



Caldera types: how end-members relate to evolutionary stages of collapse

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Currently proposed caldera types (downsag, piston, funnel, piecemeal, trapdoor) are mainly based on field evidence and are each viewed as end-members. An overview of recent experiments on caldera formation, under different conditions, shows remarkably consistent results and suggests four experimental stages characterized by progressive subsidence. Distinctive structural features of each stage are found in many calderas, highlighting an overall consistency. The evolutionary stages adequately explain the architecture and development of the established caldera end-members along a continuum, where one or more end-member may correspond to a specific stage. While such a continuum is controlled by progressive subsidence, specific collapse geometries will result from secondary factors, such as roof aspect ratio, collapse symmetry and pre-existing faults.