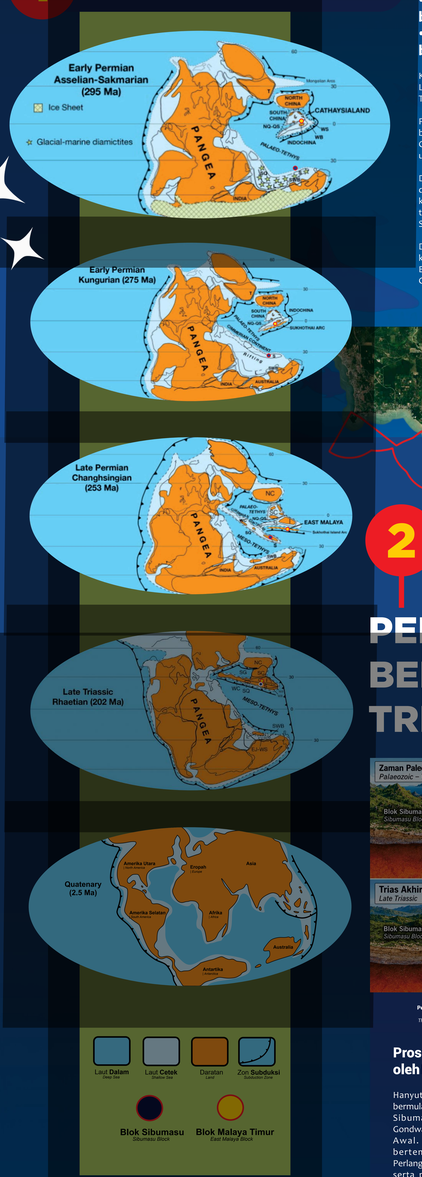
PANEL 3

SEJARAH GEOLOGI MELAKA GEOPARK

Geological History of Melaka Geopark

1 PEMENDAPAN SEDIMEN LAUT DALAM (PALEOZOIK-TRIAS)

Deep-marine Sediment Deposition (Paleozoic–Triassic)



Melaka Geopark merangkumi dua blok geologi utama, iaitu:
- **Blok Sibumasu di bahagian barat**
- **Blok Malaya Timur di bahagian timur**

Kedua-dua blok ini pada asalnya dipisahkan oleh Lautan Paleo-Tethys, dari zaman Karbon hingga Trias Akhir.

Pada zaman Paleozoik dan Mesozoik, sebahagian besar kawasan yang kini membentuk Melaka Geopark berada dalam persekitaran marin, umumnya laut dalam.

Di Blok Sibumasu, sedimen marin terkumpul di dasar laut sepanjang zaman Paleozoik. Sedimen ini kemudiannya mengalami proses geologi, termasuk metamorfisme, sehingga membentuk Syis Jelebu.

Di Blok Malaya Timur, sedimen laut dalam yang kaya dengan bahan volkanik telah terendap. Endapan ini kemudiannya membentuk Formasi Gemas.

Melaka Geopark is divided into two main parts:
- ***The Sibumasu Block in the west***
- ***The East Malaya Block in the east***

These two blocks were originally separated by the Paleo-Tethys Ocean from the Carboniferous to the Late Triassic.

During the Paleozoic and Mesozoic, much of present-day Melaka Geopark was situated in a marine environment, generally under deep-marine conditions.

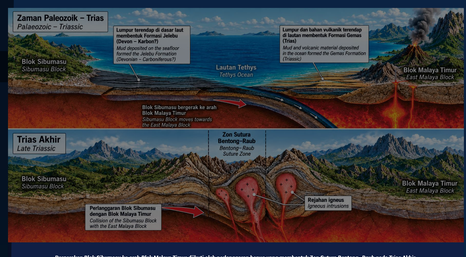
In the Sibumasu Block, marine sediments accumulated on the seafloor throughout the Paleozoic. These sediments later underwent geological processes, including metamorphism, eventually forming the Jelebu Schist.

In the East Malaya Block, deep-marine sediments rich in volcanic material were deposited. These deposits later formed the Gemas Formation.



2 PELANGGARAN BENUA TRIAS

Triassic Continental Collision



Pergerakan Blok Sibumasu ke arah Blok Malaya Timur diikuti oleh perlanggaran benua yang membentuk Zon Sutura Bentong–Raub pada Trias Akhir.

The Sibumasu Block moved towards the East Malaya Block, followed by a continental collision that formed the Bentong–Raub Suture Zone during the Late Triassic.

Proses Tektonik yang Dialami oleh Melaka Geopark:

Hanyutan Blok Malaya Timur ke arah utara bermula pada zaman Devon Akhir, manakala Blok Sibumasu mula berpisah daripada Benua Gondwana dan bergerak ke arah utara pada Perm Awal. Pada Trias Akhir, Blok Sibumasu bertembung dengan Blok Malaya Timur. Perlanggaran ini diikuti oleh penerobosan granit serta proses canggaan, metamorfisme dan pemineralan. Pengangkatan benua seterusnya menyebabkan kawasan Melaka Geopark muncul sebagai daratan.

Tectonic Processes Affecting Melaka Geopark:

The East Malaya Block began drifting northward during the Late Devonian, while the Sibumasu Block separated from Gondwana and began its northward movement during the Early Permian. During the Late Triassic, the Sibumasu Block collided with the East Malaya Block. This collision was followed by granite intrusion, deformation, metamorphism and mineralisation. Subsequent continental uplift caused the Melaka Geopark area to emerge as land.

3 Luluhawa, Hakisan Dan Pembentukan Muka Bumi

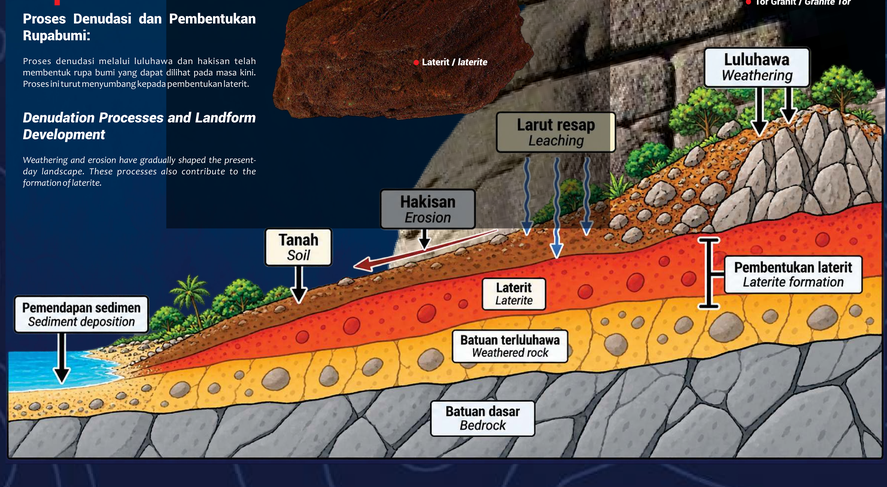
Weathering, Erosion and Landform Development

Proses Denudasi dan Pembentukan Rupabumi:

Proses denudasi melalui luluhawa dan hakisan telah membentuk rupa bumi yang dapat dilihat pada masa kini. Proses ini turut menyumbang kepada pembentukan laterit.

Denudation Processes and Landform Development

Weathering and erosion have gradually shaped the present-day landscape. These processes also contribute to the formation of laterite.



Melestarikan Alam, Memartabatkan Warisan

Preserving Nature, Celebrating Heritage