Terminal Moraine

Photo by Jack Shroder

Lateral Moraine & Debris-covered Glacier

Photo by J. Shroder

Glacial Erratics

Photo by Jack Shroder

Glacial Erratics

Photo by Jack Shroder

Skardu Area – Proglacial Lake

Photo by Jack Shroder

Skardu Area – Katpana Cold Desert

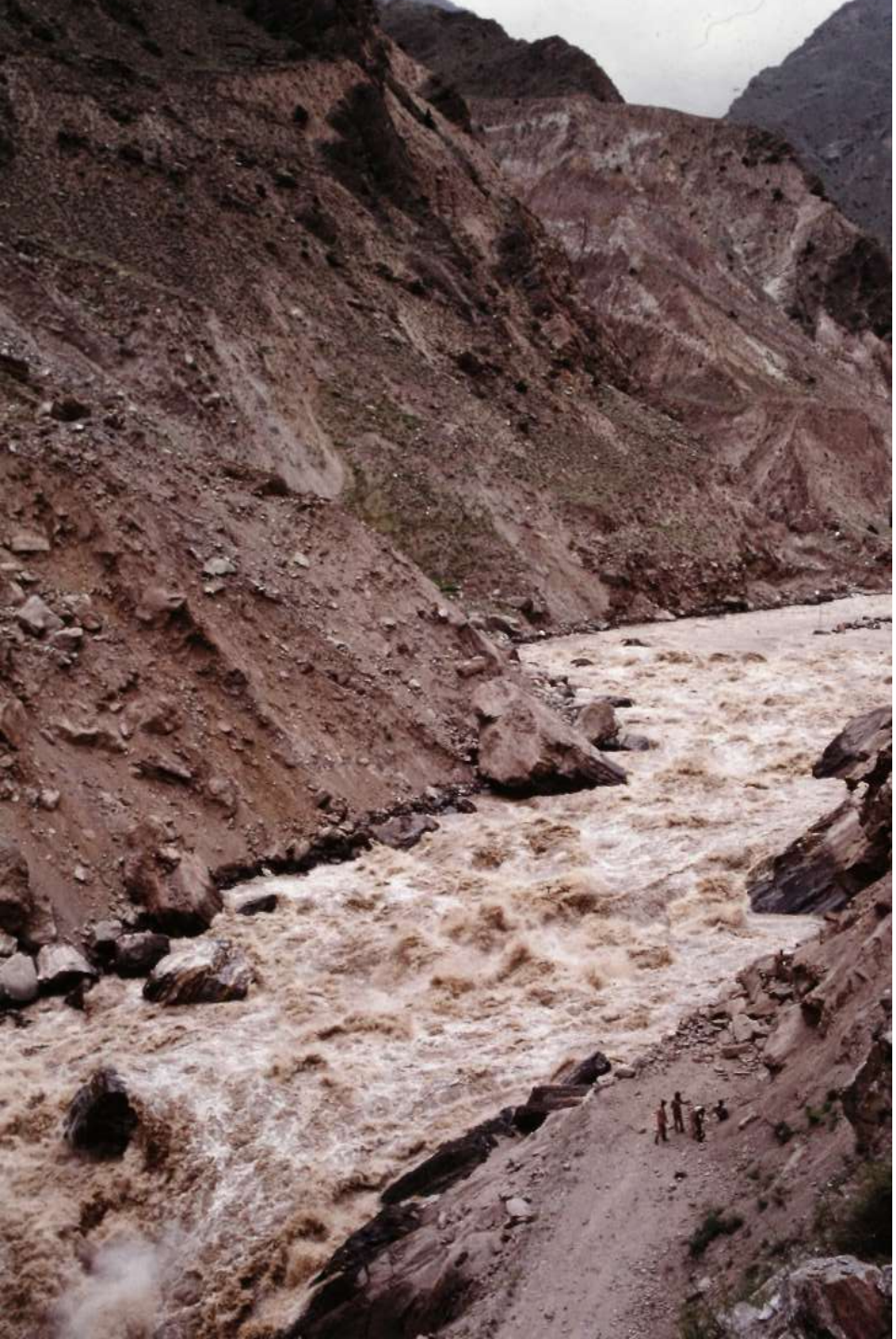
Photo by Jack Shroder

Skardu Area – Katpana Cold Desert

Photo by Jack Shroder

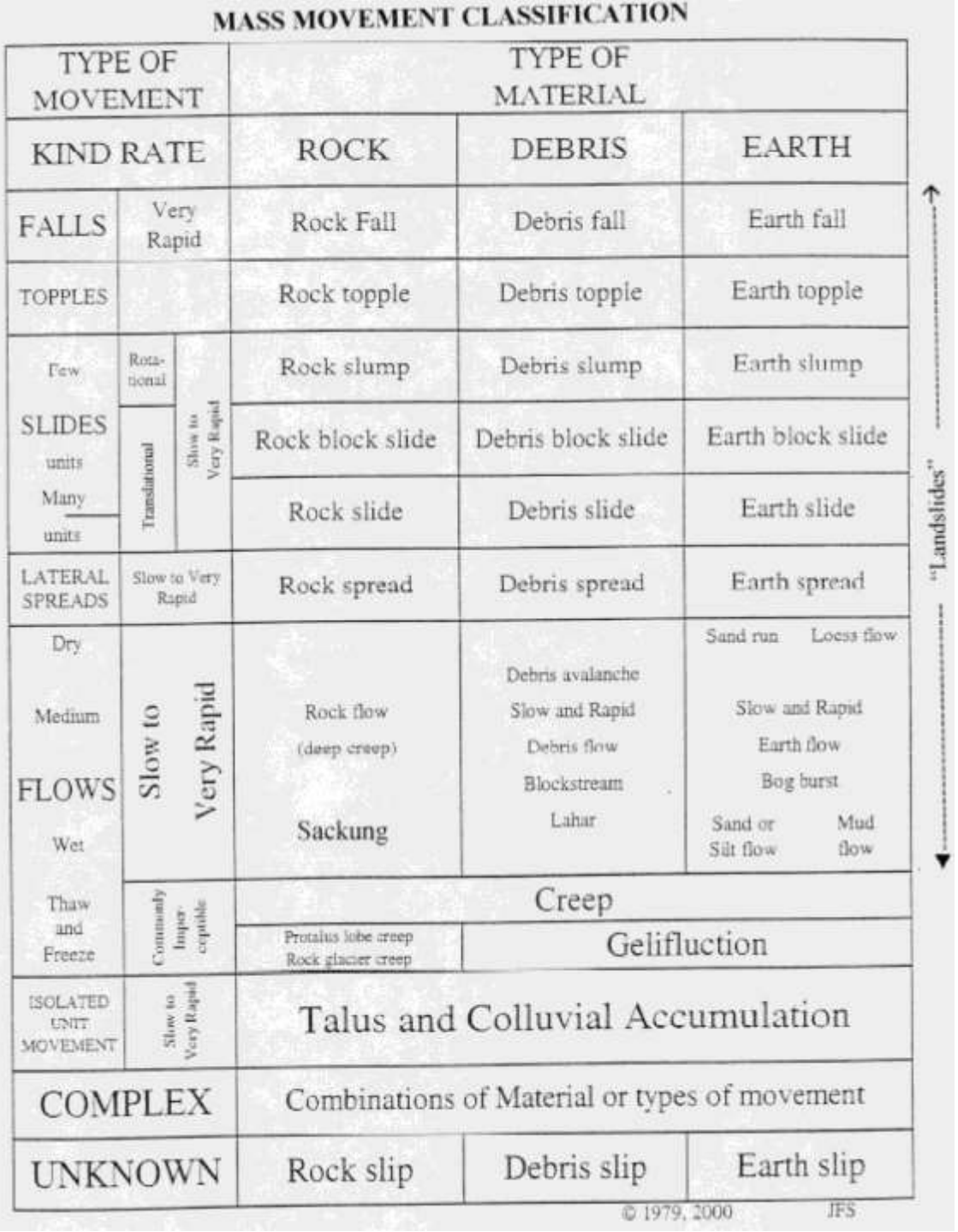
Skardu Area – Indus River Bridge

Photo by Jack Shroder



Indus River

From Jack Shroder



MASS MOVEMENT CLASSIFICATION

TYPE OF MOVEMENT			TYPE OF MATERIAL		
KIND	RATE		ROCK	DEBRIS	EARTH
FALLS	Very Rapid		Rock Fall	Debris fall	Earth fall
TOPPLES			Rock topple	Debris topple	Earth topple
SLIDES: Few units	Rotational	Slow to Very Rapid	Rock slump	Debris slump	Earth slump
SLIDES: Many units	Translational	Slow to Very Rapid	Rock block slide	Debris block slide	Earth block slide
SLIDES: Many units	Translational	Slow to Very Rapid	Rock slide	Debris slide	Earth slide
LATERAL SPREADS	Slow to Very Rapid		Rock spread	Debris spread	Earth spread
FLOWS: Dry, Medium, Wet	Slow to Very Rapid		Rock flow (deep creep); Sackung	Debris avalanche; Slow and Rapid Debris flow; Blockstream; Lahar	Sand run; Loess flow; Slow and Rapid Earth flow; Bog burst; Sand or Silt flow; Mud flow
Thaw and Freeze	Commonly Imperceptible		Creep		
			Protalus lobe creep; Rock glacier creep	Gelifluction	
ISOLATED UNIT MOVEMENT	Slow to Very Rapid		Talus and Colluvial Accumulation		
COMPLEX			Combinations of Material or types of movement		
UNKNOWN			Rock slip	Debris slip	Earth slip

"Landslides"

© 1979, 2000 JFS

Mass Movement Classifications

it can get quite complicated…

Rock Falls – typically move one rock at a time – physical weathering called frost wedging is typically responsible

Rock Falls in GTNP – Garnet Canyon

Rock falls are where Pika live. They make hay with vegetation and save it in the talus slope cavities

Rock fall deposits (talus slopes) that grow into each other = Piedmonts