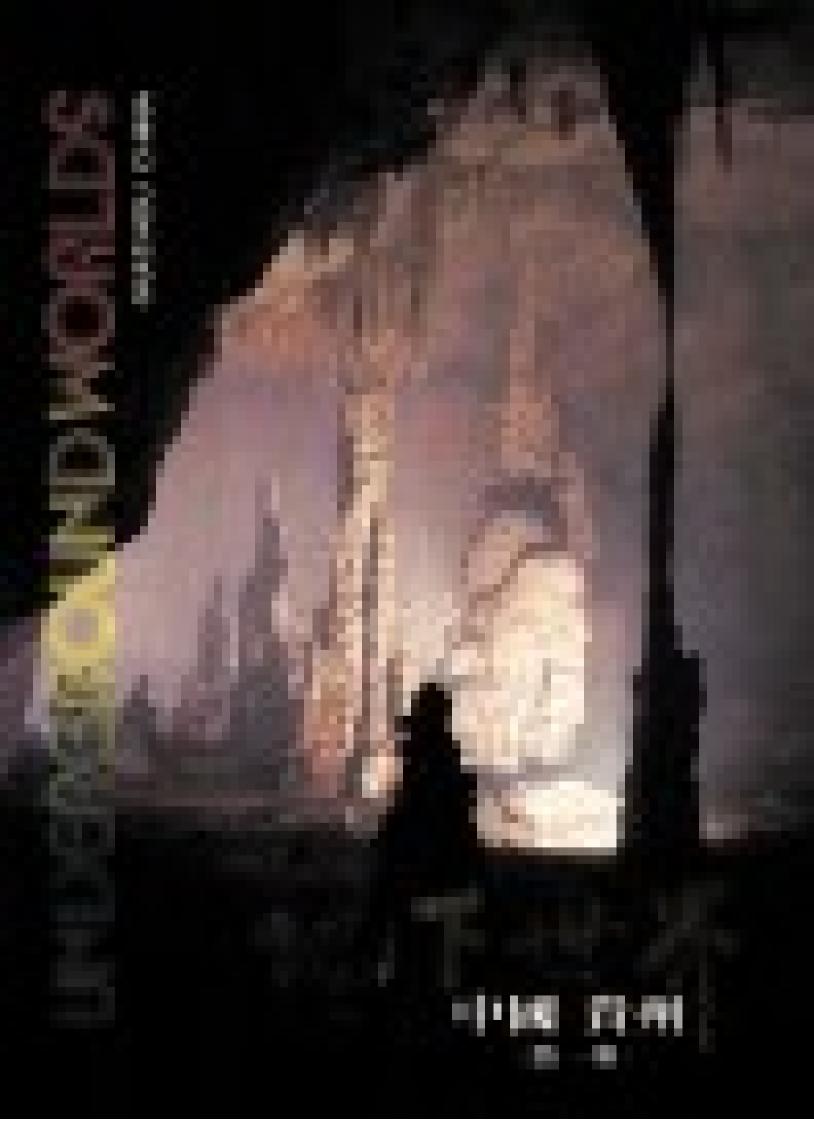
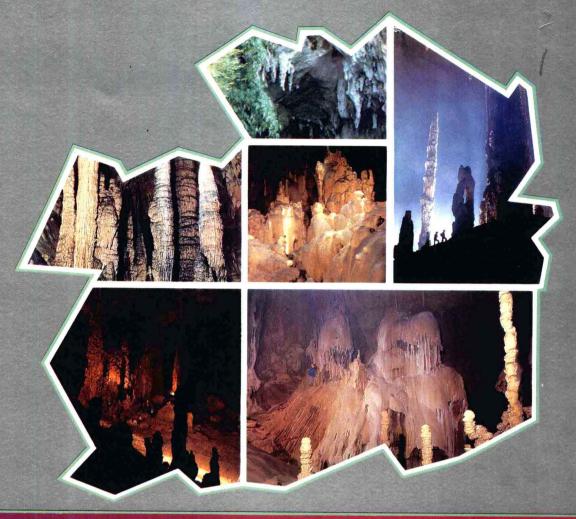
GUIZHOU CHINA

中國 貴州



P931.5



# GUIZHOU·地下世界·貴州·

攝影:金德明 撰文:汪朝陽

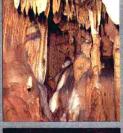
PHOTO: JIN DEMING TEXT: WANG ZHAOYANG

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BINDING AND LAYOUT: ZHENG YAORU MA XIONG MANAGING EDITOR: SHI JUN SHENG

## UNDERGROUND WORLDS

- 4. 五彩繽紛
- 5. 玉柱
- 6. 金頂
- 7. 塔林
- 8. 黃果樹水簾洞窗
- 9. 棕櫚林
- 10. 綠菇石 象牙洞
- 11. 火山口
- 12. 九龍洞龍柱大廳
- 13. 遠方金城
- 14. 金色的海螺
- 15. 廣寒宮
- 16. 洞湖幽絕
- 17. 晾旗灘
- 18. 舞陽湖岸一洞天
- 19. 摘星樓 奶油菜花
- 20. 天都街
- 羅漢堂
- 21. 百尺天幕
- 22. 虎口澗 23. 楚天銀河
- 24. 劍樹
- 25. 八仙過海
- 26. 白塔金簾
- 27. 地下廣場
- 28. 姊妹石 恐龍石
- 29. 石竹園
- 31. 貴陽地下公園百步橋
- 33. 雲霧山中
- 34. 靈霄宮
- 35. 龍宮
- 36. 高坐蓮台
- 37. 點金窟
- 38. 珍珠塔 蘑菇山
  - 玉靈芝
- 39. 石鷲
- 40. 烽火台
- 41. 火樹銀花
- 42. 燕窩石
- 43. 金枝玉葉
- 44. 金鳳凰
- 45. 破壁而飛
- 46. 珍珠池
- 47. 天國盛宴
- 48. 洞中瀑布
- 49. 林海雪原
- 50. 長尾雉
- 51. 珠寶樓
- 52. 飛龍柱
- 53. 牙雕羣佛
- 54. 石膏洞劍
- 55. 調色板
- 56. 石蘑菇
- 57. 水簾洞口
- 58. 雲碟
- 59. 銀雨松
- 61. 吊蓮
- 珠田萬傾
- 62. 滴翠峯
- 63. 彩蝶紛飛
- 64. 捲曲石

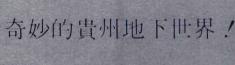




















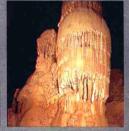












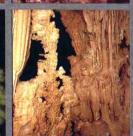














UNDERGROUN WORLDS (GUIZHOU)

























UNDERGROUND

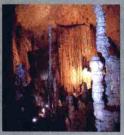
**WORLDS** 

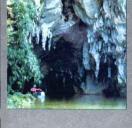
(GUIZHOU)













奇妙的貴州地下世界!











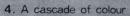












- 5. Jade pillars
- 6. Golden peaks
- 7. A forest of towers
- 8. Huangguoshu Water Curtain Cave window
- 9. Palm tree forest
- 10. Green mushroom-shaped stalagmites Elephant tusk cave
- 11. Volcano mouth
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- 13. Distant city of gold (Yuanfang Jincheng)
- 14. Golden Conch
- 15. Guanghan Palace
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- 17. Fluttering flag beach
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- 25. The eight immortals crossing the sea
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- 38. Pearl Tower Mushroom mountain Jade Spirit Fungus
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- 50. Long-tailed pheasant
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- 53. A group of ivory buddhas
- 54. Gypsum cave swords
- 55. Artist's palette.
- 56. Stone mushroom.
- 57. Water curtain cave mouth.
- 58. Cloud plate.
- 59. Silver rain pine.
- 61. Hanging lotus Huge fields of pearls
- 62. Dicui Peak
- 63. Colourful flying butterflies
- 64. Twisted stones

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金池玉帶

121. 天星柱 122. 雲海 123. 劍門關 124. 流石簾幕

65. 夜市 68. 日月寶扇 69. 珠簾漫捲 70. 雄獅、松鼠 71. 神奇的地下世界 72. 夕陽無限好 螺旋樹 73. 大舞台 74. 將軍帳前洗馬潭 75. 象 · 泉 76. 已是懸崖百丈冰 77. 霸王盔 78. 神女出浴 79. 冰洞瑪瑙 81. 丹翁 82. 漁舟晚唱 83. 香火正旺 84. 水母石 85. 銀耳石 **疑膠體與晶花** 86. 天花板 87. 銀瀑 88. 鏤花石雕 夕陽 89. 萬方來朝 90. 雙魚赴廣寒 91. 玉帳 92. 珊瑚石 93. 月宮寶盒 94. 瑪瑙石 95. 雪壓靑松 96. 園林精英 97. 冰洲石 方解石晶體 98. 銻礦花 角殼狀石膏晶體 99. 競秀 100. 鐘旗 101. 玉葡萄 102. 天國之門 103. 叠練峯 104. 迷宮 105. 鐵壁千重 生機一線 106. 經幡 107. 蛤蟆洞 108. 金瓜樓 109. 别有洞天 110. 金塔宮 111. 豹子灘 箭筈通幽 112. 石膏晶花 琳琅滿目 113. 百象岩 114. 塔狀石笋







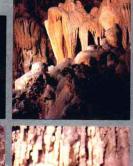






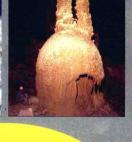






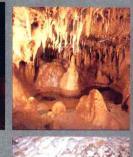






奇妙的貴州地下世界!

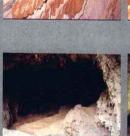
















奇妙的量







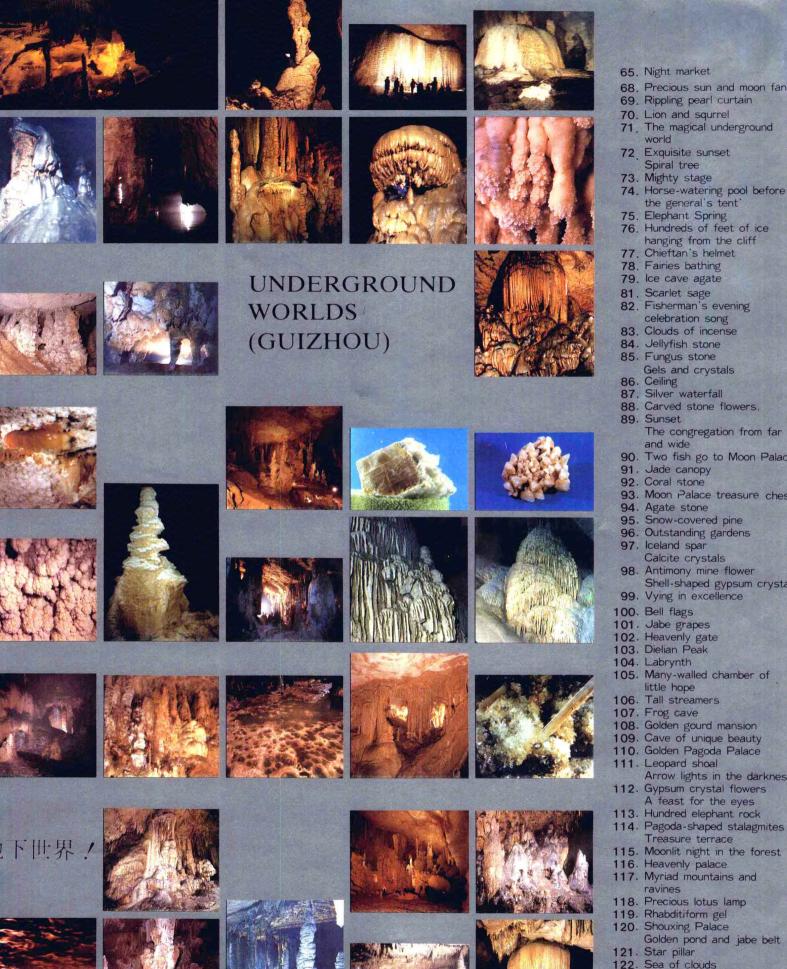












65. Night market 68. Precious sun and moon fan 69. Rippling pearl curtain 70. Lion and squrrel 71. The magical underground world 72. Exquisite sunset Spiral tree 73. Mighty stage 74. Horse-watering pool before the general's tent' 75. Elephant Spring 76. Hundreds of feet of ice hanging from the cliff 77. Chieftan's helmet 78. Fairies bathing 79. Ice cave agate 81. Scarlet sage 82. Fisherman's evening celebration song 83. Clouds of incense 84. Jellyfish stone 85. Fungus stone Gels and crystals 86. Ceiling 87. Silver waterfall 88. Carved stone flowers. 89. Sunset The congregation from far and wide 90. Two fish go to Moon Palace 91. Jade canopy 92. Coral stone 93. Moon Palace treasure chest 94. Agate stone 95. Snow-covered pine 96. Outstanding gardens 97. Iceland spar Calcite crystals 98. Antimony mine flower Shell-shaped gypsum crystals 99. Vying in excellence 100. Bell flags 101. Jabe grapes 102. Heavenly gate

little hope

A feast for the eyes

Golden pond and jabe belt

Treasure terrace

ravines

123. Sword gate pass 124. Flowstone curtain



#### INTRODU

貴州境內,石灰岩、白雲岩為主的 可溶岩分佈廣泛,約佔全省總面積 的四分之三,加以雨量豐沛,氣候 溫熱潮濕,岩溶極為發育,地下洞

之孔孔,潛水四通八達。又以貴州高原,在 最新的地質年代裏,地殼間歇性的强烈上升, 地表侵蝕、剝蝕、溶蝕的結果,地下溶洞陸 續上升出露地表,使貴州岩溶地區,"無山不 洞,無洞不奇"。

雨水降落地面,吸收了二氧化碳等酸素, 沿裂隙孔隙滲入地下,沿途溶蝕了可溶岩的 岩壁,逐步擴大,形成落水洞、溶蝕漏斗, 將地表水灌入地下,直達潛水面,轉爲橫向 流動,沿途溶蝕侵蝕加以部份頂板塌落,形 成各式各樣的溶洞,直通向潛水面與地面相 交處,流出地面爲"泉"。地殼階段性穩定時 期越久,則橫向溶洞的發展越長越大越奇。

地殼上升,潛水面相對下降,溶洞向下 一層發展,逐步襲奪了上層舊溶洞的水,使 上層舊溶洞逐步乾涸,當地表水沿裂隙孔隙 下滲時,洞頂洞壁仍有滴水下滲,進入洞內, 壓力突然降低,二氧化碳逸散,水份蒸發, 使已飽含碳酸鹽類物質的滴水重新結晶沉澱, 貼附在洞頂洞底或洞壁,這些化學沉積物, 總稱為"灰華"。由洞頂下垂者稱"石鐘乳", 由洞底上積者稱"石笋",在乾洞中,上有鐘 乳石,下必有石笋,相對同生,直到上下相 對連接時稱"石柱";滴水常沿裂隙成排下滴, 使鐘乳石成排下垂,稱"石簾";石笋成排稱 "石屏";石簾與石屏對接時稱"石幔"。裂隙 孔隙可以擴大,也可以填塞,使滴水移位;加 以氣候變遷,雨量時多時少,溶蝕速度時快 時慢,灰華成長幅度時大時少,加以滴水中 含有多種礦物質,致使洞內各種灰華,千姿 百態,色彩繽紛,玲瓏晶瑩,極爲奇突壯麗。

貴州科學院於1979—1983年間,組隊分 赴各地考察了六百多個洞穴,並作了初步研究。本圖册僅粗選了一部份照片,尚未加以 科學分類,亦未多作成因上解釋,主要將洞內 灰華所形成的各種奇觀,公之於世。由於這些 奇突的鐘乳石、石笋等,都是極脆弱易碎易斷, 未經採取保護措施,遊人進入其內,極易將 其損壞甚至消失。故本圖册僅將已開放或即 將開放已有了保護措施的洞穴,註明詳細地 點外,凡一時尚未能開放,即未採取保護措施的洞穴,只在洞穴分佈圖上約略表示;我 們將在今後另行印發說明補述之,希讀者鑒 諒。

隨着生產的發展,人民生活的提高,尤 其為了開發我省旅遊資源,以及洞穴研究, 探討岩溶發育規律,聯系到地下水資源的開 發利用,提供了重要的科學依據。希望各級 地方政府,就近選擇一些洞穴,採取保護措 施,陸續開放,供省內外國內外人土觀賞研 究。

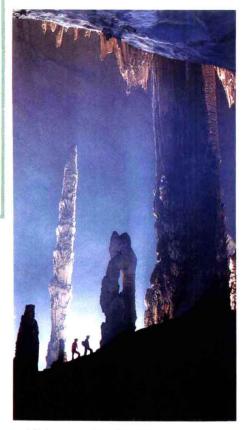
Within the territory of Guizhou Province, there are soluble rocks everywhere that are mainly composed of lime stones and dolomite. The rock area almost occupies three-fourths of the total expanse of land. As the rainfall is adequate, the climate mild and damp, karstics are in perfect growth and there are numerous underground caves. The underground Guizhou is criss-crossed with rivers and streams. As a consequence of the drastic interval ascension of the crust in the youngest geological era, and the corrosion of the land surface, the underground caves came up to the surface, thus making the karstic area of Guizhou a place "with caves in every mountain, and picturesque scene in every cave".

When the rain falls on the ground, absorbs the acids as in carbon dioxide, it makes its way through the cracks down the ground. All along its way, it corrodes the rock faces made up of soluble rocks, which, when enlarged, are made into swallow holes and funnels. Through these holes and funnels the surface water flows underground in the underground water there and flows horizontally thenceforth. It then eats into the rock, makes part of the ceiling fall. Hence the caves of various kinds. When the water flows upwards, "spring" is formed at the uncture where the underground water and the surface meet. The longer the interval ascension of the crust remains stable, the longer, larger and more peculiar the horizontal caves become.

## CTION

As the crust ascends, the underground water level falls relatively and the cave makes its way downwards. Cradually the water in the upper cave is drawn down, leaving the old cave behind to dry by itself. When the surface water makes its way downwards through the cracks, there is still water dripping down from the cave ceiling and face. Once it enters the cave, the pressure is drastically reduced, making the carbon dioxide escape slowly and the water evaporate. As a result, the dripping water, which contains now to the full carbonate, again crystalizes itself and precipitates. The sediments, chemical in nature, settle down either on the cave ceiling or the cave face. These chemical sediments are generally referred to as "travertine calc tufa". The crystal that grows downwards from the ceiling is called "stalactite", while those which shoot upwards "rock shoots". In a dry cave, for example, if there is a stalactite, above, there must be a rock shoot below the two grows simultaneously and will meet eventually. Then it becomes a stack. Very often than not, the water drips down in rows through the cracks, making the statactites hang too in rows. This is what we call "rock curtain"; the corresponding rows of "rock shoots" are referred to as "rock screens". When rock curtains and rock shoots meet, they form "rock canopy". The cracks may be enlarged or stopped to change the course of the drippings. As the weather changes, rainfall sometimes more and sometimes less, the corrosion progresses at times quicker and at other times slower. Hence the difference of scope in the growth of the travertine calc tufa. All this explains why the caves are so colourful, so varied in postures and so magnificent in scenery.

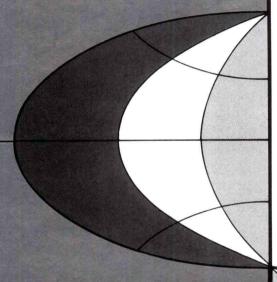
The Guizhou Academy organized expeditions from 1979-83 that researched more than 600 caves. An initial study has been made. What is



published in this book is only part of the photos taken during the expeditions. For various reasons, these photos have not yet been classified, and not too many explanations as regards the causes of formation have been given. What we aimed at is the publication of the magnificent sight of the travertine calc tufa in the caves. As the stalactite and rock shoots are fragile, damages are quite possible before protective measures are taken. Therefore, what is published here is, understandable, the sight in those caves which are open or will soon be open to visitors. As regards those which have not yet been open, or no protective measures taken, they are marked out in the layout map. More explanations will be given later.

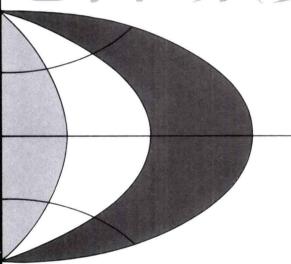
Following the development of production, people's living standards will be improved. It is imperative, therefore, to obtain some scientific data for developing tourist resources, and scientific grounds for the research or underground caves and - this is even more important - for the exploration of underground water resources for the benefit of the people. It is hoped that the local governments will take some protective measures in at least some selected caves and open them to visitors so that people both at home and abroad will have the chance to see it for themselves.

by Kao Ping

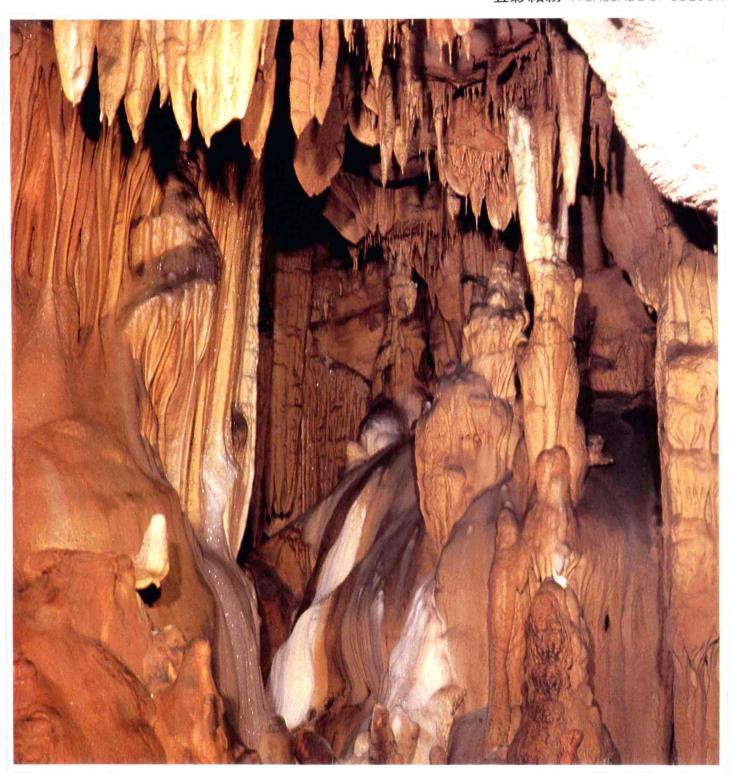


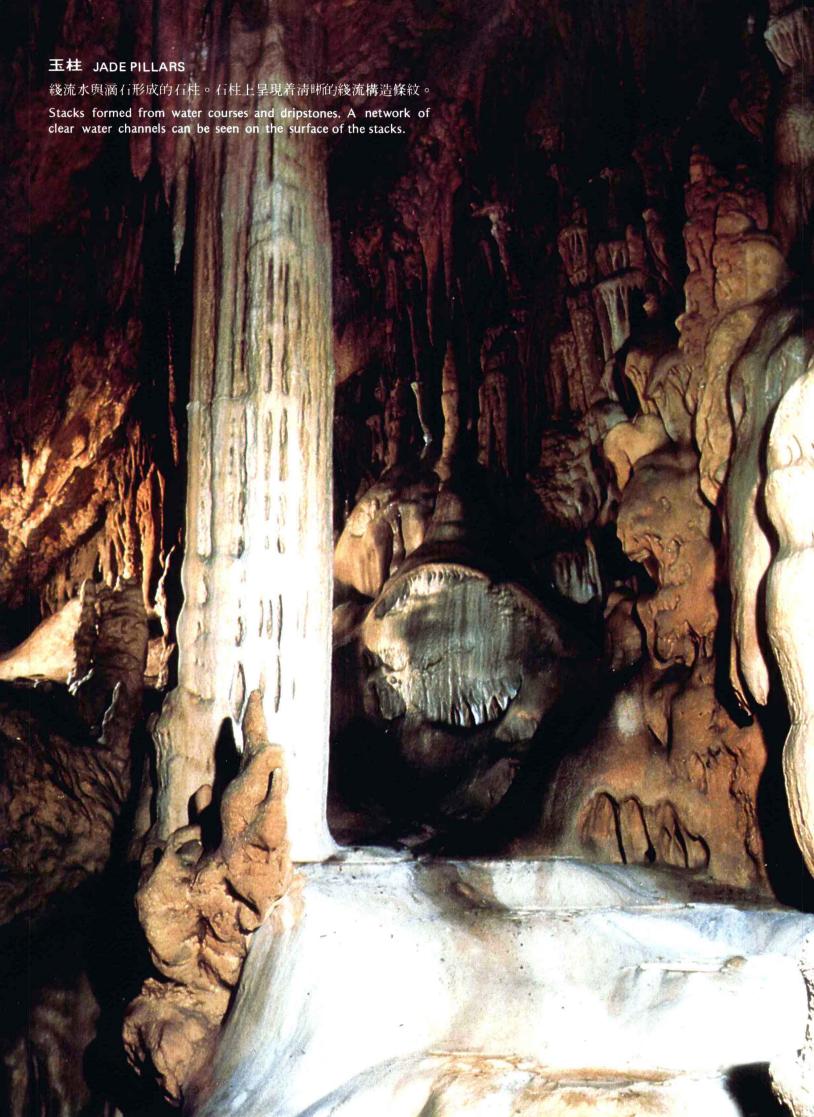
#### 地下世界(貴州)

UNDERGROUND WORLDS (GUIZHOU)



五彩縮紛 A CASCADE OF COLOUR





#### 金頂 GOLDEN PEAKS

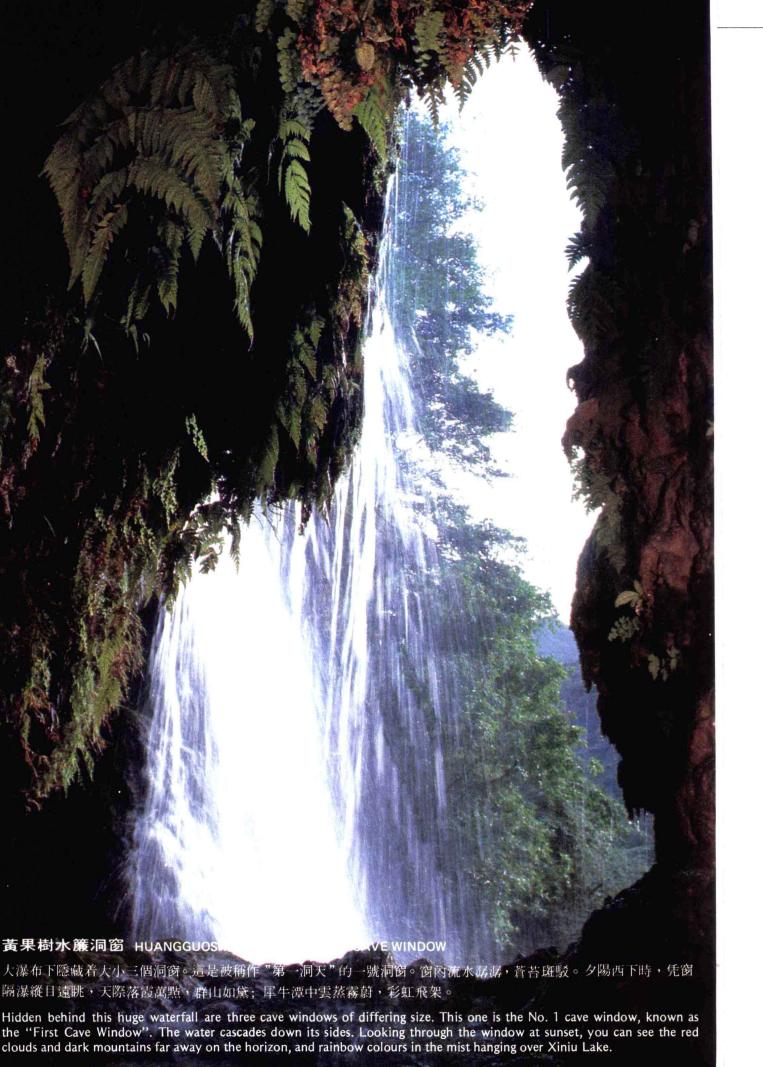
在離地表很淺,封閉條件良好的洞穴中,含有機質的水流沿網狀裂隨滲漏, 在洞底堆積成重重叠叠的金色塔山。

In airtight caves a little below the surface of the earth, water containing organic matter seeps through a network of crevices, and forms a pile of irregularly-sized golden tower shapes on the cave floor.



塔林 A FOREST OF TO\





UNDERGROUND WORLDS 8

