

GEOMORFOLOGÍA

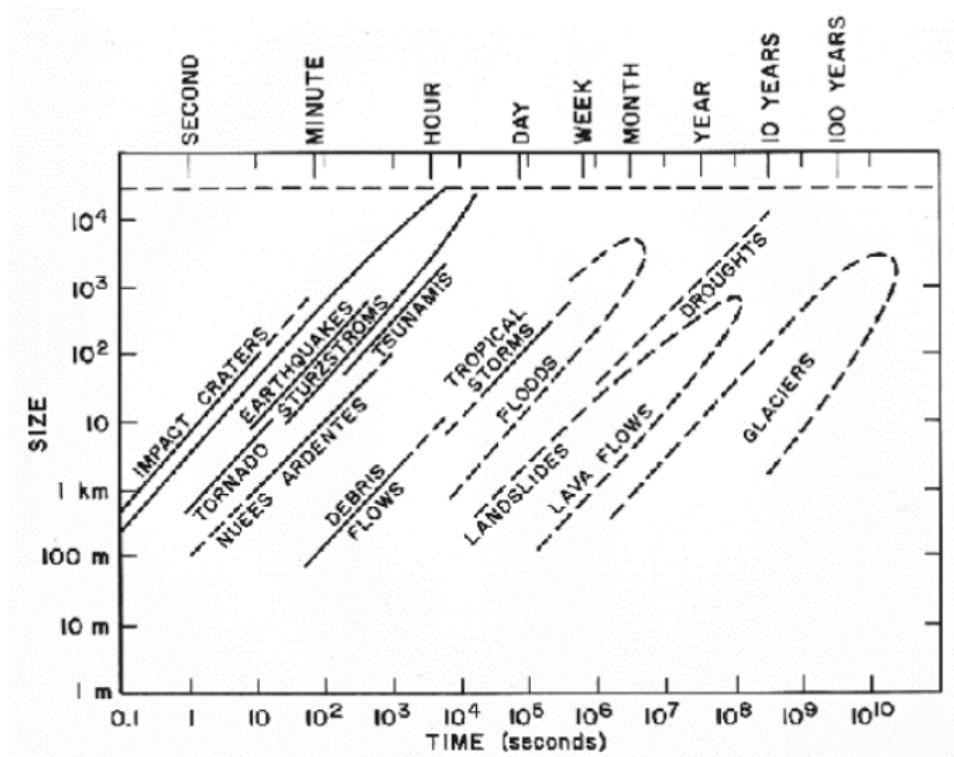
Edier V. Aristizábal G.

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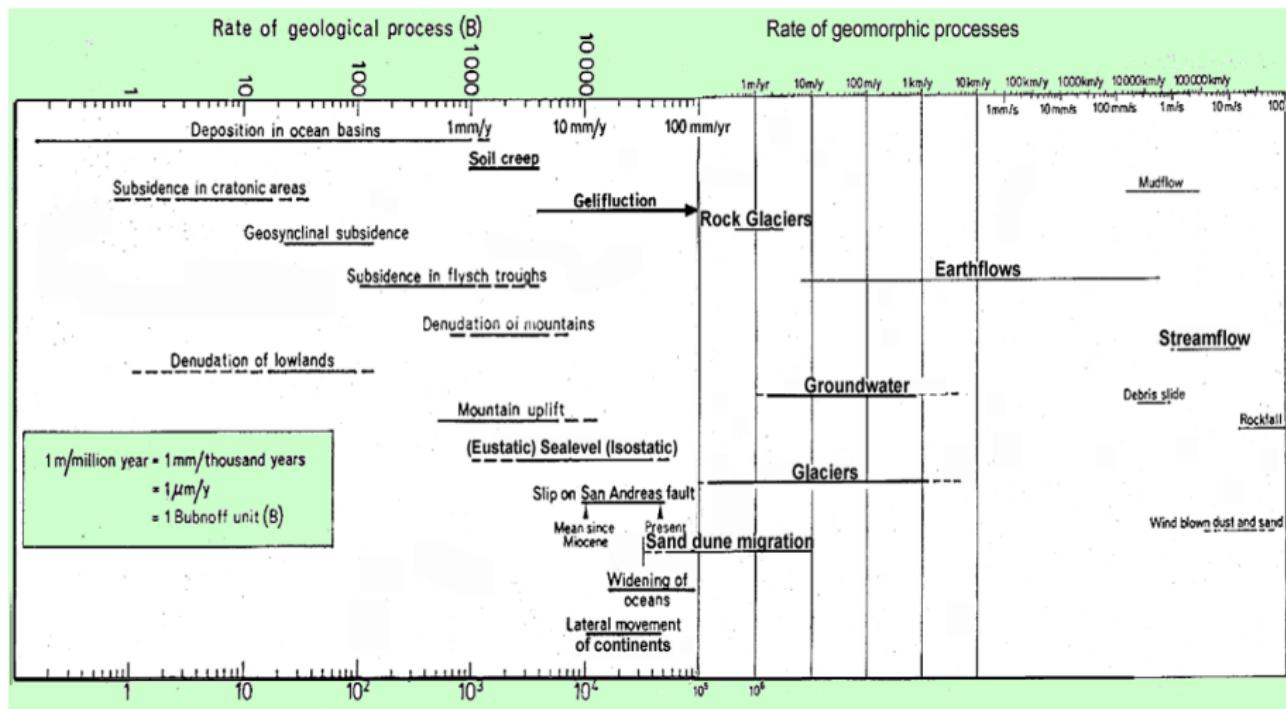
Versión: July 30, 2020



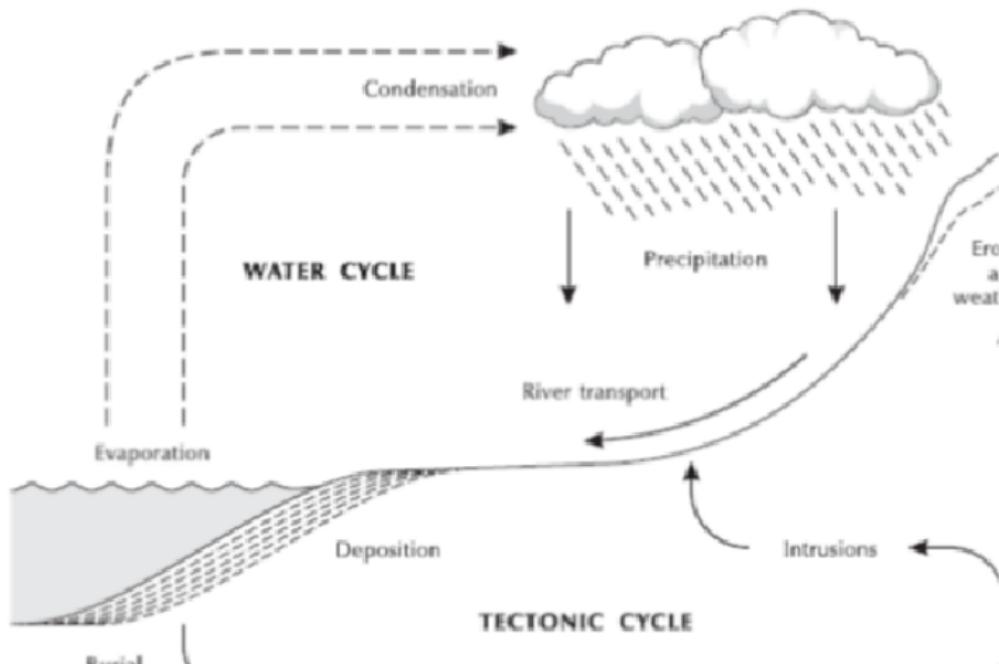
Escala temporal y espacial



Tasa de procesos

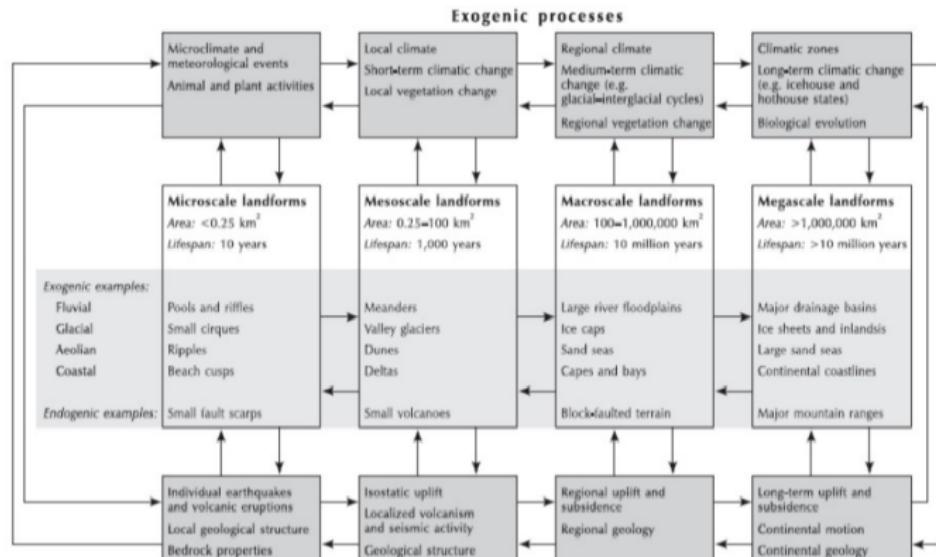


Procesos Endógenos vs. Procesos Exógenos



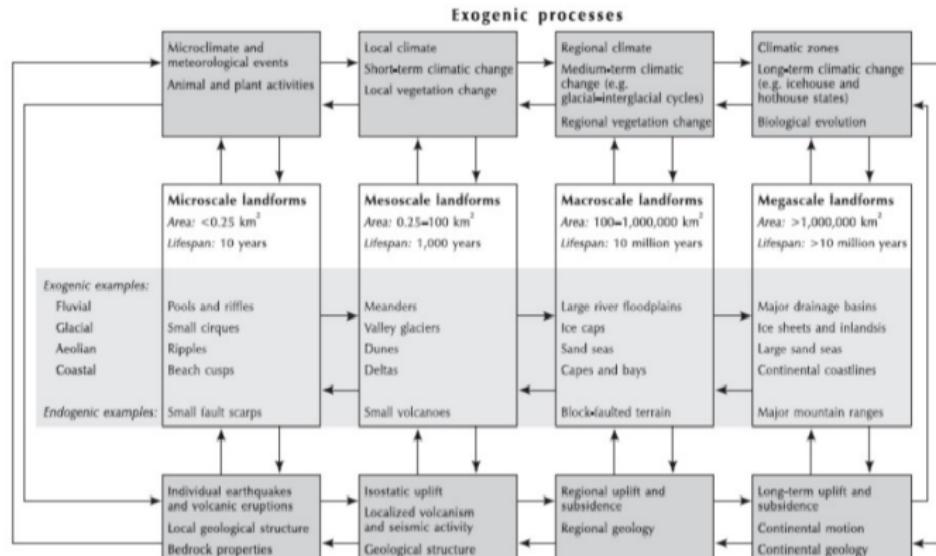
Fuente: Fundamentals of geomorphology by Huggett (2007)

Procesos y Escalas



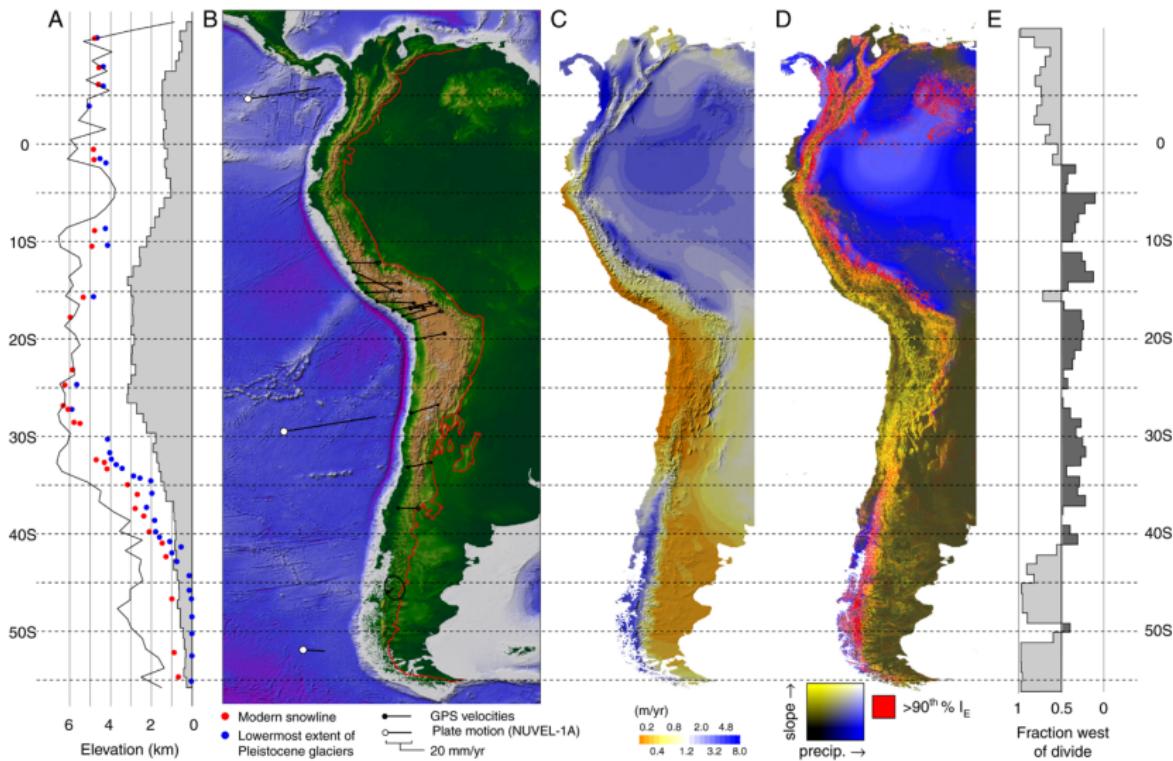
Fuente: Fundamentals of geomorphology by Huggett (2007)

Procesos y Escalas

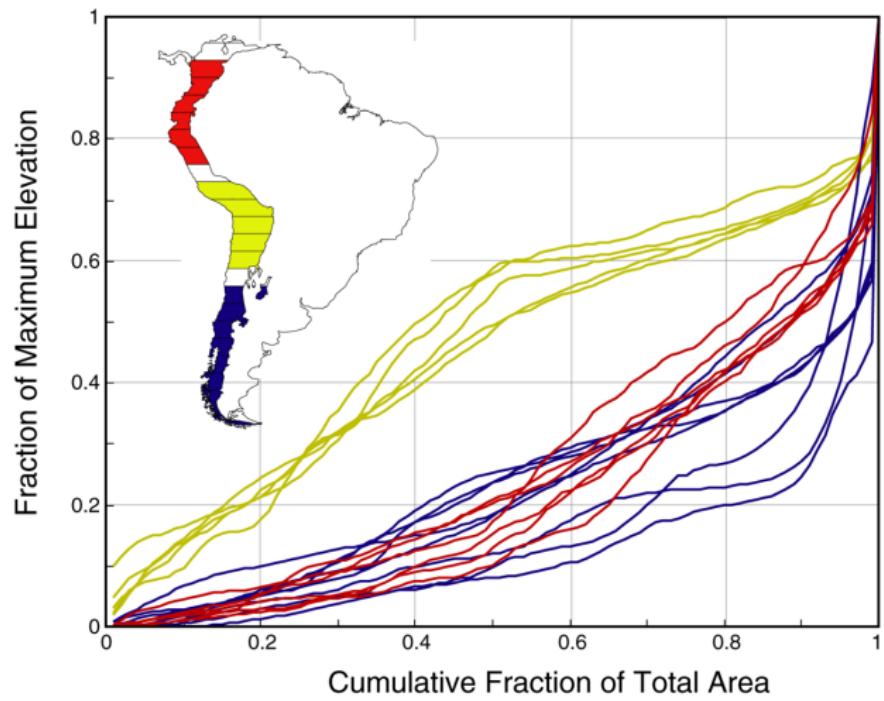


Fuente: Fundamentals of geomorphology by Huggett (2007)

Procesos dominantes



Procesos dominantes

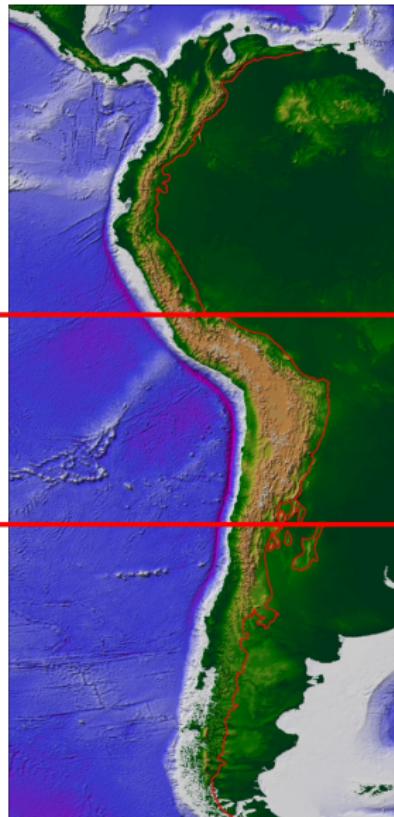


Procesos dominantes

Climate forcing ... fluvial

Tectonic forcing ... arid

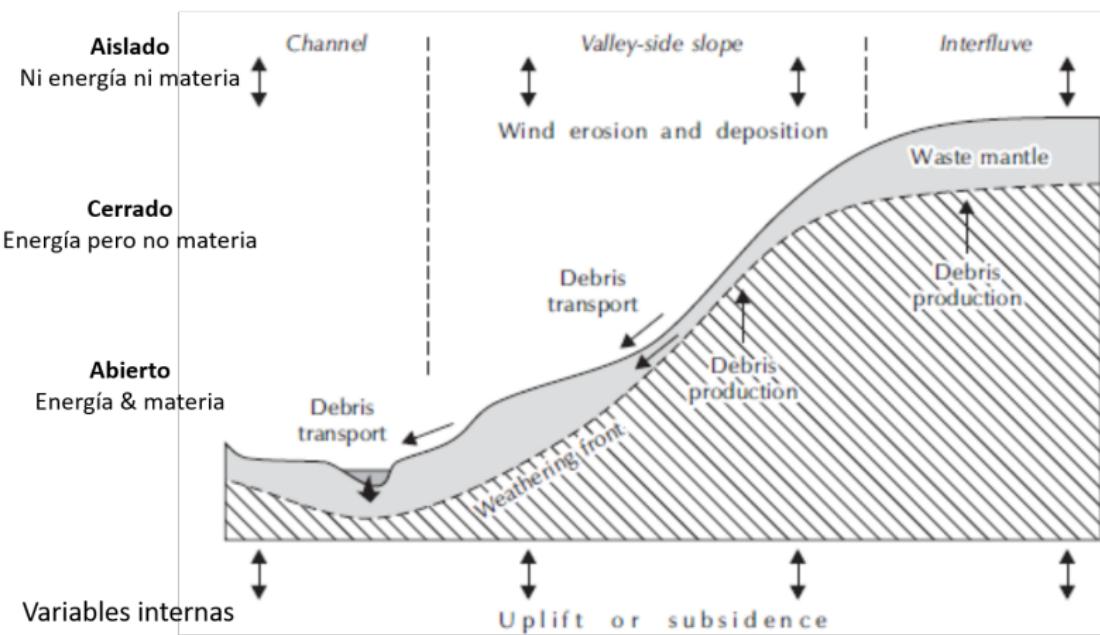
Climate forcing ... glacial



Enfoque Sistémico

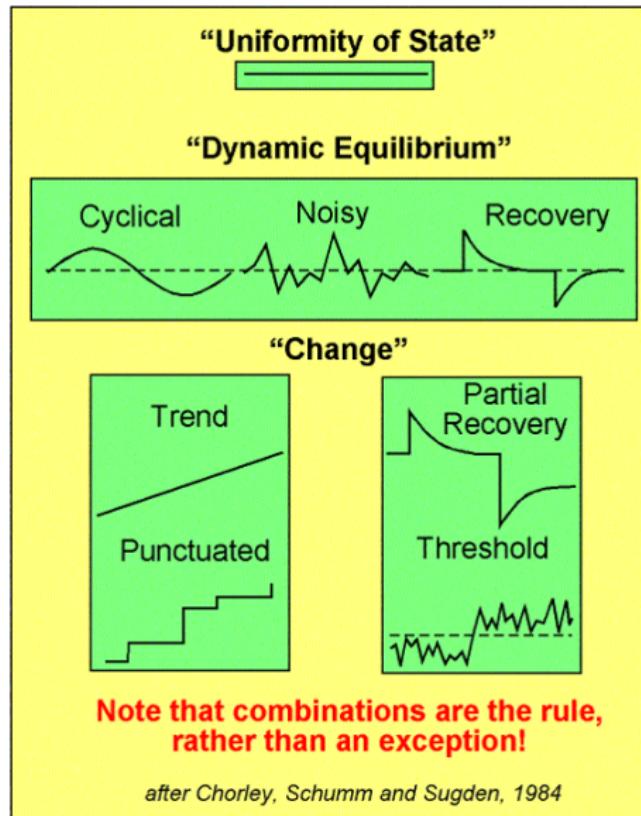
Respuesta rápida → poca memoria

Respuesta lenta → buena memoria

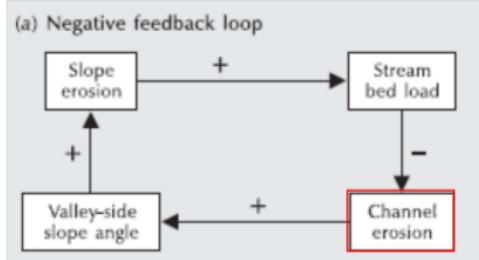
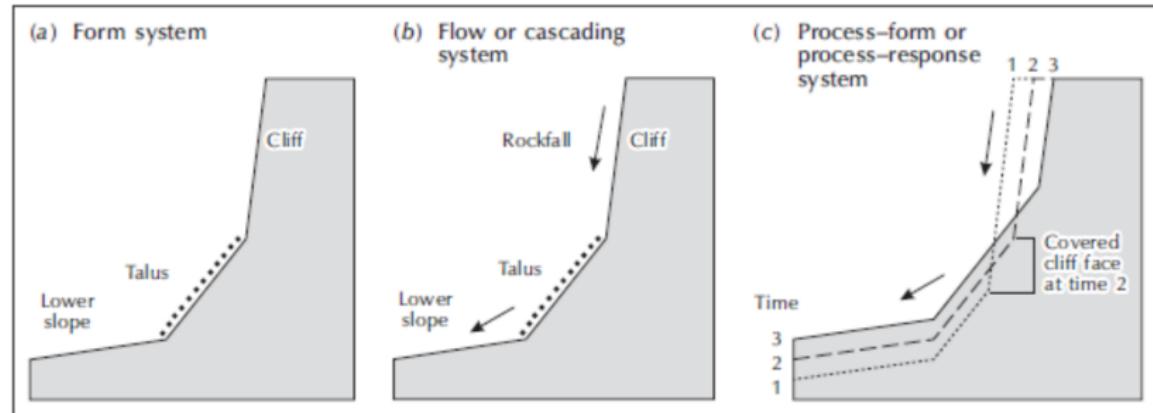


Fuente: Fundamentals of geomorphology by Huggett (2007)

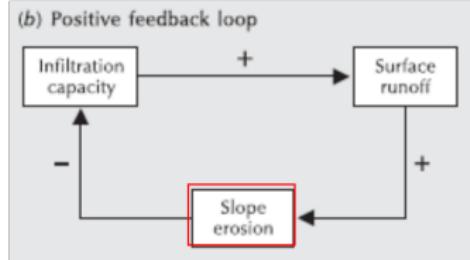
Equilibrio en Geomorfología



Retroalimentación

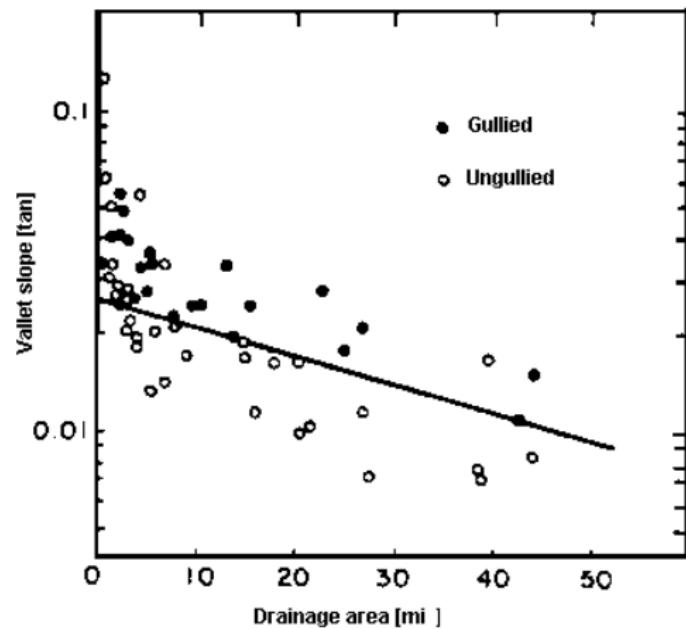


Estabiliza el sistema



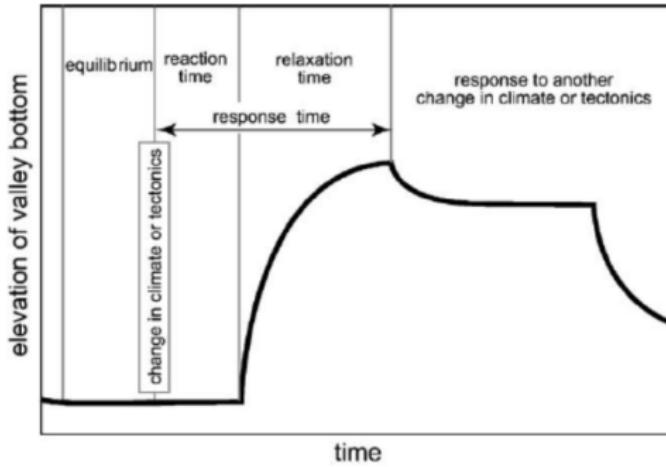
Desestabiliza el sistema

Umbrales

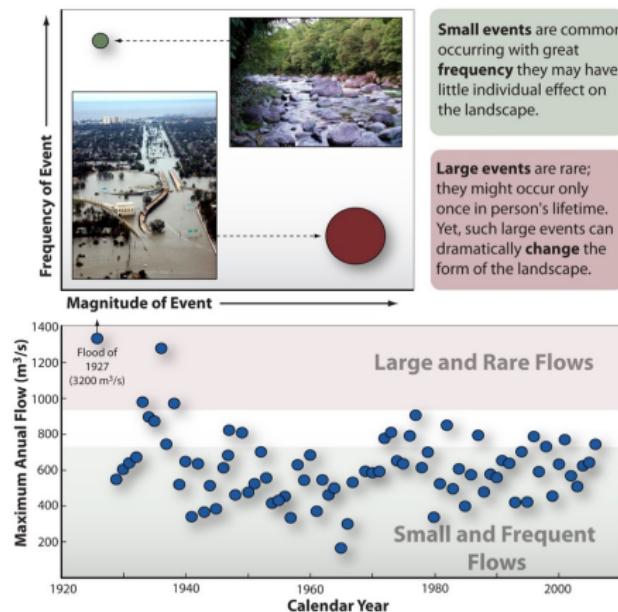


Slope vs. area relation for gullied and ungullied valleys in Piceance basin. After Patton 1975

MRespuesta del sistema

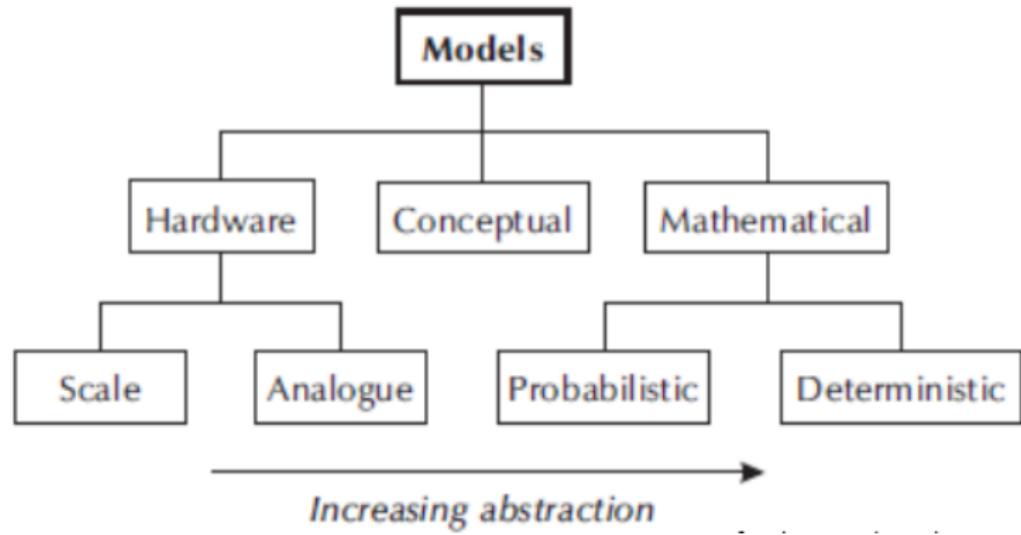


Maginutud Vs. Frecuencia



Even in humid, well-watered northeastern North America, there is great variability in annual flood flows. The largest annual flood (1927, immense damage and channel change) is almost 20 times greater than the smallest annual flood.

Modelación



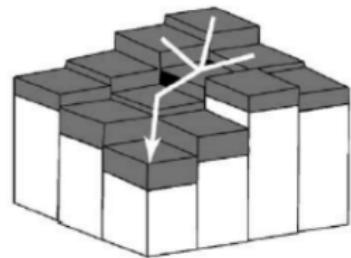
Modelación



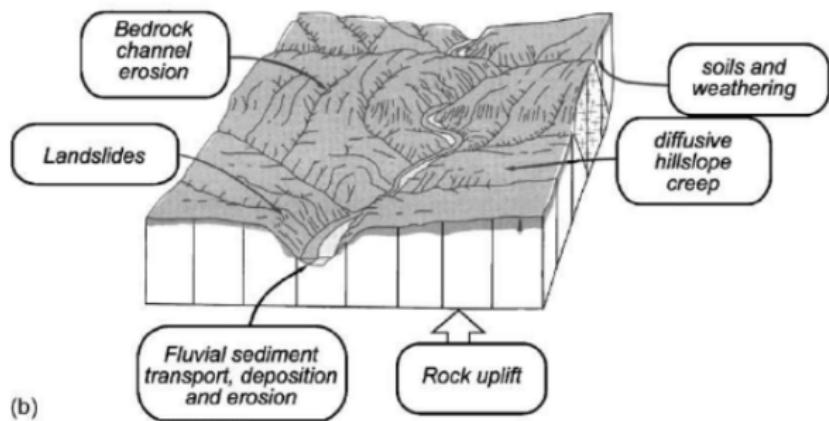
Modelación



Modelación



(a)



(b)