

“Soft Carbon Sheets at Interfaces”

WED | **29** | **FEB**
5:00-6:00 P.M.
FERGUSON AUDITORIUM
600 S. MICHIGAN AVE., 1ST FLOOR

Presented By:
Dr. Jiaxing Huang, Morris E. Fine Research Professor in Materials and Manufacturing, Northwestern University

Graphite oxide sheets, now called graphene oxide (GO), are made by the exfoliation of graphite using century-old chemical reactions. Since 2004, interest in this old material has resurged with the rapid development of graphene, as GO is considered to be a promising precursor for bulk production of graphene.

Apart from making graphene, GO itself has many intriguing properties: It is a soft material that can be viewed as two-dimensional polymer, sheet-like colloid, membrane, liquid crystal, or surfactant.

In this lecture, Dr. Jiaxing Huang will present a few challenges in the practical applications of bulk graphene materials. For example, how do we “see” these single atomic sheets? How do we coax them to assemble into a desirable structure, such as a flat thin film or a high surface area monolith without restacking the sheets? Examples from our daily experiences with paper will be presented.

Finally, a new application of GO as a surfactant and dispersing agent will be introduced, which makes them the world’s thinnest bar of soap!

The Science and Mathematics Colloquium Series invites distinguished speakers from related disciplines to present current, exciting scientific research to Columbia College Chicago’s faculty, staff, and students, as well as to Chicago’s South Loop community. Talks are intended to introduce a general audience to a wide variety of important advances in science and mathematics, their potential applications, and their implications for public policy. Reflecting the arts emphasis at Columbia College Chicago, select talks examine the intersections among science, mathematics, art, and the media.

NOTABLE TOPICS THIS YEAR INCLUDE LECTURES HIGHLIGHTING THE NEW UNDERGRADUATE DEGREE PROGRAM IN ART AND MATERIALS CONSERVATION.

ALL LECTURES ARE FREE AND OPEN TO THE PUBLIC. A BRIEF RECEPTION WILL PRECEDE EACH TALK IN THE FERGUSON AUDITORIUM LOBBY.

Cover image courtesy of Rod Slemmons.

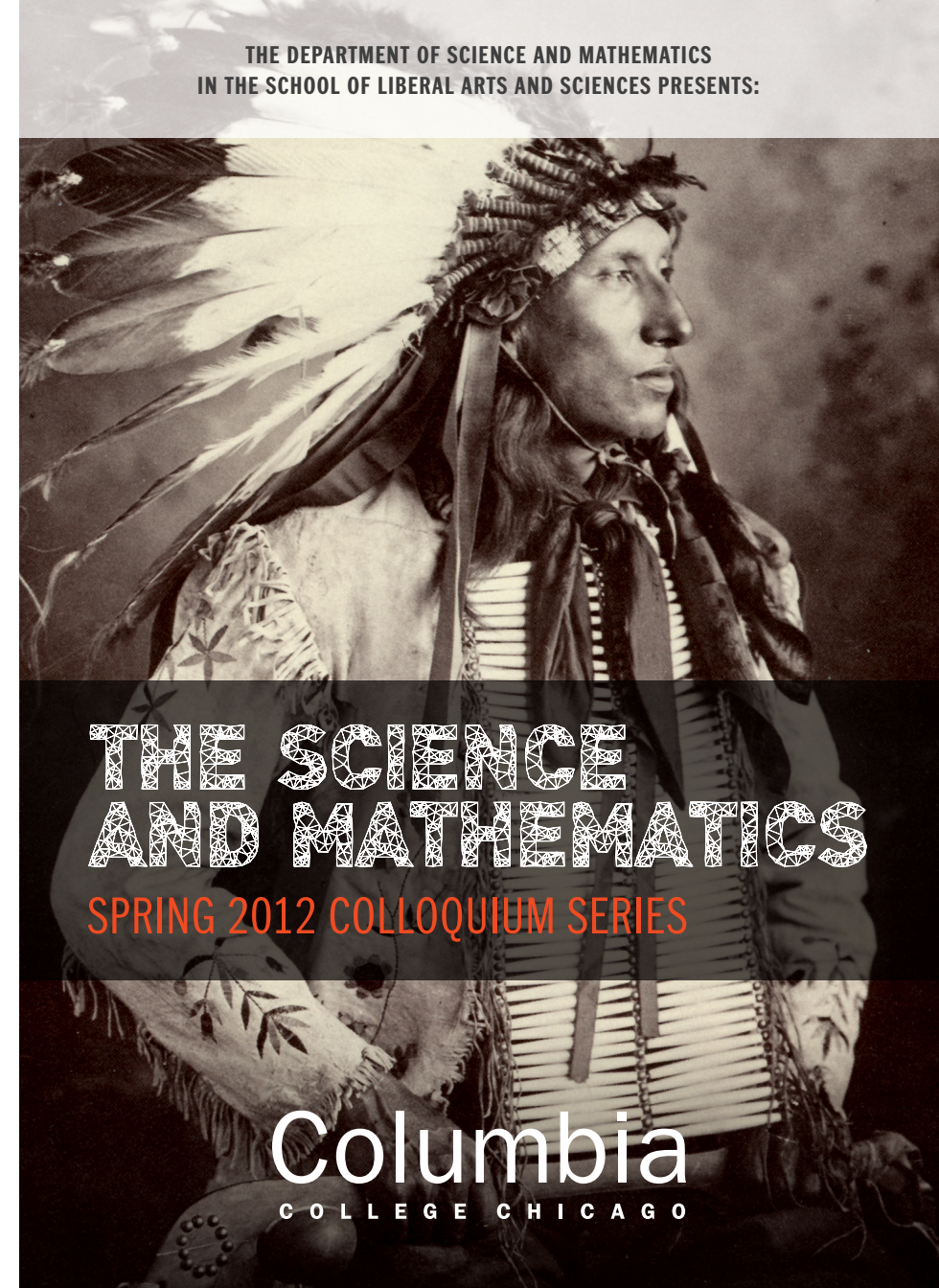
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IN THE SCHOOL OF LIBERAL ARTS AND SCIENCES PRESENTS:



**THE SCIENCE
AND MATHEMATICS**

SPRING 2012 COLLOQUIUM SERIES

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“Preserving Original Photographs and Archiving Their Information for the Future”

WED | **15** 5:00-6:00 P.M.
FEB | **15** FERGUSON AUDITORIUM
600 S. MICHIGAN AVE., 1ST FLOOR

Presented By:

Mr. Rod Slemmons, Director of Special Projects in the Office of Academic Research, and Curator at Large for the Museum of Contemporary Photography, Columbia College Chicago

Long before the advent of digital technology made the general professional community aware of the need to conserve and migrate photographic information to new media for future generations, photography archivists were already thinking of ways to do so. And while archivists now have a variety of methods at their disposal, many questions and concerns remain about the processes for preserving and archiving original photographs.

For example: What are the economic consequences of preserving original photographic material, and when is it in our best interest to preserve it? How do we keep collections safe from disasters, and what is the necessary degree of aesthetic perfection that is required in an image before it is archived? And finally, how do we measure an image's cultural substance in order to select the most appropriate photographs to preserve?

In the first lecture of the Spring 2012 Science and Mathematics Colloquium Series, Rod Slemmons will address the complexities of preserving original photographs and archiving their information for the future.

“When We Were Small: Life and Death in the Petrified Forest”

WED | **21** 5:00-6:00 P.M.
MAR | **21** FERGUSON AUDITORIUM
600 S. MICHIGAN AVE., 1ST FLOOR

Presented By:

Dr. Robin L. Whatley, Assistant Professor, Columbia College Chicago

Our earliest mammalian ancestors, along with early dinosaurs, crocodiles, turtles, frogs, lizards, and other land animals, appear across the globe in fossil deposits that are from the Late Triassic Period, approximately 220 million years ago. By the Early Jurassic Period, between twenty and thirty million years later, we see fossil evidence of great diversification in these small-bodied animals.

The Petrified Forest National Park, in Arizona, preserves one of the most complete fossil sequences in the world, spanning the intervening twenty or so million years. This is an important time in the evolution of these groups.

In this lecture, Dr. Robin Whatley will describe her work with a team of paleontologists and Columbia College Chicago students as they searched the badlands of Arizona, on foot and by horseback, for clues into the origins of our small terrestrial ancestors.

“Wood Speak”

WED | **11** 5:00-6:00 P.M.
APR | **11** FERGUSON AUDITORIUM
600 S. MICHIGAN AVE., 1ST FLOOR

Presented By:

Ms. Diana Bernacki, Conservation Administrator, Bernacki and Associates Inc., Chicago

Is it only centuries-old art and architecture in foreign countries that deserve preservation?

Many Americans marvel at how cultural history and identity are valued and preserved in European and Asian countries. But what about the preservation and restoration of our own landmarks and art? And, more specifically, what is the value of preserving and restoring millwork, wooden art, and the interior wooden elements of Chicago-based structures, such as Mies Van der Rohe's Illinois Institute of Technology building and the Loop Post Office?

Join conservation administrator Diana Bernacki for the final lecture of the Spring 2012 Science and Mathematics Colloquium Series, as she discusses the importance and processes of preserving and restoring wooden artifacts and structures.