

橋咀洲地質步道

Sharp Island Geo Trail

海積地貌 Depositional Landforms

風化作用 Weathering



- 圖例**
LEGEND
- 橋咀郊野公園
KIU TSUI COUNTRY PARK
 - 橋咀特別地區
SHARP ISLAND SPECIAL AREA
 - 連島沙洲
TOMBOLO
 - 橋咀洲地質步道
SHARP ISLAND GEO TRAIL
 - 1 觀察點
OBSERVATION POINT
 - 傳意牌
INTERPRETATION PANEL
 - 30 高程點 (高度以米為單位)
SPOT HEIGHT (height in metres)
 - 廁所
TOILET
 - 涼亭
PAVILION
 - 告示板
INFORMATION BOARD

通過連島沙洲時需留意潮汐漲退
Remain alert to changes in the tidal environment when crossing the tombolo

起點 Start 1公里 (來回 round trip) 1小時

- 1 火山角礫岩
Volcanic Breccia
- 2 條紋斑雜岩
Eutaxite
- 3 沙灘
Beach
- 4 流紋岩
Rhyolite
- 5 「菠蘿包」石英二長岩
"Pineapple Bun" Quartz Monzonite
- 6 連島沙洲
Tombolo
- 7 沉凝灰岩
Tuffite



香港聯合國教科文組織
世界地質公園
Hong Kong UNESCO
Global Geopark



漁農自然護理署
郊野公園及海岸公園管理局
COUNTRY AND MARINE PARKS AUTHORITY,
A.F.C.D.



連島沙洲

橋咀洲的連島沙洲主要由礫石構成，將橋咀洲與橋頭連接起來；潮退時，遊客可以沿著連島沙洲步行到橋頭。



Tombolo

The tombolo attaching Sharp Island to Kiu Tau comprises mainly gravel. At low tide, visitors can walk to Kiu Tau along the tombolo.

連島沙洲的形成 Formation of a Tombolo



波浪速度會在靠近島嶼岸邊時減慢
Waves approaching an island are slowed down by the shallow water close to the shore



海浪將沙石從兩邊帶到平靜的環境，並慢慢沉積下來，形成沙嘴
Waves sweep sand and gravel together from both sides, and sediments are gradually deposited in a calm environment, forming sand spits



最後兩個沙嘴相連，形成連島沙洲
Eventually two sand spits connect together, forming a tombolo



頁狀剝落作用 — 野外的「菠蘿包」

風化作用使岩石外層的礦物膨脹或收縮，最後引致岩石外層像洋蔥般層層剝落。頁狀剝落使石英二長岩的外貌有如「菠蘿包」。

Exfoliation – “Pineapple Bun” of the wild

Weathering causes minerals in the outer layers of the rocks to expand or contract, results in the outer layer of the rocks peeling off like the layers of an onion. The quartz monzonite resembles the surface of a “pineapple bun” due to exfoliation.

頁狀風化示意圖 Schematic Diagrams of the Exfoliation Process

岩石表面呈明顯的溫度差異
There were significant temperature differences on the rock surface



不同程度的收縮及膨脹會使岩石裂開
Different degrees of contraction and expansion cracked the rock



岩石外層像洋蔥般一片片剝落，形成奇特的外貌，看似「菠蘿包」

The outer layers of the rock exfoliated like the layers of an onion, forming an extraordinary appearance, like a pineapple bun



橋咀洲地質步道 Sharp Island Geo Trail



United Nations
Educational, Scientific and
Cultural Organization

Hong Kong
UNESCO
Global Geopark

HONG KONG
GEOPARK
香港地質公園



橋咀洲地質步道 Sharp Island Geo Trail

橋咀洲地質步道全長約500米，沿途可找到多種火成岩，包括火山角礫岩、流紋岩和石英二長岩等。橋咀洲是欣賞和學習火成岩的優良地方。

The Sharp Island Geo Trail is about 500 m long. One can find various igneous rocks, such as volcanic breccia, rhyolite and quartz monzonite along the trail. Sharp Island is an ideal place for appreciating and studying igneous rocks.

如何前往 How to get there

西貢碼頭
Sai Kung Pier

街渡 Kaito
~15 分鐘
mins

橋咀洲
Sharp Island

查詢：西貢街渡協會 9082 2057 及 9080 5794

Inquiry: Sai Kung Ferry Traders Association 9082 2057 and 9080 5794

- | | |
|-------------------------|---------------------|
| 地質年代： | 特色： |
| • 早白堊紀
(約1億4 000萬年前) | • 多種典型火成岩 |
| 岩石種類： | • 風化 |
| • 火山角礫岩 | • 海積地貌
(沙灘和連島沙洲) |
| • 流紋岩 | • 海蝕地貌 |
| • 石英二長岩 | |
| • 沉凝灰岩 | |

- | | |
|--|---|
| Geological Age: | Features: |
| • Early Cretaceous Period
(About 140 million years ago) | • Various typical igneous rocks |
| Rock Types: | • Weathering |
| • Volcanic breccia | • Depositional landforms
(beach and tombolo) |
| • Rhyolite | • Erosional landforms |
| • Quartz monzonite | |
| • Tuffite | |

香港地質景點的保育，全賴我們攜手推動！

The conservation of the geosites
in Hong Kong is in our hands!

橋咀洲地質簡介 Geological Overview of the Sharp Island

約在1億4 000萬年前，香港經歷了一系列猛烈的火山爆發。當時，一座直徑超過二十公里的巨型火山坐落於現時西貢一帶。連串的猛烈火山爆發產生大量火山灰和熔岩；後來，騰空的火山崩塌及下陷，形成破火山口。橋咀洲就是位於這個巨大的破火山口邊緣。在橋咀洲可找到多種岩石，包括火山岩、侵入岩和火山沉積岩。

About 140 million years ago, a series of violent volcanic activities occurred in what is now Hong Kong. A giant volcano of over 20 km in diameter was situated at the region now known as Sai Kung. A huge amount of volcanic ash and lava was produced during a series of violent volcanic eruptions. Over time, the hollowed out volcano collapsed and subsided, forming a caldera. Sharp Island was once at the edge of this large caldera. It has various rock types, including volcanic rocks, intrusive rocks and volcanic-sedimentary rocks.



橋咀洲常見的岩石



火山角礫岩 含大小不一的棱角狀火山碎屑。

成因：猛烈的火山爆發將火山通道附近的岩石炸裂成較小的棱角狀碎塊，然後掉落在火山口附近，冷卻及凝固後形成火山角礫岩。

Volcanic breccia contains different sizes of angular fragments.

Its formation: Violent eruptions broke rocks near the vent into smaller, angular fragments, which fell near the crater, forming volcanic breccias after cooling and solidification.



流紋岩 是一種高矽質的淺色火山岩，含非常細小的礦物顆粒及熔岩流動的紋理。

成因：火山爆發時，含高矽質的熔岩流出地面，冷卻及凝固後形成流紋岩。

Rhyolite is a light – coloured, silica – rich volcanic rock, containing very fine-grained minerals and lava flow banding texture.

Its formation: During volcanic eruptions, silica-rich lava cooled upon reaching the surface, forming rhyolite after cooling and solidification.

Common Rocks on Sharp Island



石英二長岩 是一種中粗粒侵入岩，主要含石英和兩種相同數量的長石礦物。

成因：岩漿從地殼深處上升，沿著岩石裂縫侵入，冷卻和凝固後形成侵入岩。

Quartz monzonite is a medium- to coarse-grained, intrusive rock, composing of mainly quartz and equal amounts of two types of feldspar.

Its formation: Magma moved up from depths of the Earth into cracks, forming intrusive rocks after cooling and solidification.



沉凝灰岩 是一種火山沉積岩，其成分主要是火山灰，但也含沉積物。

成因：火山爆發噴出細小的火山碎屑，其後在水中沉積、脫水、壓實及固結，最後形成沉凝灰岩。

Tuffite is a kind of sedimentary-volcanic rock, containing mainly volcanic ash, but also sediments.

Its formation: Volcanic eruptions ejected fine pyroclasts, which deposited in water, forming tuffite after dehydration, compaction and consolidation.