

## New and broken laboratory equipment

SUZI WALKER

St. Andrews has one of the best-equipped labs in the state, and this summer a Scanning Electron Microscope and Infrared Spectrometer were added to the inventory. The school already owns a Transmission Electron Microscope (which many of you were probably shown if you visited the campus as a prospective student). The difference between a Scanning and a Transmitting Electron Microscope is that an SEM beams electrons formed in a column across a sample and a detector picks up the reflected electrons, while in a TEM a sample is placed above a phosphorescent plate and an electron shadow is cast. Another difference between the two microscopes is the difficulty of slide preparations. A SEM sample does not have to be either sliced very thinly or placed on a slide. Conversely, a TEM sample must be placed on a copper grid so as to be thin enough for an electron beam to pass through.

The students of St. Andrews are fortunate to have the opportunity to use these pieces of equipment; unfortunately, there is one small problem: the Tran-

smisson Electron Microscope is broken. Moreover, many pieces of equipment in the lab are not functioning properly. The greenhouse does not refrigerate enough to counteract the heat produced by its engines. The aquarium in the Wet Room is cracked. (It seems that it is constructed out of a porous material.) However, one of the most frightening facts is that three of the eyewashes do not work. Someone could lose his vision because of this malfunction.

One piece of good news in this otherwise gloomy picture is that the growth chambers are being repaired. The Comprehensive Assistance to Undergraduate Science Education (CAUSE) allocated funds specifically for this purpose.

One reason why so many problems have gone unresolved is, of course, lack of funds. Not \$200 per piece of equipment has been spent during the past five years for the maintenance and upkeep costs of laboratory equipment. If actions are not taken immediately, some pieces of equipment will be beyond repair. However, St. Andrews has one of the best-equipped labs in the state.



Photo by Jonathan Webster

Rooney Coffman demonstrates Transmission Electron Microscope

## Cafe' suggestion box

Due to recent complaints among students about the food service in the Cafe, the Food Committee will place a suggestion box under the bulletin board outside of the Cafe. The suggestion box will give students a chance to offer criticism as well as helpful suggestions concerning the food service. By collecting this information

and reviewing it, the committee, chaired by Clint Werner will be able to concentrate its efforts on specific problems, rather

than general complaints. The committee hopes that students will take advantage of this opportunity to improve student life.

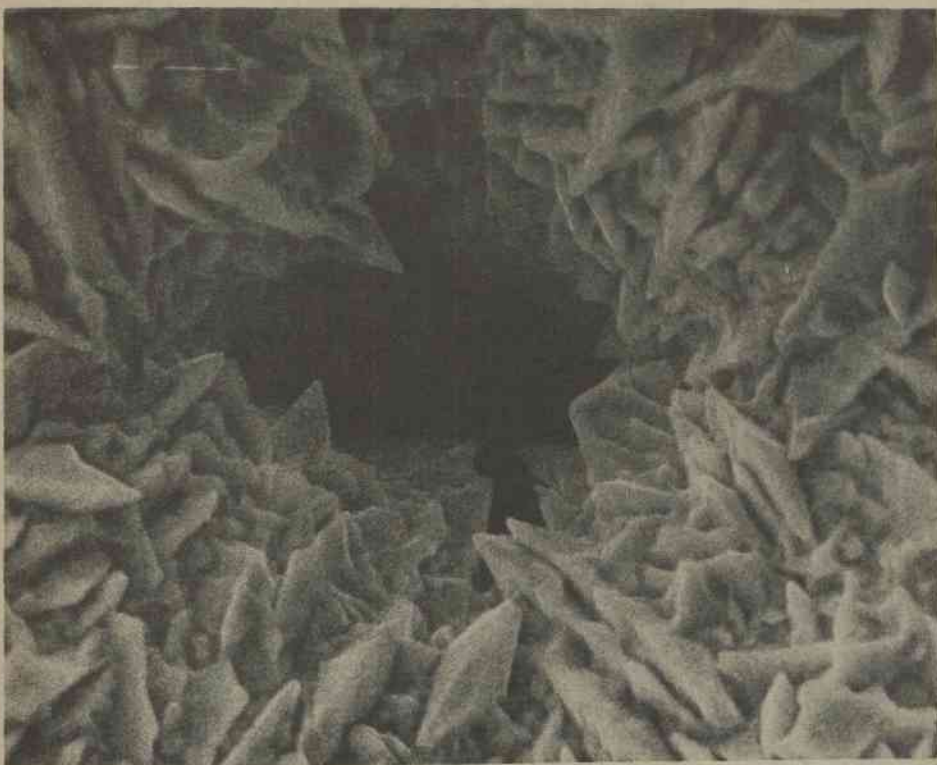


Photo by David Helms

electro photomicrograph of gold leaf taken in SA lab

## Electrical problems in dorms

JUSTIN OSTERMAN

Over the past several years, there has been a recurring problem here at St. Andrews that few people have paid much attention to. This problem is the use and abuse of portable heaters in dormitory rooms.

Many students don't think the heating in their rooms is adequate, so they plug in portable heaters. If several people in the same unit use foot heaters at the same time

it causes an overload in the circuit and the circuit breaker automatically cuts off the flow of electricity to all the rooms. Depending on the wiring, as many as three to five rooms can be without electricity until maintenance arrives to fix the circuit. A sudden stop of electricity flowing to stereos, TV's, and other electrical appliances in use can be damaging to them.

There is virtually nothing maintenance can do about the situation since the portable heaters are personal property. Therefore it's up to the students to cut down on the number of power failures we have in the dormitories. So let's make life easier on ourselves, as well as the people who fix these power failures, and be moderate in our use of heating systems.

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