



May 2023

Leidy Revives an Old Technique

By Eric Brosius



The Leidy Microscopical Society originally grew out of the Microscopical and Biological Section of the Philadelphia Academy of Natural Sciences. Over the years members in the Mineralogical Section of the Academy became involved with the newly formed Society. Lately the Society has focused mainly on mineralogical specimens and occasionally paleontological and some botanical. However, our group includes all things microscopical from mineralogical, paleontological, geological, biological, botanical, entomological, industrial, etc. Over the years many techniques for mounting specimens have been lost as members who knew the technique passed on, couldn't remember how the mounts were done or no documentation was recorded on how these mounts were made.

John Ferrante revived one of those techniques for mounting specimens at the April meeting of the Leidy Microscopical Society. John has recently developed a passion for the spectacular forms of diatoms. The diatom is a single-celled algae that lives in houses made of glass. They are the only organism on the planet with cell walls composed of transparent, opaline silica. Diatom cell walls are ornamented by intricate and striking patterns of silica. John gave an absolutely incredible demonstration and talk on making a diatom microscopical slide in the style of historical microscopists. His demonstration started with a brief description of all the materials needed to mount the specimen. He then took a grouping of diatoms that had been prepared and cleaned for mounting. The diatoms are always placed on the cover slip of the slide then affixed to the actual slide. Manipulating such microscopical minute objects is truly an art that takes a steady hand and patience. John seemed to have mastered this and effortlessly mounted the diatoms to the slide. Once mounted, the slide is finished with a series of colored rings outlining the cover slip. This outline serves two purposes, sealing the specimen from the outside world and providing an artistic focal point for the slide. Once completely mounted, John explained how he labels the slide in the tradition of the historical mounts.



John Ferrante slides and John Ferrante showing Don McAlarnen and Dr. Dave Rilling how to ring the slide after it has been completed.

The discussion continued with the cost of some of the slides that bring large sums for their artistic arrangement of diatoms on the slide. The manipulation of such microscopic objects is something that could test your patience.

In other Society business, the group rehashed the recent Leidy Micromount Symposium and set the date for next year's symposium for March 8-9, 2024. Thanks were given to all who participated in the display at the Philadelphia Mineralogical Society's Lulu Temple Show. The summer picnic was also planned for July 15, 2023, at the home of John and Karen Ferrante. Those who are planning to attend are requested to bring the usual food items that they normally provide.

The next meeting of the Society will be on June 15, 2023, 7:30 PM at the Northminster Presbyterian Church in Fairless Hills, PA. The subject of the meeting will be a "Micromount Roundtable". Members and guests are encouraged to bring what they are currently working on. Everyone is invited even if you do not have a microscope. The Society's spare scope will be available for use.