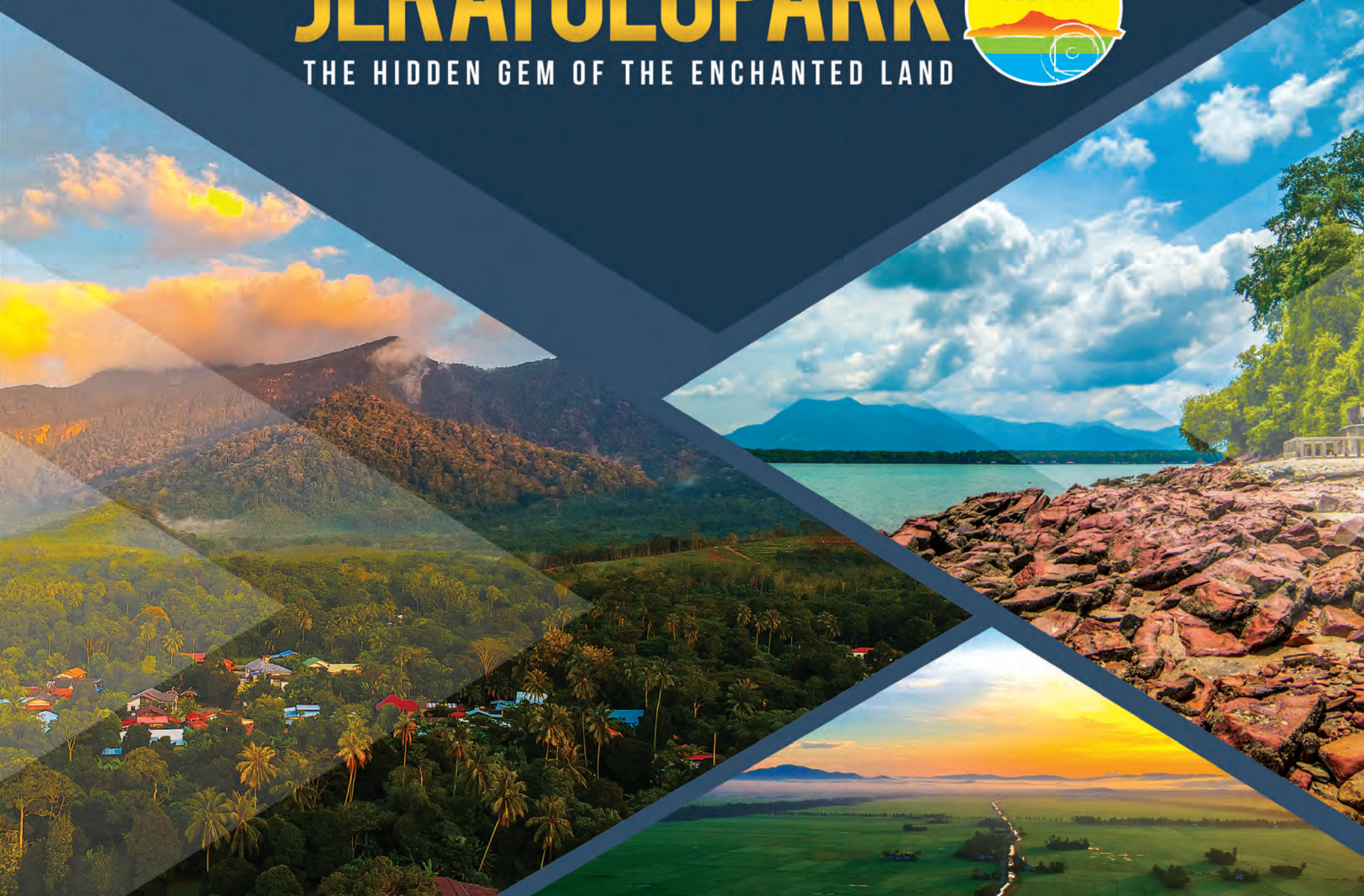


JERAI GEOPARK

THE HIDDEN GEM OF THE ENCHANTED LAND





JERAI GEOPARK



Contents

25
GEOSITES

LOCATION WITHIN THE GEOPARK
FOKALYON WITIN THE GEOPARK

GEOSITES
52

PREFACE	3
-----	-----
JERAI GEOPARK	4
-----	-----
WHAT LIES WITHIN	6
-----	-----
GEOLOGICAL HERITAGE	8
-----	-----
25 GEOSITES	10
-----	-----
GEOARCHAEOLOGICAL HERITAGE	42
-----	-----
BIOLOGICAL HERITAGE	46
-----	-----
HISTORICAL HERITAGE	50
-----	-----
GASTRONOMICAL HERITAGE	54
-----	-----



JERAI GEOPARK

THE HIDDEN GEM OF THE ENCHANTED LAND

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PREFACE

The Mineral and Geoscience Malaysia, Kedah/Perlis/Pulau Pinang proudly presents The Jerai Geopark – The Hidden Gem of The Enchanted Land, a coffee table book (CTB) successfully published after years of collecting data about the uniqueness of the geosites within the Jerai Geopark. The Jerai Geopark abounds with interesting geological history and extraordinary geoarchaeological features, also records the historical legacy of their community's independence and survival. This CTB will introduce novices to the unique environmental features of the geosites in Jerai Geopark as well as navigate exploration during field excursions.

The Jerai Geopark is suitable for family and friends to meet and enjoy outdoor activities and expeditions. Hiking from the mountain, down to the hundreds of rivers, boating to the island of Songsong and Bidan and resting by the paddy field under the sunshade, are to name a few of the countryside real-life experiences to enjoy in peace and relaxation. It is also very convenient to cycle around Merbok and Yan areas to appreciate the best panoramic landscape of Jerai Mountain.

I would like to take this opportunity to thank all parties involved in the publication of this precious CTB. There are plenty more excitements waiting for you in Jerai Geopark for sure.

P. Geol Abdullah Bin Sulaiman


Director of Department of Mineral and Geoscience Malaysia,
Kedah/Perlis/Pulau Pinang

JERAI GEOPARK

With age come stories; with stories come glories. This is the uniqueness of Jerai Geopark, situated amidst the stunning rolling hills of Gunung Jerai, it holds a panoramic landscape, captivating archaeological sites, and historical heritage that was once majestic hundreds and thousands of years ago. Covering 816 km² of both land and sea, it consists of parts of the Kuala Muda and Yan districts and five residual islands, which are Pulau Bidan, Pulau Bunting, Pulau Sayak, Pulau Songsong and Pulau Telur.

Officially recognized as a National Geopark in July 2017, Jerai Geopark is the only geopark in the world that combines mountain, mangrove and archaeology in one exclusive location. The inception of Jerai Geopark stemmed from a sustainable economic development effort to benefit the local community.

This Geopark is worth million years of geological story, and with it, humanity, preserved in its diverse natural features. The involvement in conserving the features will help us to understand the integral part of history and how the people and their cultural identity have developed. This is the legacy we inherited and are responsible for passing on to future generations.

An aerial photograph of Jerai Geopark during a vibrant sunset. The sky is filled with warm orange and yellow hues, with the sun low on the horizon over the sea. In the foreground, a lush green landscape with rolling hills and scattered houses with blue roofs is visible. A white rectangular box is overlaid on the center of the image, containing the text 'THE HIDDEN GEM OF THE ENCHANTED LAND' in white, bold, uppercase letters.

**THE
HIDDEN
GEM
OF THE
ENCHANTED
LAND**





**WHAT
LIES
WITHIN**

Gunung Jerai, is located near the coastline of Kedah state, surrounded by low hills in the east and south. With the highest altitude at 1217m above sea level and blessed with a tropical climate, Jerai Geopark is home to a few of the oldest rocks and minerals in the world. Some of the oldest formations discovered within its vicinity are incredibly well-preserved, with rocks that appear as though they could have formed overnight. One of its renowned geological highlights, is the Jerai rock formation from the Cambrian period that dated more than 550-500 million years ago.



One of the significant marks in the history of Kedah, is the Islamisation of Sultan Muzaffar Shah 1 or known as Maharaja Derbar / Durbar Raja II before he embraced Islam in 1136 AD. Although the exact date of the arrival of Islam in Kedah has still not been ascertained precisely, historical evidence and studies found in Jerai Geopark suggested that Kedah has accepted Islam earlier than other states in Peninsular Malaysia.

Take on a trail to Padang Tok Sheikh geosite to discover an ancient minaret built at the summit of Mount Jerai under the orders of Sultan Muzaffar Shah 1 to commemorate his conversion to Islam as well as the change of the state name to Kedah Darul Aman.



Apart from Padang Tok Sheikh, visitors can discover many historical findings at two geoarchaeological sites where the nation's most significant part of history was revealed. Uncover the legends, the myths and the folklore that reigned from hundreds of years ago behind archaeological wonders found in the remains of the civilization of Old Kedah (Kedah Tua), Sungai Batu and Lembah Bujang comprising dozens of temples and ancient buildings. Taking a step into these places, will take you thousands of steps back into the past and its glory.



In addition to scenic mountain views, geological wonders and historic time-travel site, this geopark is also home to diverse biological heritage especially the biodiversity of habitats from the mountain to the paddy field and mangrove ecosystem which includes numerous unique species of flora and fauna.

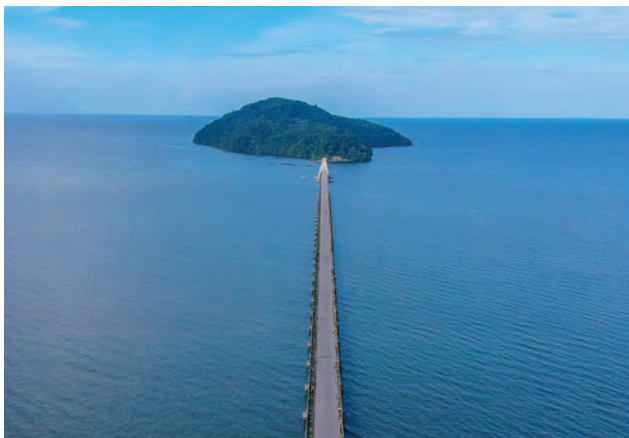




Mount Jerai is a travel destination that will take you on a journey to discover a piece of Earth that is aged, weathered, eroded by wind and water, shifted and structured through geologic evolution forces over millions of years that left behind some of the most fascinating must-see sites. Standing majestically in between two districts, Mount Jerai and the areas surrounding it were built by the rocks from the Jerai and Mahang formations, igneous rocks, and coastal alluvium sediment as well as terrestrial that was formed over a long period of time that begins around 550 million years to recent time.



GEOLOGICAL HERITAGE



Take a journey through time by going through the trails of the geologic evolution of Mount Jerai mapped in

25 GEOSITES

LOCATION WITHIN THE GEOPARK

- 1 Sungai Seri Perigi
- 2 Titi Hayun-Putri Mandi
- 3 Sungai Batu Hampar
- 4 Sungai Teroi
- 5 Sungai Badak
- 6 Sungai Kunyit
- 7 Sungai Tupah
- 8 Sungai Alor Naga
- 9 Sungai Batu Pahat
- 10 Sungai Batu
- 11 Bukit Penjara
- 12 Pantai Medeka - Pulau Sayak
- 13 Pulau Bidan
- 14 Pulau Songsong
- 15 Pulau Telor
- 16 Pulau Bunting
- 17 Singkir Laut
- 18 Tanjung Jaga
- 19 Kampung Raga
- 20 Kuala Muda-Pantai Tsunami
- 21 Batu Kapal
- 22 Telaga Tok Sheikh
- 23 Padang Tok Sheikh
- 24 Semeling - Tok Pawang
- 25 Singkir Quarry

The sites include areas that are home for ancient rock formations such as quartzite, schist, mudstone, limestone, granite and tuff. It also exhibits areas with amazing evidence of Jerai geologic evolution such as ancient landslide, peak of Mount Jerai, coastal plains, residual islands mining activities lakes from tin mines remains, ancient coastlines discovered through prehistoric seashells discovery and tsunami geo-disaster coastal line.

1

Sungai Seri Perigi



2

Titi Hayun-Putri Mandi
Sungai Lubuk Panjang



3

Sungai Batu Hampar



4

Sungai Teroi



5

Sungai Badak



6

Sungai Kunyit



7

Sungai Tupah



8

Sungai Alor Naga



9

Sungai Batu Pahat



10

Sungai Batu



11

Bukit Penjara



12

Pantai Medeka



13

Pulau Bidan



14

Pulau Songsong



15

Pulau Telor



16

Pulau Bunting

17

Singkir Quarry



18

Tanjung Jaga



19

Kampung Raga



20

Pantai Tsunami - Kuala Muda



21

Batu Kapal



22

Telaga Tok Sheikh



23

Padang Tok Sheikh



24

Semeling



Singkir Laut



Jerai Geopark Shoreline



Jerai Hill Resort



Langkawi Island from Jerai Mountain

Hydrangeas Flowers

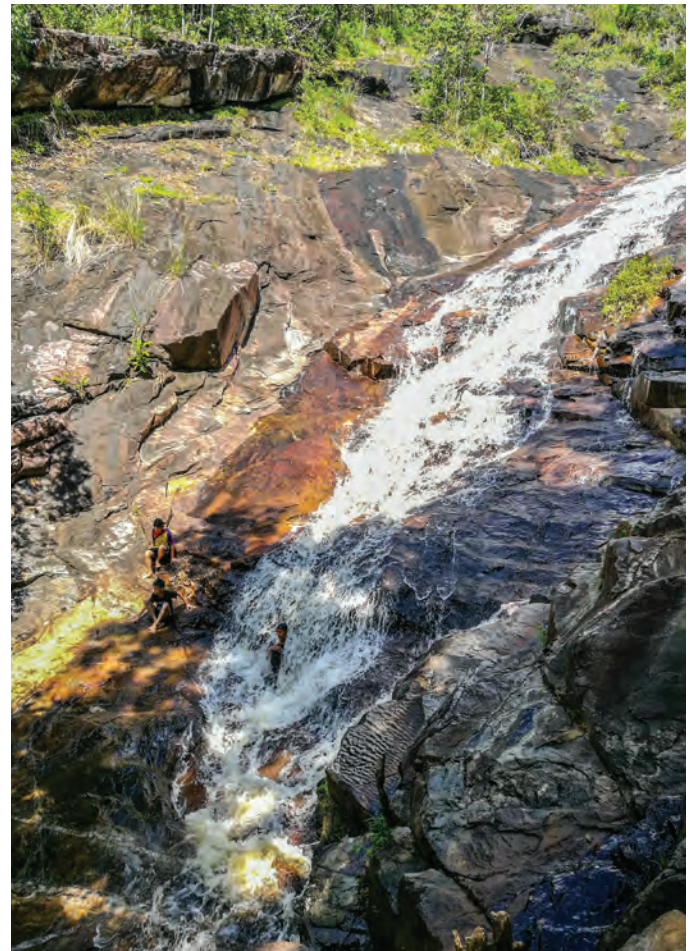


Adventure Activity at Jerai Geopark



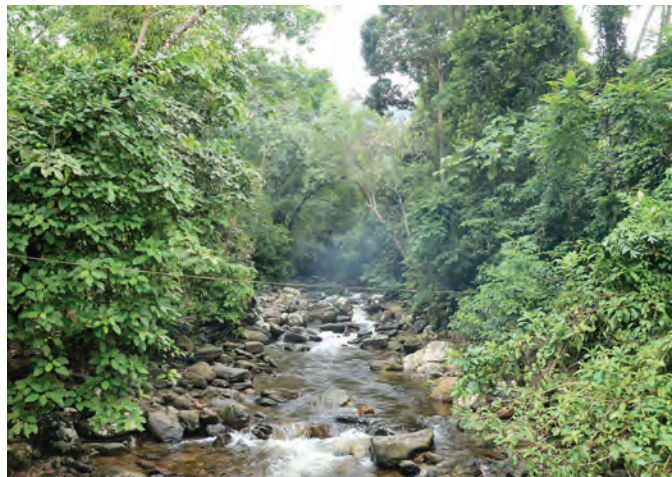


Sungai Seri Perigi | The Jerai Formation





Titi Hayun



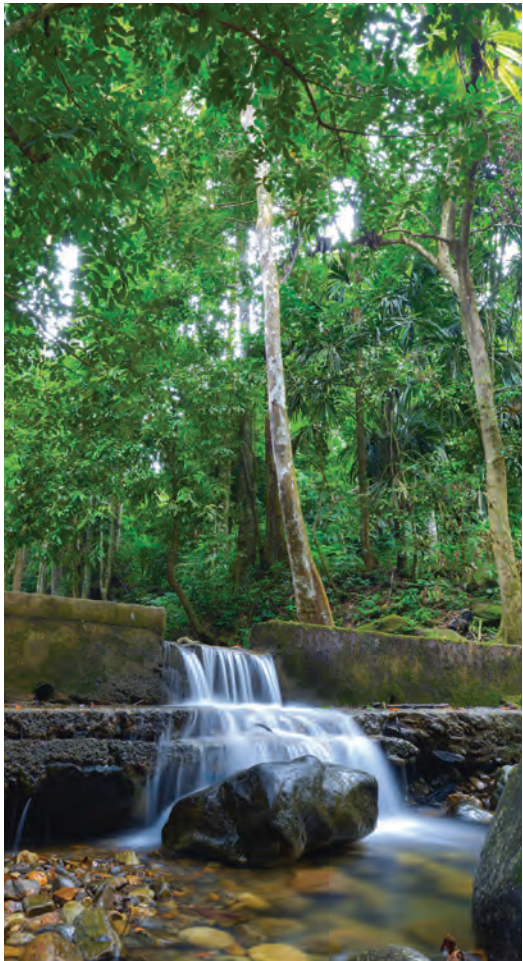


Titi Hayun - Putri Mandi





Sungai Batu Hampar | The Jerai Formation





Sungai Teroi



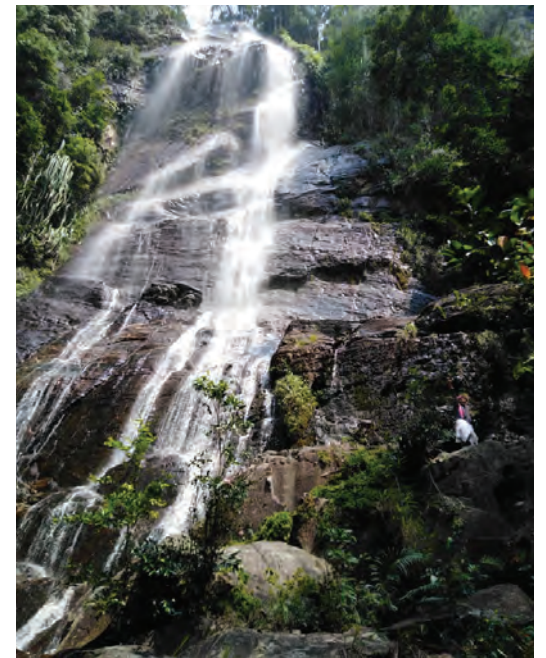
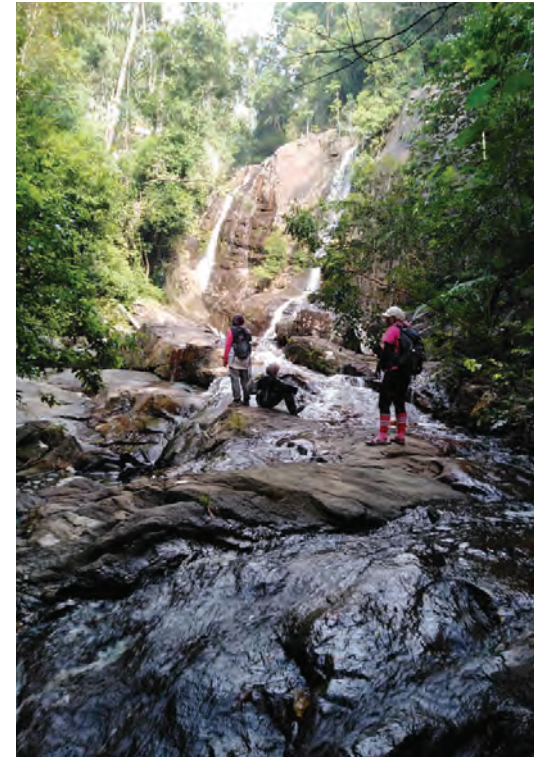


Sungai Badak | The Jerai Formation





Sungai Kunyit





Sungai Tupah





Sungai Alor Naga | The Jerai Formation





Sungai Batu | Old Kedah Ancient Civilisation





Bukit Penjara | The Mahang Formation





Pantai Merdeka | The Mahang Formation





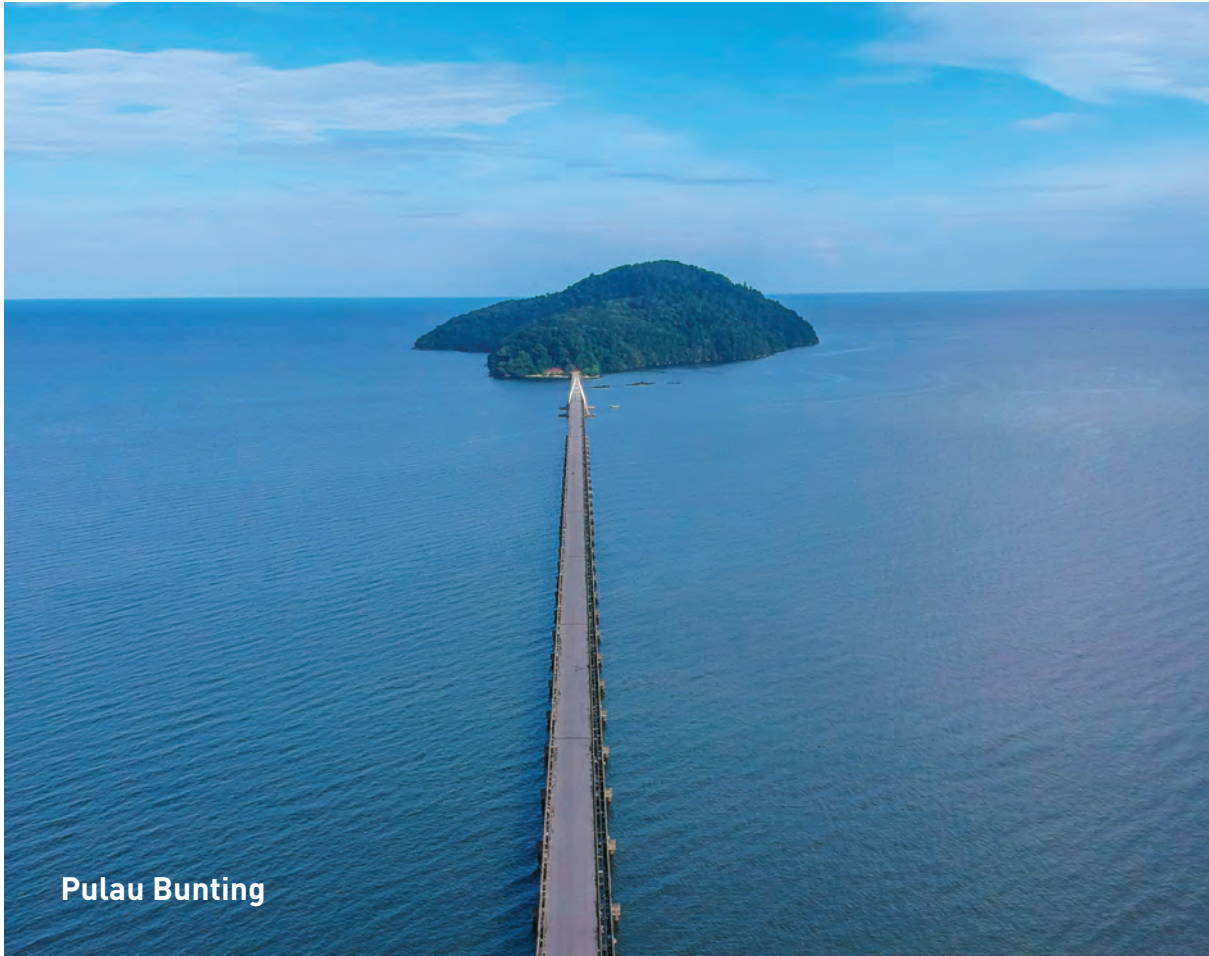
Pulau Bidan







Pulau Telor | The Mahang Formation





Singkir Quarry | The Jerai Granite





Tanjung Jaga





Kampung Raga





Pantai Tsunami Kuala Muda



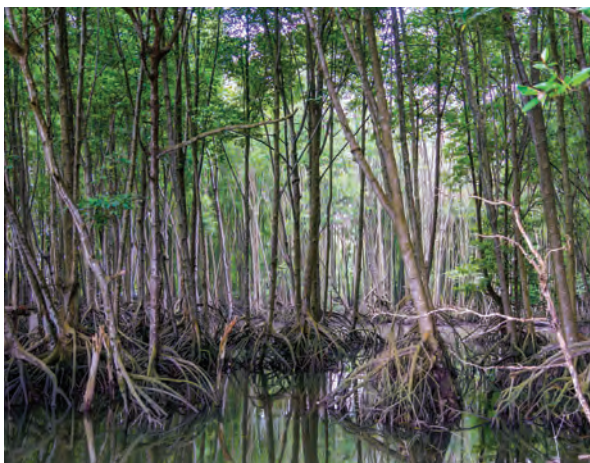




Telaga Tok Sheikh









Singkir Laut





GEOARCHAEOLOGICAL HERITAGE

↑
X8
2180 - 2190cm

X11

X9

X11

X9

X9



Although there's always aesthetic beauty in modern architecture, there is something special about structures from the past that has always managed to keep us in awe. Ruins an ancient geoaerchaeological sites in Jerai Geopark have braced the test of time and remained strong for visitors to marvel at.

1. Sungai Batu Geoarchaeological Complex

Sungai Batu Archaeological Complex in Merbok is well-known as the richest geoaerchaeological site in Malaysia, with more than 50 ancient candi at the site. It is recognised as one of the oldest sites of human civilisation in Southeast Asia. The study in the area discovered that the early people possessed expertise in iron smelting industries, which are the main factor of the emergence of Old Kedah ancient civilisation.

There are two archaeological sites located within Jerai Geopark that narrate distinct and fascinating stories about the land.



2. Lembah Bujang Archaeological Museum

Lembah Bujang was recognised as an international trading centre in Southeast Asia as early as the first century AD due to Sungai Merbok, which was once a key transit point for merchants to travel from India to China and vice versa. The abundance of minerals in the Jerai area, caused the development of various types of industries to start here. Iron and tin mining, dimensional stone industry, clay and bricks industry develop at the surrounding area and increase the settlement and occurrence of local cultural development. The discoveries of archeology related materials in the form of statues and art related to Hinduism and Buddhism, provide a perspective on the presence of followers of the religion in the vicinity of this area. The rivers, waterfalls and sites are suitable for settlements, have developed the foot of Mount Jerai into an ancient centre for politics and religion at a point in time, hence making Lembah Bujang, one of the most important and preserved historical sites in the country.

Lembah Bujang Archaeological Museum was established in 1980 is the only Museum in Malaysia that exhibits archaeological collections that proves the establishment of an international trade centre and the development of Hindu-Buddhism influence in Southeast Asia from 3 BC to 12 AD. Several candi that can be found here are Candi Pengkalan Bujang, Candi Bukit Batu Pahat, Candi Pendiati and many others. The ruins of the candi and other archaeological discoveries unearthed within the complex dated back to more than 2,800 years ago.

Besides the beauty and uniqueness of the architecture and the remains of the past, visitors can also appreciate the geosite tranquility of the river, natural waterfalls and tropical greenery adorned with natural flora and fauna around the sites.



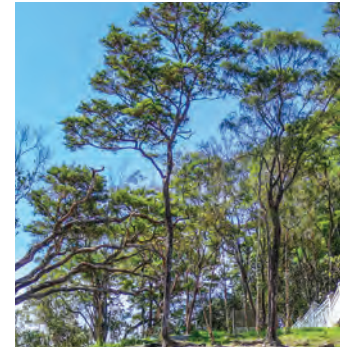
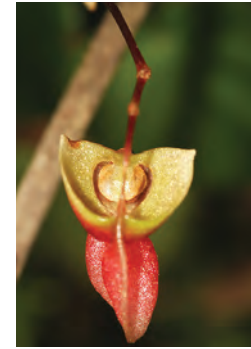


An aerial photograph of a vast, dense forest with a rich green canopy. The trees are packed closely together, creating a textured, undulating surface of green. A white rectangular box is superimposed on the right side of the image, containing the text "BIOLOGICAL HERITAGE" in a bold, white, sans-serif font. A thin white horizontal line extends from the right edge of the box across the top of the image.

**BIOLOGICAL
HERITAGE**

1. Mount Jerai Forest Ecosystem

Jerai Geopark also boasts a huge biological diversity especially the biodiversity of habitat in Mount Jerai and mangrove ecosystem that includes the rich variety of flora and fauna that is found along Kuala Muda and Yan Districts.



2. Merbok Biosphere Mangrove Reserve

The Jerai Forest covers an astonishing 8,676.36 hectares of forest reserve, home to all sorts of national plant species. Visitors can enjoy the lush greenery with refreshing hill breeze while immersing in untouched nature that is simply priceless.







HISTORICAL HERITAGE

Whether you are striking off your bucket list or indulging in some memorable wanderlust, historical sites are always worth seeing and believing. Jerai Geopark offers some of the best historical landmarks in Kedah, among which are the Sultan Muzaffar Shah Royal Mausoleum, which tells the story of the beginning of Islamic religion in the state, Kota Kuala Muda which are the remnants of the once majestic trade centre in South East Asia and many more.

Apart from history, the sites also display the native geological structure as it showcases the resources on which the sites are built and the strategic location between the estuary and the sea during a particular time in history.

The historical sites will educate, entertain and enlighten you as you explore the rich history of Kedah, including the legends that have been the pride of the locals.

1. Sultan Muzaffar Shah Royal Mausoleum
2. Kota Kuala Muda
3. Masjid Pengkalan Kakap
4. Terusan Wan Mat Saman
5. Jambatan Merdeka
6. Tsunami Monument, Pantai Kuala Muda
7. Kampung Aceh
8. Bukit Penjara







GASTRONOMICAL HERITAGE



Food is one of the important markers of regional and ethnic identity along with other distinguishing element of culture. The best way to experience a culture is to indulge in its culinary heritage. Fondly known as the nation's rice bowl, it is little wonder that Kedah's traditional cuisine used this most common staple – rice. Some of the traditional delicacies that remain as local favourites are Kuih Karas, Bahulu and Nira Nipah. Some other food, such as Gedung Chak are a pleasant rarity that can be found in some parts of Yan and Kuala Muda District.



- | | |
|----------------------|-------------------|
| 1. Bahulu | 5. Nira Nipah |
| 2. Emping and Ringgi | 6. Gedung Chak |
| 3. Jimpan / Timpan | 7. Mee Udang |
| 4. Kuih Karas | 8. Belacan Tumbuk |



The Adventure Awaits...

Take a journey to Jerai Geopark and experience some of the best of geological, geoarchaeological, biological, historical and gastronomical heritage of Kedah.

JERAI GEOPARK

THE HIDDEN GEM OF THE ENCHANTED LAND

The Mineral and Geoscience Malaysia, proudly presents The Jerai Geopark – The Hidden Gem of The Enchanted Land, a coffee table book about the uniqueness of the 25 geosites within the Jerai Geopark. The geopark that flourish with interesting geological history, extraordinary geoarchaeological evidence of old civilization, rich of biodiversity and crowd by community of agriculture activities.



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