An irreverent microanatomical view of life at the LTRR

By Steve Leavitt

With a department that prominently displays the word "Research" in its title, one might think the role of teaching is secondary. However, even from its inception, the laboratory has maintained a prominent pedagogic profile through course offerings related to dendrochronology and through mentoring graduate students and guiding their tree-ring-related thesis projects.

The decade of the 1990s ushered in a new era of expanded teaching by Laboratory of Tree-Ring Research faculty in the university's lower division general education program and first-year colloquium courses.

One of the most interesting and fulfilling aspects of teaching is that we learn as well from our students. Amazingly, in the freshman-sophomore classes largely comprised of non-science majors, these lessons are sometimes contrary to what we have been led to believe are current scientific facts and paradigms.

Sometimes our lessons in "new science" (maybe akin to "new math," but without the grounding in reality) are administered with a healthy dose of "new writing," which makes the experience even more holistic and exciting.

How could I forget such essay classics as "the higher amounts of carbon dioxide found in the future will be circulated through volcanic activity which could have its own harmful effects on those areas," or the riveting "(photosynthesis is) the process in which plants turn their 'energy' into oxygen in which we use to breathe," or the scintillating "millions of years ago the Earth was not nearly as hot as it is now. That is because of high fertility birth rate in woman. The more people you have on Earth, the hotter it will become."?

Photo by Melanie Lenart

Steve W. Leavitt, professor of dendrochronology, scouts lofty timber that needs to be taken down a peg (provided he doesn't have to go to PC re-education camp as a result of what he writes).

Now, let's suspend disbelief even further and imagine that A.E. Douglass had been enlisted into teaching general education classes (of which I expect he would do a fine job). He had dutifully taken along the final exam papers to read between field activities of the Second Beam Expedition near the Whipple ruin.

Through four days he had read the first 38 essays about "how tree rings could be a research tool in understanding wide-scale (read 'global') change." In the evening of that fateful 5th day of excavations on June 22, 1929, with his head already beginning to throb from the cumulative effects of grading, he pulled out an unassuming exam, no. 39.

Under the flickering kerosene lamp he read the following prophetic passage from a student identified 70 years later only by the initials "**SWL**"

"There are vegetarions called trees that grow in many places such as forests and Canada. Inside the trees are circles like the hard water deposits in a flea market sink. These are called tree rings and according to old wives' tales say they show how old the tree is when they are counted. They form from bark, and they expand and contract to different sizes like the 'one-size-fits-all' second-hand cummerbunds at a flea market tuxedo stand. As they shrink and swell, the volume of the atmosphere changes and more ozone layer reaches the surface and changes temperatures."

Of course, there is a remote possibility this student was not in class the day that subject was covered, or perhaps was distracted in class (read "sleeping").

Either way, dare I say Douglass' headache may have become chronic, he may have been unable to look at the Whipple tree-ring samples *du jour* (perhaps even changing profession on June 23rd to selling maps to the stars' [homes] in Hollywood), and the tree-ring universe as we know it might never have evolved.

To coin a phrase for the brave new lexicon, this would have been "tragidipitous," a descriptor unintelligible but oddly familiar ... well, like the interminable banter of a flea market time-share salesman.