

三峡地区泥灰质岩石中几种表生构造及其与地质灾害的关系

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提 要: 三峡地区泥灰质岩石中表生构造形成于特殊的地质、地貌和气候条件, 具有不同于内动力构造的特殊成因, 当与内动力构造相叠加时, 会使地质问题变得非常复杂。表生构造可分为连续构造型式、非连续构造型式和过渡构造型式, 其中连续构造型式包括飞雁状褶皱和倾倒弯曲构造, 非连续构造型式包括密集节理带和溶蚀正断层, 过渡构造型式包括石香肠构造和块体翻转构造, 它们在三峡地区广泛发育, 是泥灰质岩石遭受溶蚀作用形成的。表生构造的发育过程也是地基变形、破坏的过程, 三峡地区大量的地质灾害便与表生构造的发育有关。因此, 防治地质灾害最有效的措施是防止水向地基入渗。

关 键 词: 泥灰质岩石; 表生构造; 岩溶; 地质灾害; 三峡地区

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Some supergene deformation structures in marly limestone in the Three-Gorges region and their relation to geohazards

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Abstract: Supergene deformation structure, whose mechanism is different from that of the endokinetic deformation structure, in marly limestone in the Three-Gorges region forms by karst dissolution in special geological, geomorphological and climatic conditions, and while endokinetic deformation is superimposed by supergene deformation, the structure would become very complex. Supergene deformation structure may fall into the continuous deformation structure type, discontinuous deformation structure type and transitional deformation structure type, of which the first type includes flying goose-shaped folds and bending layers, the second type includes the close-spaced joint zone and normal fault by dissolution, and the third type includes boudin structure by dissolution and turning-around blocks. They are widespread in the Three-Gorges region and form by dissolution of marly limestone. The process of supergene deformation is also the process of ground deformation and destruction. Many geohazards occurred frequently in the Three-Gorges region are related to the development of supergene deformation structure. Therefore the most effective measure to control geohazards is to keep water from infiltrating into the ground.

Key words: marly limestone; supergene deformation structure; karst; geohazard; Three-Gorges region