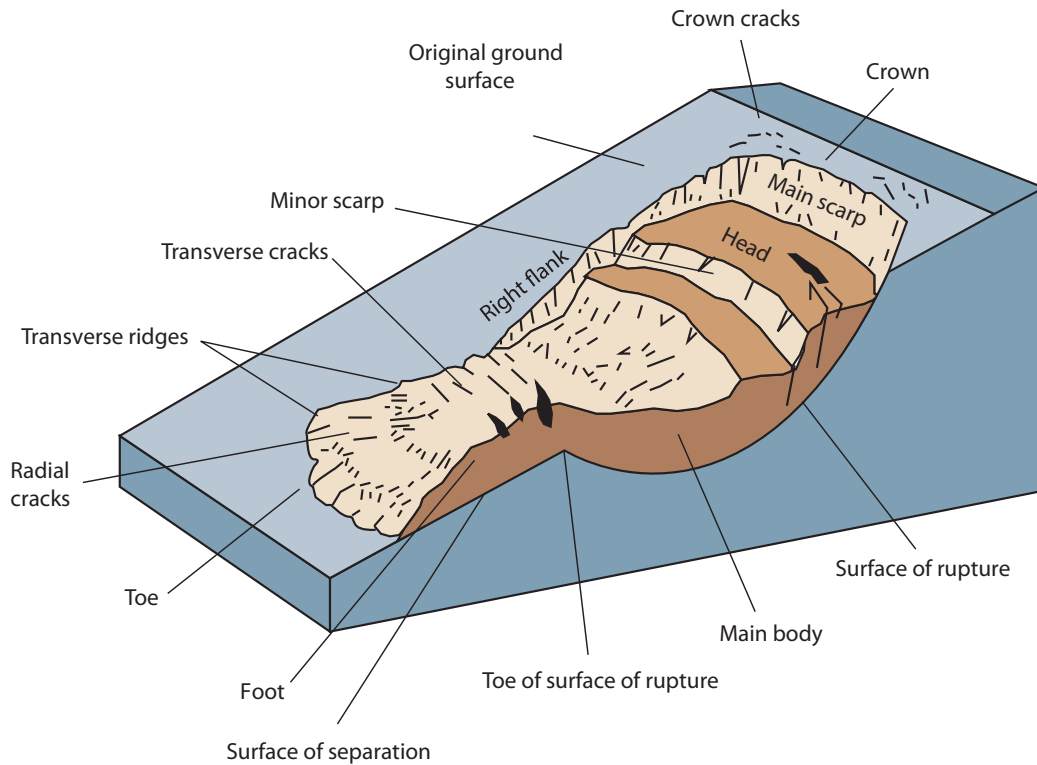


# GEOL 308:

## Natural Hazards

### Parts of a Landslide—Description of Features/Glossary



Parts of a landslide. (Modified from Varnes, 1978).

**accumulation** The volume of the displaced material, which lies above the original ground surface.

**crown** The practically undisplaced material still in place and adjacent to the highest parts of the main scarp.

**depletion** The volume bounded by the main scarp, the depleted mass and the original ground surface.

**depleted mass** The volume of the displaced material, which overlies the rupture surface but underlies the original ground surface.

**displaced material** Material displaced from its original position on the slope by movement in the landslide. It forms both the depleted mass and the accumulation.

**flank** The undisplaced material adjacent to the sides of the rupture surface. Compass directions are preferable in describing the flanks, but if left and right are used, they refer to the flanks as viewed from the crown.

**foot** The portion of the landslide that has moved beyond the toe of the surface of rupture and overlies the original ground surface.

**head** The upper parts of the landslide along the contact between the displaced material and the main scarp.

**main body** The part of the displaced material of the landslide that overlies the surface of rupture between the main scarp and the toe of the surface of rupture.

**main scarp** A steep surface on the undisturbed ground at the upper edge of the landslide, caused by movement of the displaced material away from the undisturbed ground. It is the visible part of the surface of rupture.

**minor scarp** A steep surface on the displaced material of the landslide produced by differential movements within the displaced material.

**original ground surface** The surface of the slope that existed before the landslide took place.

**surface of separation** The part of the original ground surface overlain by the foot of the landslide.

**surface of rupture** The surface that forms (or which has formed) the lower boundary of the displaced material below the original ground surface.

**tip** The point of the toe farthest from the top of the landslide.

**toe** The lower, usually curved margin of the displaced material of a landslide, it is the most distant from the main scarp.

**top** The highest point of contact between the displaced material and the main scarp.

**toe of surface of rupture** The intersection (usually buried) between the lower part of the surface of rupture of a landslide and the original ground surface.

**zone of accumulation** The area of the landslide within which the displaced material lies above the original ground surface.

**zone of depletion** The area of the landslide within which the displaced material lies below the original ground surface.

#### Sources of information on nomenclature:

1. Cruden, D.M., 1993, The multilingual landslide glossary: Richmond, British Columbia, Bitech Publishers, for the IUGS Working Party on World Landslide Inventory in 1993.
2. Varnes, D.J., 1978, Slope movement types and processes in Schuster, R.L., and Krizek, R. J., eds., Landslides—Analysis and control: Transportation Research Board Special Report 176, National Research Council, Washington, D.C., p. 11–23.