Annual Awards Banquet Thursday 28 Apr 2016

## COLORS OF THE PAST: ARCHAEOLOGICAL CHEMISTRY OF NATURAL DYES

Ruth Ann Armitage
Department of Chemistry
Eastern Michigan University



Color fascinates us, and has for millennia. From the vibrant mineral colors of Paleolithic rock art to the development of mauvine, chemistry and color are inseparable. Archaeological evidence indicates that humans may have used plants as much as 30,000 years ago to give color to fibers. Ancient dyers were the earliest experimental chemists, preparing natural dyes from plants, shellfish, and insects. These dye sources can often be identified by their telltale molecules. The Armitage group at Eastern Michigan University works in collaboration with museums and archaeologists to identify these molecules today in textiles, lake pigments, and manuscripts using mass spectrometry methods.

6:00-6:30 pm Social Hour 6:30-7:30 pm Dinner 7:15-7:30 pm Awards 7:30-8:30 pm Presentation

Oklahoma State University – Oklahoma City Student Center 3rd Floor, Conference South 900 N. Portland Ave, Oklahoma City, OK 73107 map: <a href="http://www.osuokc.edu/map/">http://www.osuokc.edu/map/</a>



Italian: Build your own Pasta Bowl

Pasta Noodles
Marinara and Alfredo Sauces
Grilled Chicken
Meatballs
Garden Salad
Italian Green Beans
Garlic Bread
Tea and Coffee

Cost \$20 members \$5 students

RSVP Deadline Monday, Apr 25<sup>th</sup>, noon Contact: Patty Webb 405-945-3220

plwebb@osuokc.edu

*RSVP* is *NOT* required to attend the presentation.

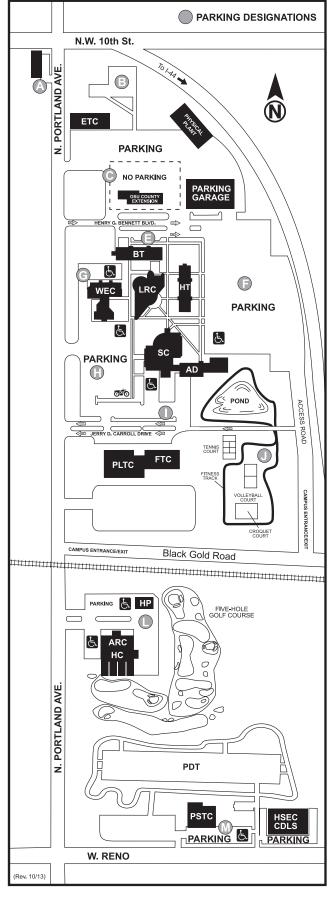
## Ruth Ann Armitage Biographical Sketch

While still a chemistry student at Thiel College in Pennsylvania, Ruth Ann Armitage, now Professor of Chemistry at Eastern Michigan University, participated in an archaeological field school that confirmed her desire to combine these seemingly disparate disciplines. She completed a Ph.D. in Analytical Chemistry at Texas A&M University on radiocarbon dating of charcoal-pigmented rock paintings. She has since worked with archaeologists at historic and prehistoric sites around the world. Dr. Armitage and her students develop mass spectrometry methods to characterize archaeological materials, including rock paintings, dyes in ancient textiles, and ceramic residues to help archaeologists understand our ancient past.



# Campus Map and Buildings

900 N. Portland Ave. ● Oklahoma City, OK 73107 ● (405) 947-4421 ● info@osuokc.edu



#### AD - Administration First Floor

- Institutional Assessment
- Institutional Grants/Institutional Effectiveness
- Print & Mail Services
- **Purchasing Department**
- Title III
- Wellness Center

#### Second Floor

- Academic Affairs Administrative Offices
- Administrative Conference Rooms
- Business and Industry Training & Economic Development Offices
- Business Services
- Communications and Marketing
- Finance and Operations
- Human Resources
- President's Office

#### ARC - Agriculture Resource Center

- Division of Agriculture Technologies
- Horticulture
- Veterinary Technology

#### BT - Business Technologies **First Floor**

Campus Security

#### Second Floor

Information Services Administrative Offices

#### Third Floor

- Division of Business Administration
- Information Systems and Technologies

## COEXT - County Extension

#### **ETC - Engineering Technology Center** First Floor

- Division of Science and Engineering Technologies
- Math Department

#### Second Floor

Cooperative Alliance

#### FTC - Oklahoma City Fire Training Center

#### **HC** - Horticulture Center

- All-America Trial Gardens
- Golf Course
- Greenhouses
- Turf Management Training Facility

#### **HP - Horticulture Pavilion**

## **HSEC - Human Services Education Center**

- Child Development Lab School
- Early Care Education Department
- Division of Human Services
- Social Services Department

#### **HT - Health Technologies** First Floor

Cardiovascular Department

#### Second Floor

- Division of Health Sciences Offices
- Dietetic Technologies
- Nurse Science

#### Third Floor

Science Department Office

#### **LRC** - Learning Resource Center First Floor

- Information Services
- **Technology Support Center**

#### Second Floor

- Division of Initial College Studies
  - Student Success & Opportunity Center (S.S.O.C.)
- Project RÉACH
- Student Computer & Tutoring Lab

## Third Floor

Division of Arts and Sciences

## **Fourth Floor**

Library

## **PDT - Precision Driving Training**

### **PLTC - Oklahoma City Police Training** Center

## **PSTC - Public Safety Training Center**

- Bachelor of Technology-Emergency Responder Administration (BT-ERA)
- Center for Safety and Emergency Preparedness (CSEP)
- Precision Driving Training
- Public Safety Department

#### SC - Student Center First Floor

- Admissions/Registrar Services
- Advisement Center
- **Career Services**
- **Educational Talent Search**
- Financial Aid and Scholarships
- Project SOAR
- Records
- Recruitment/Campus Tours
- Services to Students with Disabilities
- Student Services Administrative Offices
- Testing and Assessment Veterans' Services Center
- Welcome Center

## Second Floor

- Bookstore
- Finish Orange OSU Office
- Student Government Association Office
- Student Life
- The Hub

## **Third Floor**

- Blair Room
- Conference Center (North, South)
- Conference Room 304
- Cowboy Catering & Event Services
- J. Doug Pruitt Suite
- Mother's Room
- **OSU Foundation**
- Pistol Pete Room

#### **WEC - West Education Center** First Floor

- **Deaf Student Services**
- Interpreter Training Program

#### Second Floor

- **CNA Program**
- Training and Development Center

#### Third Floor

Upward Bound