The ~1350 A.D., rhyolitic North Mono eruption, Mono-Inyo Craters, CA, included the extrusion and destruction of an earlier dome in Panum Crater and its associated clastic deposits. The Panum deposits include a coarse pyroclastic flow deposit, covering ~3.5 km², consisting of three main facies; a debris avalanche deposit, a block-and-ash flow (BAF) deposit, and a proximal concentration of bread-crusted rhyolitic reticulite.

The debris avalanche deposit is surrounded by the more widespread BAF deposit and composed mainly of jigsaw fractured blocks a few meters in size. One block sits upstream a long thinning pile of debris; this “flow shadow” indicates that the block remained relatively stationary while the BAF propagated around it.

Blocks within the BAF deposit are typically lithic rhyolite and gray micro-vesicular glass, showing white, almost powdery marks ranging from circular to linear in shape. These marks are interpreted to result from impact and friction among clasts. A proximal facies of the deposit contains bread-crusted obsidians with pressed-in clasts as well as reticulite with a bread-crusted surface texture.

It is proposed that destruction of a dome included three separate, sequential events. An initial debris avalanche consisting of older or cooled dome material emplaced the train of jigsaw-fractured blocks and created a topographic high. This event was followed by the BAF, which flowed around the debris avalanche deposit. Finally molten rhyolite was exposed by the earlier events, resulting in a rapid “lateral expansion” of magma foam, creating the reticulite bearing facies concentrated at proximal locations.