

A Secret Garden, an Amazing Grace

生態秘境 自然恩典

走訪高雄壽山

A Visit to Shou-shan in Kaohsiung

採訪撰文 Interview & Text / 賴宛靖 Wan-ching Lai

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壽山臨近繁華的高雄市中心，卻又能保有自然原始特色，十分難能可貴。/ 串門攝影提供

It is truly special and precious that Shou-shan is close to the downtown of Kaohsiung while being able to keep its primitive features. / Photo provided by Trongman Co.Ltd.

這裡 有山羌愜意行過的痕跡
這裡 是神秘魔芋長駐的棲地
這裡 有獼猴輕盈活躍的身影
壽山 這從海底拔地而起的土地
這座離城市最近的丘陵
這塊樸實無華的原始地
訴說著人與自然相處的故事……

Here, the Formosan muntjacs stroll;
Here, the myth-like titan arums grow;
Here, the nimble macaques romp in play.
Shou-shan, a hill bulged from the ocean floor,
Just minutes away from the city,
This primitive hill
Tells of the story between man and nature.....

聽過高雄壽山嗎？

壽山的名氣大，但多半是和獼猴、採礦連在一起。

其實，壽山的價值，遠遠超過眾人的想像。她就像一塊未經雕琢的璞玉，蒙塵多年後，至今才讓人見識到她的美。壽山的過去很豐富，也很曲折，她是軍事管制區、是水泥礦區；她是高雄人的後花園，也差點列為建築開發區；她有著獨一無二的地質特色，也蘊藏許多台灣特有動植物。壽山的珍貴價值一直受到環境保育志工所關注，高雄市政府曾規劃為壽山自然公園，然而，走進壽山，更發現她具有國家級的自然保護區的價值。營建署也著手進行壽山地區的自然生態的評估規劃，日前先舉行了命名活動，喚起社會大眾對壽山的印象，為未來推動為國家自然公園預做準備。

到底，壽山有哪些獨特之處，能受到眾人呵護關愛？本期季刊便帶領讀者，走進這座自然原始的城市綠肺。

Ever heard of Kaohsiung's Shou-shan?

Shou-shan, or Long Life Hill, is famed mainly for its association with macaques and mining activities.

In truth, however, Shou-shan's value far exceeds the common imagination. This diamond in the rough has had quite a history. The former military control zone and cement mine, once nearly given to construction and development, is now the Kaohsiungers' secret garden. Unique in geological makeup and rich in flora, fauna, and historical sites, Shou-shan is well deserved to be a natural reserve at the national level. CPAMI has been assessing and planning the preservation of Shou-shan's natural ecology, with a name-giving campaign to warm up the public's impression on it as a prelude of establishing it as a national natural park.

Now, time for a tour around this primitive piece of suburban land, and witness some of its unique and irresistible charms

壽山地區處處可見裸露的岩層，是地質學上的活教材。/ 申門攝影提供

Exposed rock formation can be seen everywhere in Shou-shan, a living classroom of geology. / Photo provided by Trongman Co.Ltd.





由壽山至高點望向西子灣，可以看到海中層巒疊翠的怪石，景觀神似澳洲著名景點大洋路。/ 串門攝影提供
Overlooking Sizihwan from the highest point of Shou-shan, one can see strangely-shaped rocks in the sea, a spectacle that resembles the famous tourist attraction the Great Ocean Road in Australia. / Photo provided by Trongman Co.Ltd.

錯動地質 造就迷樣深壑

壽山的名稱很多，有人稱她柴山、打狗山、麒麟山，也有人喚她「埋金山」。位於高雄市西南邊的壽山，海拔約 356 公尺，面積約 1107.11 公頃，是南北走向的覆蓋珊瑚礁的泥岩質丘陵地。

壽山的地質結構特殊，可謂是「活的地理教室」。這裡說的「活」不只是形容詞，部分壽山的邊坡可是確確實實每年在滑動！

壽山是覆蓋珊瑚礁石灰岩的孤立泥岩山丘，是海底上升為陸地的證據，也是台灣唯一古老更新世（意指最近 180 萬年以來的地質時間）的地區。高雄師範大學地理系齊士崢教授指出，壽山是更新世早期至中期珊瑚礁岩隆起海崖直接濱海的地區，在台灣也有其他地區有此特性，像墾丁有更新世晚期的珊瑚礁岩臨海、太魯閣有更老的變質的石灰岩臨海等。

壽山地質就像是三明治，從下到上可分為「古亭坑層」、「高雄石灰岩」、「崎腳層」、「壽山石灰岩」、「現代沖積層」5 種地層。壽山主要由古亭坑層和高雄石灰岩所構成。其中古亭坑層青灰色泥岩中含有孔蟲及石灰藻的化石，可推論最老的岩層約在 180 萬至 300 萬年前形成。

Mysterious Ravines and Gullies

Shou-shan is also known as Chai-shan, Takao Hill, Qilin-shan, and even "Gold-mine Hill." Situated south-west of Kaohsiung City, it is a north-south extending coral reef-covered mudstone hill, spanning 1,107.11 ha and 356 m above sea-level.

The hill's peculiar geological structure renders it a "living geography classroom." And not just metaphorically. Parts of its slopes continue to move annually this day!

An isolated mudstone hill encrusted in limestone, Shou-shan is proof of land bulged from seabed and is Taiwan's only Lower to Middle Pleistocene (approximately 1.8 million-year-old) area. Prof. Shyh-jeng Chyi of the Department of Geography, National Kaohsiung Normal University (NKNU) notes the existence of similar landscapes in Taiwan, e.g. Kenting's Upper Pleistocene coral reefs and Taroko's more ancient metamorphic limestone.

Though primarily made-up of the former two, Shou-shan is layered from bottom-up with the "Gutingkeng," "Kaohsiung limestone," "rugged foot," "Shou-shan limestone," and "recent alluvium" formations. Foraminifera and calcareous algae fossils in the Gutingkeng formation date the oldest stratum to 1.8 to 3 million years old.

"Shou-shan is susceptible to slides because its harder,

「壽山的地層滑動現象是持續發生、未曾停歇的，這是因為堅硬、較易透水的石灰岩層覆蓋在較不透水且容易因接觸水而風化的古亭坑泥岩層之上，以致於石灰岩易於陡崖崩落，或沿著與泥岩的接觸面緩慢滑移。把壽山地質想像成包裹著巧克力外表的脆皮冰淇淋，有如石灰岩的巧克力脆皮外層就很容易在融化的冰淇淋上滑動、崩塌、位移。」齊士崢說明壽山的地質特色。他將整個壽山地區分成東側的北、中、南和西側臨海陡坡區塊，北壽山多石灰岩崩塌與溶蝕、化學沈澱形成的景觀，中壽山主要是廢棄礦區景觀，呈階梯狀地形的南壽山是目前土地開發程度較高的區域，坡地滑動的狀況則在西壽山最能明顯觀察。

根據高雄市地政處的監測，壽山西側的部份邊坡每年以不等的速度由西南側向台灣海峽滑動，而根據2002年至2006年的觀測結果，壽山目前正向西南方位移，部份地區在3年內移動已有3至11公分。柴山國小以及柴山舊部落等地甚至朝台灣海峽方向移動24公分為最多。

more permeable limestone layer is located on-top a less pervious Gutingkeng mudstone formation that weathers easily with water. The limestone layer thus tends to either collapse from steep cliffs or glide along the mudstone surface. Imagine chocolate-coated ice-cream. The limestone, or the coating, glides and crumbles, on melting ice-cream," explains Chyi. Dividing the hill into five parts, Chyi depicts the north as featuring limestone debris, corrosion, and chemical precipitation, the center, deserted quarries, the most developed south, terrace landscape, and the steep-sloped coastal west, landslides.

Monitoring of the western slope shows parts sliding at varying speeds toward the Taiwan Strait. Kaohsiung City Government statistics from 2002 to 2006 indicate the hill currently moving southwest. Regions have slid 3 to 11 cm in three years, while the Chai-shan tribe and elementary school sites lead with a current 24 cm progress toward the Strait.

Geological uniqueness promises natural spectacles.

由南壽山三角點俯瞰高雄港(左側為高雄市區，右側狹長島嶼為旗津) / 部落客阿欽攝
Overlooking Kaohsiung Port from Southern Shou-shan, one can see downtown Kaohsiung on the left side, and Cijin, the long and narrow island in the picture, on the right side. / by Blogger A-Qin





盤榕氣根組成一片天然的簾幕，美景令人屏息。/ 串門攝影提供

Aerial roots of "Plate Marabutans" (*Ficus microcarpa*) constitutes a beautiful curtain naturally, the scene is quite stunning.
/ Photo provided by Trongman Co.Ltd.

特殊地質也為壽山造就許多奇觀。珊瑚礁石灰岩經過地質演變後，再經風化、侵蝕以及雨水沖刷，使壽山隨處可見嶙峋銳利的礁石和岩洞、峽谷、斷崖、深穴，甚至形成了石灰岩洞洞中發育鐘乳石、石筍、石柱、石簾、石藤等景觀，都是壽山裡令人驚喜的美景。

「壽山範圍不大，但大自然巧手造就出許多美景，讓人忍不住讚嘆距離城市咫尺的小山丘，居然隱藏著媲美知名觀光景點的鐘乳石洞景觀。但在此也要提醒遊客，壽山上的洞穴一般不大，且山上的石灰岩洞穴都是岩塊崩塌造成的，洞穴內非常濕滑，加上珊瑚礁石灰岩表面風化、侵蝕後處處鋒利無比，有朝一日升格為國家自然公園後，在有崩塌危險的地方應該設置告示牌提醒遊客注意安全，石灰岩洞穴更應加強管制遊客任意進入。」齊士崢叮嚀。

長期管制 意外保留原始風貌

屹立於台灣海峽旁的壽山，是高雄的天然屏障，自明鄭時期已是軍事重地。清領時期也因為防禦所需，在壽山南端的雄鎮北門上興建砲台，而在日治時期，日人更加強壽山的軍事功能，擴建了現在的高雄港、規劃左營軍港，也進一步確立了柴山的軍事地位。國民政府來台後，壽山區域更長期被列為軍事管制區。長時間的軍事管制讓壽山多了份神秘感，但也因此保有自然原始風貌，直到1989年國防部解除部分軍事管制區，壽山才揭開神秘面紗。

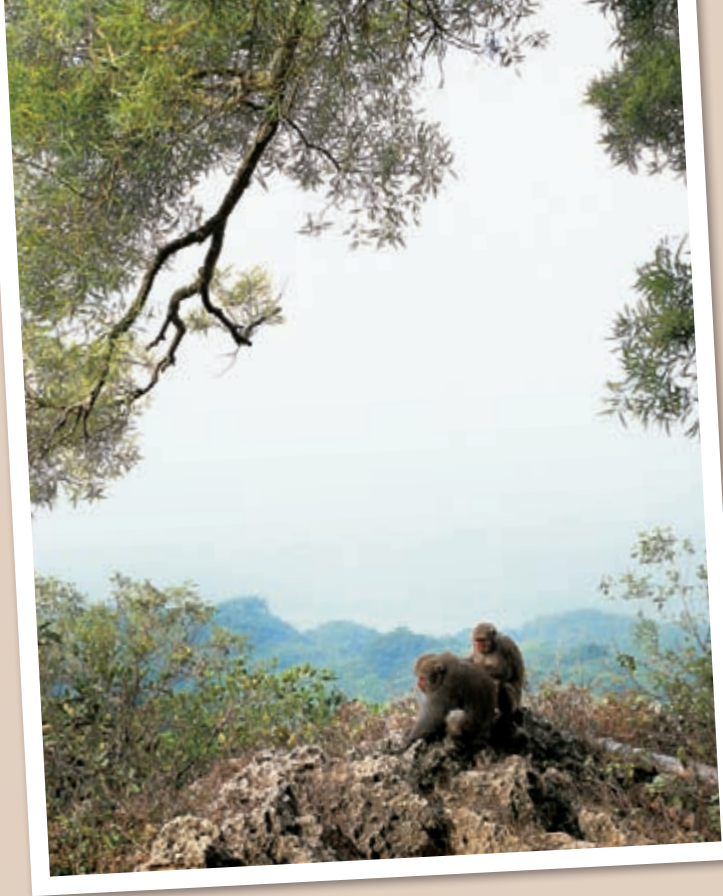
The rugged reefs and grottos, the gorges, cliffs, and caverns are results of the geological evolution, weathering, erosion, and rain-wash on coral reefs. Stalactites, columns, draperies, helictites, and much more, further accentuate the hill's beauty.

"Nature has crafted such handsome landscapes on Shou-shan, petit as it is. It's no wonder that people exclaim on discovering a stalactite cave here comparable to other famous sites abroad. Yet note that formed via rock collapse, the limestone caves here are small, slippery, and sharpened due to weathering and corrosion. There should be access control to limestone caves and signs warning tourists of falling rocks once Shou-shan should start operating as a national natural park in the future," Chyi exhorts.

Pristine Beauty Preserved by a Long Ban

Facing the Taiwan Strait, Shou-shan is a natural barrier to Kaohsiung. It has been a strategic military base since the Koxinga Era in late 17th Century, and the Qing Dynasty built a battery on its south end. But it was the Japanese who solidified its military status by expanding and building the Kaohsiung and Zuo-ying military ports. The Nationalist Government further pronounced Shou-shan a military control zone, thus preserving both its mystery and primitive looks. The ban was finally lifted in 1989 when the authorities partially opened the hill to the public.





壽山又稱猴山，滿山的台灣獼猴是受到保育的台灣特有種，遊客千萬不要任意餵食。

Shou-shan is also called "Monkey Mountain", in which Formosan macaques (*Macaca cyclopis*) abound; tourists are advised not to feed those protected species endemic to Taiwan.

除了是軍事要塞，壽山也是高雄市人文歷史發源地，也是最早有人跡的地方，人文歷史可追溯到千年前的平埔族打狗社、林道乾的海賊庄，及明末清初時內惟地區，已有設營、置兵防盜，到高雄港開港後，帶動高雄的現代工商業發源地旗后、哈瑪星等地區，都圍繞著壽山發展。

壽山雖是高雄人文的起點，然而石灰岩地質卻為她帶來一段烏煙瘴氣的歲月。壽山曾是供應全台建築水泥的主要礦區，五零至六零年代，行經壽山礦區的人車，都會蒙上一層厚厚的落塵，山腳下民宅也是一片灰濛濛。

都市之肺 卻逐漸蒙塵

在台灣經濟起飛的年代，壽山豐沛的石灰岩礦產換成了樓房、橋梁，造就了城市發展，但卻讓山頭滿目瘡痍，傷痕累累，也讓人們對壽山的印象，從不是青翠蒼勁的樹林，而是灰色的煙塵和廢土。

為了挽救惡化的環境，高雄市政府於1997年公告終止採礦，加強綠化復育，才讓壽山得以喘息。廢礦後的壽山成高雄市民的最愛，是高雄的後花園，許多人清早上山運動、健行，不過，命運多舛的壽山差點因為經濟因素而恢復採礦，在環保團體、地方人士的抗爭下，相關單位決定捍衛壽山的自然環境，露出生格為「壽山國家自然公園」的曙光，讓壽山永保常青，再無破壞之虞。

Shou-shan also holds the earliest proof of human activity in Kaohsiung over 1,000 years ago. There were the Ping-pu Tribe, the Dao-chien Lin pirates' nest, and the Nei-wei district, which by the late Ming Dynasty already had self-defense corps. The opening of the Kaohsiung port later set the city's industrialization in motion, starting with the nearby Qi-hou and Hamasing regions.

Though hailed as the root of human culture in Kaohsiung, Shou-shan's limestone reserve also made it the chief cement supplier to the entire island. Passing by the Shou-shan quarries in the 50s and 60s meant coming out covered in a thick layer of cement dust. And residents there lived looking up to a gray sky.

Tainted Lungs of the City

In the years of Taiwan's economic take-off, Shou-shan's copious limestone quarries gave form to new buildings, bridges, and cities. Yet, left bruised and ravaged, the hill was no longer associated with vibrant green, but ashen gray.

Amongst calls for recuperation, Kaohsiung City Government closed the quarries in 1997 and kicked off restoration projects. Surely enough, post-quarry Shou-shan won the hearts of the citizens, who came for early morning hikes and exercise. Nonetheless, conservationists and locals had to fend off fierce attempts at reopening quarries before Shou-shan finally sees the hope of being upgraded to a national natural park and ending the tension once and for all.

人文薈萃 見證港都發展軌跡

壽山除了是大地造陸的見證，也蘊藏著壽山原住民馬卡道族的遺址。

日治時期時高雄中學的日籍博物學教師土屋恭一，在北壽山龍泉寺登山口後側之步道處，分布於龍泉寺背後東斜面上及西北無名小溪畔龍泉寺後方，發現三處貝塚，分布範圍約250公尺，推估年代距今約400至2000年前（劉益昌博士最近調整為400到1500年）。小溪貝塚遺址是先民食用貝類後的垃圾堆，貝塚中雜有無數陶器及陶環，及少數的貝輪及石斧。層次相當豐富，包含文蛤、火蛤、牡蠣等，另外，陶片中的數量亦多，大部分是紅色素陶，也發現石器、貝器、陶器、小陶環、石斧、獸骨、骨針等。

「小溪貝塚」證實曾有馬卡道族人在此活動，是追尋高雄史前時期不可或缺的重要史跡，也是壽山地區維護保留的重點。

「壽山不光是活的地理教室，也可說是活的自然課本。」中山大學生物系張學文教授說。位於壽山腳下的中山大學，最能就近觀察壽山上生物的一舉一動。

壽山海拔雖低，本是易受人為干擾的地區，但在長期軍事管制之下，意外成為蘊藏豐富動植物生態的自然寶庫。據調查已知的植物約有769種、鳥類106種、哺乳類10種、爬蟲類23種，還有無數的昆蟲及其他動物。

特有生態 都市邊陲的蠻荒叢林

「除了一般人熟知的台灣獼猴，就連生性害羞膽小的山羌，在低海拔的壽山地區也能發現蹤影。此外，在壽山還能巧遇珍貴稀有保育類動物，像是史丹吉氏小雨蛙、臺灣草蜥、蓬萊草蜥、臺灣滑蜥、眼鏡蛇；鳥類可觀察到鳳頭蒼鷹、大冠鷲、赤腹鷹、灰面鷲、小燕鷗等。」張學文表示。

而根據靜宜大學陳玉峰教授的調查，壽山西海岸地區存有數處獨特的植被特徵，包括有台灣地區面積最大、密度最高的山豬枷密灌叢、台灣海棗群落主要分佈點、還有台灣密度及數量最高的細穗草，最近在山海宮下方的海崖岩壁上發現可能為新種植物的黃鶴菜，正由中央研究院鑑定中。

除了上述的「台灣之最」凸顯出壽山國家自然公園成立的必要性。張教授指出，壽山上還是台灣魔芋與密毛魔芋這兩種台灣特有種的孕育地。密毛魔芋

Culture and Development

Shou-shan was also home to the relics of Makatao Tribe. During the Japanese colonial rule, K. Toya, a teacher of natural history, discovered three shell mounds near the Long-quan Temple in northern Shou-shan. The mounds covered an area of around 250 m and are estimated at 400 to 2000 years old (Dr. I-chang Liu recently corrected the range to 400 to 1500 years). The Creek Shell Mound was a dumping area for shells from meals, mainly consisting of clam and oyster shells. Other than shells, the richly layered mound contains numerous unglazed pottery shards and bracelets. Other finds include artifacts made of stone, shell, and clay, as well as some animal bones and bone needles.

The Creek Shell Mound is instrumental in tracing back to pre-historical Kaohsiung, and therefore a key preservation site for the area.

"Shou-shan isn't just a geography classroom; it's a living science textbook as well," exclaims Prof. Hsueh-wen Chang of the Department of Biological Sciences at National Sun Yat-sen University (NSYSU).

Though prone to human impact due to its low altitude, military control has coincidentally kept this eco-treasure house intact. Statistics reveal the existence of 769 types of known plants, 106 bird species, 10 mammal families, 23 kinds of reptiles, and numerous other life forms.

Primitive Ecology at the Suburbs

"There are the Formosan macaques (*Macaca cyclopis*) of course, but even the timid Formosan Reeve's muntjacs (*Muntiacus reevesi*) at such low altitude. One may also run into protected wildlife, like the Stejneger's narrow-mouthed toads (*Micryletta stejnegeri*), Formosan grass lizards (*Takydromus formosanus*), Stejneger's grass lizards (*Takydromus stejnegeri*), Formosan smooth skinks (*Scincella formosensis*), Cobras (*Naja*), Crested Goshawks (*Accipiter trivirgatus*), Serpent Eagles (*Spilornis Cheela*), Chinese goshawks (*Accipiter soloensis*), Gray-faced Buzzard (*Butastur indicus*), and Little Terns (*Sterna albifrons*)," observes Chang.

Prof. Yu-feng Chen of Providence University identifies several unique vegetation features along the west coast of Shou-shan, including Taiwan's largest and densest dye fig scrubs, main Formosan date palm clusters, and thickest Pacific Island thintails. The Academia Sinica is also currently verifying a possible new plant species called oriental hawksbeard, found on the sea cliff at Shanhai Temple.

If the reasons above aren't enough to designate Shou-shan as a national natural park, Chang has more to add. Taiwan's endemic species Taiwan Amorphophallus (*Amorphophallus*



想登上壽山地區展望最佳的景點－少女峰，得有充足體力才行，必須拉繩攀上鋒利的怪石峭嶺，才能欣賞到開闊美景，享受汗水淋漓後海風吹撫的暢快 / 部落客阿欽攝

It takes quite a lot stamina to climb to Maiden Peak (Shao-nu-feng) for the best view of the Shou-shan area. Mountaineers must climb through all the crooked rocks by grabbing ropes before enjoying a panorama view and blow-drying all the sweats by the sea winds. / by Blogger A-Qin



的花有「雷公槍」的俗稱，外型特殊，散發著獨特氣味，可長至280公分以上，是台灣最高的花。

要把壽山上的動植物完全摸透，並不是件容易的事。曾在1996年出版過壽山的動物與植物叢書的張學文笑說，這14年壽山陸續發現許多珍貴物種，這套書可能得修訂更大一了。「對於研究生物的專家學者來說，把壽山生態完整保留下來，讓人們有機會慢慢了解這寶庫，是最難能可貴的事。」

眾志成城 捍衛壽山樸實風華

雖然壽山貌不驚人，也沒有鬼斧神工的磅礴景致，但這傍海而立的山丘有著屬於自己的故事。許多地方人士將壽山視為高雄的瑰寶，長期為壽山奔走、請命，就是希望保留這塊城市淨地。「起初，我們沒有太遠大的理想，只是想保留住這座常常去爬的山，最美的一面。」高雄市柴山會的楊嬉育總幹事如是說。

henryi N. E. Br.) and Taiwan Titan Arum (*Amorphophallus hirtus* N.E.Br.) can both be found here. The latter, of peculiar shape and fragrance, is Taiwan's tallest flower, measuring over 280 cm.

And still, new species are being discovered. Chang, who had published a series on Shou-shan's flora and fauna in 1996, finds revision an increasingly formidable task. "What's most rewarding as a biologist is to keep Shou-shan's ecology intact so that people may savor this invaluable trove."

A Joint Victory in Conservation

Shou-shan isn't all that dazzling and shimmering, but poised by the sea, telling of its own story. Locals who hold it dear to their hearts toil and petition for the preservation of this square of paradise amidst the bustling city. "We started out simply with the vision to reserve the best of the hill that is so close to our lives," explains Ping-yu Yang, Director-general of Takao Hill Association for National Park (THA).



壽山上有木棧道，供登山客沿著步道尋幽訪勝。/ 串門攝影提供
Wooden paths are built in Shou-shan, allowing tourists to enjoy the views along the hiking trails. / Photo provided by Trongman Co.Ltd.

留德的她唸的是法律系，家鄉也非在壽山下，但她和一群地方人士為柴山勞心勞力，甘願付出。「壽山給了我很多啓發。我曾在山上觀察一棵被小花蔓澤蘭包圍的構樹苗，雖然外力干擾，讓它失去日照、不易生長，但在沉寂了多年後，原以為活不了的構樹苗，竟能突破重圍，如今已經成為一棵亭亭玉立的構樹。」楊娉育說的是真實的例子，小構樹只是她多年來在壽山地區觀察的小故事，對於壽山上的林林總總，開朗熱情的她可以說上三天三夜也說不完。

誠如她對小構樹的關愛，壽山的地質、生態、人文故事……柴山會的志工都能侃侃而談。因為地方熱心人士的力量，壽山躲過建設開發的命運、擺脫採礦的蹂躪，他們鑽進每個洞穴、撫摸每吋岩壁，用心觀察山裡的動植物，更重要的是，志工們自動自發的對登山客進行環境教育，推廣不餵獼猴、不任意搭建休息站等觀念，每周舉辦上山活動；由柴山會規劃的五月「柴山祭」已成為高雄地區響亮的名號。

「在地方人士的推波助瀾下，高雄市政府將壽山劃為自然公園，但沒有明確的法令保護，無法禁止人們的濫建、破壞。如今，壽山有機會成為國家自然公園，山裡的動植物、自然環境總算有了實質的保護。關心壽山的地方人士並不會就此功成身退，我們還是會為壽山繼續盡心盡力。」楊娉育感性的說。

壽山上有許多媲美國外的秘境，也都有浪漫美麗的名字。像是由一大片錦屏藤形成的「一簾幽夢」，像是從天灑落的垂簾，風格獨具，當微風徐徐吹來，錦屏藤隨風搖曳，宛如夢境般詩情畫意。也有縮小版的大峽谷，遊人需鑽過岩層細縫，近距離觀察岩層；或是如同巨龍纏繞糾結的九龍樹、能欣賞海景的最佳展望點少女峰……走進壽山的遊客常會不自覺地從嘴邊溢出驚呼，讚嘆距離城市邊境能有這樣天然秘境，希望每個親臨壽山的遊人，除了飽覽賞心悅目的景色、感受生態活躍的脈動，也能將壽山一路走來的心路歷程，牢牢記住，期待其他值得保留的樸實之境，能比壽山更幸運，在尚未受破壞前，能完整保留下大自然給予的純淨之美。🌿

Yang had studied law in Germany and doesn't call Shou-shan home, but she'd toiled willingly with the locals. "Shou-shan inspires me. I once came upon a baby common papermulberry deprived of sunlight by the surrounding bittervine. But years went by and somehow it broke free and lived to be the tree that it is today." This is only an example of the true stories that Shou-shan has told Yang over the years. Give her three nights and days, and Yang could still go on recounting.

Yang isn't the only one. Every THA volunteer could go on ceaselessly about the geology, ecology, and history of this endearing hill. Local efforts have worked together to wriggle Shou-shan out of the fate of modern construction and relentless mining activities. These guardians enter every cave, run hands over each cliff surface, and connect with the lives there. Yet more importantly, they educate tourists to, for example, not feed the macaques or set up rest areas. And the annual "Takao Festival," is now famed throughout the city.

"Under local pressure, the city government had plans to make Shou-shan a natural park. But a firm legal basis was required to effectively ban disruptive actions. Making Shou-shan a national natural park would at last guarantee protection for its environment. We, however, will carry on, doing what we can for the hill," promised Yang.

Shou-shan has quite a few of those elfland spots comparable to the ones abroad. There are that breathtaking curtain of princess vine pouring down from heaven and swaying in the breeze, and the miniature Grand Canyon, where one must squeeze through formation crack for closer inspection. One may also brace for the unbelievably intertwining banyans, or step onto the best spot for sea view..... Wandering into Shou-shan, tourists often gasp with awe, for who would have thought that there exists a natural neverland just outside the city? May each and every visitor to Shou-shan keep its history in mind as he or she fully drinks in the vibrancy of life. And, yes, may he say a prayer for other secret gardens that each may find a haven before destruction strikes. May the amazing grace remains. 🌿

※ 本篇感謝部落客王建欽先生於圖片與資訊上的熱情贊助與提供，欲欣賞更多精采的壽山圖文，請上阿欽仔的旅遊日記 (<http://www.prowang.idv.tw/>) 網站。

※ Many thanks to blogger Mr. Jian-qin Wang, who offered us many excellent pictures and information about Shou-shan, if you intend to appreciate more pictures of Shou-shan, please go to Wang's blog: <http://www.prowang.idv.tw/>

壽山稀有動植物檔案 Rare Species of Shou-shan

壽山國家自然公園內有許多台灣珍稀品種，受限於篇幅，本期介紹外觀奇特的台灣魔芋、密毛魔芋，以及珍貴的台灣小蹄鼻蝠為代表。

Shou-shan National Natural Park features a wide variety of rare species in Taiwan. However, due to the limited length, we can only briefly introduce the odd-looking Taiwan Amorphophallus (*Amorphophallus henryi* N. E. Br.), Taiwan Titan Arum (*Amorphophallus hirtus* N.E.Br.), and the precious *Rhinolophus monoceros*.

台灣魔芋 & 密毛魔芋 Taiwan Amorphophallus & Taiwan Titan Arum

壽山又是全台灣魔芋分佈最多的地方，主要有「台灣魔芋」與「密毛魔芋」兩種，在登山步道兩旁皆隨處可見。台灣魔芋較小，花梗無毛，而密毛魔芋較為高大，花梗佈滿細毛，為最明顯的特徵，魔芋非常特別，它們是先開花後長葉，花朵釋放出一股臭味蠅類協助授粉，非常有獨特性。魔芋花季約在4、5月份間(台灣魔芋較早，密毛魔芋稍晚一個月，約在5、6月)，春雷響起時，就是它們破土而出向上生長時，由於高大的花梗狀似長槍，故又俗稱為「雷公槍」。

Shou-shan is where most *Amorphophallus rivieri Durieu* are distributed. Two major species are Taiwan Amorphophallus and Taiwan Titan Arum, which are everywhere on the sides of the mountain trails. Taiwan Amorphophallus are shorter and have hairless pedicles, whereas Taiwan Titan Arum are known for their relatively bigger size and pedicles which are covered with fine hairs. *Amorphophallus rivieri Durieu* are special in that their flowers grow first before leaves do. The flowers would then release a kind of odor that attracts the flies to help them pollinate. *Amorphophallus rivieri Durieu* blossom around April and May (with Taiwan Amorphophallus earlier and Taiwan Titan Arum a bit late, around May and June.) The plant is also nicknamed “Thunder God’s Bolt” in Chinese because it usually breaks the ground to grow when the spring thunder rumbles.



密毛魔芋熟果 / 吳國源攝
Ripe fruits of Taiwan Titan Arum /by Guo-yuan Wu



台灣魔芋外觀 / 阿欽攝
Taiwan Amorphophallus /by A-qin



台灣魔芋熟果 / 吳國源攝
Ripe fruits of Taiwan Amorphophallus /by Guo-yuan Wu



密毛魔芋外觀 / 吳國源攝
Taiwan Titan Arum /by Guo-yuan Wu



近攝密毛魔芋 / 吳國源攝
Close-up of Taiwan Titan Arum /by Guo-yuan Wu



台灣小蹄鼻蝠 / 吳國欽攝
Rhinolophus monoceros / by Guo-qin Wu

台灣小蹄鼻蝠 *Rhinolophus monoceros*

「台灣小蹄鼻蝠」是台灣特有種，最大特徵是下鼻子呈馬蹄型，是屬於較小型的蝙蝠，喜歡棲息在洞穴內。由於壽山洞穴特別多，幽暗深邃的洞穴成了他們的最佳棲息處。照片那一隻是已經醒了，當牠們被光線照到時，會用翅膀來遮蔽頭部，並不斷顫動著，模樣非常可愛。

Rhinolophus monoceros is a bat species endemic to Taiwan. Its most distinguishing feature is its nose that resembles of shape of a horseshoe. *Rhinolophus monoceros* are smaller in size and like to stay in the caves. As there are many caves in Shou-shan, the dark and deep caves have become their optimal habitat. The one in the picture is already up, and when they see the light, they would cover their heads with their wings and keep quivering, making them appear quite adorable.