

BRIEF HISTORY OF GEOMORPHOLOGY

1. INTRODUCTION

- The American Geographical School will contribute to the birth of geomorphology, in particular through the work of William Morris Davis (1850-1934).
- For this, it will define the "erosion cycles" with "stages" of youth, maturity and old age of the reliefs, according to the geological particularities of the slopes.
- Researchers around the world then brought to geomorphology an essential page to karstology, a page that the Serbian geographers J.Cvijic and R.Roglic had begun in 1918, in the Dinaric limestones.
- Similarly, another geomorphologist from the tropical world called Michel Petit (from Cercy la Tour) devoted his thesis to the "geomorphology of the granites of Madagascar" (1970) by analyzing with precision the nuances of the Malagasy Precambrian basement, and in particular the spectacular fluted walls by the alteration in the granites and syenites of the highest peak of the Big Island, the Boby peak which culminates at 2658 m.
- Another strong nuance has been brought to Davis' cyclical geomorphology by the introduction of tectonics in the genesis of landforms (topography) and by the crises caused by the instability of the continental and oceanic lithosphere.

2.THE DAVISIAN SCHOOL (DAVIS WILLIAM MORRIS, 1850-1934),

- During the 1870s, Davis became interested in the study of terrestrial reliefs. The publication of the article "The Rivers and Valleys of Pennsylvania" , 1889) lays the foundations of the Davisian theory of reliefs, which constitutes perhaps his greatest contribution to physical geography.
- William Morris Davis stated that the physical features of the land surface are the result of:
 - *a long evolution,*
 - *continues*
 - *and ordered due to erosion.*

3. APPLIED GEOMORPHOLOGY, ENVIRONMENTAL

- Thus, from the fundamental science of the evolution of the relief, geomorphology has become a science applied to a better environmental management. As geomorphologists have become aware over the last decade of the considerable degradations suffered by the natural physical environment, degradations due to a very fatal management of it by :

- Urbanization,
- The realization of port equipment without respect for the coastal dynamics,
- The aggression of the high mountains by mass tourism,
- Deforestation
- Pollution of fresh and marine waters ... etc

4. THE PROCESSES OF GEOMORPHOLOGY

- The geomorphologists of volcanism continue to study the morphological and climatic consequences of the volcanic eruptions of Mt. Saint Helens (August 7, 1980), Pinatubo (June, 1991).
 - There are also two geomorphologists, Serge Morin and Jean Pahi who studied the causes and consequences of the lake disaster of Nyos in Cameroon, who made on the night of August 21st to 22nd, 1986, 1,800 asphyxious dead in the villages of valleys by the very heavy CO₂ of volcanic origin under-lake.
- ***To better maintain the memory of these deadly events, geomorphologists fix them, either by :***
- sketches(esquisse).
 - or by cards.
- ***However, among the research tools used in geomorphology, we note :***
- aerial photographs
 - and satellite images (Landsat, SPOT, ERS, Google Earth, etc ...).

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