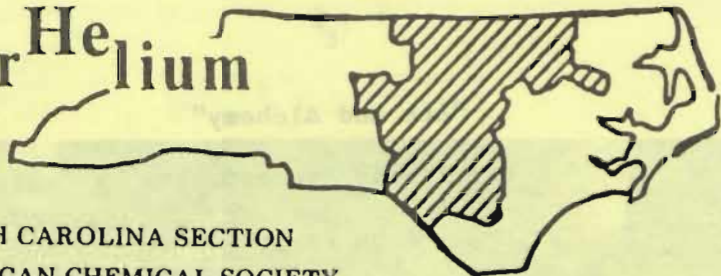


Tar Helium



NORTH CAROLINA SECTION
AMERICAN CHEMICAL SOCIETY

Vol. 15, No. 3

November, 1984

Tuesday, November 13, 1984
North Carolina Central University

ART AND ALCHEMY*

by

John C. Pavlik
Fisher Scientific Company
Pittsburgh, Pennsylvania

Social: 5:30 p.m. Eagle's Nest
A. Elder Student Union, NCCU

Dinner: 6:30 p.m. Eagle's Nest, NCCU
(Ribeye steak)
(\$9.00 for members, \$4.00 for
students)

Lecture: 8:00 p.m. Room 112, Auditorium
Hubbard Chemistry Building
NCCU

*Alchemical reproductions (unframed) will be available to those in attendance. See Page 3 for a sample.

For reservations, please call one of the following persons by November 8: In Durham, call Sue Dickerson at 684-2414; in Chapel Hill, Debbie Edwards at 962-2172; and in Raleigh, call Joyce Dunn at 737-2548.

"Art and Alchemy"

a talk/slide presentation by

John Pavlik

Abstract

"Art and Alchemy" traces the early developments in chemistry, metallurgy, pharmacology, medicine, and allied fields using color slides made from the original artworks in the Fisher collection. Some of the more interesting apparatus of the Seventeenth and Eighteenth Century laboratories are shown in these pictures. Attention is drawn to the serious, although often misunderstood, practice of alchemy--a fantastic amalgam of crude science, mysticism, theology, philosophy, and fun--thanks to some humorous insights provided by the artists.

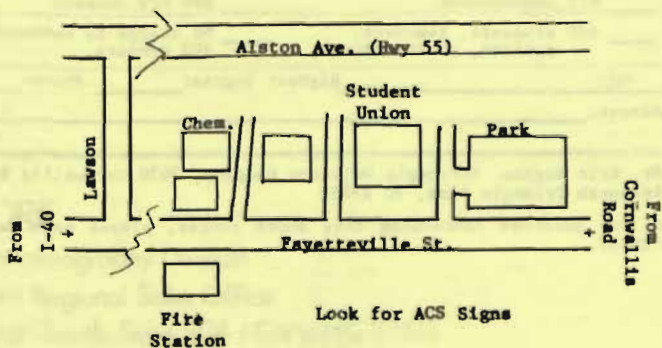
The Fisher collection has been gathered from across the world and is the largest collection of its kind. It consists of over forty oil paintings, plus hundreds of etchings, engravings, and prints. Many of the paintings are "mini-masterpieces," products of the Dutch and Flemish Schools of the Seventeenth Century.

JOHN C. PAVLIK concerns himself with the history of early science and also personnel development for Fisher Scientific Company. He received his education at St. Vincent College, Latrobe, PA. Presently, he is curator of the Fisher collection of alchemical and historical pictures and director of personnel development for Fisher. Previously, he was the firm's director of public relations and creative director for Fisher's advertising department. He is a science writer and has had articles published in the Fisher journal, The Laboratory, in several trade journals, and in the nationally-known magazine, Science Digest.

WATERS



NOVEMBER MEETING PLACE



North Carolina Section
Fall Short Course

*** INTRODUCTORY DIGITAL ELECTRONICS ***

Dates: Monday and Tuesday, November 26 and 27, 1984
 Time: 9:00 a.m. to 4:30 p.m. each day
 Place: Burroughs Wellcome Auditorium
 3030 Cornwallis Rd.
 Research Triangle Park, NC
 Instructor: Dr. David F. Smith
 Burroughs Wellcome Co.
 919-248-4878

This course is intended for scientists who need to design simple digital logic circuits, especially interfaces between laboratory instruments and computers. Most new instruments provide some sort of "computer compatible" inputs and outputs, but attaching them to a computer is seldom as easy as stringing a cable from one box to another. Techniques such as gating, latching, multiplexing, and handshaking are often used to make data acquisition and control easier for the computer and to allow the programs to be written in a high level language such as BASIC.

No previous knowledge of digital electronics will be required or assumed. Familiarity with simple electronic components (resistors, capacitors, etc.) will be helpful. Programming examples will be given in BASIC.

Topics to be discussed:

- Logical operations and Boolean algebra
- Electrical properties of TTL circuits
- Examples of TTL circuits: gates, flip-flops, counters, etc.
- Digital-to-analog and analog-to-digital conversion
- Real-time programming considerations
- Applications: design and demonstration of interfaces for one or two laboratory instruments

Lectures will be interspersed with demonstrations, and plenty of time will be available for questions and discussion.

The instructor, David F. Smith, received his B.S. from Davidson College and his Ph.D. in Analytical Chemistry from UNC-CH, the latter in 1978 under Dr. Royce Murray. After teaching for two years at Carleton College in Northfield, Minnesota, he was lured back to North Carolina to become a member of the Automation Department at Burroughs Wellcome. In addition to microcomputer data acquisition and electronics, his interests include choral and instrumental music.

Enclosed is a check (payable to the North Carolina Section, American Chemical Society) as registration fee for "Introductory Digital Electronics," the NC Sections's fall short course to be held November 26 and 27 at Burroughs Wellcome.

_____ \$75 non-members	_____ \$60 ACS members
_____ \$20 students, teachers, retired, post-doctoral	_____ No charge to unemployed ACS members

Name: _____ Highest Degree: _____ Phone: _____

Business Address: _____

Send to: Dr. Eric Bigham, Burroughs Wellcome Company, 3030 Cornwallis Rd.,
 Research Triangle Park, NC 27709

If you have any questions concerning this short course, please call Dr. Todd A. Craig (549-2633).

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BEEN "SUPPRESSED"
TOO LONG?

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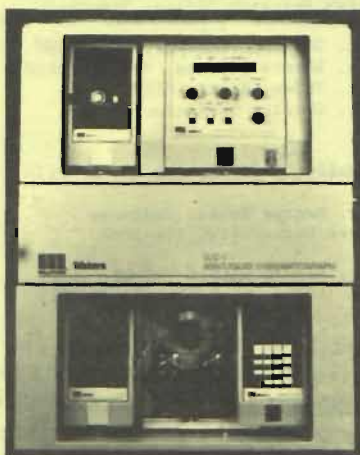
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ANNOUNCEMENTS

December Meeting

The December meeting of the North Carolina Section will be held at Meredith College on Tuesday, December 11, 1984. The speaker and topic will be announced.

Planning Retreat

An invitation is extended to all interested members of the North Carolina Section to attend a planning retreat on **January 26, 1985**. This one-day event will be held at Pineview Conference Center, which is three miles west of Chapel Hill.

Please mark this date on your calendars and watch for more details in our December issue.

If you have announcements which you feel might be newsworthy to North Carolina Section members please send them to the address below:

Dr. W. F. Gutknecht, Editor
TarHelium
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27609

You also may call in announcements at 541-6555 (Carol Bilbro).

TARHELIUM IS PUBLISHED BY THE NORTH CAROLINA SECTION OF THE AMERICAN CHEMICAL SOCIETY. THE VIEWS EXPRESSED HEREIN ARE NOT NECESSARILY THOSE OF THE SECTION. DIRECT ALL CORRESPONDENCE TO DR. WILLIAM F. GUTKNECHT, EDITOR, ENVIRONMENTAL CHEMISTRY DEPARTMENT, RESEARCH TRIANGLE INSTITUTE, P.O. BOX 12194, RESEARCH TRIANGLE PARK, N.C. 27709.

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