# Microscopes: detectives of scientific mysteries

By Skip Volkmann

Riddle: What can trace the invisible trail of a fleeing criminal; explain a mysterious operating room death, detect a fraudulent painting, a phony coin, a less than authentic statue; and save an astronaut's life?

Answer: That super-sleuth of minutia, the microscope.

In a slide show Friday, sponsored by the American Chemical Society and aptly titled "Sleuthing with the Microscope," Robert Z. Muggli described the detectivelike work of the microscopist. Muggli is senior research microscopist for Walter C. ' mused.

McCrone Associates, Inc., in Chicago, Ill.

### **Detective Work**

"When a murder suspect was apprehended in Illinois for a murder in Louisiana, he vehemently denied having ever been south of the Mason-Dixon line, and police were beginning to believe him. But his pants and pant cuffs were vacuumed and in them we found pollen of Spanish Moss, which doesn't grow in Illinois. So we were forced to conclude that although he had never been south of the Mason-Dixon line, his pants undoubtedly had," ne

The slides showed the microscopic evidence Muggli and his colleagues collected to expose a Titian painting, painted with modern pigments, and phony coins that had their dates altered to make them more valuable. He showed a "second-hand authentic statue," that couldn't fool the keen eye of the microscopist.

With their expert ability to recognize microscopic fibers, Muggli and his colleagues were able to determine that a hospital patient died after surgery because his plasma transfusion had been contaminated with cotten fibers that lodged in his heart. And NASA frequently sought their opinion spelled tragedy for the Apollo astronauts." Muggli said.

Muggli said microscopists are analyzing fibers and particles vacuumed from the their ability to recognize unknown objects. Christ's burial shroud. The results won't be identify.

released for two years, he said.

Little respect

Despite its many uses, however, the microscope does not enjoy a prominent reputation among scientists.

"One reason the microscope is so little respected," he said, "is that it has been around for a long time, and it's too cheap."

"A \$5,000 microscope will do just about everything you would want, and that's just not respectable when compared to a sophisticated \$250,000, newly-invented piece of equipment," he said.

"Another reason microscopes may not on equipment malfunctions that could have be in vogue is nobody has figured out a way to hook a computer to it," he said. "The eye is the computer."

Microscopists play a game to improve Shroud of Turin to determine its age. The It's called UFO, Muggli said, and the object cloth is believed to have been used as is to find something that nobody else can

## ASUN out of election funds

By Kent Warneke

The ASUN Student Court could call for another ASUN election-but ASUN doesn't have the money to conduct one.

Three cases will be heard in student court Thursday night about violations in the electoral procedures. The court has the option of declaring the March 12 election null and void and calling for a new election.

If that happens, ASUN would have to go outside its budget for money to put on an election because all available funds have been spent, Kim Weiland, electoral commission member said.

'We would probably have to appeal for extra funds from the vice-chancellor's discretionary fund," Weiland said.

Weiland said approximately \$1,500 was spent on the March 12 election for ballot expenses, donation to poll workers and publicity costs.

### Lower costs so far

This year's election costs are lower than last year's because a second election has not yet been called for, Weiland said. Last year, Bud Cuca defeated Joe Nigro for ASUN president in a runoff election.

"If a whole new election is needed, then about the same amount of money will be needed," Weiland said, "But if only the executive ballot needs to be done over, it will cut the expenses on a lot of things, especially the ballots."

The earliest times for a new election probably would be the week before or after spring break. The late dates could

could even become one of our lucky \$100 cash winners and be automatically entered in our big

\$25,000 Grand Prize Drawing.

cause problems, she said.

In one case, students will be getting excited about spring break, and in the other they'll be getting ready for finals, Weiland said. It would be hard to get people to volunteer to help with the election, she added.

"We would probably have to cut down the number of polling places for a new election," Weiland said.

"It's hard to get people to turn out for one election. No one wants to try and do that for a second time," she said.

Weiland also said that new guidelines probably would be established for the ASUN Electoral Commission for the amount of money candidates can spend on campaigns, if a new election is needed.

### No new money

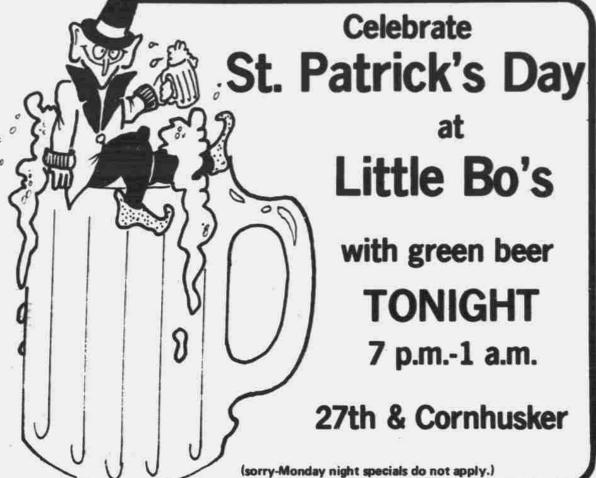
Tim Munson, LSD party presidential candidate, said his party spent approximately \$65 on the election. He said he felt that no new money should be allowed for candidates. Only the money raised for the previous election but not used should be spent, he said.

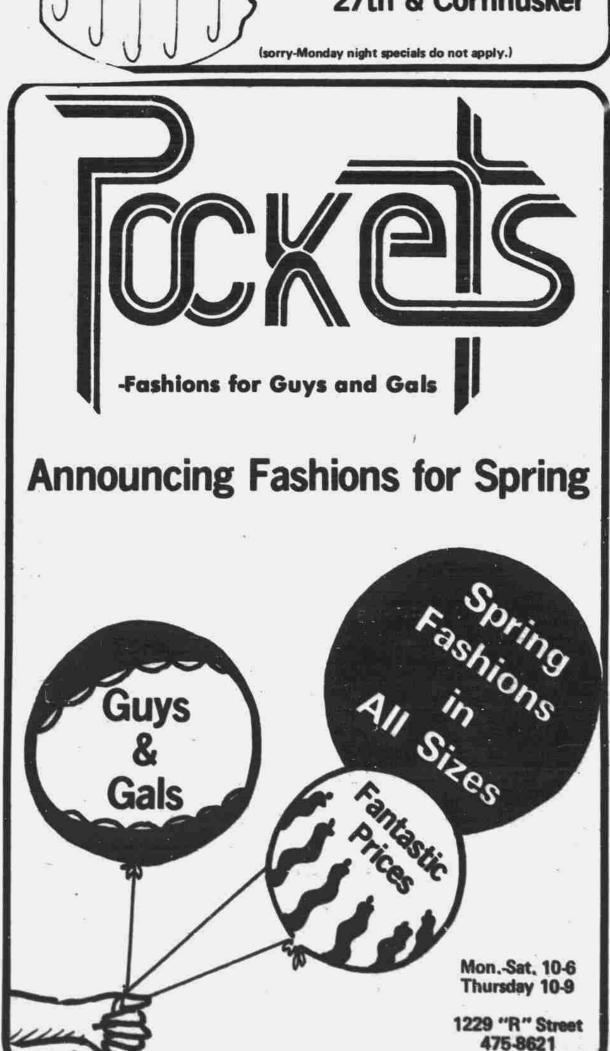
Na. e Shannon, treasurer for the US party, said the party spent about \$650 on its campaign and used up all available funds.

John Parsons, STAR party candidate, said his party spent between \$300 and \$350, and if a new election is needed, available funds would be used to campaign harder and more thoroughly.

Jay Willhoft, independent candidate, spent \$28. He said he probably wouldn't spend as much in a new election.

A write-in candidate, Lynn Rogers, was unavailable for comment.







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