

# 造化钟神秀

——北京地质遗迹

Magic Nature — Geological Traces in Beijing

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# INDULGING IN MOUNTAINS AND WATERS FORWORD

## 纵情山水间

### ——序《造化钟神秀——北京地质遗迹》

北京是圣洁的，5000年深厚的文化底蕴，浩如烟海的古迹，灿若星河的现代化建筑，造就了这座举世闻名的历史古都、文化名城。

北京是美丽的，峰峦秀峙、翠壑千重，绿水映霞红胜锦，远山凝黛淡如烟。北京也是中国现代地质工作发祥的地方，是“中国地质工作者的摇篮”。

要知道，北京不仅有连绵不断的人文历史，漫长的地质演化为北京平添了几分神秘色彩。数十亿年地球演化可谓几度沉浮，几经沧桑，形成了独具魅力的地质遗迹景观：刀砍斧削的峰峦，离尘避世的幽泉，异彩纷呈的溶洞，平和宁静的田园，这些地球演化留下的遗迹，宛如散落在大地的珠宝和璀璨的钻石，熠熠生辉。

站在燕山之巅放眼眺望，群峰连绵，云舒云卷；阡陌交错的田园犹如亿万年织就的一张色彩斑斓的网。面对此情此景，“燕山群峰小，清流一带长”的豪情油然而生。

北京地质人一直想把北京的地质遗迹拍成画册展示在世人面前，因为地质遗迹是人类生活环境的重要组成部分，人类环境是需要精心呵护的，这是关系后代子孙千秋万代的大事。一些终年工作在北京奇峰异洞、溪涧清流的老地质工作者以审慎严谨的科学态度、独特视角的创作思维、恢宏大气的审美观念，把所见所闻用相机拍摄下来，集结成这本《造化钟神秀——北京地质遗迹》画册。

北京数十亿年的沧桑巨变都浓缩在这本精美的画册中。画面构图严谨，意境悠远，每幅照片都充满着作者对北京山水的满腔热忱和深深的爱。画册把地学科普知识和艺术性结合得非常完美，为人们打开了一扇了解北京地质演化历史、欣赏地质遗迹的窗口。

这本画册的出版会让更多的人从深层的角度了解北京，认识地质遗迹，进而增强保护地质遗迹、保护环境意识，也会更加欣赏大自然的壮美，全身心地投入到大自然怀抱中，纵情在山水之间。

2008年9月于北京



# Indulging in Mountains and Waters

## Foreword

Beijing is holy and pure, with 5000 years' culture, a large number of historic sites and modern buildings, forming its fame in the world.

Beijing is beautiful, with green elegant and precipitous peaks and gentle and lovely waters. Beijing is also the beginning place of China's geological work, so is called "the cradle of China's geological work".

Not only the continuous man's history, but also the long period's geological evolution adds some mystery to Beijing. Nearly 3000 m.y. geological evolution has formed some fascinating geological scenes: razorkack peaks, hidden springs, colourful karst caves, peaceful countryside et al., like jewels or diamonds in a necklace.

Standing at the top of Yanshan mountains, looking into the distance, facing the rolling hills and colourful net-like fields and gardens and fluctuating clouds, you may spontaneously have a feeling of "small hills, long river".

Geologists in Beijing have long hoped to publish an atlas of geological traces of Beijing, because they are the important part of man's living environment which needs our elaborate protection. The protection is a great event related to our descendants. Some old geologists, who have worked through the year in the open of Beijing, took photos of the traces with strict scientific attitude, distinctive visual angle and grand aesthetic viewpoint. Those photos comprise the atlas.

Beijing nearly 3000 m.y. geological changes are concentrated in this atlas. Photos in it are strictly conceived, with long-drawn-out artistic conception, reflecting the authors' deep love for the nature. The atlas connects scientific popularizing knowledge perfectly with artistry, and opens a window for people to understand Beijing's geological evolutionary history and to enjoy geological traces.

This atlas' publication let more people understand Beijing from deep thought, recognize geological traces, further heighten their consciousness to protect environment and geological traces, also enjoy the nature more, and indulge in mountains and waters.



Sep. 2008, Beijing



# 前言

北京位于华北平原西北缘，地处东经115°20'~117°32'、北纬39°23'~41°05'，面积16410平方千米。其中山地10072平方千米，占61.4%，平原6338平方千米，占38.6%，辖二县十六区。

京城东、西、北三面环山，西北高，东南是缓缓倾向渤海的北京平原。最高峰是位于门头沟区的东灵山，海拔2303米，最低位于通州区柴厂屯，海拔仅为8米，相对高差达2295米。西部山地总称“西山”，属太行山余脉；北部山地统称军都山，属燕山山脉。

北京大型河流主要有五条，永定河、潮白河、温榆河、拒马河、洹河，均属海河流域。北京平原就是永定河、潮白河在漫长的地质历史时期汇同其他几条河流共同冲积形成的。

北京地区不仅有特殊的地理位置，而且有优越的地质条件，在北京广袤的大地上，保存、记录了30亿年间地球发展演化历史，这些记录就是我们观赏到的地质遗迹。

什么是地质遗迹？地质遗迹是地球在漫长的地质演化历史时期，由内外动力地质作用形成、发展并遗留下来的珍贵的、不可再生的各种地质自然遗产的总和。

在人类进化的历程中，地质遗迹和人类是相互依存的，具有很高的开发利用价值。世界范围内旅游名胜中的山水、自然风光都是利用、开发地质遗迹的成功范例。中国壮美的黄山、神奇的九寨、恍如仙境的张家界、变幻莫测的青藏高原以及北京十渡、石花洞、云蒙山、龙庆峡等地，都是由地质遗迹构成的旅游胜地。随着人们精神文明不断提高，地质遗迹资源的利用必将在人类生活中更加显现其重要作用。

画册中的一山、一水、一石、一洞都是地球演化留给我们的珍贵遗产，它引领我们去了解北京地质演化历史、认识地质遗迹、解读地质遗迹、欣赏地质遗迹，进而提高保护地质遗迹的意识。在我们拍摄照片的过程中，一些珍贵的地质景观由于人类活动已消失了，画册中的一些照片已成为绝版资料。

让我们精心呵护这些宝贵的地质遗迹资源，留给子孙后代一个青山绿水的家园。

编者  
2008年9月

# PREFACE

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Beijing is located at the northwestern margin of Huabei platform, corresponding east longitude of  $115^{\circ} 20'$ – $117^{\circ} 32'$  and north latitude of  $39^{\circ} 23'4''$ – $41^{\circ} 05'$ . Its area is  $16410\text{km}^2$ , including  $10072\text{ km}^2$  mountain region (61.4%) and  $6338\text{km}^2$  plain (38.6%). It has two counties and sixteen districts.

There are mountains to the east, west and north of Beijing city, and Beijing Plain to the southeast which trending tenderly to the Bohai Sea. The highest peak is Dongling hill, with an elevation of 2303 m. The lowest location is Chaichangtun in Tongzhou District, with an elevation of only 8 m. So the relative height is 2295 m. The western mountain area is generally called "Xishan". Being the end of Taihangshan Mountains; while the northern mountain region is generally called "Jundushan", belonging to Yanshan Mountains.

There are five big rivers of Yongding, Chaobai, Wenyu, Juma and Juhe, which belong to Haihe drainage area. During the long geological period, they together formed Beijing Plain.

Besides the special geographical location, there are favorable geological conditions, resulting in the well-preserving of 3000 m.y. geological history represented by geological traces observed.

What are geological traces? Geological traces are the total of geological legacy which are nonrenewable resources, in the long geological evolutionary history and under endogenetic and exogenetic conditions.

In human period, man and geological traces depend on each other for existence, and the latter have high value for use. Many scenes of famous journey spots in the world are successful examples of using and exploiting geological traces. Examples such as beautiful Huangshan, magic Jiuzhai, fairyland-like Zhangjiajie, fluctuating Qingzang Plateau et al. in China, and Shidu, Shihua Cave, Yunmeng Hill, Longqing Gorge et al. in Beijing, are all composed of geological traces. With time going on, to use geological trace resources must display its further importance.

Every hill, water spot, stone and cave in the atlas are all precious legacy, leading us to understand Beijing's geological evolutionary history, to recognize, expound and enjoy geological traces, further promoting our preserving consciousness. Some of the precious scenes in the atlas have been damaged or vanished owing to man's activities, so the relative photos are actually their only copy extant.

Let's elaborately protect these geological trace resources, leaving a good homeland to our posterity by every means.

Editors  
Sep. 2008

造化钟

神秀

北京地质遗迹  
Magic Nature-Kolossal Traces in Beijing



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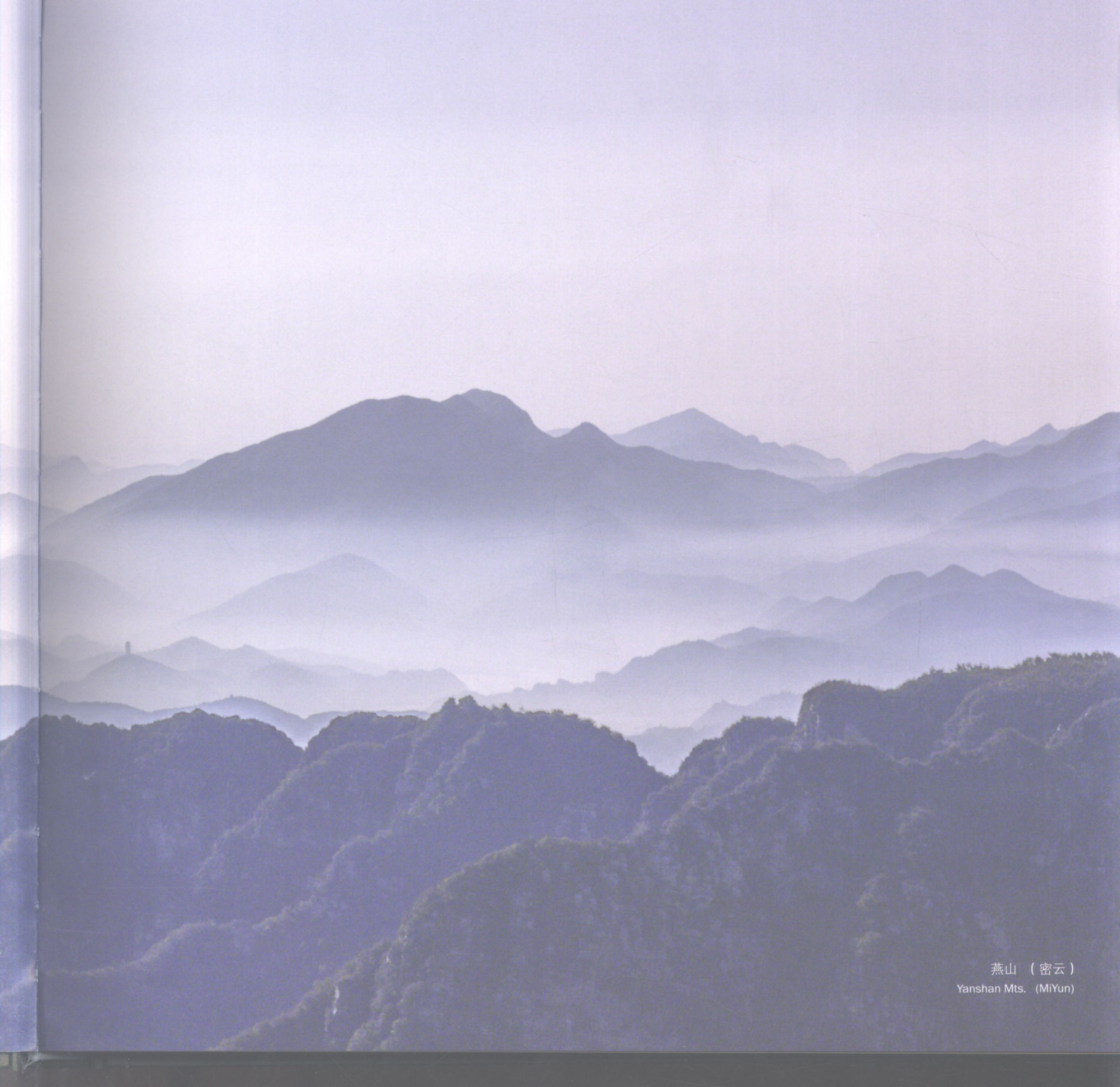
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Mountains and Waters

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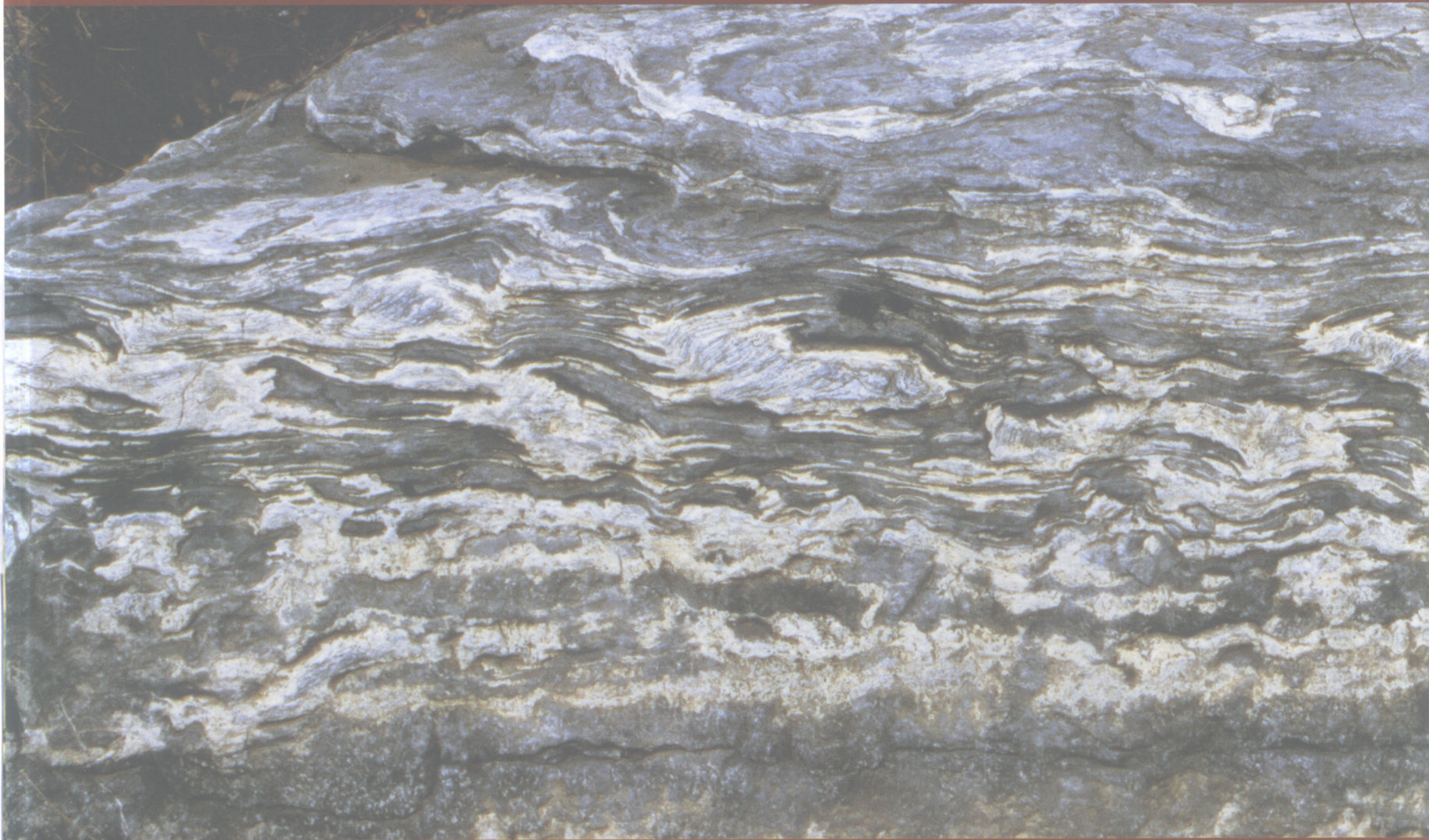


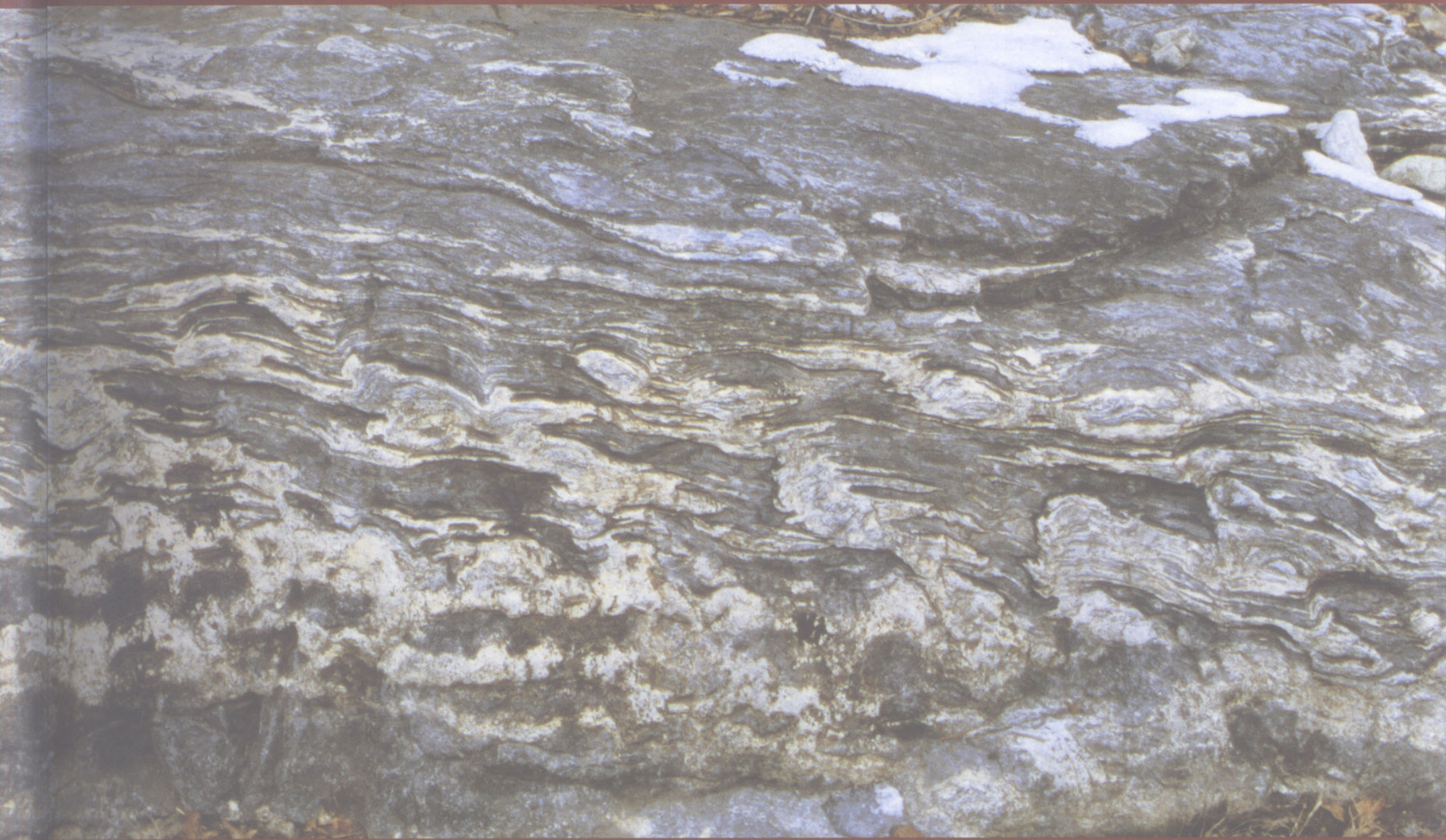


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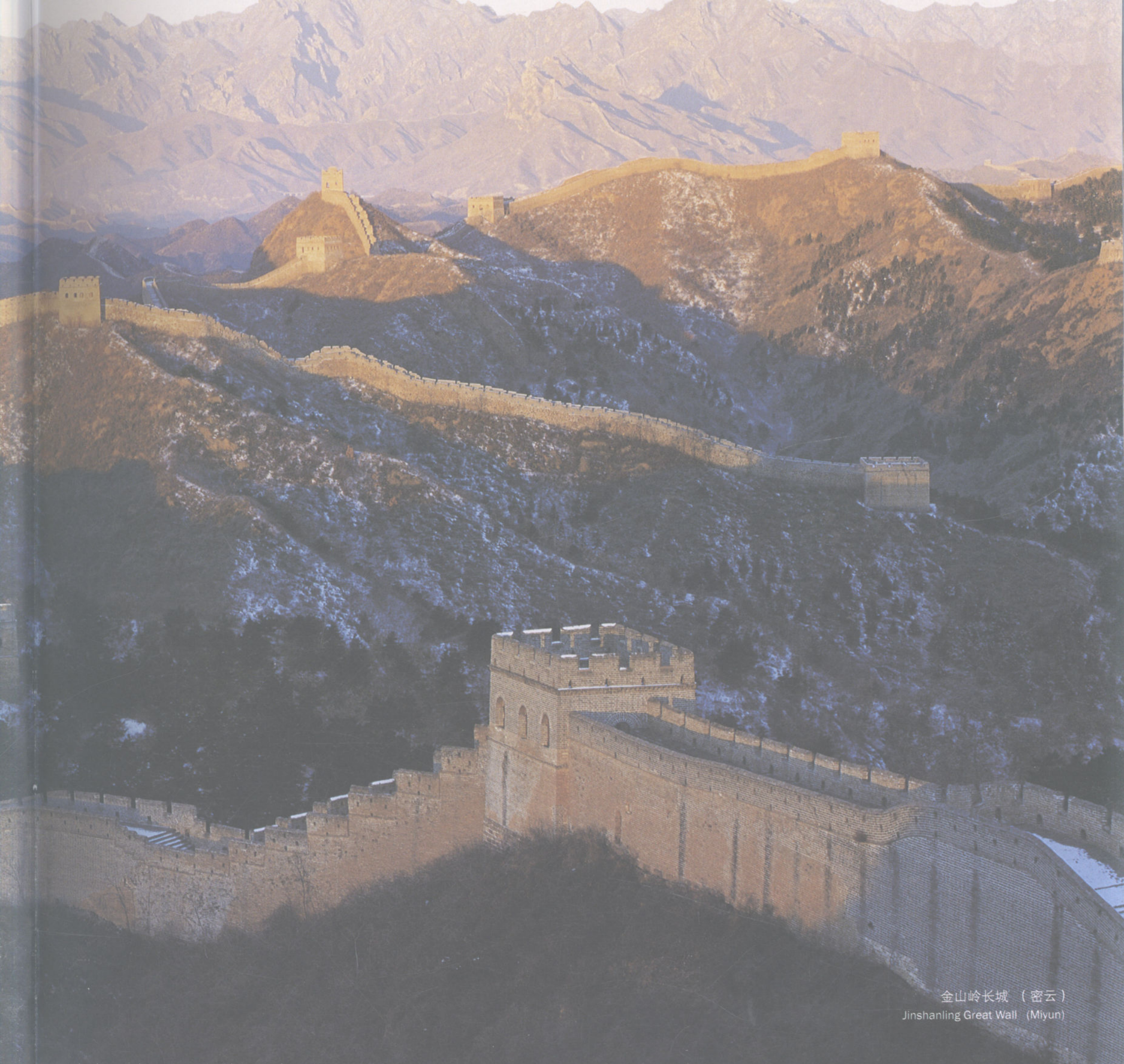


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