

COAS

College of Arts and Sciences  
**1st Annual Research Conference**  
Indiana University Northwest  
November 11-12, 2004



Thursday, November 11

1:00 pm – 1:30 pm

Complimentary Coffee and Snacks, LCC 105AB

1:30 pm – 2:00 pm

Conference Overview, LCC 105AB

**Dr. Frank Caucci**, Department of Modern Languages, Linguistics, and Comparative Literature; **Acting Dean Atilla Tuncay**, College of Arts and Sciences; **Interim Vice-Chancellor Dorothy Ige**, Academic Affairs; **Chancellor Bruce Bergland**

Sessions A 2:00 pm – 3:15 pm

A 1. Classical and Medieval Literature, LCC 110

Chair: **Dr. Mary Harris Russell**, Department of English

Wulf and Eadwacer: Perils and Parallels of Loneliness

**Mark Cassello** (Faculty Sponsor: Professor Robin Hass Birky), Department of English

“Language lined with flesh” and Other “Pulsional Incidents”:  
Rhetoric, Pleasure, and Bliss in Medieval Arts of Poetry

**Robin Hass Birky**, Department of English

The Lady of the Lake: An Arthurian Portrayal

**Monique Fredline** (Faculty Sponsor: Professor Robin Hass Birky), Department of English

A 2. Native Peoples of the Americas, LCC 115

Chair: **Dr. Michelle Stokely**, Department of Sociology and Anthropology

Globalized Language Extinction in David Crystal’s Language Death

**John Huber** (Faculty Sponsor: Professor Robin Hass Birky), Department of English

The Peru Experience

**Elizabeth Baker** (Faculty Sponsor: Professor K. Forgey), Department of Sociology and Anthropology

Poster Presentation: The Importance of a Formal Field School

**Victoria Lacny** (Faculty Sponsor: Professor Michelle Stokely),  
Department of Sociology and Anthropology

Sessions B 3:30 pm – 4:45 pm

B 1. The Two Q’s of Research, LCC 110

Chair: **Dr. Frank Caucci**, Department of Modern Languages, Linguistics, and Comparative Literature

Modern Anglophone Drama by Women

**Alan Barr**, Department of English

Self-Reported Drug Use and the Presentation of Self

**William Dustin Cantrell**, Department of Sociology and Anthropology

Indoors versus Outdoors: Is There a Difference in Imaginary Play  
Frequency between Settings?

**Sarah Scubelek, Kristy Brzozkiewicz** (Faculty Sponsor: Professor Mary Ann Fischer),  
Department of Psychology

Stepping on Toes: Methodological and Ethical Problems in Writing  
Institutional History

**Jim Lane, Paul Kern**, Department of History, Philosophy, and Religious Studies

B 2. Science Matters, LCC 115

Chair: **Dr. Kristin Huysken**, Department of Geosciences

U(n) Groups: Cyclic or Not?

**Jason McGee** (Faculty Sponsor: Professor Vesna Kilibarda),  
Department of Mathematics

Diet and Hominid Evolution

**Mara Brie Deckter** (Faculty Sponsor: Professor Bob Mucci),  
Department of Sociology and Anthropology

A Modern Interactive Approach to Teaching: Getting Students to  
Participate in the Science Classroom

**Nelson De Leon**, Department of Chemistry, Physics, and Astronomy

Sonochemistry in Organic Synthesis: Synthesis of Alkynyl Iodonium Salts

**Janice Smith, Joseph Hinton, Karen Kugler** (Faculty Sponsor: Professor Atilla  
Tuncay), Department of Chemistry, Physics, and Astronomy

Sonochemistry in Organic Synthesis: Nucleophilic Substitution  
Reactions of Alkynyl Iodonium Salts

**Karen Kugler, Kimberly Kenny, Joseph Hinton** (Faculty Sponsor: Professor Atilla  
Tuncay), Department of Chemistry, Physics, and Astronomy

Friday, November 12

**8:00 am – 8:15 am**

Continental Breakfast, LCC 105AB

**8:15 am – 8:30 am**

Conference Update, LCC 105AB

**Sessions C 8:30 am – 9:45 am**

### C 1. Ethics and Politics, LCC 105C

Chair: **Dr. Roberta Wollons**, Department of History, Philosophy, and Religious Studies

Balancing Intellectual Integrity and Political Pressure in 20th Century China: The Story of Feng Youlan

**Diana Lin Xiaoqing**, Department of History, Philosophy, and Religious Studies

Universalism versus Relativism: Human Rights as an Ethical Position

**Anja Matwijkiw**, Department of History, Philosophy, and Religious Studies

The Role of King Boris III in the Holocaust: Implications for Present American-Bulgarian Relations

**Fred Chary**, Department of History, Philosophy, and Religious Studies

### C 2. Communication Research: Methodologies and Changing Perspectives, LCC 110

Chair: **Dr. Jim Tolhuizen**, Department of Communication

Narrative Research Methodology, Practice, and Implications for the Ethical Use of Personal Stories as Performance Text

**Lori Montalbano-Phelps**, Department of Communication

Exploring New Empirical Methods in Interpersonal Communication Research

**Jim Tolhuizen**, Department of Communication

Investigating Historical and Critical Resources on the History of Mass Media and the Socio-Cultural Impact of Mass-Media Texts

**Taylor Lake**, Department of Communication

### C 3. Natural Sciences: The Great Lakes I, LCC 115

Chair: **Dr. Alan Lindmark**, Department of Chemistry, Physics, and Astronomy

Photocatalytic Remediation of Air Pollutants:

Oxidative Destruction of Gas Phase PAHs

**Julie Peller, Aaron Lozano**, Department of Chemistry, Physics, and Astronomy

Relocating the 1909 Upper Mississippi Valley Earthquake:

Implications for Seismicity in NE Illinois/NW Indiana

**Kristin Huysken, Kelly Weyer, Kaz Fujita**, Department of Geosciences

The Chronology and Geomorphology of Glacial Lake Agassiz's Outlets

**Timothy G. Fisher**, University of Toledo

Poster Presentation: Petrography of the Kokomo Dolomite Microfacies from Northern Indiana

**Jason Doffin, Zoran Kilibarda**, Department of Geosciences

Poster Presentation: Constraint of the Nipissing Transgression

**A.M. Lahners, Timothy G. Fisher**, University of Toledo

**Sessions D 10:00 am – 11:15 am**

### D 1. 16th – 19th Century Literature, LCC 110

Chair: **Dr. Robin Hass Birky**, Department of English

Gender Identity and the Use of Voice in *Adventures of Huckleberry Finn* and *Little Women*

**PaTricia Schroader** (Faculty Sponsor: Professor George Bodmer), Department of English

*The Water Babies*: A Marxist Critique

**Nicholas Perez** (Faculty Sponsor: Professor Mary Harris Russell), Department of English

“Propagated Curse”: Taking Pleasure in *Paradise Lost*

**Doug Swartz**, Department of English

## D 2. Natural Sciences: The Great Lakes II, LCC 115

Chair: **Dr. Kristin Huysken**, Department of Geosciences

Ecological Strategy of the Little Calumet River Prairie and Wetlands Project

**Spencer Cortwright**, Department of Biology

Eolian Sand in Lacustrine Sediments:

A Proxy for Relative Water Levels of Lake Michigan

**K.A. Weyer, T.G. Fisher, W.L. Loope**, Department of Geosciences

Geologic Mapping in Indiana: Scientific Discovery for Societal Needs

**Steven Brown**, Indiana Geological Survey, (Poster presentation follows)

Poster Presentation: Optically Stimulated Luminescence Dating of Late

Holocene Strandplain Sequences Adjacent to Lake Superior

**Erin P. Argyilan, Steve L. Forman**, Department of Geosciences

**11:15 am – 12:45 pm**

Lunch Break

**1:00 pm – 2:00 pm**

**Keynote Speaker, LCC 105ABC**

**The Honorable Scott King**, JD, Mayor of Gary

How Can Indiana University Northwest Help to Better Serve Gary and the Community at Large?

**Sessions E 2:15 pm – 3:30 pm**

## E 1. Theological Imperatives & the Missionary Movement, LCC 110

Chair: **Dr. Diana Lin Xiaoqing**, Department of History, Philosophy, and Religious Studies

‘The Blood-Dimmed Tide is Loosed’: A Medieval Case Study of Persecution, Apocalypticism, and Violence

**Jerry Pierce**, Department of History, Philosophy, and Religious Studies

Missionaries and Conversion in the Carolingian Age

**Chris Molnar**, Purdue University Lafayette

Outposts of Culture, Politics, and Gender:

Missionary Experiences in non-Western Settings

**Roberta Wollons**, Department of History, Philosophy, and Religious Studies

## E 2. Boundaries of Americana, LCC 115

Chair: **Dr. Rick Hull**, Department of English

A.S.W. Rosenbach: The American Who Bought *Alice in Wonderland*

**George Bodmer**, Department of English

Zombies Devour Culture: The Zombie as Cultural Icon

**Casey Kirkpatrick** (Faculty Sponsor: Professor Chuck Gallmeier), Department of Sociology and Anthropology

Perspectives of Aimé Césaire’s *Notebook of a Return to the Native Island*

**Charlotte Noble** (Faculty Sponsor: Professor Scooter Pégram),

Department of Modern Languages, Linguistics, and Comparative Literature

American Folk Music in the 20th Century

**Ron Cohen**, Department of History, Philosophy, and Religious Studies

**Sessions F 3:45 pm – 5:00 pm**

**F 1. 20th Century Literature, LCC 110**

Chair: **Dr. George Bodmer**, Department of English

*San Manuel Bueno, mártir* and the Allure of Authority

**Adrián M. García**, Department of Modern Languages, Linguistics, and Comparative Literature

The Failings of Ecological Man: Italo Calvino

**Bill Allegrezza**, Department of English

Interpretation as Power in Aidan Chambers' *Postcards from No Man's Land*

**Mary Harris Russell**, Department of English

Nancy Huston's Poetics of Self and the Question of National Identity

**Frank Caucci**, Department of Modern Languages, Linguistics, and Comparative Literature

**F 2. Communities, LCC 115**

Chair: **Dr. Bob Mucci**, Department of Sociology and Anthropology

Teaching Spanish and the Five C's: The Role of Four Twentieth-Century Hispanic Women Painters and the Standards for Language Learning

**Ana Osan**, Department of Modern Languages, Linguistics, and Comparative Literature

Blackbear's Calendar: Picturing Apache History

**Michelle Stokely**, Department of Sociology and Anthropology

Limits of Corporate Paternalism: Gary's Hunkeyville, 1906-1911

**Samuel Barnett**, University of Illinois at Chicago

**5:00 p.m. - 5:15 p.m.**

**Closing Remarks, LCC 105ABC**

**Dr. Frank Caucci**, Department of Modern Languages, Linguistics, and Comparative Literature  
**Dr. Atilla Tuncay**, Acting Dean, College of Arts and Sciences

**5:15 pm – 6:45 pm**

**Chancellor's Reception, LCC 105ABC**

## Conference Abstracts

*Abstracts appear in alphabetical order, by presenter*

**William Allegranza**, English Department

Failure and Desire in the Ecological Man: Italo Calvino's *Marcovaldo*.

In the U.S. when we think of environmental writers, we recall founding environmentalists like Henry David Thoreau or John Muir, lone individuals who spend time exploring uncorrupted "nature;" however, while the image of such men ties into the American concept of the individual, it hardly corresponds with a contemporary individual's relationship to his or her urban setting or to nature. While many writers explore this issue, few writers have written explorations as probing as Italo Calvino in *Marcovaldo*. In contrast to our image of the lone American naturalist, this collection of stories centers around *Marcovaldo*, an Italian industrial worker who has moved to the city and now has a wife and children. These humorous stories explore *Marcovaldo*'s failure to commune with nature and the complications of understanding nature. For example, in one story *Marcovaldo* is upset over the chemical additives and diseases of modern foods, and like the Rousseau man, heads to a river to find a "natural" food source. After fishing in the bluest section of the river, he is told by an official that his "natural" river is blue because of chemicals dumped into it by a paint factory. Over and over in this collection, *Marcovaldo* desires an experience of nature but is frustrated by his environment; moreover, through *Marcovaldo*'s comical misadventures, Calvino explores how many contemporary humans exist in a modern urban environment and how we have complicated our idea of nature and altered our connection to it.

**Erin Argyilan**, Steve L. **Forman**, Department of Geosciences

Optically Stimulated Luminescence Dating of Late Holocene Strandplain Sequences Adjacent to Lake Superior

Chronologic control on the timing of beach ridge formation in strandplains adjacent to the Great Lakes has relied on 14C dating ages from basal organics in wetlands that commonly form in swales between individual ridges. We evaluate 14C ages from four strandplains adjacent to Lake Superior. Creation of a reliable 14C-based age model for strandplains in Lake Superior is confounded by (1) clustering conventional and AMS 14C ages within portions of the strandplains (2) scatter of 10's to 1000's of years in ages from nearby swales, and (3) a general lack of peat accumulation or preservation. Optically stimulated luminescence is introduced as an alternate geochronometer. The single aliquot regeneration (SAR) technique is used to date littoral sediments from beach ridges in the same strandplains previously dated by 14C methods. Beach ridges that yield SAR ages <2000 yr B.P. show general agreement with corresponding 14C ages on swale organics at Grand Traverse and Tahquamenon Bays, Michigan. Significant variability in 14C ages >2000 yr B.P. complicates comparison to SAR ages at these sites. SAR provides ages for ridges in strandplains at Au Train, Michigan and Batchawana Bay, Ontario where a lack of organic material precludes use of 14C dating methods. All sites consistently show a decrease in the rate of ridge formation ~1400 cal. yr. B.P., likely reflecting separation of Lake Superior from lakes Huron and Michigan. This study suggests that SAR is a credible alternative to 14C methods for dating Great Lakes and other coastal strandplains.

**Elizabeth Baker**, Department of Sociology and Anthropology  
The Peru Experience

This past summer, I volunteered on an archaeological dig in Peru as part of a joint venture with Grand Valley State University, Michigan, and the University of Missouri. I worked on a dual-purpose program combining bio-anthropology and radiography, in Buena Vista, which is located in the Chillón Valley along the Incan trail. The site dates back to 3600 B.C. and is significant in terms of the quantity of architectural material found, the rich plant and animal remains, and human artifacts. We also visited Pachacamac, a huge archaeological site not far from Lima, where our team radiographed pots, skulls, and mummy bundles. Work was also conducted on behalf of the National Museum in Lima, where we worked with more mummy bundles and ancient musical instruments.

**Samuel Barnett**, University of Illinois at Chicago

Limits of Corporate Paternalism: Gary's Hunkeyville, 1906-1911

Despite an infamous strike that tarnished the "model" reputation of George Pullman's company town, many businesses, large and small, still found it in their best interest to providing housing for at least some of their employees. In fact, the period between the Pullman strike and World War I saw more new company towns appear on the map than in previous decades. Corporate officials and architects implemented new ideas and policies in their attempts to create and administer company towns. The largest effort occurred in 1906 when the United States Steel Corporation created Gary, Indiana. The corporation consciously differentiated itself from previous models in two ways. First, officials deliberately sought to avoid the overt paternalism associated with the company town. Second, the corporation attempted to provide housing for its lowest paid, immigrant workers. The experiment proved a failure and US Steel's response resulted in the dislocation of Gary's first Hungarian and Serbian settlements. With this presentation I seek to examine the corporation's motives in the construction and razing of "Hunkeyville," noting class and ethnic factors leading to changes in US Steel's housing policy.

**Alan Barr**, Department of English

Modern Anglophone Drama by Women

After having completed a collection of plays, *Modern Women Playwrights of Europe*, in 2001, I became interested in the idea of a companion volume: *Modern Anglophone Plays by Women*. I was initially encouraged by my editor at Oxford, and spent the next two years researching the project. This involved identifying countries that use English as a literary language: from places like Singapore and Malaysia to Nigeria and India. I then began by combing any national literary histories that I could, corresponding with researchers working in the field (including a trip to the National English Literary Museum in South Africa), securing copies of plays that seemed like good candidates, making choices, and again corresponding with scholars about these choices. I will talk briefly about this process, but also about the subsequent much-altered publication world that I have been encountering in circulating my proposal. The new (evidently within the last three years) economics concerning permissions costs and publication has severely complicated the production of this kind of a collection. I will also talk about the initial research (locating and selecting the contents), the process of locating a publisher, and the editing and scholarship that now follows.

George **Bodmer**, Department of English

A. S. W. Rosenbach: the American who Bought *Alice in Wonderland*

At the beginning of the Twentieth Century, Philadelphian A. S. W. Rosenbach, trained as an academic, was forced by family financial reverses to go into business with his brother. He became the most famous and notorious dealer in manuscripts and rare books, buying and selling high profile items, such as Gutenberg Bibles, Shakespeare first folios, autographs of signers of the Declaration of Independence, and even Lewis Carroll's hand-written manuscript for *Alice in Wonderland* (twice!). He used his influence to raise the prices of and therefore preserve and create interest in works of Americana, Jewish history, and children's literature which were little thought of when he began. His notorious auction sales and publicity stunts made him the most famous book dealer of his time, but perhaps his most important legacy came about as world economics were changing. He quietly bought 70 private libraries, and helped to move important literary artifacts from the private libraries of European nobility to American research collections, where they are now available to scholars and students.

Steven E. **Brown**, Indiana Geological Survey

Geologic Mapping in Indiana: Scientific Discovery for Societal Needs

The Indiana Geological Survey, a Research Institute at Indiana University, provides services to the state of Indiana that contribute to the wise stewardship of its energy, mineral, and ground-water resources and the Survey protects the health, safety, and welfare of Indiana's citizenry through the gathering and interpretation of relevant geological information. Geologic maps of Indiana are one of the Survey's products. Geologic maps show the distribution of rocks and sediment at the earth surface and provide information about the physical characteristics of those materials. Traditional geologic mapping involves "going to the field", identifying outcrops of rocks or sediment, and recording field observations on topographic maps, aerial photos, and notebooks. Today, geologic mapping in Indiana involves expensive subsurface exploration through drilling, interpretation of satellite imagery, the use of computer software applications to visualize data in three dimensions, and other innovative technologies to analyze surface landscapes and subsurface geology. Geologic maps, three dimensional geologic map products, and accompanying digital databases are essential tools for understanding and managing earth resources. Primary users of our geologic map products are geologic, water- and mineral-resource, environmental, planning, and public-health professionals. These customers require background geologic concepts and models applicable to site-specific geologic problems and to the development of exploration strategies. Geologic maps provide a basis for decision making and encourage planners to identify and carry out necessary site-specific studies.

William Dustin **Cantrell**, Department of Sociology and Anthropology

Self Reported Drug Use and the Presentation of Self

Researchers who focus on illicit drug use are forced to deal with an obvious question: How can we get reliable information about an illegal and stigmatized activity from the individuals engaged in these activities? While many methods for gathering this information have been proposed, self-report remains the most prevalent. In this paper I discuss the baseline of a five-year study of healthcare utilization by chemically dependent individuals in the correctional system. At baseline 360 nonviolent detainees were interviewed at the Cook County Jail. This assessment consisted of a standardized interview administered by a research assistant, and a physical exam administered by a nurse and licensed physician. Included in both the interview and the physical were questions about drug and alcohol use. In this paper I examine patterns of inconsistency in responses between the questionnaire and physical examination. For example, for each drug, respondents

were systematically more likely to report ever having used a drug during the interview as compared with the physical. I account for these inconsistencies in terms of image presentation; power differentials between patient and medical practitioner; the way the questions were asked, and the interview context. I consider the possibility that rather than representing objective reality, self-reporting is an attempt on the part of the respondent to present a version of reality that paints the subject in the most positive light. This representation is situation dependent and changes with the social setting. Exploring these inconsistencies sheds further light on how to obtain reliable drug use histories.

Mark **Cassello**, Department of English

Wulf and Eadwacer: Perils and Parallels of Loneliness

The nineteen lines of the enigmatic "Wulf and Eadwacer," have been the subject of contentious analysis for over a century; but before addressing the thematic complexities of this text, it is necessary to have a basic understanding of modern poetic translation theory and the degree to which subtle variations in translation can color the readers' perception of the poem. Utilizing translation theory proposed by Burton Raffel, I will deconstruct the widely accepted traditional interpretations of S.A.J. Bradley, Burton Raffel, and Kevin Crossley-Holland. Afterward, I will produce my own revisionist translation that absolves the speaker of her adulterous label. The prevailing interpretation of this text implies the occurrence of marital infidelity in a moment of weakness that leads to a vengeful husband's potential violence against a helpless baby: my potentially more cohesive translation reveals, a highly structured elegy, not a riddle, in which a woman laments her inability to protect herself in the absence of her warrior husband. I will prove that the poem is not simply an emotive outcry, but a well-framed narrative, inspired by loneliness. The speaker, Wulf's wife, contrasts the imagined exploits of her husband to her own struggle against a closer and imminent danger posed by a ravenous Wolf.

Frank **Cauci**, Department of Modern Languages, Linguistics, and Comparative Literature

Nancy Huston's Poetics of Self and the Question of National Identity

The relationship between individual sensibilities and the physical environment has long been identified in Canadian literature as generative of a sense of place. Nancy Huston has uniquely redefined the Atwoodian metaphor of identity as a geography of the mind by positioning herself as an outsider looking in on her object choice. She uses autobiographical and fictional narratives alike as a template from which to consider this canonical binary and deliberately engages in deconstructive and postmodern observation to filter her intimate gaze of the Self in its search for national affiliation. This strategy inevitably leads her to invert official history and to question authoritative models in all their myriad forms. From an Object Relations perspective, Huston both encapsulates and rejects the violent duality intrinsic in the Self's relationship to the environment. The victim trope is thus at once the cause and the effect of personal choice, the dynamic leading this Canadian author to (self-imposed) exile, whence the regressive work of memory evokes a mimetic construction of a constellated Self in tenuous relation to the country of origin.

Frederick B. **Chary**, Department of History, Philosophy, and Religious Studies  
The Role of Boris III in the Holocaust: Implications for Present Bulgarian-American Relations

In March 1943 a German-Bulgarian agreement prepared Bulgaria's small Jewish community for deportation to the death camps of Poland. Protests from various segments of the country and the reversal of German fortunes in the war prevented these deportations although the Bulgarian government did deport Greek and Yugoslav Jews from the territories they occupied. Bulgarian monarchists maintain that King Boris III "saved" the Bulgarian Jews. In 2003 on the sixtieth anniversary of these events the United States Congress passed a resolution praising the king, among others, for this action. The presentation examines the validity of the monarchists' claim, the present controversy over the issue, and the Congressional resolution.

Ronald D. **Cohen**, Department of History, Philosophy, and Religious Studies  
American Folk Music in the 20th Century

Folk music has existed as both a commercial entity and a grassroots musical style throughout the 20th century in the United States. My talk will focus on the commercial side of the story, which begins early in the 1920s when blues and country music began to be commercially recorded. By the 1940s various performers began appearing in the North on records and on radio, particularly Josh White, Burl Ives, and others. The Weavers had a major hit in 1950 with "Goodnight, Irene," but the real breakthrough came in 1958 with the Kingston Trio's hit "Tom Dooley." The folk music revival reached the peak of its popularity in 1964, when the term Hootenanny, meaning a show with various performers, appeared not only as the name of a popular TV show, but also to sell candy, soap, a pinball machine, paper dolls, and so much else. Numerous performers, such as Joan Baez, Bob Dylan, Peter, Paul, and Mary, and many others, were extremely popular, and there were a variety of folk festivals, led by one in Newport, Rhode Island. But folk lost its popularity in and after 1965, with the popularity of the Beatles and other British acts, and the advent of folk rock. The story of folk music's fluctuating popularity is a complex story, which continues into the 21st century. Today folk music has a broad definition, including world music, cajun and zydeco, traditional string bands, bluegrass, blues, singer-songwriters, and so much else. While folk music does not now have the popular reach it did forty years ago, it is still widely performed and recorded.

Spencer **Cortwright**, Department of Biology  
Ecological Strategy of the Little Calumet River Prairie and Wetlands Project

All scientific endeavors can be labeled as one of two types: fundamental research or applied research. Fundamental research is that which pursues understanding how things (e.g. Earth's systems, living creatures, ecosystems, etc.) work in their most fundamental ways. Applied research applies results of fundamental research to solving problems important to human life. In the scientific field of ecology, much applied research is restoring natural areas. Just one century ago, north-west Indiana was one of North America's most diverse and unique ecological areas; however, a century of urbanization and suburban sprawl has spectacularly altered this ecological jewel. A few parcels remain in near pristine condition (e.g. Hoosier Prairie, parts of Indiana Dunes, Cressmoor Prairie, Oak Ridge Prairie), but their isolation prevents fully normal ecological function. Land and wetlands along the Little Calumet River north of IUN are severely degraded, but if restored can form an elongate natural area that reduces isolation of the aforementioned nature preserves. To date 10 acres of land and wetlands north of IUN are in restoration. Soon another 90 acres east and west of this site will be restored. Next (pending funding), about 55 acres of wetlands just north of IUN are targeted for restoration. Lastly, several hundred acres along the

river can be restored. This presentation conveys initial efforts at restoration of Little Calumet River natural areas.

Mara Brie **Deckter**, Department of Sociology and Anthropology  
Diet and Hominid Evolution

Esoteric theories pertaining to hominid origins are a constant quest that can encompass many fields of intellect and study, but mainly began with the work of Charles Darwin. Darwin suggested that humans originated in Africa and that there are four areas of difference between early humans and apes: bipedal locomotion, canine reduction, tool use, and large brains. He also stated that species changed in certain manners that advanced those four areas of difference "owing to change in [their] manner of procuring subsistence or to some change in the surrounding conditions" (Wolpoff, 187). Many theories ranging from bipedalism to tool making, to language, fire acquisition, and art have been posed to address the evolution of hominids from the fossil record. Another entity to include in Darwin's theory is the evolutionary change in gut size. All of the theories and evolutionary changes can be correlated to the changes in diet and nutrition that the early hominids exhibited. With Darwin's theories of evolution, many conditions and changes can be reviewed and analyzed in correspondence to those four areas of "difference" between early humans and apes. How our human origins, found in the fossil record, are relevant and related to those many points mentioned earlier, allow us to recognize the role of hominid diet. Evolutionary changes in diet in response to the environmental changes helped sculpt our earliest ancestors. Several environmental and ecological changes were happening that helped factor in the evolutionary split from our primate ancestors.

Nelson **De Leon**, Department of Chemistry  
A Modern Interactive Approach to Teaching: Getting Students to Participate in the Science Classroom

Getting a few students to be active participants in the classroom is easy. However, getting the entire class to participate is much more challenging. I will discuss a new multimedia based technology called einstruction that allows all students to interact throughout a lecture via response pads. This approach to teaching is at the leading technological edge in the classroom. I am currently using einstruction in my C101 General Chemistry lectures.

Jason **Doffin**, Zoran **Kilibarda**, Department of Geosciences  
Petrography of the Kokomo Dolomite Microfacies from Northern Indiana

Thinly laminated mudstones of Kokomo Dolomite are part of Wabash Formation that was deposited during Silurian time (440-400 million years ago). These rocks were described by Carozzi and Zadnik (1959) as normal inter reef deposit, and interpreted as material that accumulated under relatively quiet and deep water conditions. We sampled these facies at three localities near Logansport, Indiana, and studied them in the outcrops as hand samples, and in laboratory, under petrographic microscope. Our analysis of these rocks confirmed quiet water sedimentation conditions but instead of deep water we believe that the deposition occurred in shallow, lagoon/intertidal environment. Beautiful examples of mudcracks are visible in both, hand samples and in thin section. Intraformational conglomerate indicates drying and reworking of mud chips during the following storm event. Other interesting features observed in this study include excellent examples of microstylolites, euhedral dolomite rhombs growing in stylolites, and possible anhydrite layers replaced by calcite and dolomite and probably dissolved at stylolites. Some dolomite lined cavities contain tar that formed as algal mats decayed.

Timothy G. **Fisher**, University of Toledo, Toledo  
The Chronology and Geomorphology of Glacial Lake Agassiz's Outlines

A core-based radiocarbon chronology from outlet-scour lakes provides an important temporal constraint on glacial meltwater delivery from Lake Agassiz. Scour lakes within outlet spillways were chosen for coring because they are located in low positions on the landscape, which increases the opportunity for sediment preservation, and they are directly linked with strandlines and basin hydrology. The types of sediment recovered in cores is variable: gravel directly records outlet occupation; lacustrine mud interbedded with gravel records temporary spillway abandonment; and, the uppermost muck or gyttja overlying sand or gravel records final spillway abandonment. Dated terrestrial macrofossils within these sediments and at contacts are used to reconstruct outlet history. Uncertainty in the number of outlet occupations is introduced by unconformities at the lower contact of gravel units, requiring dependence upon data elsewhere in the spillway or basin to constrain the outlet history. Two sets of cores from lakes in the southern and northwestern outlets will be presented. Previous workers have suggested that outlet switching drove climate change at the end of the last ice. This conclusion may be premature as many of the details such as outlet chronology and even their locations are speculative at this time. Detailed investigation of the eastern outlets is now underway, which is important for understanding the early lake level history of the Great Lakes.

Monique **Fredline**, Department of English  
The Lady of the Lake: An Arthurian Portrayal

This paper discusses the role which the Lady of the Lake has played in the literature of Arthurian legend beginning with the writings of Gildas in 547 AD and progressing to modern portrayals of the figure. In the succession of writings addressing the Arthurian legend, many female figures of early Celtic and pre-Celtic legends and myths, who were worshipped and revered by the populace prior to the Christianization of the British Isles and Brittany, were adopted into a body of written literature with the female figures playing a benevolent and prominent role in the Arthurian legend. Eventually, however, with the rise of an increasingly dominant patriarchal succession of authors, the roles assigned to these female characters became marginalized and even vilified. One such figure, the Lady of the Lake, known by various names such as Nimue, Vivian and Ninian, increasingly becomes the object of male writers' preoccupation with extinguishing any semblance of power in women. Portrayed repeatedly as an evil sorceress, one who jealously destroys the sage, Merlin, the Lady of the Lake assumes the persona of a cruel, heartless and dangerous enchantress. Recently, however, the tides of misogynistic treatment of women have turned and as more recognition of the validity of women's power and pivotal roles in the legend has expanded, the Lady of the Lake as a character has found a more sympathetic audience and once more her literary portrayal reflects the respect and reverence that wise and powerful women once held.

Adrián M. **García**, Department of Modern Languages, Linguistics,  
and Comparative Literature  
*San Manuel Bueno, mártir* and the Allure of Authority

Miguel de Unamuno's *San Manuel Bueno, mártir* (1931) and its reception dramatize our attraction to authority. The protagonists, narrator, and Unamuno struggle to establish and impose one's authority—to define the "truth." All in some ways reflect authoritarianism persisting in Spain when the text was published in 1931: they support a powerful Church, countenance the subjugation of peasants, and hold patronizing views of the poor and illiterate. But they also show a desire to submit to authority. The novel's townsfolk ostensibly find peace and joy through religious faith

inspired by the authority-figure they idealize: the priest, don Manuel. Nevertheless, the text suggests that exercising or submitting to authority may not lead to personal or societal well-being. Meanwhile, critics, author, and the protagonists struggle to author-ize their respective versions of the text and reality, evincing ties between authority and storytelling. *San Manuel Bueno, mártir* is a short ambiguous text that encourages multiple interpretations. Yet it is striking that critics with distinct critical frameworks have never approached *San Manuel Bueno, mártir* without concentrating on the ideology and other biographical details of its author. As critics relate the novel to Unamuno and attempt to define his identity, they help perpetuate the authority and fame that he openly strove to create. In this project, I aim to occupy a middle-ground, alternately including and ignoring the author. I draw on theories regarding reader-response, the author, and biography.

Mary **Harris Russell**, Department of English  
Interpretation as Power in Aidan Chambers' *Postcards from No Man's Land*

Almost everything that Jacob Todd thinks he knows about himself and his family shifts during his brief visit to Holland, and almost all of the shifts are represented as questions of interpretation. In the first 24 hours alone, the invitation-issuing Dutch family seems unhappy he came, his beloved personal icon Anne Frank is co-opted by hordes of tourists, and a girl he's attracted to at a café turns out to be a boy. Jacob, and the reader, must constantly interpret. On the linguistic level alone, the English and Dutch speakers trade words back and forth aggressively. Words, images, settings: all need translation. What is the relation of Rembrandt and his son, Titus, as revealed in several paintings? How is Anne Frank's original manuscript different from her father's version? What happens when historical settings are turned into museums? Finally, the most difficult questions probe the meaning of sexual orientation. Interpretive patterns in Jacob's relationships with Ton, a young man, and Hille, a young woman, need to be considered closely to decide whether Chambers' is finally pluralistic or offers only the appearance of pluralism. As Ton once scribbled to Jacob, on the cover of a matchbook-condom, "Be Ready. Niets in Amsterdam Is Wat Het Lijkt."

Robin R. **Hass Birky**, Department of English  
'Language lined with flesh' and Other 'Pulsional Incidents': Rhetoric, Pleasure, and Bliss in Medieval Arts of Poetry

In the twelfth- and thirteenth-century arts of poetry, the rhetoricians present desire as a formative element of discourse. In the *Ars versificatoria*, the *Poetria nova*, and the *Parisiana poetria*, Matthew of Vendôme, Geoffrey of Vinsauf, and John of Garland respectively acknowledge, privilege, and advise against particular types of desire in relation to gendered embodiments of rhetoric, conceptions of gender, and perceptions of human cognition. Calling for and warning against discourse produced from and explicitly, deliberately evocative of desire, these rhetoricians alternatively situate erotic and spiritual pleasure, for the author and the reader, as forms of textual gratification. Participating as they do in a tradition from Cicero to Augustine and beyond in which issues of authorial motivation, content, and form recur as textual, cognitive, and spiritual questions, the authors of the arts of poetry subsume these questions into variant embodiments of rhetoric. While I have elsewhere delineated a continuum of the gendered embodiments of rhetoric and focused on epistemological and appetitive motivations for creating the somaticized text, I herein, using medieval and contemporary theories of textual pleasure, will address the attention to pleasure and the potential for bliss in the compositional theory of the medieval arts of poetry and their rhetorical dicta for "language lined with flesh."

John **Huber**, Department of English  
Globalized Language Extinction in David Crystal's *Language Death*

In *Language Death*, David Crystal discusses the central issue of globalized language extinction. Crystal's theory with its multi-hemispheric scale allows one to analyze the cultural eradication of Native Americans via the "Board School Experience," one of the darkest moments in American history in general and American educational history in particular: this systematic ethnocentric cultural genocide initially "Americanized" by force thousands of innocent Native American children from the mid-1880's to the 1930's. The forced loss of Native American languages in this "educational" process leads to cultural annihilation, an effect in accordance with Crystal's global findings. The tragedy continues today beyond the historical context of the "Board School Experience" with the permanent loss of rich and vibrant indigenous languages for millions of yet born Americans of all ethnicities. The start of a reversal to this linguistic/cultural depletion has begun with the implementation of numerous projects of indigenous language renewals and revivals. In many locations throughout the country, Native speakers are again singing the old songs and telling the old tales of the old ways in their own language. Numerous adult education programs and universities/schools both on and off the reservation offer classes in indigenous languages where multi-generational groups meet to share and learn their language. They dance, sing, pray and share the old ways of the "Grandfathers." Culture is thus remembered and honored, and taught to the next generation. New language communities are alive; it is a beginning, a start.

Kris **Huysken**, Kelly **Weyer**, Kaz **Fujita**, Department of Geosciences  
Relocating the 1909 Upper Mississippi Valley Earthquake: Implications for Seismicity of the Northeast Illinois/Northwest Indiana Region

Understanding seismicity, its relationship to buried faults, and the potential for large earthquakes in the mid-continent can be problematic. One reason is that the frequency of earthquakes throughout much of the mid-continent is significantly lower than regions considered more seismically active (e.g. southern California). In these regions, buried, but active faults may not be readily recognized. Historical records, therefore, provide the main basis for evaluating the potential for future earthquakes. Locating the epicenter of historical earthquakes, however, has serious challenges associated with it. Modern seismographs were not used until the 1930's. Locating the epicenter of earthquakes before that time relied on rating the intensity of damage. Historical records are further complicated by inaccurate reporting or the mistaking of human produced events, such as train derailments and industrial explosions as natural earthquakes. While the seismic risk in northeastern Illinois and northwest Indiana is generally considered to be low, historical reports of damaging earthquakes indicate that the area is not exempt from such events. Two large earthquakes shook northern Illinois/northwest Indiana in 1909 and 1912. Both events were felt as far as Iowa, Michigan, Minnesota and Missouri. The epicentral location of the 1912 earthquake is Chicago/Aurora. However, there are conflicting reports and highly questionable intensity patterns associated with the 1909 earthquake epicenter. In an effort to definitively locate the 1909 earthquake, we have re-evaluated all research on this event. The result is a better defined epicentral location centered in the Chicago area that is comparable in location to the 1912 Chicago earthquake.

Casey **Kirkpatrick**, Department of Sociology and Anthropology  
Zombies Devour Culture! The Zombie as a Cultural Icon

Since they first shambled across drive-in screens throughout the country, the zombie has left an infectious bite on the skin of American culture. Unlike the classic Hollywood monsters, (Dracula, wolf-man, the mummy, Frankenstein's monster, the Creature of the Black Lagoon), zombies are

the anonymous horde of the horror film industry, providing cultural commentary on American society. There is no doubt that the idea of the reanimated dead threatening our way of life is stuck in mass culture's head, like a pick-ax to the brain. To examine this phenomenon, I will generally outline a brief history of the zombie in popular culture and examine the symbolism of the zombie. Specifically, through a content analysis of zombie films, especially George A. Romero's classic trilogy *Night of the Living Dead*, *Dawn of the Dead*, and *Day of the Dead*, I will show the most important elements of a zombie film and how each fits the symbolism of the zombie into the era that it was made. The zombie has risen from the grave to star as a cultural icon.

Karen **Kugler**, Kimberly **Kenny**, Joseph **Hinton**, Department of Chemistry  
Sonochemistry in Organic Synthesis: Nucleophilic Substitution Reactions of Alkynyl Iodonium Salts

Ultrasound has been used recently and effectively in many organic reactions, diminishing the reaction times and increasing the yields. Sometimes reaction products that are not accessible by conventional methods are obtained this way. Alkynyliodonium salts have emerged as valuable reagents for organic synthesis in recent years. In this research project, we are studying reactions of these iodonium salts with different nucleophiles using ultrasound. In particular reactions of the alkynyl iodonium salts using sonochemistry with acetate, diethylmalonate, alkynide, and selenide ions will be discussed.

Victoria **Lacny**, Department of Sociology and Anthropology  
The Importance of a Formal Field School

Formal field schools of archaeology offer the fundamental techniques necessary to continue an academic career in archaeology. Techniques include preparation of the site, excavation, soil sampling, mapping, and lab work that involves handling, washing, sorting, and organizing artifacts as well as features. In the summer of 2003 I attended a formal field school in archaeology and practiced field techniques specific to southeastern archaeology, at a site called Canebreak. Occupation of this Mississippian village was roughly from A.D. 1200 to 1450. The site was located in the west central portion of Alabama, in Macon County. Canebreak sits atop a terrace that leads down to the Tallapoosa River. This river was one of the major waterways of this time period. It allowed transportation of substance and material resources, yet it left Canebreak vulnerable to attack from others that lived in this geographical area. The purpose of research at Canebreak was to use archaeological methods to find out whether a defensive fortification previously stood in this area. The experience of a formal field school is important since it allows anthropology students to apply field knowledge to courses already taken, and to garner techniques that are relevant to the pursuit of an academic carrier.

Taylor **Lake**, Department of Communication  
Investigating Historical and Critical Resources on the History of Mass Media Texts

In this paper I examine acting in the television series *Nip/Tuck*, with the purpose of explaining the research strategies and resources available in the field of mass communication. Scholarly research on acting is particularly significant for mass media/television studies. Acting is often the invisible element through which audiences interpret television characters, genres, and themes and evaluate the show's worth. Moreover, because acting is an embodied practice (emotional expression, physical action) and because the television medium is rooted in a consumer culture that perpetuates itself by promising subjects an emotional utopia through physical fulfillment, the actor's body as site and agent of performance requires particular attention. In this paper I outline the trajectory of my research. I examine acting histories in order to explore contemporary constructions of

an embodied “acting” subject. I then examine theoretical and historical accounts of mass media’s construction of an emotional and physical utopia that displaces unsatisfied human emotions onto products that are marketed as a means to experiential satiation. Finally, I analyze the premiere show in the medical series *Nip/Tuck*, arguing that the series signifies an emotional utopia around the repression and expression of an emotional interior through changes in the actors’ bodies.

**James B. Lane, Paul B. Kern**, Department of History, Philosophy, and Religious Studies

Stepping on Toes: Methodological and Ethical Problems in of History

When Jim Lane and Paul Kern began to write a history of Indiana University Northwest, they encountered a number of problems. One was methodological. We worked separately, Jim collecting oral testimonies, Paul writing a narrative based on written sources. Putting these two parts together raised methodological problems. Narrative history aspires to objectivity, cohesiveness, and interpretation. Oral history is the unmediated voice of participants. What is the relation between history, memory, and oral history and how can they be combined into a single history of IUN? Another issue was ethical. In a young institution like IUN, most of the people who were a part of its history are still alive, many of them still working at IUN. Issues of privacy jostled uneasily with the goal of writing a social history that told the whole story. Although the narrative history relied on written sources that were a matter of public record, the oral testimonies were another matter. People sometimes spoke freely about one another. Old wounds were bared; old grudges nursed. Charges were made that sometimes seemed unjustified. To what degree should we act as censors, protecting the privacy and feelings of other people? Should our work be under the supervision of the Human Subjects Committee? Should we flinch in the face of anticipated howls of outrage? These questions needed to be resolved as we wrote our history.

**A.M. Lahners, T.G. Fisher**, University of Toledo  
Constraint of the Nipissing Transgression

Lacustrine sediments from captured embayments along the western coast of Michigan can be used to constrain water levels in Lake Michigan during the Nipissing transgression. Several vibracores from Silver Lake in Oceana Co., currently separated from Lake Michigan by a barrier dune complex, and one core from Stony Lake, contain sediments consisting of gravel, sand, gyttja, marl and peat. Ground penetrating radar and seismic data were both used to verify stratigraphy and, when possible, to secure coring targets. The deepening of Silver and Stony Lake is recorded in the transition from marl or peat to gyttja. This deepening is explained by backflooding of the basins through a groundwater connection with Lake Michigan and/or estuary flooding during the Nipissing transgression driven by isostatic uplift of the North Bay outlet. The rise in lake level following the Chippewa Low phase for Lake Michigan is about 1.8 cm per radiocarbon year on average. Data from Silver Lake suggests a faster rise in lake level of 1.95 cm per radiocarbon year on average which could be interpreted as a climate signal of a more rapidly rising lake level. Thus the fluctuations in water levels of Lake Michigan are reflected in captured embayments since the Chippewa Low Phase and possibly even further back in time.

**Diana Lin Xiaoqing**, Department of History, Philosophy, and Religious Studies  
Balancing Intellectual Integrity and Political Pressure in 20th Century China: The Story of Feng Youlan.

Feng Youlan (1895-1990) was one of the preeminent Chinese philosophers of the 20th century, making his name in the 1930s-40s with a path breaking new interpretation of the history of

Chinese philosophy. With a good mastery of the Chinese classics and an education from Columbia University, Feng represented a new approach to the study of Confucian learning through a synthesis of Chinese and Western approaches. After the Communist take-over (1949), Feng Youlan drew close to the Chinese Communist Party. Although he was persecuted in the 1950s and then in the Cultural Revolution (1966-76), he quickly changed sides and allied with the Gang of Four, leaders of the Cultural Revolution who were condemned in 1976. In his alliance with the Gang of Four, he wrote a series of articles criticizing Confucius. His political opportunism was criticized in the late 1970s, but he quickly switched to the reformers’ side once again. This paper examines how Feng balanced political pressures to conform to Communist ideology with his intellectual integrity during the Communist Era.

**Anja Matwijken**, Department of History, Philosophy and Religious Studies  
Universalism versus Relativism: Human Rights as an Ethical Position

This paper highlights two ethical extremes that also function as ideologies. Relativism not only entails the claim that norms vary from culture to culture, from society to society, or from sub-group to sub-group within a given society. Relativism adds a duty to show respect and tolerance, and by doing so, it establishes a link with democracy and liberalism. In the case of universalism, the duty in question is either qualified or rejected, although the reason for the last-mentioned move or step typically has to do with the need to observe certain fundamental principles or norms, which transcend all boundaries. Among these, we find: the Principle of Consideration, the Harm Principle, and the Principle of Humanity. These immediately give Universalism a clear advantage in the realm of human rights, especially because human rights are declared as equal, universal and inalienable. The very idea of combining human rights and relativism appears particularly absurd once the implications of relativism have been explicated. Nevertheless, there exists a tradition of so-called “cultural relativism” or “pluralism” which originally were intended as a kind of antidote against unfair attempts to impose normative analogies to cultural imperialism. However, the more basic human rights are, the less relative they are and, consequently, the very core of humanity depends upon a defense of universalism. In one sense, everything is at stake for our species, perceived as a collectivity of beings. That granted, humanity itself is a norm, and not just a fact.

**Jason McGee**, Department of Mathematics  
U(n) Groups - Cyclic or Not?

In algebra we study properties of mathematical structures. A desired property of a structure may be that all information about it is obtainable from just one of its elements - a generator. Structures having this property are called cyclic. On an analog clock we find examples of cyclic structures (a minute hand adds time in cycles of order 60, an hour hand in cycles of order 12). We are interested in a special set of numbers under multiplication, a group called  $U(n)$ , defined as all positive integers less than  $n$  and relatively prime to  $n$ . An example is  $U(8) = \{1,3,5,7\}$ . In  $U(8)$  we multiply modulo 8 (on a clock, we add time modulo 12 and modulo 60). It takes a long time to prove that a particular  $U(n)$  group is (is not) cyclic by showing that it has (doesn’t have) generators. So, we would like to have an answer to the general problem whether, for arbitrary  $n$  (just by looking at the number), we can determine if the group  $U(n)$  is cyclic or not. We have found the answer for numbers  $n$  which are multiples of 4 or are powers of 2. We have conjectures in other cases and are continuing our work on solving the general problem.

**Chris Molnar**, Purdue University West Lafayette  
Missionaries and Conversion in the Carolingian Age

While it is difficult to make a definitive statement about the Carolingian contribution to Europe's development, it cannot be doubted that the Carolingian era coincided with the expansion of Christianity in Europe. It has been argued that the most significant development of the early Middle Ages was the expansion of Christianity, and as such, the subject has attracted the attention of many historians. Their work can be sorted into three general categories. The first category, "The Missionary Impulse and Methods," explores where the missionary drive came from and how missionaries went about their work. "Boniface and the Anglo-Saxon Missionaries," deals with the impact of the Anglo-Saxon missionaries on the Continent during the Carolingian era. The last category, "The Germanization of Christianity," recognizes the largest shift in the historiography on the expansion of Christianity in the early medieval period. Prior to the 1980s historians generally described how Christianity changed the Germanic peoples, many now frequently seek to illustrate how, in the process of conversion, Germanic peoples changed Christianity. It is hoped that this work will facilitate an understanding of the dominant themes and historiographical trends that have shaped the literature on missionaries and conversion in the Carolingian Age. Christianity and the Church played a fundamental role in Western civilization throughout the Middle Ages and beyond, and an understanding of how Christianity was carried to Europe's pagan inhabitants will shed some light on both the Carolingian Age and future developments in Europe.

**Lori Montalbano-Phelps**, Department of Communication  
Narrative Research Methodology, Practice, and Implications for the Ethical Use of Personal Stories as Performance Text

Walter Fisher contends that we are all storytellers, and that telling stories is an important way in which we come to understand our world. A significant body of research indicates that personal narration gives voice to marginalized groups in society and allows us to understand ourselves and others through re-performance (Conquergood, 1983; 1985; 1991; Goffman, 1959; Langellier 1983; 1986; 1989; Polkinghorne, 1988; Robinson, 1981; Turner 1981). In this paper, I describe methodological considerations and ethical practices when using performance as a way of knowing. Additionally, the paper explores the use of personal narrative performance as a means of engaging our community as well as providing our students with experiential knowledge in the classroom through re-performance.

**Charlotte A. Noble**, Department of Modern Languages, Linguistics, and Comparative Literature  
Perspectives of Aimé Césaire's *Notebook of a Return to the Native Island*

In this study of Aimé Césaire's *Cahier d'un retour au pays natal*, Césaire's personal history is addressed to give insight to his creation of *Cahier* and the concept of *négritude*. The study discusses Césaire's contemporaries to explore how these individuals created personal conflict and prompted the personal growth that led to *Cahier*. After reviewing Césaire's childhood and background, the poem itself is scrutinized, examining even the most seemingly casual use of terminology in his work. Césaire's epic is dissected to find commonality between the effects of colonialism on one's psyche, not excluding various types of psychological abuse. Further, the poem is broken down into movements, like stages of grief. Working through a progression from hate, anger, and fear, to denial and rejection of those fears, to point of crisis, to acceptance and, finally, to resolution, Césaire's somewhat autobiographical work speaks not only to his personal pain and

redemption, but to the redemption of all peoples oppressed. This epic primarily expresses a man's desire to stop hating himself for what he is. It also serves to put the world on notice: once that man frees himself mentally of slavery; there is nothing that man cannot accomplish.

**Ana Osan**, Department of Modern Languages, Linguistics, and Comparative Literature  
Teaching Spanish and the Five C's: The Role of Four Twentieth-Century Hispanic Women Painters and the Standards of Language Learning

A cursory look at available college textbooks in Spanish reveals a lamentable pattern of ignoring art produced by Hispanic women. Characteristically, when the culture of a Hispanic country is presented and the paintings of famous painters are included, it is usually the consecrated male painters that students are bound to see. For Spain, the traditional ones are Velázquez, Goya, Picasso, or Dalí; for Mexico, it is usually the trilogy of muralists: Orozco, Rivera, and Siqueiros; and, as of late, when covering Colombia, more likely than not, the works of Fernando Botero will surface. It is only recently that the works of Frida Kahlo have appeared in textbooks, and, more often than not, students know her because of the recent film in which Selma Hayek played the lead. Unfortunate as it may seem, not only students, but educators in general are hard pressed when asked about any other women painters, and this is a distorted situation that very much needs to be remedied, as we begin a new century and argue for parity in all fields. In addition to Kahlo, the three other women I want to present today are María Izquierdo (Mexico), Remedios Varo (Spain), and Chicana painter Carmen Lomas Garza. I would like to demonstrate how their works, with their vibrant colors and innovative ideas, are the perfect medium to teach the five Cs—communication, culture, comparison, connections, and communities—the standards for Foreign Language Learning, and the ideal tools to help students immerse themselves in the learning of the target language.

**Julie Peller**, **Aaron Lozano**, Department of Chemistry.  
Photocatalytic Remediation of Air Pollutants: Oxidative Destruction of Gas Phase PAHs

Organic pollutants known as PAHs (polycyclic aromatic hydrocarbons) are very prevalent in areas of industry and heavy truck traffic, descriptive of the environment of far Northwest Indiana. Incomplete combustion processes of organic materials (i.e.: coal burning, diesel engines) are the chief emitters of PAHs. Most PAHs are implicated as both air and sediment contaminants and the US EPA currently lists sixteen PAHs as priority pollutants. Oxidation of PAHs leads to less toxic compounds and complete oxidation results in the formation of CO<sub>2</sub> and H<sub>2</sub>O. The advanced oxidation process of TiO<sub>2</sub> photocatalysis, which generates hydroxyl radicals (OH), is effective for the remediation of PAHs in water, particulate matter and the gas phase. In the present photocatalytic system devised for the study of gas phase PAHs, a glass vessel houses TiO<sub>2</sub>-covered glass beads, which are exposed to UV light from a 450 W mercury vapor lamp. Copper sulfate solution, which absorbs the UV light below 300 nm, circulates around the UV lamp and through a water-cooling vessel. A simple motor circulates the gases within the closed system. This process effectively oxidizes naphthalene, a common 2-ring polycyclic aromatic hydrocarbon. The first intermediate compound identified in the oxidation is 2-naphthol, isolated through CH<sub>2</sub>Cl<sub>2</sub> and water extractions and positively identified using GC/MS. After 3 hours of light exposure, the organic pollutant was completely oxidized, with no detectable organic compounds in the system.

### *The Water Babies: A Marxist Critique*

Charles Kingsley's *The Water Babies* undeniably contains attacks on capitalism. Among these may be counted the death of Tom, the chimney sweep, following allegations of theft. Who holds the responsibility for this death? Tom's parents initially appear totally absent, raising the question of their location. This study will draw on Kingsley's texts, Engel's descriptions of the Manchester slums, Mayhew's *London Life* and the *Labouring Poor*, several works of Marx, and historical studies of the Australian penal colonies. By following the clues which Kingsley leaves about Tom's parents and using a historically grounded Marxist critique, we can reproduce Tom's family history and see that both the child and parents are victims of capitalism.

Jerry B. **Pierce**, Department of History, Philosophy, and Religious Studies  
"The blood-dimmed tide is loosed": A Medieval Case-Study of Persecution, Apocalypticism and Violence

Using the early fourteenth-century Order of Apostles as an example, this paper will examine the relationship between persecution (real or perceived) and the development of violent, apocalyptic theology. This paper briefly chronicles the inquisitorial persecution of the Apostles, beginning with the execution of their founder, Gerard Segarelli, in 1300 and ending with the slaughter of hundreds, if not thousands, of followers in 1307. It also explores the apocalyptic belief system of the group's final leader, Fra Dolcino, and how his eschatological fervor was so appealing that adherents would abandon their wealth, status and ultimately their lives in order to follow him. Finally, this paper places Dolcino's apocalypticism in part of a long Christian tradition of millenarianism and violence that stretches from late antiquity to the present day, including the earliest Christians, radical Reformers in the sixteenth century, Mormons of the nineteenth-century desert Southwest, and late twentieth-century New Religious Movements, such as David Koresh's Branch Davidians.

PaTricia **Schroeder**, Department of English  
Gender Identity and the Use of Passive and Active Voice in *Adventures of Huckleberry Finn* and *Little Women*

In each of the novels, *Little Women* and *Adventures of Huckleberry Finn*, the voice of the narrator takes on a certain gender identity. The gender of the narrator sets the mood for each story and plays a major role in how these stories are told. Mark Twain's *Huckleberry Finn* is an adventure because the aggressive and independent male narrator takes on the active voice, telling the reader, "This is what I did." While the peaceful female narrator of Louisa May Alcott's *Little Women* uses the passive voice, relating, "This is what happened to them." The stereotypes of the strong male and passive women in these novels match those of the society at the time of their publishing. The negative view of these stereotypes is overcome when looking at these works as a whole, since the narrative voices keep these stories true to the purpose behind each book.

Sarah **Scubelek**, Kristy **Brzozkiewicz**, Department of Psychology  
Indoors versus Outdoors: Is There a Difference in Imaginary Play Frequency between Settings?

Social and imaginary play behaviors, thought to be an important component of cognitive and social development of preschool children, were observed in two settings, an indoor large motor playroom and an outdoor playground. 11 children between the ages of 44 and 66 months were observed for a total of fourteen hours. Simple social play (when children engage in the same or

similar activity and talk, smile, offer and receive toys, or otherwise engage in social interaction) was the play type observed most frequently. Children were more likely to engage in complex social play such as tea party, cops and robbers, and house, on the playground than in the indoor play room. Results are discussed in terms of play structures, props, and adult behavior in the two play areas.

Janice **Smith**, Joseph **Hinton**, Karen **Kugler**, Department of Chemistry, Physics, and Astronomy  
Sonochemistry in Organic Synthesis: Synthesis of Alkynyl Iodonium Salts

Ultrasound has been used recently and effectively in many organic reactions, diminishing the reaction times and increasing the yields. Sometimes reaction products that are not accessible by conventional methods are obtained this way. Alkynyliodonium salts have emerged as valuable reagents for organic synthesis in recent years. In this research project, preparations of alkynyl iodonium salts using ultrasound are being studied. In particular, the effect of amplitude, time, and method of synthesis using HMIB and HTIB with different alkynes will be discussed.

Michelle D. **Stokely**, Department of Sociology and Anthropology  
Blackbear's Calendar: Picturing Apache History

During the 19th Century, Native American communities residing on the plains created pictographic calendars on hide, muslin cloth, and paper. Ledger books were used into the early years of the 20th Century, continuing the tradition, and are highly valued by scholars, museums and collectors today. Using these materials, indigenous historians and story-tellers were able to record events that captured individual and collective historical meaning. In many cases these events offer an internal sense of history since they differ from those recorded by American government officials. Decoding this emic perspective offers interesting challenges to researchers. This paper will discuss one such calendar, authored by Blackbear (Kiowa and Plains Apache), and purchased by a museum in 1911. Recording both summer and winter events for the years 1861-1901, many of its images are comparable to those discussed by James A. Mooney in his important anthropological research conducted among the Kiowa in the late 1890's. However, other images are unique to Blackbear's calendar and require additional investigation and discussion to further expand our understanding of Apache history. Such investigation draws upon government records, interviews conducted with tribal members, and other archival sources that compliment the visual record. This project represents my on-going research into Plains Apache culture and history. Through collaborative, multi-perspective approaches, scholars and community members gain a better understanding of those historical events, contexts and processes that have contributed to a rich cultural expression.

Doug **Swartz**, Department of English  
"Propagated Curse": Taking Pleasure in *Paradise Lost*

This paper explores the question of what it means to take pleasure in *Paradise Lost*: within the epic itself, in the critical controversies about gender and sexuality that it has produced, and in (some version of) readers' responses to the poem. One of the most notable proponents of what was once called "reader-response" criticism, Stanley Fish, concerns himself very little with pleasure in his highly influential *Surprised by Sin*--a book whose central claims and basic tenets Fish has reaffirmed as unrefuted and perhaps irrefutable in *How Milton Works*--except insofar as it serves the "program of reader harassment" that Fish sees as Milton's rhetorical mode and pedagogical aim. In other words, our proper enjoyment of *Paradise Lost* involves an incited experi-

ence of improper forms of pleasure provided by the poem in order to correct and discipline the impulse to take pleasure. The solicitation of the experience of the illicit leads to reproof, which elicits a refined and reformed perceptual, spiritual, and moral capacity. Focusing on passages in Book 10 in which Adam and Eve confront “problematized,” post-lapsarian pleasure, which paradoxically cannot be avoided, and as such involves them, and readers, in something like the death drive: natural impulses, experienced as uninterrupted “delight” before the fall, result in “propagated curse” as its consequence. Reversing Fish’s priority of precept over percept in the reading of the epic, however, I suggest the poem’s pleasures are found in a complexly speculative return to the body of the text.

**Kelly Weyer, T.G. Fisher, W.L. Loope**, University of Toledo.  
Eolian Sand in Lacustrine Sediments: A Proxy for Relative Water Levels of Lake Michigan

Eolian sand within lacustrine sediment of trapped embayments along the western coastline of Michigan, can be used as a proxy for Lake Michigan water levels. Numerous vibracores from Silver Lake in Oceana Co., presently separated from Lake Michigan by a barrier/dune complex, reveal variations in sand quantity from 6.6 ka years ago to present. The perched dune model, which describes enhanced sand dune activity driven by rising lake levels destabilizing shoreline bluffs, is used to explain the sand variations in Silver Lake. Wintertime storminess enhances sand dune activity and niveo-eolian transport of sand across frozen Silver Lake. Such niveo-eolian transport has been empirically observed. When the ice melts, the sand is introduced into the lake. Plots of weight percent sand from Silver Lake cores display an in-phase relationship with the lake level curve of Lake Michigan, which is based on dated beach ridges of known elevation. High values of sand in Silver Lake correspond to high stands of Lake Michigan since the Nipissing II phase (a high water level ~4700 years BP), which is the limit of the lake level curve. Both, high values of sand in Silver Lake and high stands of Lake Michigan, exhibit a periodicity of ~160-200 years. Enhanced niveo-eolian activity, recorded within Silver Lake, is presumably driven by quasi-periodic climatic changes reflected in high stands of Lake Michigan.

**Roberta Wollons**, Department of History, Philosophy, and Religious Studies  
Outposts of Culture, Politics, and Gender: Missionary Experience in non-Western Settings, 1868-1927

This presentation will be on American women missionaries who traveled to Japan, Turkey, and India between 1867 and 1927 to found women’s colleges. The threads linking these three cases begin with the missionaries’ common education at Mount Holyoke College in Massachusetts and similar sister schools (Rockford Female Seminary in Illinois) and their shared ideas about educational possibilities for girls, standards of service and womanhood, and a shared belief in the liberating principles of Christianity. The three case studies demonstrate the enormous power of the indigenous cultures to alter the missionary agendas in very different, locally determined ways, and the negotiations that had to take place to build successful, long lasting schools for women and girls in three culturally and politically disparate settings. Ultimately, evangelical missionaries shifted their primary goals from conversion to education, and the lives of many young women were influenced by concepts of western liberalism (individuality and equality) in cultures otherwise dominated by patriarchal, religious and political traditions. The period 1968-1915 coincides with significant political events in the three countries and also represent the window of opportunity when, in 1868, the American Board of Commissioners of Foreign Missions established women’s boards to oversee the administration of single female missionaries. The women’s boards were closed in 1927, reducing the financial control, independence, and professional opportunities for women in foreign missions.

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