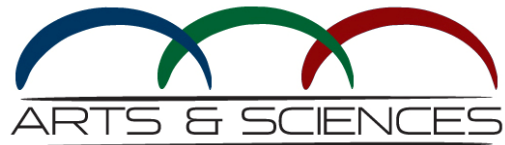


JUNIOR FACULTY SUMMER RESEARCH AWARD PROGRAM
COLLEGE OF ARTS AND SCIENCES
EASTERN KENTUCKY UNIVERSITY
RICHMOND, KENTUCKY



BOOK OF ABSTRACTS
2008 PRESENTATIONS
November 21, 2008



ABOUT THE CAS JUNIOR FACULTY SUMMER RESEARCH AWARD PROGRAM

The College of Arts & Sciences Junior Faculty Summer Research Awards program was initiated in the 2005-2006 academic year to support selected junior faculty as they develop their research and creative projects during their probationary period, a critical time in their careers. The program provides summer salary support to junior faculty for the purpose of advancing their research and creative projects and scholarship. Recipients are selected on a competitive basis.

A total of 43 awards have been made since the program's inception, with 13, 17, and 13 awards being made in 2006, 2007, and 2008, respectively.

ACKNOWLEDGMENTS

Sincere thanks are due to members of the College Research & Faculty Development Committee for their diligent work in reviewing the applications and selecting the recipients. We are also indebted to Mrs. Dana Kearns and Mrs. Kelly Powell, the Dean's office staff who worked meticulously in handling the logistics involved in the application review process, award management, and the setting up of the poster presentation session. Last but not least, our gratitude goes to award recipients and all applicants for making the junior faculty summer research program the success that it is.

PROGRAM

Location: First Floor Lobby, Roark Building (Refreshments served)

1.30 - 2.00 pm	Set up
2.00 - 2.05 pm	Opening remarks, Dr. John Wade, Dean
2.05 - 2.40 pm	Poster session
2.40 - 3.00 pm	Interactions among recipients
3.00 - 3.30 pm	Clearing

FURTHER INFORMATION

For further information please contact:

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Associate Dean for Administrative Affairs & Research

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Phone: 622-1393

PRESENTERS AND TITLES

ARTS & HUMANITIES

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2	Christopher Jackson	Letters of Origin: Regional Significance and Typography
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4	Beverly Miller	Three by Wright: The Study of the Development of a Prairie House
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ABSTRACTS

1

STORYTELLING THROUGH ANIMATION African Oral Stories in a Multimedia World

Ida Kumoji

Department of Art & Design

The objective of my project explored how African oral stories can be brought in to a multimedia world. Oral Storytelling in African cultures has been a way of passing on the traditions and beliefs of particular societies from one generation to the next. It has also been used as a means of passing on traditions and codes of behavior, as well as maintaining social order. African tales are told and retold under the shade of a tree or around a village campfire, passing on the history, philosophy, and moral laws of the people. Although writing forms were developed in Africa, there do still exist means for Africans to record their thoughts, beliefs, and feelings. These means include various forms of African art, such as artifacts, myths, and ceremonies. The tradition of storytelling is one of the most ancient forms of communication in African cultures; this tradition is rich with many stories, songs, poems, and religious and tribal customs – due to the diversity of people living in this massive continent.

I researched oral stories called the “Ananse stories”, which originated in Ghana, West Africa. The purpose of this research is to record the history of the Ananse oral stories through a digital storytelling format, to teach the principles of life and morality, to provide the audience with some explanation concerning the origins, to provide patterns for problem solving, to give a sense of identity to the people, and to entertain by bringing varied cultures together. The word Ananse is from the Akan Tribe of Ghana, which means “spider.” Ananse stories are known as *Anansem* to the Ashanti people. These oral stories were moral lessons that were told and retold to children of every generation. The story that I worked on transforming into 3D animation is “Ananse and this wisdom pot”. The digital format will let the audience of the animation created be transformed from mere consumers of media to seeing themselves, their communities and use of technology from a different and enhanced perspective. This project will serve as a method of preserving the Ananse stories that were told by ancestors in order to technologically influence the current generation.



Letters of Origin: Regional Significance and Typography

Christopher Jackson
Department of Art & Design

My primary objective was to advance my research as a developing typeface designer. I was focusing on exploring the ways typography exists within different regions, landscapes, and culture. Considering the intersection of typography and location, I traveled to my former places of residence, as well as those places in which I have spent considerable amounts of time regardless of weather I had an address there or not. While travelling, I documented both simple and involved instances of typographic history. I took notes surrounding the importance of these forms in daily life for those who regularly move about in those environments.

I continue to explore how individual typeface designs, many of which were unique to the specific situation, are relevant to the regional history, local marketing, and design communities. Through my continued development as a type designer, my area of interest focuses on regional specificity. Studies and drawings for this project continued as I travelled amongst my former places of residence. I experienced the influence of research, location, and subsequent travel in regards to trends in typefaces and its stylistic attributes. As I move about on a daily basis, I pay close attention to my surroundings. I am interested in how my perceptions of my location and situation, (living space, employment, choice of entertainment) affect my views of the common local typography.

My research continues to develop as planned. I am currently investigating approximately 10 typographic families, an increase from the 7-8 mentioned in my earlier proposal. Each type family is in varying stages of complexity, some with only capital characters, used only for display face, and some intended for body text usage. All studies are advancing steadily and I hope to have a considerable portion of the work near completion by the end of this academic year. Typography conveys simplistic sign, direction, instruction, and decoration, complex feelings of mixed content, emotion, while holding on to historically relevant characteristics.

3

Church, State, and Literature: Constructing the Afro-Female Body in Colonial Mexico

Socorro Zaragoza

Foreign Languages and Humanities

To date, the history of the black population in Mexico, in particular Afro-Mexican women, has been studied primarily from a statistical point of view. This approach calls for a reexamination of the archival documents in order to reconstruct the lives of black females and their influence in the colonial period.

My paper examines the intersections of gender and race in Mexico during the seventeenth and eighteenth centuries. I analyze archival documents from trials of the Spanish Inquisition, legislation in the form of Royal Decrees, and literary works, for the purpose of elucidating the ways in which women of African ancestry were depicted in Mexican society by hegemonic institutions. The significance of my work is that it expands on the current understanding of colonial texts as historical documents by providing basic data such as dates and descriptions. I propose that these documents, especially those concerning Inquisition trials, have been used as political tools to construct social and cultural identities. My research shows that these colonial texts reinforced a negative representation of black women, due to the excessive use of images of the Afro-Mexican woman as spiteful, vicious, and in need of constant supervision. Furthermore, I describe how these women were perceived as a threat to New Spain (Mexico), and how their unfavorable image portrayed in these trials augmented efforts to control them, especially their sexuality.

4

Three by Wright: The Study of the Development of a Prairie House

Beverly K. Miller

Department of Art & Design

Frank Lloyd Wright was a prolific architect and designer and is often referred to as America's greatest architect. While examining his prairie houses, designed in his early career, one asks how was he able to produce so many unique designs? One answer can be found in the examination of three modest prairie houses and Wright's Kit of Parts.

This Kit contains three-dimensional forms, "parts," that are spaces to be fused to the base plan. In addition, the Kit also contains a grid, Wright's design system that informs his design decisions. Once Wright develops a base plan, he can use the parts in his Kit to design a unique house. The grid also allows him to expand the base plan through extensions when the program calls for such additions. Like the "parts," the extensions are a natural growth of the base plan and neither the "parts" nor the extensions read as additions to the base plan.

Thus, through the development of three modest prairie houses, Wright's genius for design can be traced. These designs are important for their horizontal and vertical development, as well as the fact that one base plan serves as the foundation for three unique clients.

Troilus' "Remors of Conscience" and Chaucer's Trojan War

Gerald Nachtwey

Department of English and Theatre

Only a handful of literary critics have said anything about Pandarus' very first words to Troilus in *Troilus and Criseyde* ever since the early twentieth century, when G.L. Kittredge neatly characterized the statement as an "accusation of cowardice." In fact, Pandarus first suggests that Troilus suffers not from cowardice—or even lovesickness—but rather "remors of conscience." That Troilus should suffer from feelings of remorse or guilt is a distinct possibility, given the bloody description of his battlefield exploits which Chaucer offers only a few lines earlier. Whatever their relationship might become later in the poem, in this initial dialogue Pandarus acts as a *confessor* in trying to get Troilus to disclose the nature of his participation in the war. One of the key words in their dialogue that signals this confessional relationship is the word *attricioun*. By the late fourteenth century, *attricioun* already had its theological meaning of "imperfect contrition," but it had also taken on the medical meanings of "laceration" and "head wound." My project suggests that one of the things Pandarus is asking in the dialogue is whether or not Troilus has been mentally or spiritually "wounded" by the war. Placing their initial dialogue in the context of late medieval ideologies of both confession and chivalry, I demonstrate that both Troilus and Pandarus begin the poem in a specifically *chivalric* relationship that was, for Chaucer's time, fairly typical; it is a relationship that will change, and become fundamentally impaired, by the way in which both of them deal with the presence of Criseyde. Thus, focusing some attention on these seemingly straightforward lines can perhaps give us new insight into the narrator's attitude towards Pandarus, the nature of the friendship between Pandarus and Troilus, and the relationship of both men to the war that serves as the impetus for the poem.

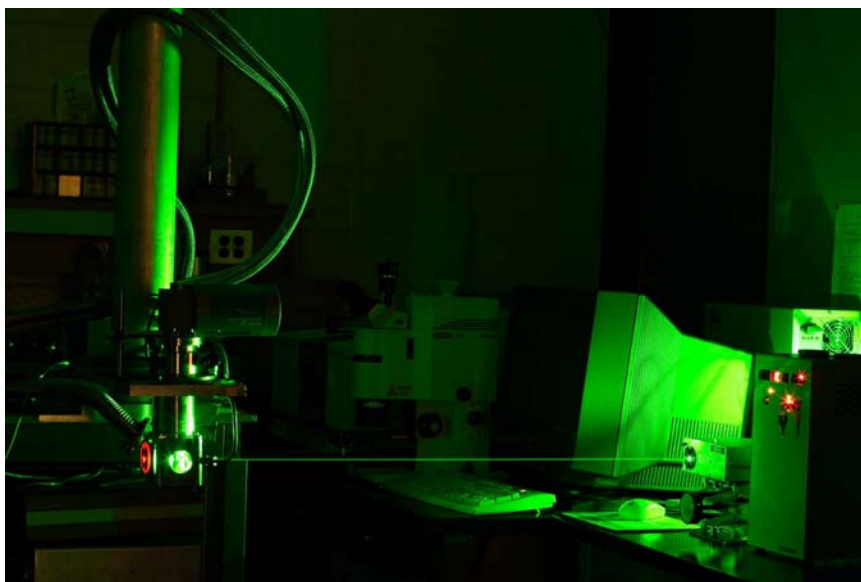
6

Matrix Isolation Spectroscopy of Transient Carbon Bearing Molecules

Jason F. Fuller

Department of Chemistry

Highly reactive, short lived molecules tend to display a fascinating chemistry as well as offer fundamental insight into the nature of chemical bonding. The problem with studying these molecules is that they are transient species. They are stable for fractions of a second and do not exist in bulk form, thus requiring some manner of isolation to prevent unwanted reactions. Highly reactive species can be stabilized by locking them in a rigid matrix, hence matrix isolation. Essentially, this technique involves the co-deposition of a matrix gas at cryogenic temperatures with the gas-phase species of interest. The reactive molecule is trapped in the rigid matrix, thereby preventing diffusion and precluding unwanted reactions with other trapped species. With the species successfully isolated they can then be probed by spectroscopic methods. This poster will present the construction and testing of a matrix isolation spectroscopy (MIS) apparatus and discuss ongoing and future MIS projects. The instrument is first tested by measuring the infrared absorption spectra of several linear carbon chains, C_n . In this experiment, laser ablated graphite is co-deposited with argon on a BaF_2 window cooled to $\sim 10K$ and probed with Fourier transform infrared spectroscopy. Comparisons of these observations with the literature confirm the MIS instrument is working properly and ready to move forward with new experiments. Current work involving main group carbides, C_nP and the analogous C_nAs molecules will be presented.



7

Innovative Techniques for Digitizing and Restoring Deteriorated Historical Documents

George Landon

Department of Computer Science

Current document digitization strategies are unable to cope with a large range of damaged and deteriorating documents. We have developed a non-destructive system that can acquire and restore not only a distorted single-page document, but also more complicated multilayer film negatives. In this work, we demonstrate a new image-based document acquisition system, based on single-scatter diffuse transmission, that captures the intrinsic intensity information and shape distortion of documents. Using a simple to build and cost-effective camera and LCD system, the data is acquired to allow for automatic photometric and geometric correction of most documents.

We show the results of our system with single sheet non-planar documents. Furthermore, to show the robustness of this system, we demonstrate the restoration on 70 year old safety acetate film negatives that have been damaged due to shrinkage and other forms of deterioration.

8

Strong Estimates in Higher Dimensional Spaces

Chaoyuan Mary Liu

Department of Mathematics and Statistics

Study a variety of the strong estimates from L^p to L^p where $1 < p < \infty$ and L^∞ to BMO. For the case, these operators of the stochastic processes are Lebesgue derivatives or ergodic averages in higher dimensional spaces defined on nested cubes. It will give a sweeping generalization of what is already known in one dimensional to that in higher dimensional spaces for nested cube regions.

Assessing Viticulture Suitability in Southeastern Kentucky

F. Tyler Huffman

Department of Geography and Geology

From the establishment of the Kentucky Vineyard Society in 1798 until the era of prohibition, Kentucky grew to become the third largest grape growing and wine producing state in the country. After the implementation of prohibition, Kentucky viticulturists lost the market for their product and sought alternatives for agricultural production. Viticulture was soon replaced by tobacco as one of major components of Kentucky agriculture. With recent legislation aimed at the abolishing the price support for the production of tobacco, Kentucky farmers are once again searching for an alternative crop to alleviate the loss of income from tobacco. In a reversal of fortunes from nearly 90 years ago, Kentucky farmers are again turning to viticulture. The increase in viticulture in the state is seen not only as an alternative to tobacco, but as catalyst for increased tourism across the state.

The research presented here is the outcome of a preliminary viticulture suitability analysis for the region of Southeastern Kentucky. The goal of this research is to ascertain the environmental suitability for viticulture in the study region. This research integrates multiple geospatial data sources in a spatial decision-making environment. The suitability analysis uses a variety of environmental data layers acquired from the state of Kentucky that are combined within a cartographic model. The output from this model results in an overall layer of suitability that highlights those areas in southeastern Kentucky that are most suitable for viticulture production.

Race Differences among Low-Income, Non-custodial Fathers: Type of Involvement and Self-perceptions of Fathering

Caroline Reid

Department of Anthropology, Sociology & Social Work

There are more than 21.2 million children who live with only one parent in the United States (U.S. Census, 2007). Of the 13.6 million non-custodial parents, the majority of whom are fathers, more than 2.5 million are low-income fathers who do not pay child support (Sorensen, 2002). This is a diverse group yet little research has focused on race differences among low income non-custodial fathers who do not pay child support. Understanding who these fathers are, and how they are involved in their children's lives is important for social policy and for parenting programs that seek to involve fathers beyond financial child support. This paper provides a description of race differences among low-income, non-custodial fathers. Comparisons between White and African American/Black fathers are made for the amount of fathering involvement, the type of fathering involvement, and self-perceptions of fathering.



11

Maternal Contribution to Development of Children who are Deaf/Hard-of-Hearing

Julia B. Robinson

Department of Psychology

Understanding parenting behaviors and how they are related to child outcomes in children who are deaf/hard-of-hearing (D/HH) will provide critical knowledge needed to create specific and individualized interventions. Therefore, the primary goal of the current study is to identify processes by which mothers support the development of attention regulation and pre-academic skills in preschool-age children with hearing problems. In particular, this line of research seeks to identify interrelationships among maternal behaviors, child attention allocation, child temperament, and child pre-academic achievement skills in preschoolers who are D/HH. The specific aim of the work for summer 2008 revolved around establishing the foundation for this project. The principal investigator spent the summer developing and gathering materials for the project. New assessments that have been recently normed for young children who are D/HH were reviewed, and communication was made to the University's Interpreting services as to having the instructions for all assessments signed and videotaped for our use. Additionally, the principle investigator drafted a formal proposal for approval from the University Internal Review Board (IRB). She also spent a great deal of time communicating with site directors, getting approval and working out logistical matters of conducting the proposed research. Once letters have been secured from each site director, the proposal will be submitted to the IRB. In addition, the principal investigator worked on secondary data analysis for another project, as well as worked on revising a rejected manuscript for re-submission.

12

Corporate Volunteerism

Jaime B. Henning

Department of Psychology

Millions of individuals donate their time to volunteer work each year. Additionally, expectations of socially responsible practices on the part of organizations are leading to a growing interest in corporate social responsibility among management and researchers. One method to achieving greater corporate social responsibility is corporate-sponsored volunteering (CSV). Many benefits have been associated with CSV. However, research on CSV in the United States is relatively sparse, thus, it is not clear what the antecedents, correlates, and specific benefits of this activity are to the employee, employing organization, and recipient of the activity. This project attempts to examine these gaps in the literature. The poster presentation will focus on results of the study comprising the first phase of this research, examining antecedents to CSV. Although studies have identified several demographic variables associated with volunteering, few studies have examined variables beyond simple demographics, and fewer still have examined antecedents of CSV. In this study, contextual, attitudinal, situational, and motivational variables were integrated in order to present and empirically test a framework to help explain why individuals participate in CSV. Data were collected from 110 individuals employed in two organizations supporting corporate volunteerism in order to examine the antecedents of participation in this behavior.

Ogechi Anyanwu
Department of History

Access to university education in Nigeria was limited during the colonial period. With an annual intake of less than 130 students, a low turn out of a highly trained labor force for the country, and a lopsided curriculum and enrolment, the University College of Ibadan, established by the British colonial power in 1948, failed to satisfy the higher education needs of most Nigerians. Yet, the British resisted demands to change their elitist higher education system until the late 1950s. Existing works have either ignored or underestimated how the complex politics of the Cold War and decolonization coincided in the late 1950s to make a shift in the elitist British higher education policy a *fait accompli*. Through a documentary research and detailed qualitative analysis of the data on higher education, obtained from various research sites in Nigeria and the Columbia University Rare Book and Manuscript Library, this study argues that the politics of the Cold War and decolonization for the first time in history coalesced the interests of Carnegie Corporation of New York, British colonial authorities, and Nigerian nationalists, forming not only the cornerstone of a new era in the Anglo-American-Nigerian collaboration in Nigeria's higher education expansion, but also a prelude to the country's post-colonial commitment to use mass education to promote nation building.

