**Salahaddin University Practical sedimentary petrography**

**College of Science 3rd Class**

**Department of Earth Science and petroleum 2022-2023 Lab. No.1**

**Introduction about sedimentary petrography and slide preparation in a Workshop**

**Sedimentary Petrography**:

Sedimentary petrography is a branch of [petrology](https://en.wikipedia.org/wiki/Petrology%22%20%5Co%20%22Petrology) that dials with detailed descriptions of [rocks](https://en.wikipedia.org/wiki/Rock_%28geology%29%22%20%5Co%20%22Rock%20%28geology%29). The [mineral](https://en.wikipedia.org/wiki/Mineral%22%20%5Co%20%22Mineral) content and the [textural](https://en.wikipedia.org/wiki/Rock_microstructure%22%20%5Co%20%22Rock%20microstructure) relationships within the rock are described in detail. The classification of [rocks](https://en.wikipedia.org/wiki/Rocks%22%20%5Co%20%22Rocks) is based on the information acquired during the petrographic analysis.

 Petrography is considered a powerful tool because it identifies a constituents grains. The science of petrography was initiated by an English geologist named Henry Clifton Sorby, who began petrographic analysis in about 1851 with the study of limestones.

Petrographic descriptions start with the field notes at the outcrop and include macroscopic description of hand specimens.

The most important tool for the petrographer is the [petrographic microscope](https://en.wikipedia.org/wiki/Petrographic_microscope%22%20%5Co%20%22Petrographic%20microscope), and also microscopic petrography remains the primary tool for petrologic analysis of carbonate rocks.

**Slide preparation in a Workshop**

1- Start by cutting a 8-10 mm piece from your main stone sample, and make rock slab.

2- Grind the glass slide to make its surface rough to fix the stone sample onto the slide. Rub the stone sample’s flat surface with Silicone carbide+water to make its surface rough.

3-Fix the sample to the glass slide using  [epoxy resins](https://www.kemet.co.uk/products/metallography/cold-mounting-resin-systems) then leave the sample for drying.

4-Start to thin the slide using the special slide cut mechanism up to approx. 0.2 mm thickness.















