

Water flows through the peaceful creek
at the early morning.
This river bed was once the base
of the new Caoling lake
Time brings changes to the Landscape
Let's explore and appreciate
the changing landscapes of Caoling!

草嶺地質公園手冊

Caoling Geopark Manual



waterfall
hair

cloud collar

rock
formation cape



Forestry Bureau
Council of Agriculture, Executive Yuan



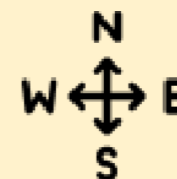
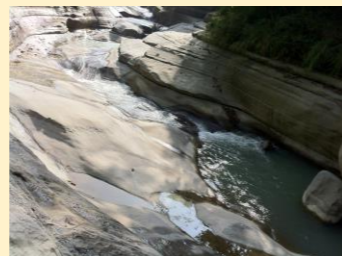
Department of Geography
National Taiwan Normal University



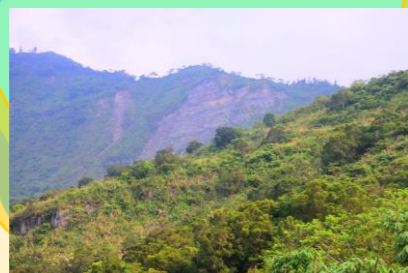
Caoling Geopark map



To Tongtou
往桶頭



To Zhanghu, Huashan
往樟湖、華山



Qingshui River
清水溪

Caoling Intensive Shellfish Fossil Strata
草嶺貝化石密集層



Caoling Mountain 1234m
草嶺山1234m

921 National Earthquake
Memorial Site
九二一國家地震紀念地

Caoling Landslide
草嶺山崩

Youqing Canyon
幽情谷

Shuiliandong
Waterfall
水濂洞瀑布

Caoling Ecogeo Elementary School
草嶺生態地質國小
Caoling Tourist Information Center
草嶺旅遊服務中心

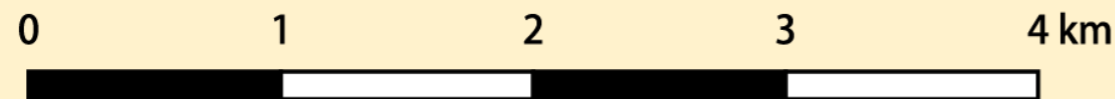
Frog Rock
青蛙石

Ciaobisyongfong
(Steep Slope)
峭壁雄風

Qingshui River
清水溪

Chuhe Mountain 922m
出合山922m

To Ruili
往瑞里



Neihu, Waihu
內湖、外湖

Lianjhu Pothole 連珠池

149乙

Tongsin Waterfall
同心瀑布

Wannian (10 Thousand
Years) Canyon
萬年峽谷

149甲

Neihu River
內湖溪

149甲

Liansin Pothole 連心池
Youlong Lake 遊龍湖
Shibi Fairy Canyon 石壁仙谷

Penglai Waterfall
蓬萊瀑布

Jhugaoshuei River
竹篙水溪

Fuhu Cave
伏虎洞

Shibi
石壁

Jiuqiong Giant Tree
九芎神木

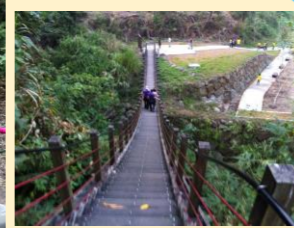
Jiananyun Peak 1795m
嘉南雲峰1795m

Shibi Mountain 1751m
石壁山1751m

Yunling Hill 1649m
雲嶺之丘1649m

Wuyuanerjiao
(5 Dollar and 2 Dime
五元兩角

Skidway Trail
木馬古道





Hello Everyone!
My name is Little Cao. As the mascotte of Caoling Geopark, it is my pleasure to show you around. Let's go!



What is a geopark?

UNESCO defined a geopark as an area which involve one or more scientific research value. The value is integrated with values of geology, ecology, archaeology and culture.

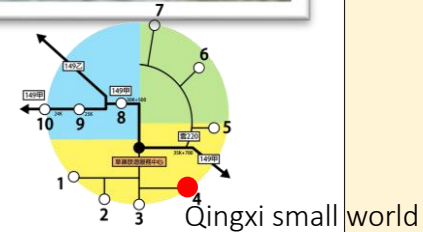
Geoparks are single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development.

Landscape conservation is used as a concept to promote local development and placemaking of the geopark.

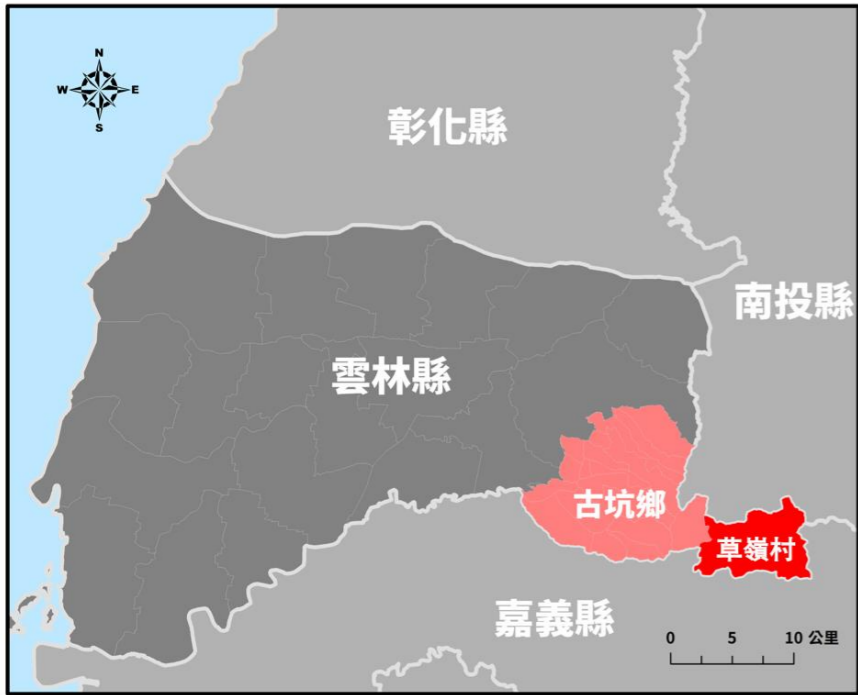
Geoparks do not only care about rocks, but also about people and communities. Geoparks emphasize the interaction between the land and the people!



Through the geopark we connect with nature. The community lives with the local landscape. They protect the environment and share their local cultural heritage with visitors.



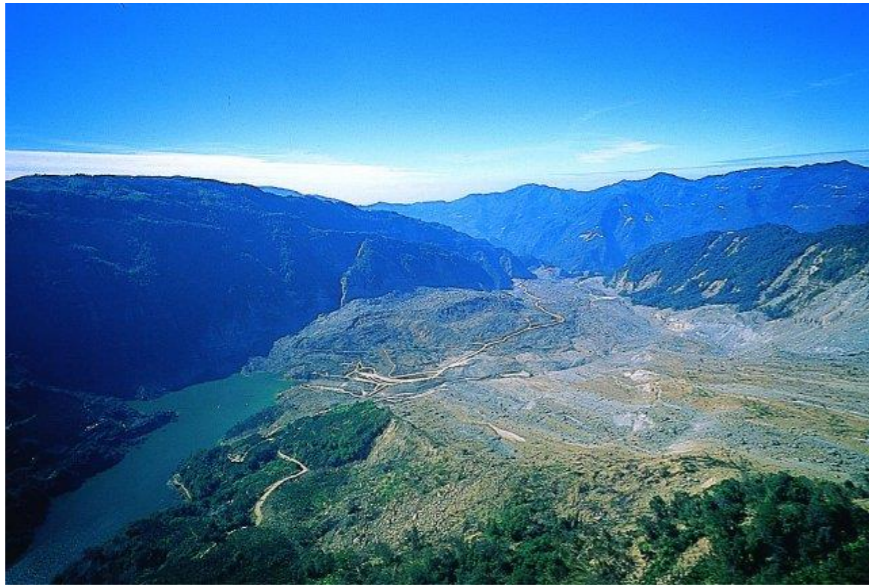
Come to check out Caoling!



Caoling village is located at the junction of Yunlin, Nantou and Chiayi counties. It is the highest village in Yunlin County.



During the 1970s and 1980s Caoling was a famous tourist destination. People came to visit the 10 famous spots. After the 921-earthquake the spots were seriously damaged. The new Caoling lake appeared and people came to see it.



As the Caoling Lake disappeared many years ago, the residents of Caoling now turned to geo-tourism.



New!

Caoling's 10 new scenic spots

Caoling (South area)		Shibi (Eastern area)		Neihu and Waihu (Western area)	
Scenic spots	Feature	Scenic spots	Feature	Scenic spots	Feature
1. Feishan Scenic Lookout	landslide, dip slope	5. Penglai Waterfall (in Caoling)	waterfall Penglai Trail 2.5K/30min	8. Tongsin Waterfall, Lianjhu Pothole	pothole, waterfall Tongsin Trail 1.6K/40min
2. Youqing Canyon, Frog Rock, Honeycomb Rock, Shuiliandong (Water Curtain Cave)	intrenched meander, unique rock, pothole, waterfall Youqing Valley Trail 1.3K/40 min Shuiliandong Trail (Oiltea Camellia Trail) 1.3K/60min	6. Shibi Fairy Canyon, Youlong Lake, Liansin Pothole	pothole, canyon, waterfall Maple Trail 0.4K/15min Youlong Lake Trail 0.9K/30min Jhugaoshuei River Trail 5K/105min	9. Wannian(10 Thousand Years) Canyon	pothole, canyon Wannian Canyon Trail 1.1K/30min
3. Ciaobi-syongfong (Steep Slope)	landslide, steep slope Ciaobi-syongfong Trail 0.6K/30min Autumu Maple Tree Trail 0.7K/30min	7. Yunling Hill, Wuyuanerjiao (5 Dollar and 2 Dime)	cloud sea, tea garden, rhizome forest Skidway Trail 3.1K/60min Cedar Trail 1K/30min	10. Caoling Intensive Shellfish Fossil Strata	Fossil Strata
4. Qingxi small world	Qingshui River meander, canyon				

New!

Caoling's 10 new scenic spots



Relation location is clear!



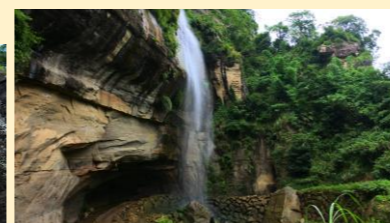
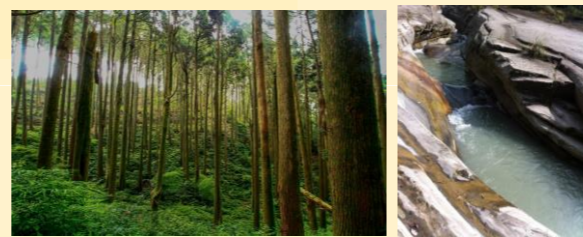
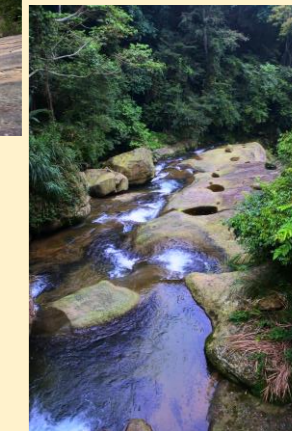
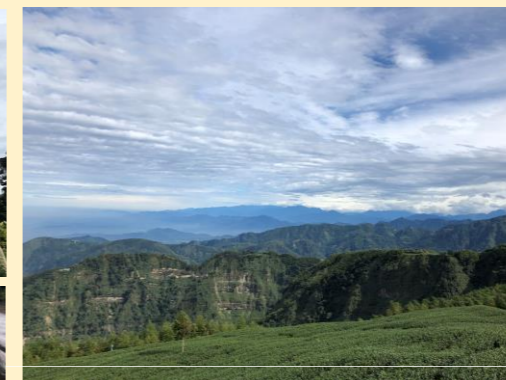
Caoling Tourist Information Center

1	12.6K	🚗 8分	🚲 8分
2	22K	🚗 7分	🚲 7分
3	31.6K	🚗 6分	🚲 6分
4	41.6K	🚗 6分	🚲 6分

5	52K	🚗 5分	🚲 4分
6	68.7K	🚗 18分	🚲 17分
7	71.3K	🚗 32分	🚲 31分

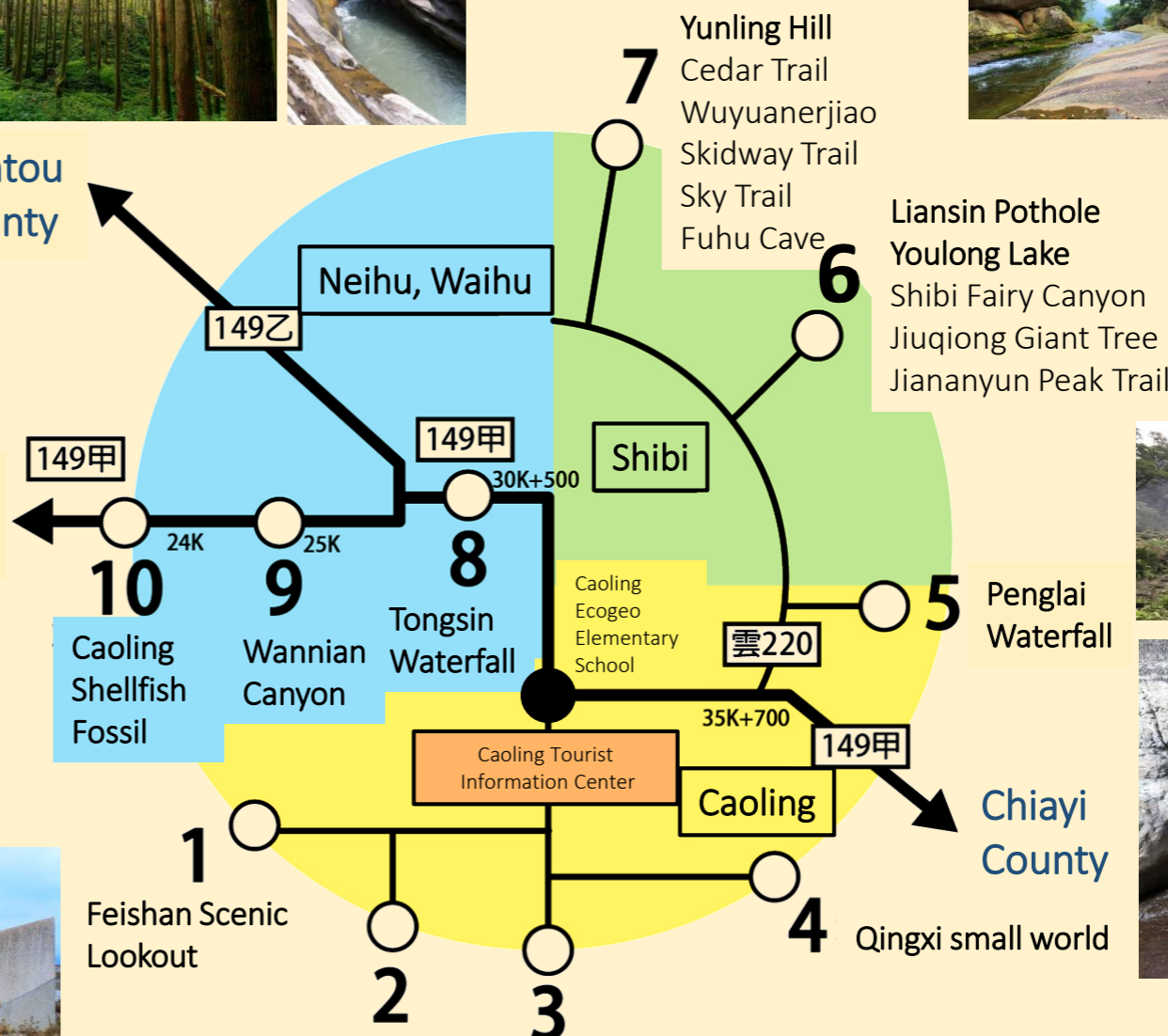
8	85.4K	🚗 10分	🚲 9分
9	99.7K	🚗 18分	🚲 17分
10	101.6K	🚗 35分	🚲 33分

to



Nantou County

Yunlin County



Let's explore all 10 geosites!

Now, what's Caoling geopark's feature?

Finally, it's my time to be your guide!



I am Feishan!

The literal translation from Chinese is 'Flying mountain'. This term refers to extremely big landslides.

The Feishan incident: In the early morning of the 21st of September 1999...

There was a major earthquake. The fragile slopes of Caoling mountain collapsed due to the earthquake and caused a large-scale landslide. The hundreds of million cubic meters land and stone fell in the Qingshui river, blocking the river. This is how the Caoling lake was formed.



When the sun rose, the landslide already arrived in Chiayi... Overnight, the landform of Caoling has changed dramatically!

Due to the 921 earthquake, the Mengshan Mountain collapsed. The rushing stream could not move forward and formed a five-kilometer long mountain lake. After typhoon Narili in 2001, the lake was reduced to 2 km long. Continuous heavy rain in 2004 caused the dam to collapse and the lake disappeared.



Source: General report on aftermath of the 921 earthquake in Caoling, [1999]

That's right! The biggest feature in Caoling is **change**.

Since 1862, events of landslides, caused by typhoons or earthquakes changed the landscape of Caoling continually.



Scan the QR-code for more information



Wow, so the geology around the Caoling mountain is really unstable. Perhaps every year, landform changes can be found.

Date	Cause
1862/06/06	Earthquake
1941/12/17	Earthquake
1942/08/10	Heavy rain
1979/08/15	Heavy rain
1999/09/21	Earthquake

During the 921-earthquake 120 million cubic meters of land and stone of Caoling mountain collapsed. That is equivalent to the size of 42 Taipei 101 buildings!



X 42

That's why my head is missing a big piece now.



Geology of Caoling

Why do the rocks have different colors ?



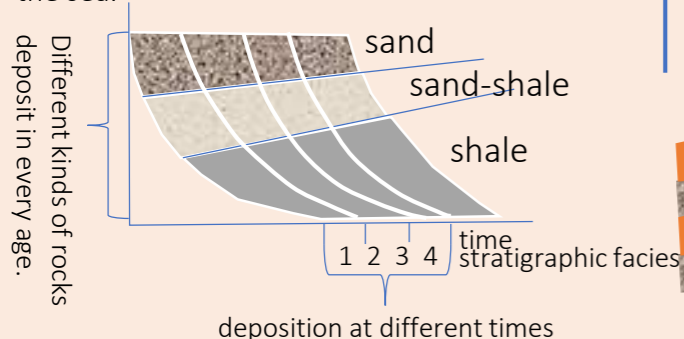
There are different types of rock formations!

Sedimentary rocks consist of pieces of stone, bones of dead animals, corals etc. After years of accumulation rocks gradually formed. Typical for sedimentary rocks is the layering within the rock which called 'stratification'. The geology of Caoling is mostly compiled of sedimentary rocks like sandstone, shale and sand-shale interbedding.

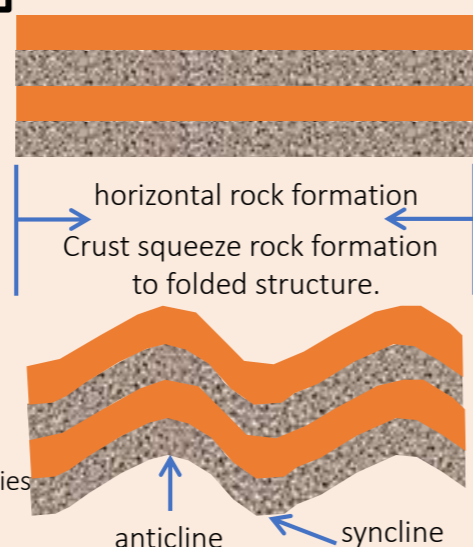
Rock composition influences the occurrence of grassy ridges !

How do rock formations form ?

Sediment accumulates layer by layer at the bottom of the sea before the land uplifting. Earth plates are squeezed, so that the sedimentary rock formations are pushed out of the sea.



When a formation cracks under the pressure or the formation is eroded, stratification can be observed. As time passes, the underlying sediment is squeezed by gravity, becoming denser and stronger, forming a "sedimentary rock."



Reference Taiwan Landscape Conservation Network

"Stratification" is unique to sedimentary rocks. Thickness and color may vary depending on the particle size and chemical composition of the deposit. Therefore, we can understand the environment in which the sediments were formed by observing the stratification!



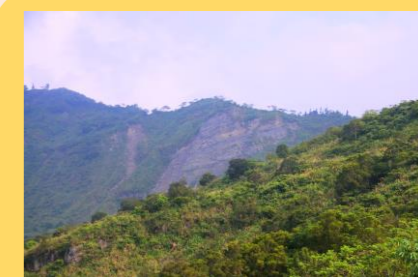
If there are fossils in the rock formation, you can use these to reconstruct the environment at the time of deposition.



Oh! Different lithological characters cause different landscapes!

The main stratum in Caoling is Cholan formation which is tectorium.

geochron		Stratum		
Pleistocene	2.6 Ma	alluvium, colluvium		
		terrace deposit		
		Cholan formation		
Pliocene	5.3 Ma	Chinshui shale		
		kueichoulin formation	Dawo sandstone member	sandstone
				shale
				sandstone
			Shihliufen shale member	
Kuantaoshan sandstone member				
Late Miocene		Nanjhuang formation		

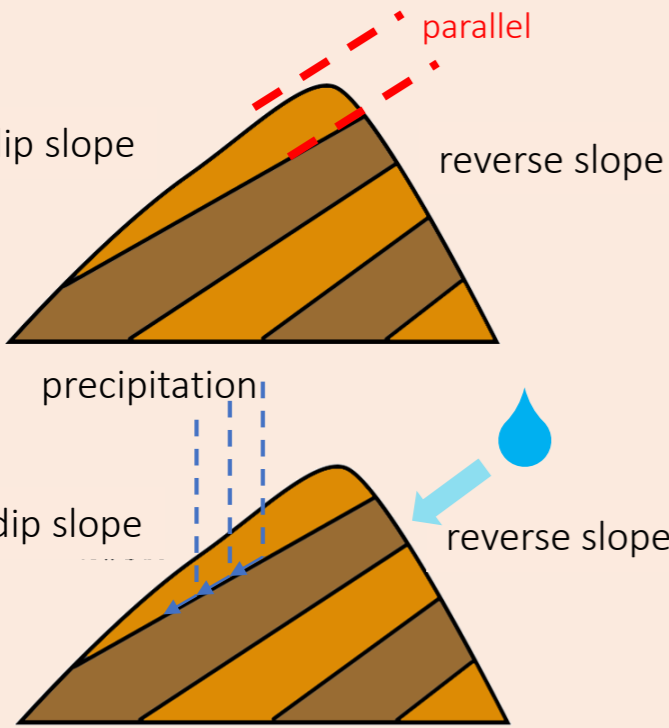


At the 10 new scenic spots of Caoling, we can see many expoded Dawo sandstone.

Why landslides occurred at Caoling mountain?

A geological perspective...

sand-shale dip slope



parallel

dip slope

reverse slope

precipitation

dip slope


reverse slope

A dip slope is a topographic (geomorphic) surface which slopes in the same direction.

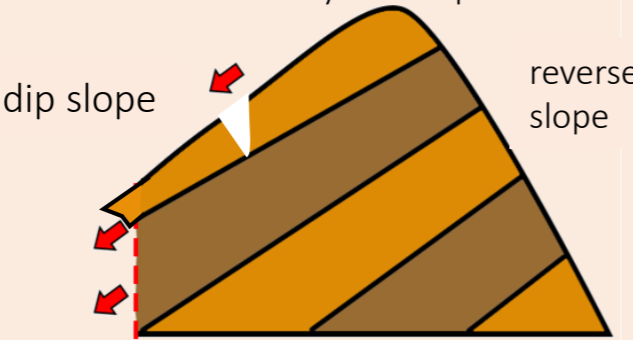
When it rains, the water penetrate sand-shale stratum, increasing the possibility of landslides.

So the slopes should be remain clear from construction!

The base of slope is eroded by river.



Losing the support of the base of slope, the rock formation is more likely to collapse.



dip slope

reverse slope

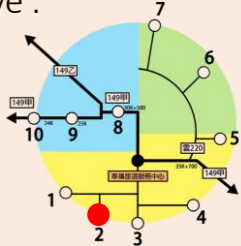


Also, Caoling is located on an earthquake zone.

Rocks are big attractions in Caoling!



Frog Rock is the art of differential erosion. The art-like statue sits quietly next to the Water Curtain Cave .



Differential erosion is due to the different hardness of stratum.



honeycomb rock



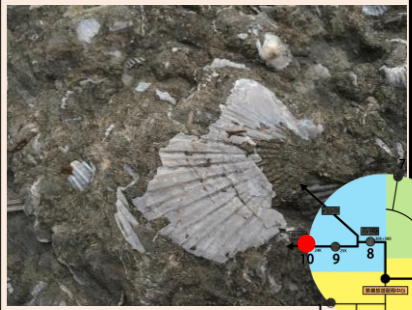
The most famous example in Taiwan is the Queen's Head at Yehliu Geopark!



Ciaobisyongfong is a steep sandstone slope of 140 meter long. You can challenge its strength !



The shellfish fossils provide evidence that once Caoling was in the sea.



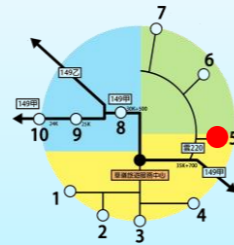
Also, there are rich fluvial landforms in Caoling.

Waterfalls

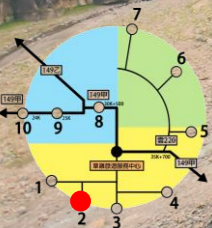
There are three waterfalls in Caoling: Shuiliandong Waterfall, Penglai Waterfall and Tongsin Waterfall. In summertime you can see the majestic waterfalls and you can see an elegant trickle in winter.



Penglai Waterfall is located in Jhugaoshuei River. This river named Jhugaoshuei River because of the small flow in winter that waterfall is like a thin and long bamboo!



Shuiliandong Waterfall is bigger than Penglai Waterfall. The reason is that Qingshui River has more water. So erosion is stronger and faster that forms an uneven terrain.

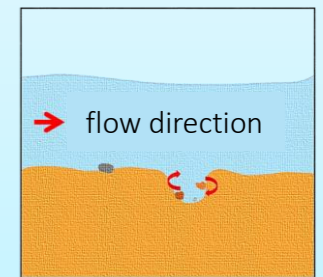
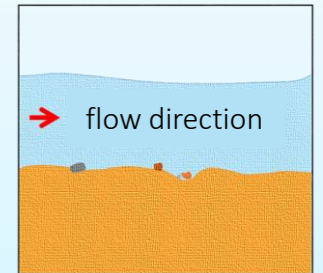


Potholes

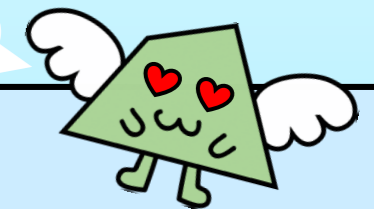
Potholes are cylindrical holes drilled into the bed of a river that vary in depth & diameter from a few centimetres to several metres. When flowing water encounters bedload, it is forced over it and downcuts behind the bedload in swirling eddie currents. These currents erode the river's bed and create small depressions in it.

Among the new ten scenic spots in Caoling, it is most easy to observe the potholes in Shibi Fairy Valley, Liansin Pothole and Lianjhu Pothole.

Liansin Pothole



When the water flows through neighboring potholes, it seems as if they are connected. So it is called the "connected heart" pool!

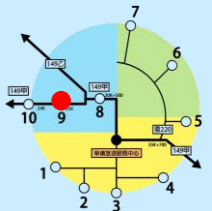


Canyon

The Wannian Canyon is eroded by Neihu River. The river sometimes hides in two stories deep canyon. Other times, it suddenly appears on the open river bed, flowing at your feet, like playing hide and seek!



Neihu River is named after a water eel flowing over the stratum, so Neihu River also called 'Shihmanzih River'.



Caoling's Four Seasons Landscape Activities


spring(Feb~Apr)

Blossom Viewing

Landscape Activities


Industrial Activities

Peach & cherry blossom


Four seasons stargazing


Tea plucking


summer(May~Jul)


Cedar forest

access to the river

Firefly tour

Coffee flower

Rice Field Frog

Bufo melanostictus

autumn(Aug~Oct)

Maple

Segment wood shiitake mushroom

Coffee bean

winter(Nov~Jan)

Plum blossom

Grandpa's bamboo house

Oiltea Camellia seeds sun drying

A Whole Year

Apr-May

Apr-Jul

Apr-Jan

Jun-Aug

Oct-Jan

Nov-Feb

Nov

Blossom viewing, Coffee blossom & flavor, Stargazing and Ecotourism

Firefly tour

River exploration, Butterfly watching, Bird watching

Tea plucking


Crown canopy exploration


Segment wood shiitake


Mao bamboo shoot


Oiltea Camellia season


Wow!
Every season is wonderful!





Great Common Rose


Common Tiger


Common Bluebottle


Great Mormon


Liuchiou Blue Spotted Milkweed Butterfly

Cotton Rose

Golden-and-silver Honeysuckle

Ghost Pipe

Paris Polyphylla

Shield-backed Bug

Rhizome forest secret place

Residents of the Shibi community have taken the local materials and created an elegant bamboo forest secret place. Bamboo shoot is also one of the properties of Caoling!



This place looks like where a kung fu master will appear!



Caoling's Local Specialities

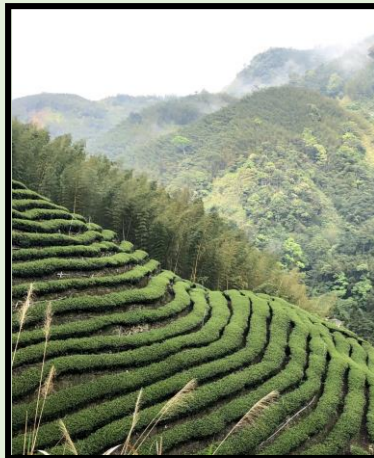
Four treasures in Caoling: Oiltea Camellia , coffee, shiitake mushroom and bamboo shoot



Segment wood shiitake mushroom

One shiitake mushroom is in one hole so every mushroom can absorb the essence of wood. Aromatic and good segment wood shiitake mushroom's cultivation needs attention of temperature, humidity and wood condition.

鄭朝正攝



Caoling High-mountain tea

The good tea is cultivated in suitable environment that mean annual temperature is 18°C with abundant precipitation and well-drained slope.



Caoling Coffee

Caoling coffee is mellow not bitter. Gukeng coffe is very famous, but Caoling high-altitude coffee is usually the champion of Gukeng coffee competition!!!

鄭朝正攝

Caoling's Local Specialities

Four treasures in Caoling: Oiltea Camellia , coffee, shiitake mushroom and bamboo shoot



Oiltea Camellia

The Oiltea Camellia seeds are first sundried, roasted and shelled after harvesting. After picking then a machine is used to press the oil from the seeds. The Oiltea Camellia oil is without any additives. You can drink the Oiltea Camellia oil when you feel with hunger. Also, you can eat dishes within Oiltea Camellia oil. It is a special dish in Caoling.

November: Oiltea Camellia Festival



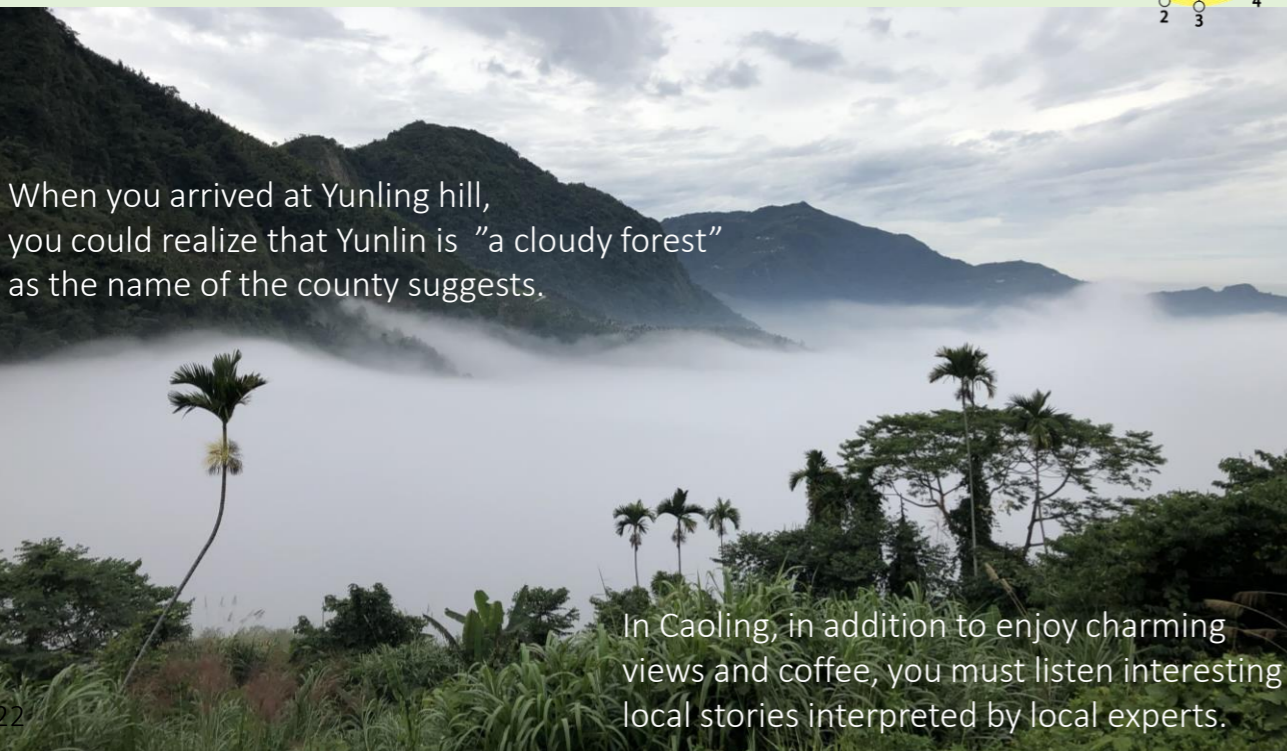
In addition to landscapes, there are different aspects of Caoling...

Yunling Hill

You can experience walking above clouds like a god.

Yunling Hill is located on the junction of Yunlin county, Chiayi County and Nantou County. You can enjoy fantastic cloud sea and sunset. Besides, you can overlook the west side three counties and the east side green mountains when it is a beautiful day.

In all Taiwan geoparks nowadays, there's only Caoling Geopark at enough high altitude to enjoy cloud sea!



When you arrived at Yunling hill, you could realize that Yunlin is "a cloudy forest" as the name of the county suggests.

In Caoling, in addition to enjoy charming views and coffee, you must listen interesting local stories interpreted by local experts.

Plan a trip to Caoling immediately!

Traffic Route

By bus

take solar bus from Douliu Station to Caoling

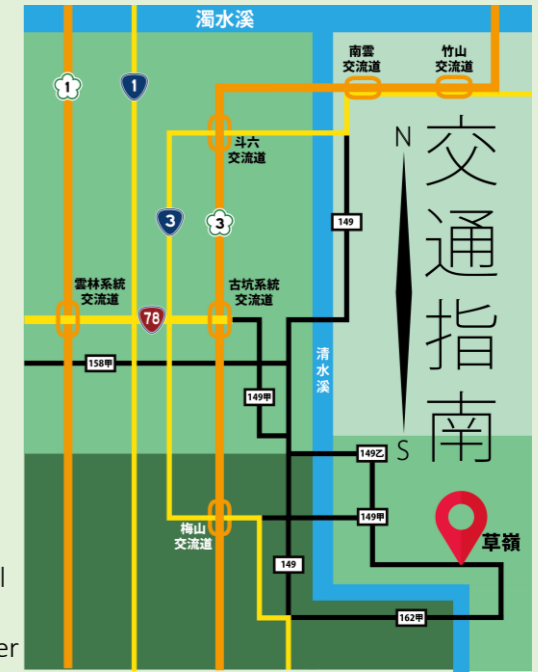
By car

① National Freeway No. 1: 243雲林系統 Yunlin System Interchange → 78 Provincial Highway 78 → 42古坑系統 Gukeng System Interchange → to Douliu → 149甲 County Highway 149甲 to Tongtong → Caoling Tourist Information Center

③ National Freeway No. 3:

North: 271古坑 Gukeng Interchange → to Douliu → 149甲 County Highway 149甲 → Caoling Tourist Information Center

South: 250南雲 Nanyun Interchange → 3 Provincial Highway 3 to Zhushan → Tongtong → 149甲 County Highway 149甲 → Caoling Tourist Information Center



Hotels, Restaurants

& Interpretation (in alphabetical order)

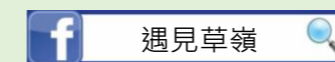
Caoling Hotel	05-5831228	No. 36, Caoling, Gukeng Township
Caoling Lyuyuan Vacation Hotel	05-5831153	No. 42-1, Caoling, Gukeng Township
Caoling Spa Vacation Villa	05-5831121	No. 56, Caoling, Gukeng Township
Dongbi Villa	05-5831021	No. 81-5, Caoling, Gukeng Township
e-hon picture book Hotel	05-5831218	No. 37-31, Caoling, Gukeng Township
Shennong Hotel	05-5831385	No. 18-2, Caoling, Gukeng Township
Shibi Hotel	05-5831238	No. 75-1, Caoling, Gukeng Township
Yongli Hotel	05-5831012	No. 21-7, Caoling, Gukeng Township

Caoling Tourist Information Center

Address : No. 40-2, Caoling, Gukeng Township, Yunlin County

Service hours : Wed.-Sun. 09:00-17:30

Tel : (05)583-1456



Little Cao & Feishan are looking forward to meet you again!

