

Geomorphic Processes 15-040-504

Thornbury's Ten Fundamental Concepts (Thornbury p. 16-33)

1. The same physical processes and laws that operate today operated throughout geologic time, although not necessarily with the same intensity as now (Hutton's principle of *uniformitarianism*)
2. Geologic *structure* is a dominant control factor in the evolution of land forms and is reflected in them
3. To a large degree the earth's surface possesses relief because the geomorphic *processes* operate at differential rates
4. Geomorphic processes leave their distinctive imprint upon land forms and each geomorphic process develops its own characteristic assemblage of land forms
5. As the differential erosional agents act upon the earth's surface there is produced an *orderly sequence* of land forms
6. Complexity of geomorphic evolution is more common than simplicity
7. Little of the earth's topography is older than Tertiary and most of it is no older than Pleistocene
8. Proper interpretation of present-day landscapes is impossible without a full appreciation of the manifold influences of the geologic and climatic changes during the Pleistocene
9. An appreciation of world climates is necessary to a proper understanding of the varying importance of the different geomorphic processes
10. Geomorphology, although concerned primarily with present day landscapes attains its maximum usefulness by historic extension