

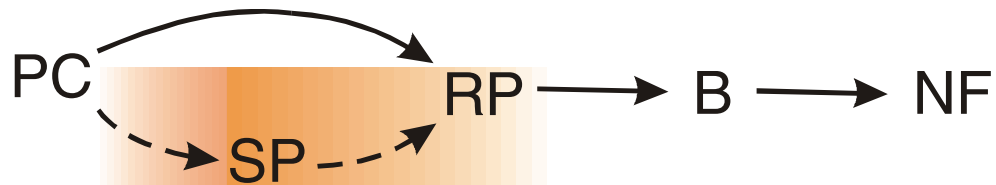
Fracture Character	Code	Fracture Characteristics	Typical Shear Quality (Johnson and Birkeland, 2002)
Sudden Planar <i>(pop, or clean and fast)</i>	SP	Thin planar* fracture suddenly crosses column in one loading step and the block slides easily** on the weak layer.	Q1
Sudden Collapse <i>(drop)</i>	SC	Fracture crosses column with single loading step and is associated with noticeable collapse of weak layer.	Q1
Progressive Compression <i>(indistinct)</i>	PC	Fracture of noticeable thickness, e.g. 1 cm, that usually crosses column with single loading step, followed by additional compression of the layer with subsequent loading steps.	Q2 or Q3
Resistant Planar	RP	Planar* fracture requires more than one loading step to cross column and/or the block does not slide easily** on the weak layer.	Q2 or Q3
Non-planar Break	B	Non-planar fracture	Q3
No Fracture	NF	No fracture	

* “Planar” based on straight fracture lines on front and side walls of column.

** Block slides off column on steep slopes. On low angle slopes, hold sides of block and note resistance to sliding.
(van Herwijnen and Jamieson, 2003)

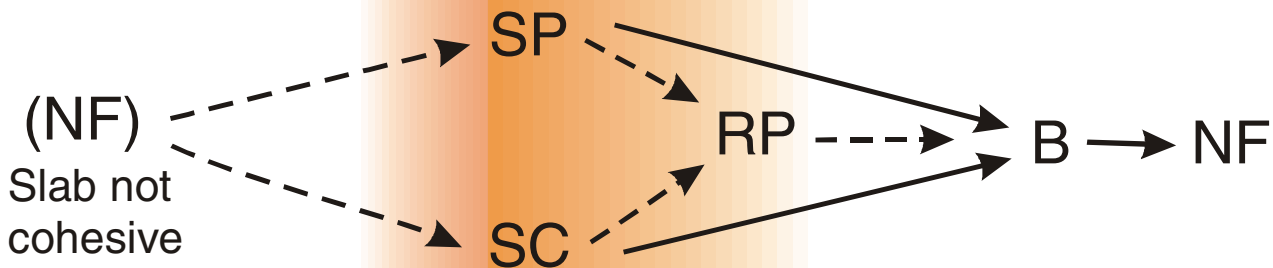
Typical evolution of fracture character

Non-persistent weak layers / slabs



Persistent weak layers / slabs

Thin layer (usually < 1 cm)



Thick layer (usually > 1 cm)

SP associated with avalanches more often than PC, RP, B, NF

SC associated with avalanches & *whumpfs* more often than PC, RP, B, NF

Other sequences are, of course, possible. For example, RP fractures followed by a heavy load may result in avalanches on the same layer.

For non-persistent weak layers, the PC => SP transitions may be due to the slab becoming cohesive faster than the weak layer, e.g. layer of large stellars.

This classification is intended to supplement but not replace other observations such as avalanche activity on the layer, test scores, grain type, load, loading pattern, warming, slab properties, etc.