



Other volcanoclastic rocks

- Resedimented pyroclastics
- Epiclastics





Resedimented pyroclastics

- Fragmentation due to explosive volcanic eruption (we can identify original volcanic origin of clasts)
- Loose pyroclastic material can be easily reworked
- Transported by common agents (water, wind) – not deposited by volcanic processes
- Sedimentary textures, channels
- Polygenetic processes



Resedimented pyroclastics

- Large plains on volcano foot-hills
- Frequent interbedding and lateral transitions to common pyroclastics
- Structure, sorting, grading correspond to transport media and process







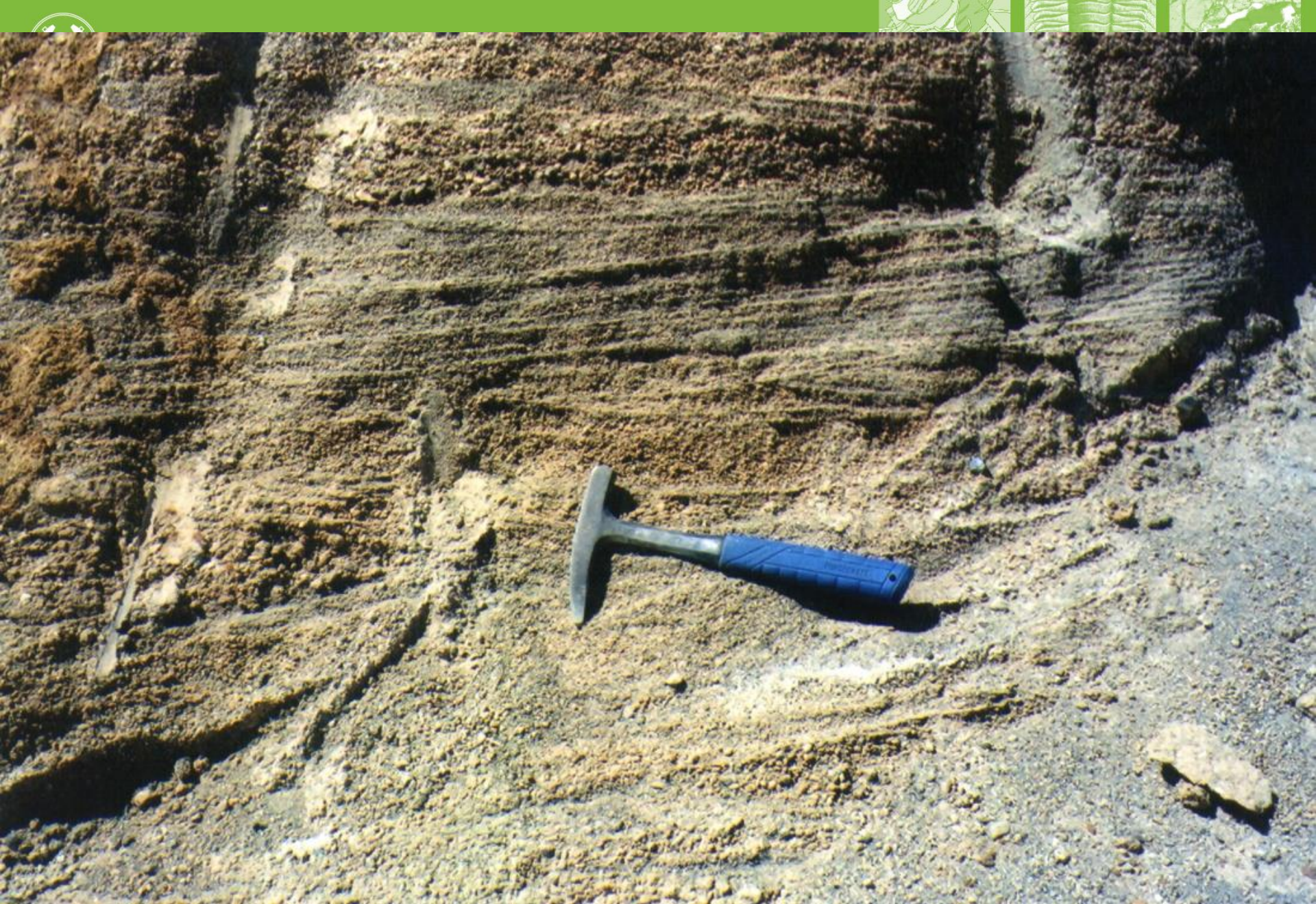




Epiclastics

- Fragmentation due to weathering (mechanical) and erosion
- Transported by common agents (gravity, water, wind) – not deposited by volcanic processes
- Sedimentary textures, rounding of clasts
- Large plains on volcano foot-hills
- Frequent interbedding and lateral transitions to pyroclastics
- Specific coarse-grained types: lahars, debris avalanche deposits







Lahar

- Transport: mass-flow, grain-flow or hyperconcentrated
- Carries boulders larger than its thickness
- Triggered: volcanic or seismic activity, heavy rains, saturation of pyroclastic flow with water









- Unsorted
- Matrix-supported, rarely clast-supported
- According to water saturation (cohesion of matrix) may be chaotic, normal- or reverse graded
- Rounded to sub-rounded clasts





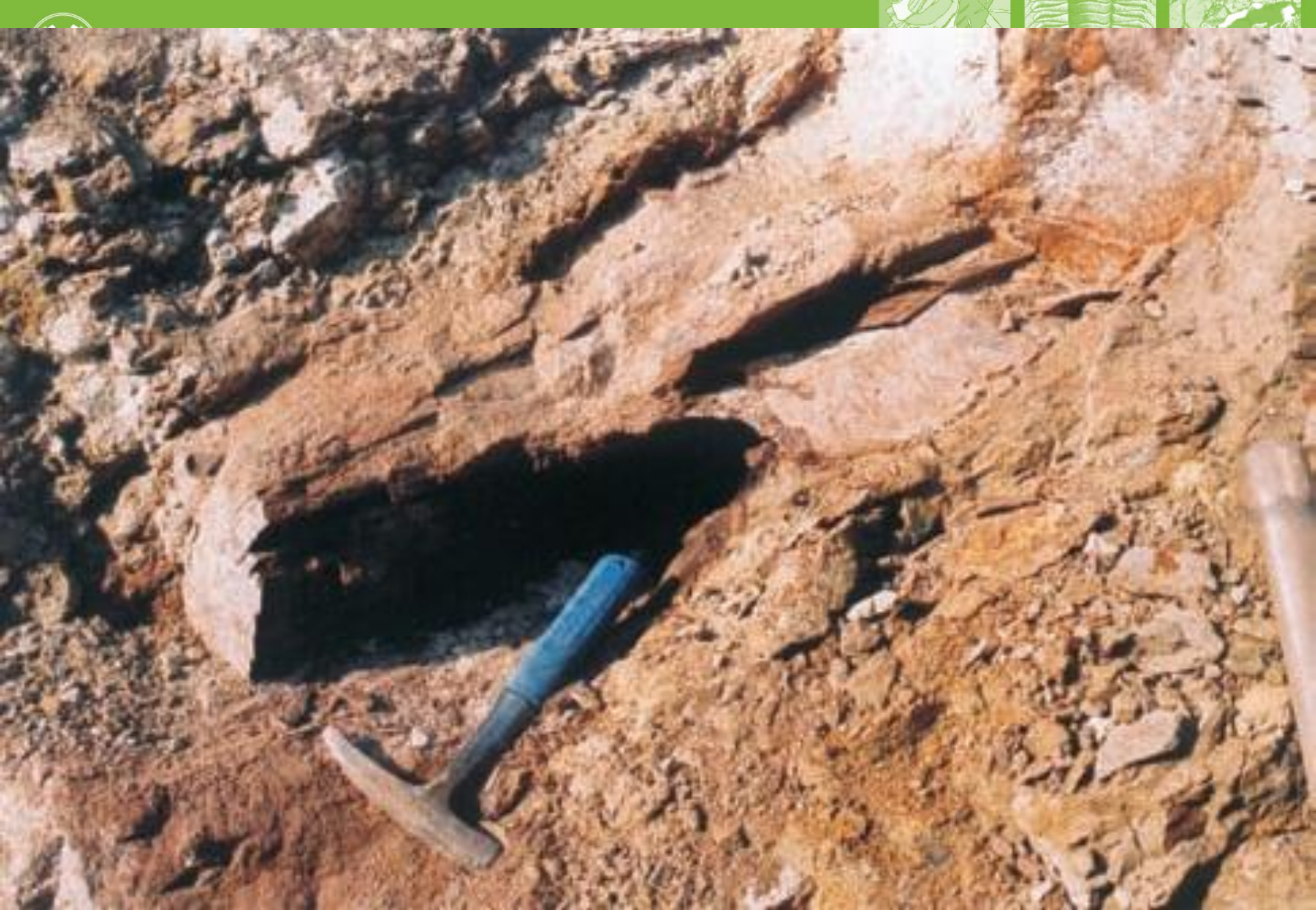




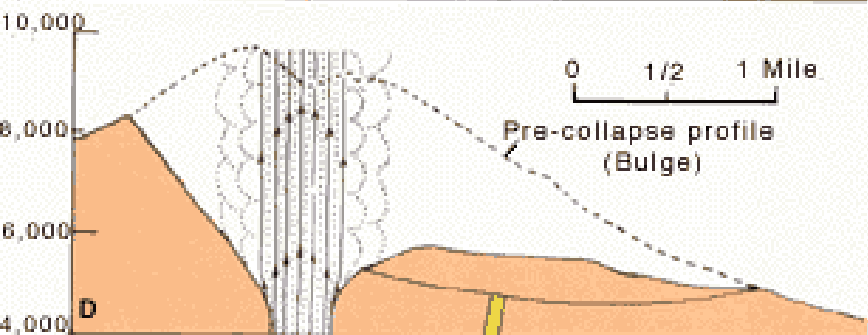
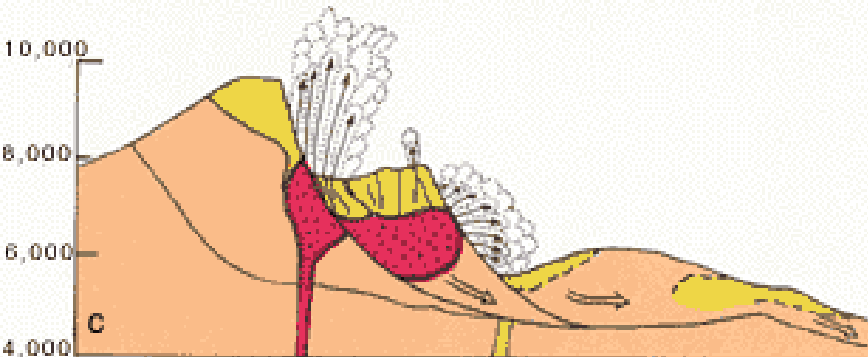
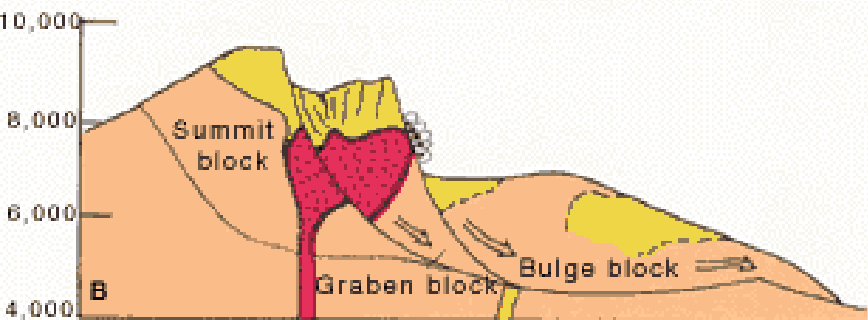
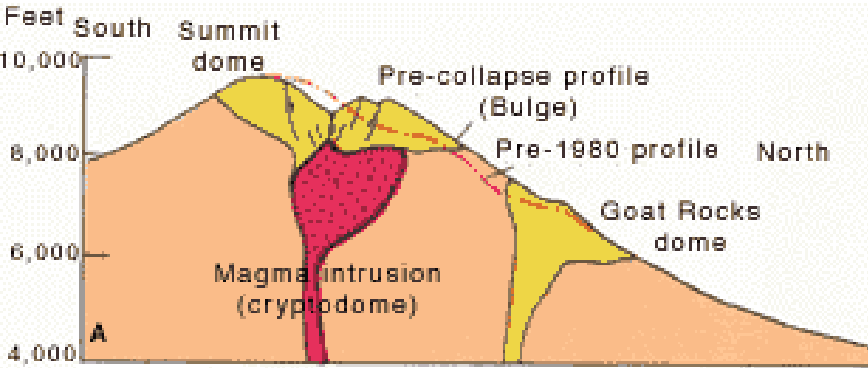












Debris avalanche

- Failure of a big part or entire volcanic edifice
- Does not move as a granular flow, but as a plug-flow
- Hummocky relief in deposition area



Debris avalanche

- Unsorted
- Matrix-supported
- Mega-blocks (X0 m)
- Shattering of blocks (subgrains do not migrate) – jig-saw fit structure
- Stretching of plastic clasts



















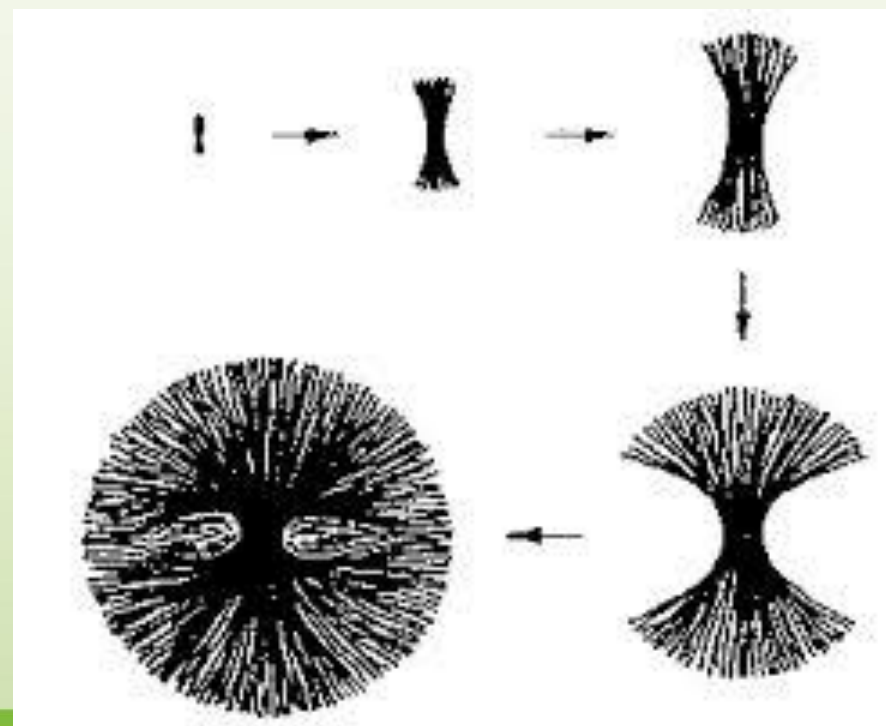


Spherulites



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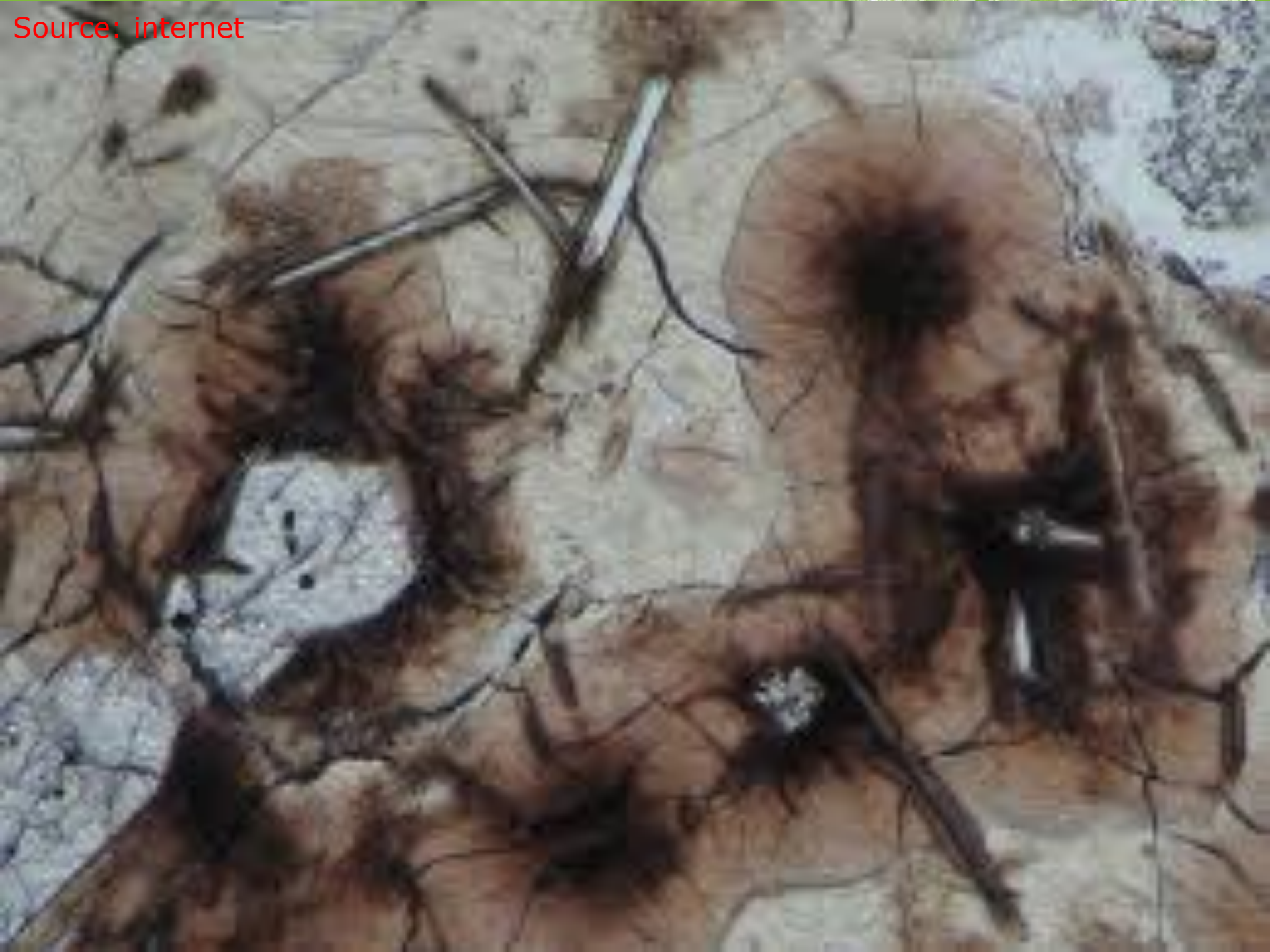
- High temperature devitrification of volcanic glass
- Start from crystallization nuclei (inhomogeneity)
- Radial aggregates of feldspar and quartz (rarely also pyroxenes)



Source: internet



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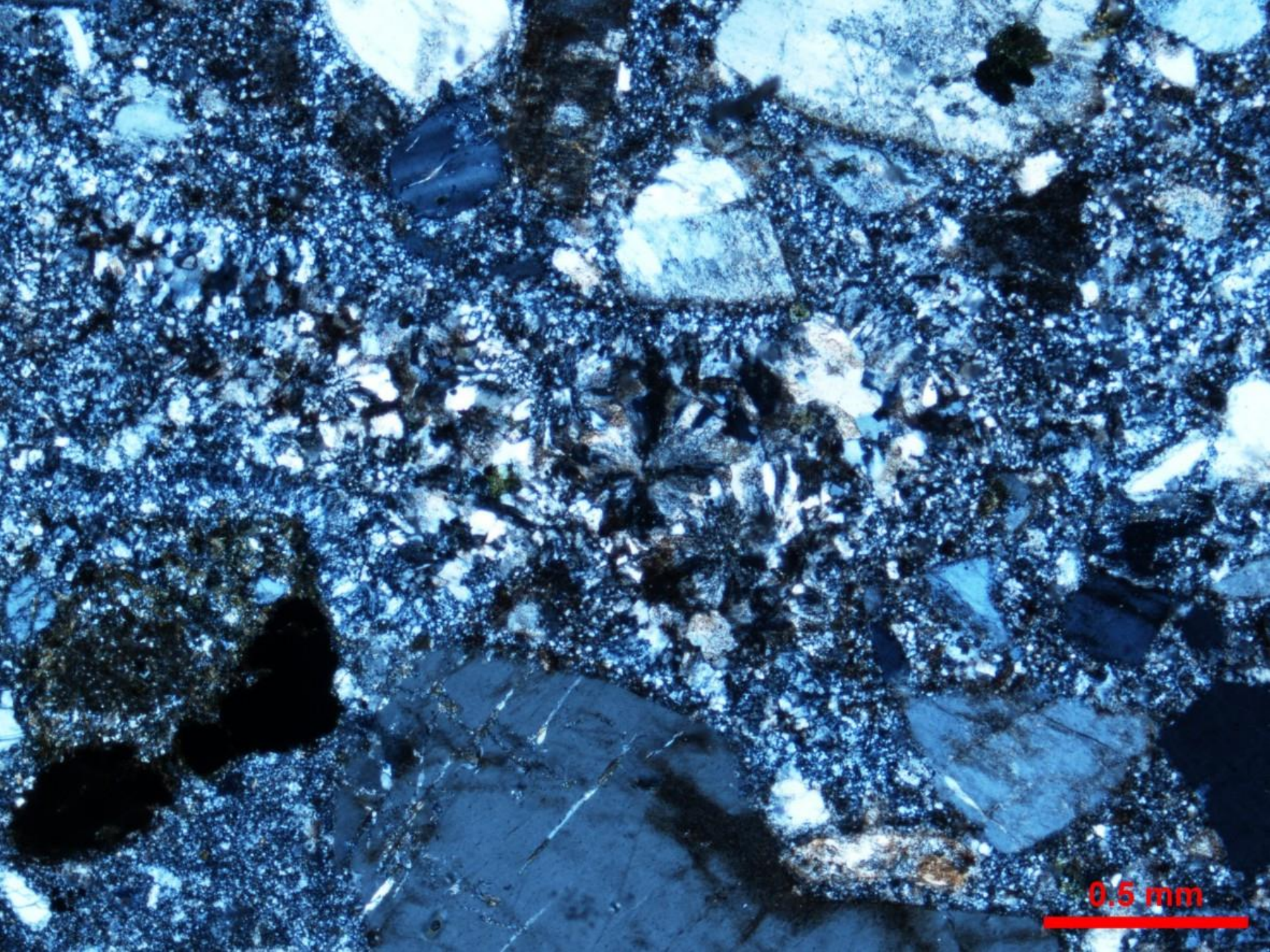
Source: internet







0.5 mm



0.5 mm



0.5 mm