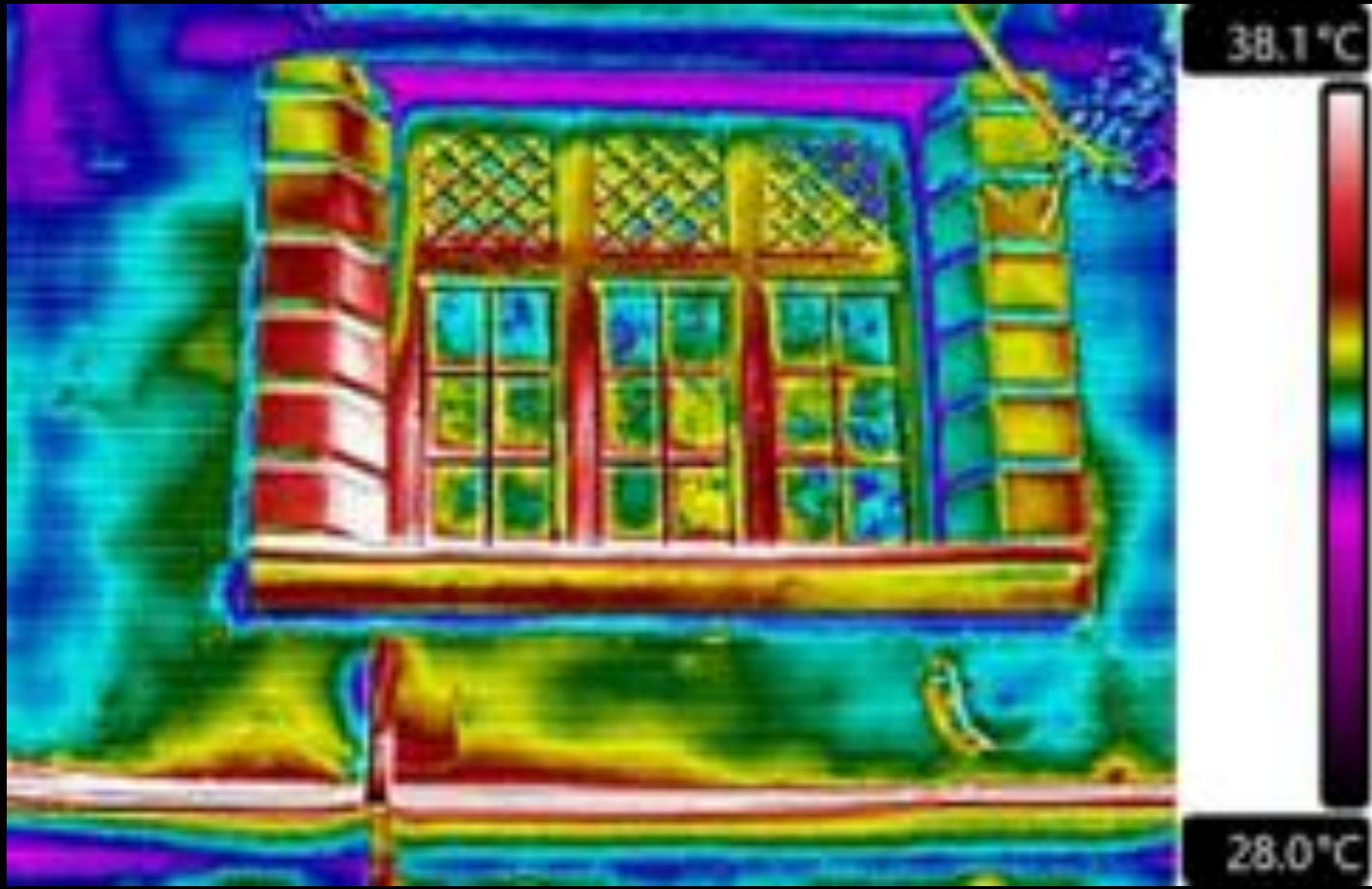
**Approach:**

**“Do as much as is necessary but as little as possible”**

***Burra Charter (1981)***



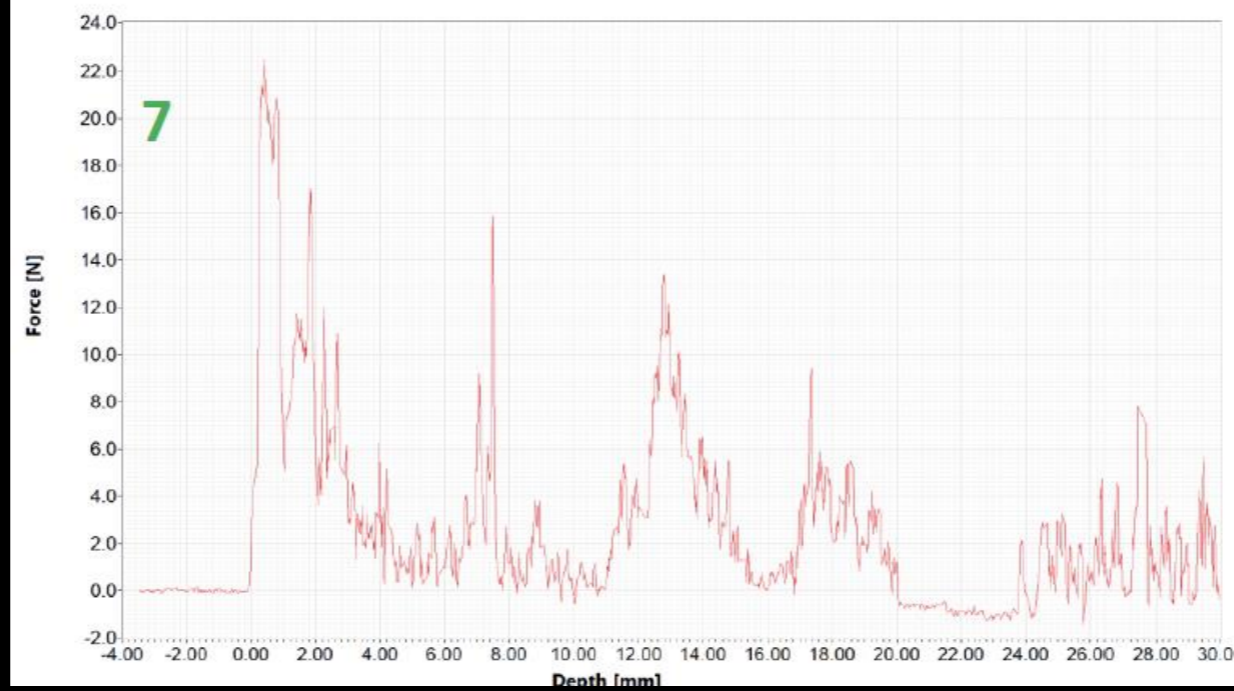
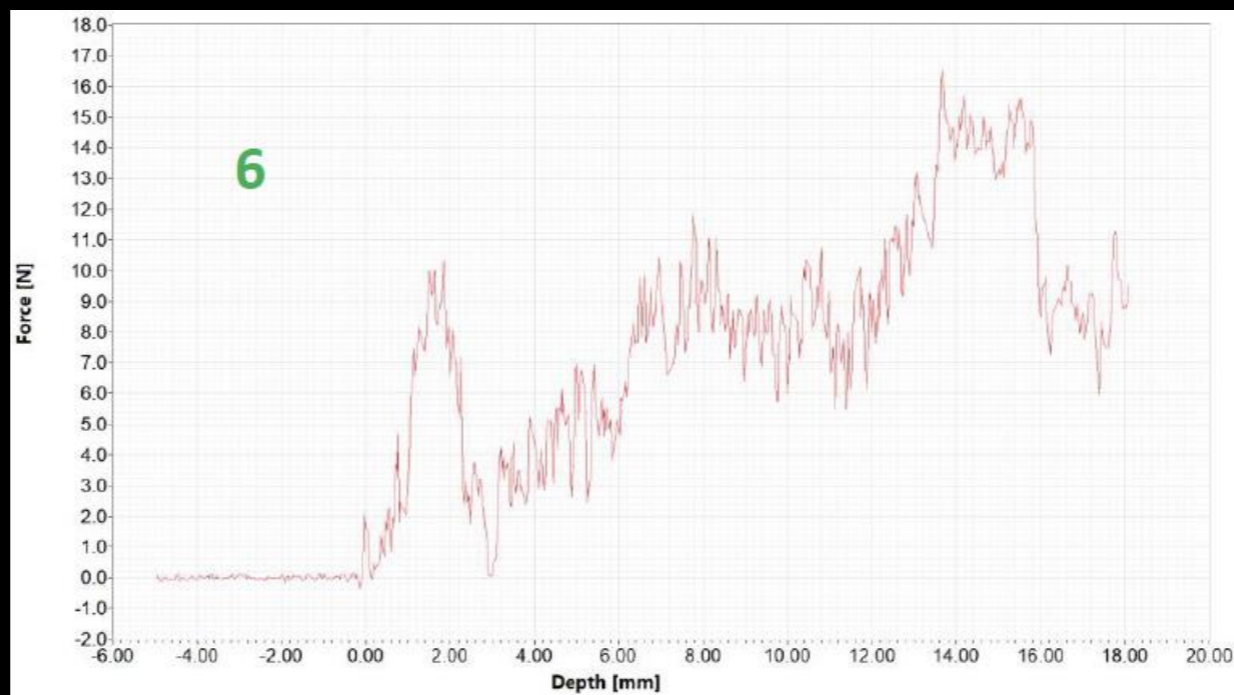
NO  
PARKING



Extracted from:

Report on Architectural Dilapidation Survey and Condition Assessment – Sarawak Museum  
MAEK Consulting Pte Limited





Extracted from:

Report on Architectural Dilapidation Survey  
and Condition Assessment – Sarawak  
Museum MAEK Consulting Pte Limited







Axios  
advanced

PANalytical


















Archaeological Research Work  
at Fort Emma : 27/4/2019  
Ground Penetrating Radar








Material Test

- Best Conservation Practice
- Heritage Management



-  **Architecture and Poverty in the Resettled Villages in Sibul, Sarawak**
-  **Identifying Typologies of Vernacular Malay Dwellings in Central Sarawak for Heritage and Cultural Sustainability**
-  **Documentation of Iban Dayak Dwellings in Sibul and Song**
-  **Imageability: Identifying Landmarks of Sibul, Sarawak**
-  **Assessing the Compliance with the Uniform Building by Laws (UBBL 1984) on Longhouses in Sarawak**
-  **Comparative Analysed of Urban Sprawl and Satellite Town in Sibul**
-  **Enhancing Community's Socio-Economic Sustainability through the Provision of Eco-Tourism Infrastructure at Rumah Mengga, Julau, Sarawak**
-  **Exploration of Potential Prospects of Dabai (*Canarium Odontophyllum*) Fruit for Better Nutritional Food Products**
-  **Ice Cream from the Outer Skin Waste Material of "Belimbing Hutan" (*Baccaurea Angulata*) Fruit**

-  **Restoration Work on Historic Building, Masjid Al Qadim, Sibu, Sarawak**
-  **Conservation of the Sarawak Museum and its Ancillary Building at the Museum Garden in Kuching, Sarawak**
-  **Conservation of Fort Emma, Kanowit, Sarawak**
-  **Conservation of Fort Lili, Betong, Sarawak**
-  **Conservation of Fort Brooke, Julau, Sarawak**

**Thank you**



**B**  **R** **C**