



# Richland Section American Chemical Society

SUMMER 2009

## FROM IWO JIMA TO BRATISLAVA

MEMBER PROFILE - CLIFTON BENNETT

Recently the Newsletter staff met with 50-year ACS member Clifton Bennett and his wife Marvilena at their home in Zillah. Dr. Bennett has had a long and rewarding career and agreed to share some of it with us.



Clifton Bennett (left) with Navajo code talker Teddy Draper (right). Photo taken in Japan in 1945.

### Newsletter: Where are you from originally?

Bennett: I grew up in Tillamook, as did my wife, Marvilena. My father was the high school principle there. As a teenager I lived and worked at the dairy farm owned by my wife's father, helping milk the cows. After high school I joined the Marines.

### What year was that?

1943. I fought in the Pacific and was in one of the first waves to hit the beach at Iwo Jima, working as a radioman in a joint assault signal company. I directed naval gunfire from the shore. I worked with the Navajo cold talkers\*, one of whom, Teddy Draper, I still have contact with. I remember watching the flag-raising on Mt. Suribachi. You know, the flag in the famous photo was actually the second U.S. flag raised there. The first one was deemed too small. The

photographer, Joe Rosenthal, reached the summit just as the second one was being raised. Of the six men shown in that photograph, three were killed in the battle. I survived Iwo Jima and was in training for the invasion of Japan, which was to occur in October 1945, when the end of the war came.

### And after the war?

I attended Lewis and Clark College in Portland, and then Oregon State, getting a masters degree in physical and colloidal chemistry. Then I started work at Weyerhaeuser. After two years I went back to school, McGill U. in Montreal, because they had a special program with the Pulp and Paper Institute of Canada. My PhD work there was in organic and cellulose chemistry. After that, I was employed by Crown Zellerbach, doing pulp research. Of my many years in

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**SPEAKER MEETING MAY 11**  
*Featuring Dr. Addison Ault*

## Chance & Design in Organic Chemistry

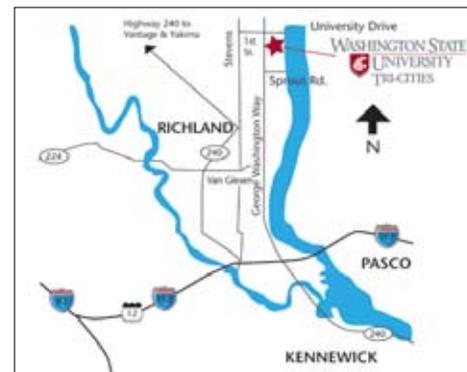
**May 11**  
**5:30pm**

**East  
Building  
Auditorium  
Room 266**

**WSU-TC  
Richland**

Hear stories that illustrate the subtle and complex relationships between hard work and good luck in the advancement of organic chemistry. Examples will include the discovery of the enantiomeric crystals of sodium ammonium tartrate racemate by Louis Pasteur, the Birch reduction by A. J. Birch, the sodium borohydride reduction of acetone and the hydroboration of olefins by H. C. Brown, the Wittig reaction by Georg Wittig, and the prediction of the fluxional nature of bullvalene by William Doering. The main lesson to be learned from these stories is that what turns out in retrospect to be the great events of science are the result of observations made in the course of routine work. Confidence in the quality of the experimental work, coupled with sufficient curiosity about an unexpected result, is all that are needed for great work in science.

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**MAP:**  
[www.tricity.wsu.edu//student-affairs/visit.htm](http://www.tricity.wsu.edu//student-affairs/visit.htm)



*Clifton Bennett and wife, Marvilena, at their home in Zillah.*

the pulp and paper industry, some of the most memorable were the ones I spent as an exchange scientist in Eastern Europe under the auspices of the U.S. National Academy of Science. For seven months during the period 1972 -1973, I was an exchange scientist in Bratislava. While there I received a Czechoslovakian patent for a one-pot functionalization of cellulose that I devised. The chemists I worked with there were very dedicated, good people who worked under difficult circumstances. A little known fact is that soft gel contact lenses were invented in Czechoslovakia. Unfortunately, the chemist who invented them fell out of political favor and was banished, while the government reaped the benefits. Perhaps that explains why my coworkers were friendly, but careful not to get too close. For example, although the people we met at the church we attended often invited us to their homes, those I worked with never did.

**That certainly sounds like an adventure. Why did you decide to become involved in an exchange program?**

The program sounded interesting, and I was looking for a change of scene. I've been back several times to Europe to plan research and exchange ideas. Czechoslovakia again in 1979, Poland in 1984 and Rumania in 1992. The trip to Poland in 1984 was just at the time when Lech Walesa and the Solidarity trade union were gaining power. It was amazing to see the enthusiastic grass-roots support for that movement.

**So, what are you doing these days?**

I retired from Pace International in 1998. I had worked in their plant in Wapato, working on agricultural chemicals, cleaners, etc. For example, I formulated an aqueous based paint stripper for Boeing to replace their use of methyl ethyl ketone. After retirement, I did some consulting, travel, and now stay busier than ever.

**Thanks for taking the time to share your story with our readers.**

*\*Navajo code talkers were Navajo Indians who were employed by the military to talk over the radio in their native tongue. The complex and unwritten Navajo language was undecipherable to the Japanese.*

Dr. Ault received his bachelor's degree from Amherst College in 1955 and his Ph.D. from Harvard University in 1960. After teaching for two years at Grinnell College, he moved to Cornell College, where he is now a professor of chemistry. He has taught during summers at Dartmouth College, the University of Wisconsin at Madison, and, for thirteen years, at Harvard University. He has been a visiting professor at The Pennsylvania State University and at Brandeis University. He is the author of *Techniques and Experiments for Organic Chemistry*, *Problems in Organic Structure Determination*, *An Introduction to Proton Nuclear Magnetic Resonance* (with Dr. Gerald O. Dudek), and with his daughter Margaret, *A Handy and Systematic Catalog of NMR Spectra*.

## CHAIR'S COLUMN

*by Johnathan Male*

We are now four months into a fresh and exciting year. I would like to take this opportunity to thank Novella Bridges for a superb job of guiding the Richland ACS as chair last year. I am looking forward to a challenging but rewarding year and hope to be able to serve you well as the new chair. It is a phenomenal time to be a chemist. We are looking at an infusion of interest in new science to shape the technology of tomorrow in order to address issues in energy, the environment and the legacy we leave the next generation of chemists. Touching on this latter point this is also the year that student affiliates transition to student members. We look forward to reaching out to these new student members who will be extremely important to the future of chemistry.

We do hope you have had the chance to update your member information by signing into the member network:

[http://portal.acs.org/portal/acs/corg/networkLanding?nfpb=true&pageLabel=PP\\_MNLANDING&node\\_id=2127&use\\_sec=false](http://portal.acs.org/portal/acs/corg/networkLanding?nfpb=true&pageLabel=PP_MNLANDING&node_id=2127&use_sec=false)

and correcting or adding any of your contact details particularly your email address. In an effort to save paper and the environment we hope to transition to solely an electronic copy of the newsletter by the fall of 2009.

Our next tour speaker will be Dr. Addison Ault on Monday, May 11, 2009, please mark your calendars and we look forward to seeing you at the presentation.

## EOU OUTSTANDING AWARD

### EOU Student Affiliates score big in Salt Lake City



Fourteen Eastern Oregon University Student Affiliates kept very busy while attending the National Meeting in Salt Lake City this past March. The La Grande group received an outstanding award for their activities during the 2007-08 academic year (featured in the photo above). They also participated in the Chem Demo exchange with an activity portraying the effect of temperature on gas solubility and were one of three Affiliate groups in the nation to be invited to conduct a workshop for Kids in Chemistry. This was an excellent opportunity to disseminate the popular "Girls in Science" event held every fall on the EOU campus. And, if that was not enough, they also participated in poster presentations featuring their research and visited the Utah Crime Lab. They even had a little time left to have some fun!

## MEMBER AWARDS

Please join the Section in congratulating Novella Bridges, one of this year's winners of the Fitzner-Eberhardt Award for Outstanding Contributions to Science and Engineering Education. Novella is a scientist in the Nuclear Science, Safety, and Nonproliferation Division at the Pacific Northwest National Laboratory (PNNL). Dawn Wellman also was nominated for this prestigious award. Additionally, PNNL and DOE's Office of Science recognized Dawn Wellman as an outstanding mentor. Novella and Dawn have demonstrated a remarkable commitment to science education, each in their own way making invaluable contributions to inspiring and developing the next generation of scientific and technical professionals.

## EARTH DAY 2009

Richland Section volunteers worked with the City of Richland Parks and Recreation staff to plant our annual Chem-is-TREE in honor of Earth Day and Arbor Day 2009. This marks the 7th year for this event. This year's Chem-is-TREE is one of three (huge) trees planted April 23, 2009 in Howard Amon Overlook Park at the south entrance to Richland.



## ANNUAL PICNIC *June 19*

The Section's annual picnic will be on June 19th at Sacajawea State Park in Pasco. The park is located at the confluence of the Snake and Columbia rivers, and is the site where Lewis and Clark camped during their famous trip. The park has play areas for children and a brand new interpretive center. Check our Section website for details as the date draws nearer.

## COMING EVENTS

**MAY 11**

**Addison Ault, Chance and Design in Organic Chemistry**, WSU-TC

**JUNE 19**

**Section Annual Picnic**, Sacajawea State Park, Pasco, WA

**JUNE 28 - JULY 1**

**Northwest Regional Meeting** Tacoma, WA

**SEPTEMBER 16**

**Dr. Pete Ludovice**, Applied Molecular Modeling – Not Just Video Games Anymore

**OCTOBER 18-24**

**National Chemistry Week**

**OCTOBER 19**

**Mark Thomson**, Ferris State U., The Role of Chemistry in the Development of Regional Styles of Beer and Ale

**NOVEMBER 11**

**Dr. Wayne Jones, Jr.**, How Small Can You Go? Molecular Wires and Devices in the Modern World

## NEWSLETTER TO GO INTERNET, MOSTLY

**EMAIL US** to continue receiving printed version at: [acsrichlandsection@gmail.com](mailto:acsrichlandsection@gmail.com)

THE FUTURE IS COMING. Like Paul Revere's famous words about the British, these words portend a coming revolution. We are speaking of course, about the internet. It is proving to be an amazingly efficient way of distributing information, much to the consternation newspapers and the post office. In light of coming postal rate increases (next one due May 11), and its responsibility to be good stewards of Section funds, the Richland Section Board has directed that the newsletter move to electronic distribution. Printed copies will continue to be mailed to those members who request it. To continue receiving a printed copy of the newsletter, send an email to [acsrichlandsection@gmail.com](mailto:acsrichlandsection@gmail.com) or send a letter or postcard to the editors at the Pasco address printed on the newsletter. The changeover will be effective with the first newsletter in 2010.

Richland Section  
Home Page

[www.pnl.gov/acs/](http://www.pnl.gov/acs/)



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### Point to Ponder

He who hesitates is sometimes saved. – James Thurber