Massachusetts Statewide

th annual
Undergraduate Conference

Featuring Presentations On
Community Service
Creative Work
Thesis Research
Independent Study
Study Abroad

Conference Program
Presentation Schedule and Abstracts

Monday, May 3, 2004
8.30am - 4.30pm
The Colonnade Hotel
Boston, Massachusetts

Co-sponsored by the Massachusetts Public System of Higher Education and the Commonwealth College at the University of Massachusetts Amherst.
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Acknowledgements

We would like to acknowledge the Colonnade Hotel for offering their facilities at a reduced rate for this year’s conference.

Thanks also go to the many faculty members who volunteered their time and expertise to review abstracts and gave invaluable guidance to student presenters.

We would like to express great appreciation to the following campus contacts for their time and support of the conference:

Ellen Shanahan  Berkshire Community College
Andrew Harris  Bridgewater State College
Greg Sethares  Bristol Community College
Joan Brenner  Bunker Hill Community College
Claudine Barnes  Cape Cod Community College
Sara Pollack Levine  Fitchburg State College
Deborah Dalton  Framingham State College
Tom Simmons  Greenfield Community College
Kim Hicks  Holyoke Community College
David Langston  Mass College of Liberal Arts
Carolyn Ann Cohen  Massachusetts Bay Community College
Janna Longacre  Massachusetts College of Art
Brad Lima  Massachusetts Maritime Academy
Susan Martelli  Massasoit Community College
Catherine Pride  Middlesex Community College
Sheila Murphy  Mount Wachusett Community College
Marcey Marold  North Shore Community College
Ginger Hurajt  Northern Essex Community College
Maura Tighe-Stickles  Quinsigamond Community College
Everest Onuoha  Roxbury Community College
Rod Kessler  Salem State College
Arlene Rodriguez  Springfield Technical College
Joyce Morrissey  UMass Boston
Janet Gardner  UMass Dartmouth
Alice Walters  UMass Lowell
John Loughney  Westfield State College
Sharon Yang  Worcester State College
# Conference Schedule

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<th>Event</th>
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<tr>
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<td>8:30 a.m. – 9:20 a.m.</td>
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<tr>
<td>Welcome (Huntington Ballroom)</td>
<td>9:20 a.m. – 9:50 a.m.</td>
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<td>Morning Poster and Oral Sessions</td>
<td>10:00 a.m. – 11:30 p.m.</td>
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<td>Keynote Address (Huntington Ballroom)</td>
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<td>Afternoon Poster and Oral Sessions I</td>
<td>1:30 p.m. – 3:00 p.m.</td>
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<tr>
<td>Afternoon Poster and Oral Session II</td>
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Floor Plan of Conference Facilities

Colonnade Hotel
Boston
### Schedule of Presentations

#### Oral, Visual and Performing Arts Presentations

Oral presentations are grouped in panels lasting 45 minutes. Each primary presenter (whether presenting an individual or group project) gives a 10-minute presentation, and a 15-minute discussion for the entire panel follows.

#### Braemore

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<thead>
<tr>
<th>Panel</th>
<th>Presenter</th>
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<th>Campus</th>
<th>Time</th>
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Poster Presentations - Huntington Ballroom

Morning Session: 10:00 A.M.–11:30 P.M.
Afternoon Sessions: 1:30 P.M.–3:00 P.M. & 3:00 P.M.–4:30 P.M.

Morning Session

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POETRY AND PERFORMING ARTS: AN ANALYSIS OF THE CIVIL WAR SHEET MUSIC COLLECTION AT THE AMERICAN ANTIQUARIAN SOCIETY

The result of a semester’s worth of research at the American Antiquarian Society under the supervision of Dr. Carolyn Lawes of the department of history at Old Dominion University was a significant research paper analyzing the Civil War sheet music collection AAS and its accompanying pictorial covers for evidence of both poetry and performing arts. As a tie between literature and popular culture such works are significant in that they reveal insight into the way war was both portrayed and responded to. In these songs literature and popular culture collide to shed significant light on the very way the war was remembered. I was able to find considerable examples of both poetry and drama in the popular music of the era and by using the work of such noted Civil War scholars as Alice Fahs and David Blight, I was able to demonstrate how such works forge a link between literary expression and the popular culture of Civil War America. Union and Confederate states alike used sheet music as a forum for poetry spanning such themes as love, patriotism and grief. Some of the poets were amateurs simply expressing their take on the cataclysmic event at hand, others such as Henry Timrod were accomplished poets using the form of sheet music to reach the largest possible audience in an economically strapped Confederacy. Drama also appeared as a major form in period sheet music both in the lyrics and pictorial covers. Dramatic songs often combined elements of performance with visual drama in the lithographs which accompanied the music. These images once combined with the music and lyrics would have yielded a significant multimedia dramatic performance for audiences enthralled in the culture of war. The dramatic works of period sheet music much like those of a poetic nature combine elements of literature and fine art with those of popular culture.

A NATION OF THEIR OWN?: AN EXAMINATION OF GENDER ROLES IN THE NATION OF ISLAM

In the 1960's, the Nation of Islam (NOI) established a rapidly growing movement. Elijah Muhammad, self-alleged prophet of God, pledged to African Americans that those who followed his message would witness an over-all improvement in their quality of life. Scholars have noted that the program outlined by the NOI benefited its followers. According to the guidelines, those that followed this religious movement must establish self-control and a high sense of morality if they wanted to enhance the condition of their lives. Outlined within the framework were the distinct roles of men and women. What was delineated, however, only emulated an already existing system. More specifically, Muslim men worked outside of the home to generate wealth for the family, while women were expected to stay at home and manage the household. Furthermore, the work ethic in both spheres imitated the American capitalistic work ethic. Malcolm X stated: “In Islam everyone works...Heaven demands hard work. There is no room for laziness.” The NOI, though undoubtedly revolutionary, certainly was a product of its place and time in post-war America. The primary evidence researched for this paper (Elijah Muhammad’s essays in Message to the Black Man in America and articles from the NOI newsletter “Muhammad Speaks”) demonstrates the parallels between the post-war African American Muslim ideal with the American middle class ideal.

ORIGINAL POEMS THAT REFLECT THEMES IN EARLY AMERICAN LITERATURE

Walt Whitman once said, “I was simmering, simmering, simmering, and Emerson brought me to a boil.” This presentation offers a collection of original poems that illustrate how early American literature can influence the reader. The poet demonstrates creativity in order to gain a good command of a variety of words, improve methods of arranging thought, and become a better writer. These poems were written in direct response to Nathaniel Hawthorne, Henry David Thoreau, and Walt Whitman. The first poem “Hawthorne’s Backdrop Moon” is a recreation of Robin’s query in Hawthorne’s “My Kinsman, Major Molineux”. The setting is a New England town during the 1700s, and the moon becomes the backdrop of the scene. This poem is a creative example of reorganization of prose by careful selection of theme and setting from a particular story. The poem “Truth” is a response to Hawthorne’s “The Scarlet Letter.” It pitches nature against Puritanism where the characters are overcome by their emotions, demonstrating how the individual has little or no control over circumstances. “The Sweet Edge That Divides You” is the poet’s expression of how Thoreau confronts the facts of life in “Walden”. “Nature” is the poet’s reflection of how Thoreau transcends his spirituality through nature, finding Heaven on Earth. “My Poetic Whitman” demonstrates the writer’s attempt to imitate the spirit and nature of Whitman’s “Song of Myself.”
### AMERICAN STUDIES

**4 KENMORE 10:45-11:30 PANEL 2**

**ARTHUR STADNIK** (PEG NORRIS), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

**THOMAS JEFFERSON: EARLY ADVOCATE AGAINST SLAVERY OR RACIST?**

This presentation will examine Thomas Jefferson’s involvement with and perspective on issues pertaining to slavery. Jefferson is clearly one of our nation’s greatest forefathers. The Declaration of Independence was one of his proudest achievements. From 1769 through 1787, Jefferson stood out among southerners as an advocate for the Negro race and their rights to freedom. Bills put forth but voted down, excerpts from the Declaration of Independence that were deleted, and excerpts from his book “Notes on the State of Virginia” all testify to Jefferson’s ardent opposition to slavery. But Jefferson was also a slave owner. There are passages in “Notes on the State of Virginia” that clearly have racist overtones. They can be seen as an appeal to his southern brethren to ingratiate himself with the political process that he needed to be a part of in order to help preserve the ideals he wrote of in the Declaration. The racist views in “Notes”, Jefferson’s dependence on his own slaves, his decision not to free his slaves even at the time of his death, and his inaction on the part of the Negro cause, tragically leave history feeling betrayed by one of our nation’s greatest forefathers.

### ANTHROPOLOGY

**5 FOYER II 10:45-11:30 PANEL 2**

**ALEXIA CIRIGLIANO** (LYNETTE LEIDY-SIEVERT), DEPARTMENT OF ANTHROPOLOGY, UMASS AMHERST, AMHERST, MA 01003

**THE ROLE OF BIRTH DOULAS**

The role of a birth doula focuses on providing physical and emotional assistance, as well as information, throughout a new mother’s pregnancy, labor, and delivery. This study explores three hypotheses: 1) Mothers utilize doula care to create a feeling of community in cases where family members are unable to provide support. 2) Doulas exclusively promote natural birthing techniques. 3) Doulas are a solution to the increasing medicalization of pregnancy, labor, and birth. Interviews were done both in person and over the phone with five birth doulas, five new mothers who did not use doulas, and four new mothers who did utilize doula care. Comparing the philosophies, medical experiences, and birth experiences between the three groups served to further explore the issue of medicalization in birth, the validity of the hypotheses, and to explain the mission of doulas. Two of the three hypotheses were disproved. Both mothers and doulas cited the role of the doula to be in addition to, rather than a substitute for, family support. Doulas support all births, regardless of supplemental or necessary medical interventions. Though doulas support decreasing medicalization within labor and delivery, doulas themselves do not work to de-medicalize birth; rather, they work to give mothers support to maneuver through the existing medical system. Birth doulas play an important role in humanizing the birth process and assisting mothers in creating their ideal birth environment.

### ART HISTORY

**6 KENMORE 3:00-3:45 PANEL 5**

**REBECCA SPOLARICH** (MARIE FRANK), DEPARTMENT OF ART HISTORY, UMASS LOWELL, LOWELL, MA 01854

**REALISM & MASCULINITY: IDEALS OF MANHOOD IN 19TH CENTURY AMERICAN ART AND LITERATURE**

This project examines how Realism in the art and literature of the 19th century defines the American ideal of manhood. Considering that feminist studies based on this period exist in greater number than do those concerned with masculinity, this paper means to explore the gaps in previous research with regard to realism in the later half of the century. By looking closely at the environments in which men were depicted, specifically through portraits and fictional characters, one means to infer a connection between the pictorial and imagined man with that of the real illustrated through recent sociological studies on the Victorian era. The methods and concerns practiced by Realist authors and artists will be analyzed in order to determine exactly what is meant by the notion of Realism and if writers and painters were in fact constructing reality rather than depicting it. Thomas Eakins’ portraiture plays a central role in this study and serves as a parallel to particular novels from late 19th century American authors. Research is based on readings from critical texts regarding novels and paintings, as well as on the researcher’s own analyses of these texts’ sources. While still in progress, the research reveals that 19th century American painters and writers understood the concept of Realism differently. Unlike writers who meant to illustrate reality accurately in words, painters “constructed” images of reality on their canvases. Not only did the works that I consider reinforce ideals that Americans had about masculinity, they introduced new models to substantiate the changing roles of men in Victorian America.
**BIOLOGY**

7 KENMORE 1:30-2:15 PANEL 3

**ANDREW BELLEMER** (KATHERINE FITE), DEPARTMENT OF PSYCHOLOGY, UMASS AMHERST, AMHERST, MA 01003

**FLASHING LIGHT INDUCED C-FOS EXPRESSION IN THE MONGOLIAN GERBIL CIRCADIAN SYSTEM**

The suprachiasmatic nucleus (SCN) is the site of the circadian biological clock in the mammalian brain. This nucleus receives a strong retinal projection as well as projections from a variety of nuclei within the brain, allowing it to integrate information for the synchronization of physiological and behavioral rhythms to the daily light-dark cycle. One major projection to the SCN arises from the intergeniculate leaflet (IGL) and ventral lateral geniculate (VGL) nucleus of the thalamus. These nuclei receive strong retinal afferents in addition to several neuromodulatory projections from the midbrain and brainstem. The retinorecipient dorsal raphe nucleus (DRN) of the midbrain has been shown to be the source of a major serotonergic projection to the SCN, IGL, and VGL. This study examines how the activity of these structures may depend on the amount of light that strikes the retina by analyzing the expression of the immediate-early gene, c-fos, in the SCN, IGL, VGL, and DRN of the Mongolian Gerbil, a highly visual, diurnal rodent. Immunocytochemical procedures were used to visualize neurons containing Fos, the protein product of c-fos and a common marker of neuronal activity, in the brains of animals that had been exposed to varying frequencies and intensities of flashing light. A marked reduction in Fos-labeled cells in the IGL, VGL, and DRN of animals exposed to low-intensity and low-frequency flashing light indicates that the activity of these areas may vary depending on the average intensity of light that strikes the retina.

8 KENMORE 1:30-2:15 PANEL 3

**RACHEL OSTROFF** (STEPHEN MCCORMICK), DEPARTMENT OF BIOLOGY, UMASS AMHERST, AMHERST, MA 01003

**OSMOREGULATORY HORMONES PROLACTIN (PRL), GROWTH HORMONE (GH) AND INSULIN-LIKE GROWTH FACTOR-I (IGF-I) IN ACCLIMATION TO SALINITY**

Aquatic animals respond to environmental changes in salt concentration (salinity). Fish maintain a nearly constant internal salinity by regulating ion fluxes at the gill, gut and kidney. The role of the osmoregulatory hormones prolactin (PRL), growth hormone (GH) and insulin-like growth factor-I (IGF-I) and their response to changes in salinity is not known. Male Oreochromis mossambicus raised in seawater (SW) were transferred from seawater to freshwater (SW-FW) under fasted and fed conditions. Fish were sampled at days 0, 1, 2, 4 (fasted experiment) and also at day 7 in the fed experiment. Plasma liver, gill, body kidney and pituitary were extracted. Plasma was analyzed for osmolality. Plasma PRL, GH and IGF-I levels were determined by radioimmunoassay (RIA). In fasted fish, osmolality levels dropped and remained low after FW transfer. Plasma PRL levels rose in transferred fasted fish in conjunction with the osmolality decrease. Plasma GH levels remained constant. IGF-I levels in fasted fish dropped in SW-SW fish and rose in the SW-FW fish. Fed animals exhibited a 1 day decrease in osmolality, returning to basal levels by day 2. PRL levels rose and remained elevated in fed SW-FW fish. No overall change was observed in GH or IGF-I levels in fed fish. Results confirm previous findings on the importance of PRL in the fresh water acclimation process. They further indicate that starved fish have greater ionic perturbation and higher plasma IGF-I during seawater to freshwater transfer than fed fish, therefore confirming that they do employ osmoregulatory techniques for survival.

**COMMUNICATION**

9 BRAEMORE 2:15-3:00 PANEL 4

**PATRICK BROWN** (ROB CARR), DEPARTMENT OF COMMUNICATION, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

**THE EFFECTS OF INSTANT MESSAGING ON YOUNG PEOPLE**

The purpose of this research was to examine the effect that computer instant messaging has on young people, specifically those aged 12-21. The rapid ascension of instant messaging in the world of telecommunications and its growing importance to the world in the 21st century makes it a serious topic for concern, one that’s effects are far-reaching. This rise is particularly prevalent among young people. Adolescents these days are discovering instant messaging as early as elementary school, yet this discovery’s merits are still unclear. Through use of focus groups and interviews of young people aged 12-21 as well as non-experimental research consisting of journal and newspaper articles, this research will show the impact of instant messaging and its returns on the younger generation. This generation has grown up with instant messaging and become accustomed to a world in which people across the planet can communicate with one another with the click of a mouse. Furthermore, this research will explore the impact of instant messaging in schools and the workplace and determine if it is a valuable research tool or merely another distraction for procrastinators looking to pass the time. By answering these questions this research will greatly enhance our understanding of how people communicate via instant messaging and also show the many benefits and drawbacks to this relatively new communication tool.
COMMUNICATION

10 BRAEMORE 2:15-3:00 PANEL 4

ADAM HOWE (ROBERT CARR), DEPARTMENT OF COMMUNICATION, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

CONNECTION BETWEEN MUSIC AND MINDSET
This research prospectus will examine the connection between the musical genre coined ‘emo’ and those people who listen to it. The purpose of this study is to determine whether or not this type of music influences its listeners to think in a similar manner. The snowball method will be used to collect data from individuals between the ages of 15 and 25 years. Using a series of surveys, interviews and questionnaires, the values and ethics of listeners and non-listeners of emo will be assessed and compared. This study will focus on the emo and punk cliques while skimming the surfaces of other styles of music as well. This study will attempt to determine if (1) the music one listens to relates to certain ethics and values adopted by the listener; (2) those values which the listener possesses are generally the same as other listeners of similar music; and (3) the values which these listeners have are drastically different from those of listeners of different styles of music.

COMMUNITY OR PUBLIC SERVICE

11 FOYER II 10:00-10:45 PANEL 1

CASEY BURGESS (WILL SNYDER), UMASS EXTENSION, UMASS AMHERST, AMHERST, MA 01003

IDENTIFYING THE ISSUES AND OPPORTUNITIES OF MULTICULTURAL DIVERSITY IN UMASS EXTENSION’S FAMILY NUTRITION PROGRAM
The Purpose of this study is to explore and identify the issues and opportunities associated with multicultural diversity in UMass Extension’s Family Nutrition Program (a state funded educational program). Attention will be focused on the elementary school age group. The program coordinators have marked diversity as an obvious issue in previous evaluations. Diversity has not been evaluated in the scope of the Family Nutrition Program. My evaluation observations come from in-depth personal interviews with the program’s site coordinators, the nutrition educators, and some classroom teachers. After the primary interviews follow-up email or phone interviews were completed to clarify points of information. Data is, as of yet, still incomplete. Questions to be answered include: What kinds of cultural diversity do your nutrition program sites experience? What steps have already been taken to consider and accommodate the presence of differing cultures? How can we further address these issues to provide a beneficial education to all children? Are there relationships between culture and class? How can we address those? It is my hope that the results of this research can be used to improve the quality of education in the Family Nutrition Program. Diversity and the assessment of diversity in relation to curriculum are extremely important for students and teachers alike. With luck, the results of my study can help teachers to adapt both curriculum and teaching style in order to accommodate the possible learning differences in a multiculturally diverse educational atmosphere.

12 FOYER II 10:00-10:45 PANEL 1

CAROLINE CADMUS (WILL SNYDER), UMASS EXTENSION, UMASS AMHERST, AMHERST, MA 01003

WHERE PARENTS GET THEIR NUTRITION INFORMATION AND HOW THIS AFFECTS THEIR INTERACTION WITH THEIR PRESCHOOL-AGED CHILDREN.
Children depend on their parents to provide them with everything they need to thrive, especially food. Every day, parents are bombarded with information about health and nutrition that influence the decisions they make about what they feed their children. This is especially important for low-income families who have less money to buy food. The purpose of this study is to investigate how these parents are acquiring, evaluating, and using different sources of nutrition information, and how that information is affecting the interaction between parents and children on issues of food and nutrition. This study is part of UMass Extension’s 2004 evaluation of its Family Nutrition Program’s pre-school education work. The Family Nutrition Program works with low-income families to try to provide them with reliable education about nutrition. The Pumpkin Post and Banana Beat newsletters are vehicles for this education. We are interested not only in how parents of preschool children use the newsletter, but how the newsletter fits into a larger picture of how parents acquire and use nutrition information. In this study, parents enrolled in an adult nutrition group and who have pre-school aged children will be invited to take part in topic group discussions and to complete a paper questionnaire. We will choose participants in order to get the highest level of diversity possible in the first three or four groups we hold. We expect to determine from those responses whether a larger study is needed. We will ask focus group participants to complete a separate form requesting demographic information (e.g. family income, number of visits to health care providers, access to various forms of media). However, no names or other identifiable information will be taken from the parents who volunteer to participate. I believe this research will help nutrition educators find ways of better reaching parents with useful nutrition information.
COMMUNITY OR PUBLIC SERVICE

13 FOYER II 10:00-10:45 PANEL 1

LISA FRANKS, KRISTEN M IERARDI (WILLIAM MILLER), UMASS EXTENSION, UMASS AMHERST, AMHERST, MA 01003

AFTER-SCHOOL PROGRAM ASSESSMENTS IN WESTERN MASSACHUSETTS
Parents work hours often extend well past the hours their children are in school. As a result, parents are increasingly relying on after school care programs. Research is needed to better understand the factors that determine quality in after school programs. This information will help educators to improve their programs and help parents to make better decision in selecting after school care arrangements. This study will focus on understanding the factors that determine quality in ten after-school programs in Western Massachusetts. Factors that have been associated with quality after-school care in prior research will be investigated. These include structural features such as: child-to-staff ratios, training opportunities for staff, and levels of staff education. In addition, the emotional climate of the program, opportunities for cognitive growth and autonomy will be measured. Information on programs will be gathered through interviews with directors or supervisors, direct observation of program activities and staff surveys. The goal of this study is to help after-school programs in Western Massachusetts understand their strengths and to target some potential areas for improvement. This information will also contribute to public knowledge about of after-school programs and the factors that help to ensure quality.

COMPUTER SCIENCE

14 KENMORE 2:15-3:00 PANEL 4

JUDELANDE HYPPOLITE (MARC POMPLUN), DEPARTMENT OF COMPUTER SCIENCE, UMASS BOSTON, BOSTON, MA 02125

THE EYE-HAND SPAN IN HUMAN-COMPUTER INTERACTION
In a previous experiment, subjects had to select an object on a screen either by using a computer mouse or a gaze interface. The selection was then confirmed by pressing a button. The results showed that reaction times were shorter when the subjects used the computer mouse instead of the gaze. We tried to explain the poorer performance for the gaze by assuming that the subjects are looking for the next object already when pressing the button. The current experiment investigated if such an eye-hand span really exists and which factors affect its size. In this experiment, subjects were shown different arrangements of letters and had to look at them in alphabetical order while their eye movements were monitored. They also had to press a button to “click” each letter. The analysis of temporal gaze and button press data allowed us to measure the eye-hand span as a function of saccade amplitude and task difficulty.

CRIMINOLOGY

15 KENMORE 2:15-3:00 PANEL 4

MEGHAN BAGBY (GLEN BREWSTER), DEPARTMENT OF ENGLISH, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086

ACCELERANT DETECTION CANINE UNITS: GENERAL HISTORY AND TRAINING TECHNIQUES
Accelerant Detection Canine Units have become more commonplace in recent years, replacing the traditional gas chromatography flame ionization detector. Due to the fact that such canine units have only been around for less than a century, much of the regulations are set by case law that is established as the need arises. With little precedent to follow, the training and accuracy of the accelerant detection units is controversial. While their capabilities to detect minute units of volatile materials can not be disputed, false positives are still a major problem. This leads to rigorous and strict training techniques that are based upon the Pavlovian Theory. My research reviews the relevant case law, the most widely accepted training techniques and the testing procedures utilized.

16 KENMORE 2:15-3:00 PANEL 4

WILL ROACH (MILTON BUTTS), DEPARTMENT OF SOCIOLOGY, UMASS BOSTON, BOSTON, MA 02125

CRIMINOLOGICAL EXPLORATION IN REGARDS TO LAW ENFORCEMENT AND CYBER SPACE
This study was conducted in order to determine ways that the government can aid law enforcement in the detection, capture, and prosecution of those who use the Internet for illegal purposes. This study will focus on the Anti-Electronic Racketeering Act (A.E.R.) that was introduced in the Senate on June 27, 1995. This Act was presented by Senator Charles Grassley (R. - Iowa) but was not passed. The Act was
intended to be an addition to the R.I.C.O. Act and would modernize law enforcement’s efforts in dealing with cyberspace crime. Principally, A.E.R. would make it a crime to use computers to further a racketeering enterprise. Prosecutors would be able to break down barriers that hinder the detection of cyberspace crime by making it easier to deal with the elusive cyber-criminal. Within the R.I.C.O. Act, law enforcement can use wiretaps; however, in cyberspace the location of the perpetrator is almost impossible to detect. The A.E.R. would allow prosecutors to use various surveillance methods in the detection of criminals in cyberspace. This Act would be a powerful method in curbing and deterring crime on the Internet. A point of contention with the A.E.R is the addition of restrictions on encryption software, and how this may threaten privacy rights. I will argue in this study that with proper supervision and restrictions the threat to privacy rights can be limited. I will also explore the ways in which cyber crime is a threat to society if left unchecked and unfettered, and how the A.E.R., with the encryption guidelines will greatly enhance law enforcement in dealing with Internet crime.

ECONOMICS

17 FOYER II 3:00-3:45 PANEL 5

LONNA CARTER (ANTHONY GUGLIELMI), DEPARTMENT OF ECONOMICS, UMASS AMHERST, AMHERST, MA 01003

RECONSTITUTING THE RELATIONSHIP BETWEEN SUBSIDIZED HEALTH CARE AND AMERICAN WOMEN

Despite government initiatives to expand Medicaid and Medicare benefits and eligibility qualifications in the last decade, thousands of American women annually live without healthcare. This phenomenon is due to a variety of economic and social barriers within the American subsidized health care system. The following paper traces the history of Medicaid and Medicare in light of their advances and failures to offer sufficient healthcare to American women. It follows by delineating the role of poverty thresholds in calculating eligibility and the subsequent crisis facing American women. By reconstituting the relationship between healthcare and women in poverty- mainly by offering universal healthcare coverage, reconfiguring poverty thresholds, and making coverage more accessible, American women may some day benefit from adequate healthcare.

18 FOYER II 3:00-3:45 PANEL 5

BONNIE MCMANUS (CATHERINE LYNDE), DEPARTMENT OF ECONOMICS, UMASS BOSTON, BOSTON, MA 02125

WOULD A CANADIAN-STYLE SINGLE-PAYER HEALTH CARE SYSTEM WORK IN THE U.S.?

The United States remains the only modern, industrialized nation lacking some form of universal health care coverage for the entire population irrespective of age or income. Movements for compulsory health insurance were occurring in Canada and the U.S. until the post-World War II period. Economic and political factors facilitated the adoption of an employment-based health care system in the U.S. while Canada implemented a single-payer system. The rising number of uninsured, the recent debate over Medicare legislation, and the controversy involving the importation of prescription drugs from Canada has sparked debates over the efficacy of the U.S. health care system. A recent proposal by physicians suggests that the Canadian single-payer system provides a viable model for reform. In order to assess the feasibility of implementing a Canadian-style system in the U.S., an analysis of the historical development of the U.S. employment-based system and the Canadian single-payer system is necessary. Subsequent changes to both health care programs from that period to the present will be comparatively examined such as the rise in third party payment plans in the U.S., and the expansion of the Canada’s health insurance system. Time series analysis will be conducted to present comparative data on health outcomes, cost and structure. This paper will conclude by examining the practicality of implementing a single-payer system in the U.S., with regard to cost and cultural acceptability.

EDUCATION

19 FOYER III 10:00-10:45 PANEL 1

HEIDI GRASER (WILL SNYDER), UMASS EXTENSION, UMASS AMHERST, AMHERST, MA 01003

HOW IMPORTANT IS THE LEARNING OF SKILLS AND KNOWLEDGE TO PARTICIPATION IN ENVIRONMENTAL SERVICE LEARNING PROGRAMS?

Environmental Service Learning programs are becoming increasingly popular ways of engaging urban students. These programs aim to integrate knowledge in a certain area with community service. They set goals for the youth, such as learning how to identify city trees or how to grow and cultivate organic foods. There are a variety of reasons that young people join these programs such as community service requirements, concern for the environment, interaction with role models and interest in the knowledge and skills learned. This study was conducted to determine how important the learning of knowledge and of skills specifically is to the student’s involvement in such programs. Student participants from three service learning programs in and around Boston were interviewed. These programs impart knowledge and practical skills that applies to the environment and to their local community. Qualitative interviews with 10 students lasted thirty minutes each
and were audio taped with informed consent. The conclusions to this study will be useful to these programs as they look at ways to attract and recruit and then retain participants.

**ENGLISH**

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<td>Drawing on work that is under development for a senior Honors Program Capstone Project, these poems vary in subject matter. Some of them are lyrics that concentrate on love and relationships while others characterize the craft of writing itself.</td>
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<td>21 FOYER I</td>
<td>10:45-11:30</td>
<td>PANEL 2</td>
<td>BEVIN GOODNIS (GLEN BREWSTER), DEPARTMENT OF ENGLISH, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086</td>
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<td>FREEDOM THROUGH EXPRESSION: EDNA’S AWAKENING IN KATE CHOPIN’S THE AWAKENING</td>
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<td>In “The Awakening” by Kate Chopin, Edna Pontellier’s discovery of ways to express herself leads to her discovery of her repressed emotions. It is through expression that she finally gains freedom for herself, leading to an awakening of her mind and body. During her awakening, Edna learns three new ways to express herself. She learns how to express herself freely and share her emotions openly; she learns how to express herself through art; and she learns how to express her love and passion. Unfortunately as Edna’s ability to express herself grows, the number of people who can understand and empathize with her diminishes. Edna is also expressing her hatred for society and its constraints, especially society’s image of the perfect wife and mother. Ultimately, Edna’s final expression is committing suicide. Through her suicide she gains the ultimate freedom from both society and those who want to possess her, though at the expense of her life.</td>
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<td>22 FOYER I</td>
<td>1:30-2:15</td>
<td>PANEL 3</td>
<td>KATELYN JOHNSTON, TORY B. FURTADO, ERIN C. MACGREGOR, CAROLINE L STCROIX (SUSAN MARTELLI), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402</td>
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<td>READING ALOUD TO A CHILD</td>
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<td>This group presentation demonstrates and discusses the importance of reading aloud to children. According to theories of Jim Trelease, as explained in his “Read-Aloud Handbook”, reading creates a bond between the reader and the listener which ultimately increases the child’s excitement in reading. Each presenter will speak separately about her personal experience with the child to whom she reads. The four uniquely different presentations will include details about the sessions with the child, including the feelings the child projected in the beginning and the changes that occur in four specific behaviors. The panel will explore the experiences of Kyle, three years old; Dustin, four years old; Samantha, eight years old; and Lauren, fourteen years old. The project tests Trelease’s theories of the acquisition of reading skills, and will demonstrate the dramatic improvement of the children in school performance as well as in self-confident behavior. The four specific areas of attention measure the children’s academic achievement, interest in reading, the bond formed with the readers, and all values discussed during sessions. The values discussions encourage critical thinking, especially in regard to cause and effect.</td>
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<td>23 FOYER I</td>
<td>3:00-3:45</td>
<td>PANEL 5</td>
<td>KATIEANN LOTH (GLEN BREWSTER), DEPARTMENT OF ENGLISH, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086</td>
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<td>DECADENT PURITY: FIGURATIVE LANGUAGE IN ANDREW MARVELL’S</td>
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<td>In the seventeenth-century poem “The Mower Against Garden,” by Andrew Marvell, the garden stands as a metaphor for the potential spiritual growth and the latent decadence that exist within each human. The poem approaches the idea of man tweaking nature to benefit himself, for in Marvell’s poem nature can provide a symbolic bridge between the human body and the natural world of the garden. Cultivation, engendering and experimentation on plants in the garden are all similar representations of how humankind has the tendency to employ artificial products to enhance vain humans’ appearance and destroy the simple element of purity. My paper analyzes Marvell’s figurative language that supports this thematic pattern.</td>
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<td>24 FOYER I</td>
<td>10:00-10:45</td>
<td>PANEL 1</td>
<td>KRISTINE MIELE (GLEN BREWSTER), DEPARTMENT OF ENGLISH, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086</td>
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<td>GUILT WORSE THAN SIBERIA: RASKOLNIKOV’S CONSCIENCE AND HIS DOWNFALL</td>
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<td>In Fyodor Dostoyevsky’s “Crime and Punishment,” Raskolnikov’s internal suffering is greater than the years he spends in prison for the two</td>
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mURders that he commits. In this most celebrated of 19th-century novels, Raskolnikov commits two murders during a robbery and thinks that he has gotten away with the perfect crime. The methodology of this paper is to trace the evolution of the stages of the psychological deformations that Raskolnikov undergoes. Raskolnikov is never identified as a murderer by the authorities, but his guilt comes to overwhelm him. Raskolnikov is punished by his conscience in minimal ways at first, but as the novel progresses, he continues to suffer until he reaches the point where a full confession of his murders is the only way to end his suffering. By the time he confesses, he has lost touch with the society that he lives in as a result of self-isolation stemming from his conscience. Through Raskolnikov, my paper will show that the internal suffering one suffers through his conscience is worse than penalty under law.

IGNORANCE IS BLISS: THE EDUCATION OF FRANKENSTEIN’S CREATURE

“Of what a strange nature is knowledge! It clings to the mind when it has once seized on it like a lichen on a rock.” In Mary Shelley’s “Frankenstein,” knowledge is the driving force behind all of the Creature’s actions—so much so, that it is he who utters these words. The Hollywood adaptations of Mary Shelley’s “Frankenstein” have implanted an image of a barbaric monster into our heads. In actuality, he is a character with thought processes and emotions just like our own. Though he is rejected by his creator at “birth,” the Creature finds a number of opportunities to learn about human society and knowledge. Yet the Creature can never use his knowledge of human relations because he is continually rejected by others. Thus, my essay argues that the Creature decides that he would be better off ignorant than educated in the ways of humans. Through my examination of the story, I will present the ironic idea that it was because he possesses complex thought processes and emotions that the barbaric desire to murder arises in him.

LOCATIONS OF TIME AND TRUTH: HISTORY IN POSTMODERN FICTION

A primary critical problem within the genre of historical fiction is author responsibility. The fact that absolute truth is so difficult to locate within history results in an even weightier responsibility on the part of the writer. An author will deal with the notion of historical “responsibility” on his/ her own terms, based on personal background and style, and the work of an author will therefore reflect his/ her own experiences. I took this concept further and focused my analyses on postmodern historical fiction. I examined Sherman Alexie’s “Captivity,” in which Alexie directly engages the historical figure Mary Rowlandson. In a manner transcending metaphor, Alexie represents the past and never defines his setting. I also included Kurt Vonnegut’s novel, Mother Night. Set primarily in post-WWII America, this text is a reminder of man’s affinity for categorization; labels, names, and meanings are all desperate and endless attempts to impose order upon the disorderly force of history. Next, I worked with Tim O’Brien’s Vietnam-centered “The Things They Carried,” which represents history as a constituent of those who lived it. O’Brien notes the discordance between actuality and imagination within a framework of devastation. Finally, Jeanette Winterson’s Sexing the Cherry is a novel that explores the flux among history, fairytale, imagination, and the nature of time; when juxtaposed with notions of “truth,” history is held highly suspect. Although very dissimilar, each work makes profound, individual statements about the philosophical foundation of the postmodern fascination with history. All acknowledge that the past, in any version, remains an active and transforming force in the present. It is in this way that each grapples with the concept of author “responsibility” in historical fiction.

“I’M QUITE ILLITERATE BUT I READ A LOT” — POPULAR CULTURE IN J.D. SALINGER’S THE CATCHER IN THE RYE

Throughout The Catcher In The Rye, J.D. Salinger finds many opportunities to have his narrator and protagonist, Holden Caulfield, allude to the multiple media of popular culture—to literature, movies, and music. By alluding to movies, regardless of whether or not Holden claims to enjoy them, Salinger brings movies into the novel. In so doing, he allows readers to make associations between the movies and The Catcher In The Rye, be they similarities or surprise differences. Salinger shows the movies he enjoys and which influenced his works, and is perhaps suggesting to readers that they too should view these important films. Salinger has used popular culture to create a context for exploring the world that Holden lives in but is still somewhat naïve to. Readers will have certain expectations for Holden, which Salinger both reinforces and erases as he sees fit. He uses readers’ expectations of writing styles and plot to help lead his readers and to surprise them with his changes. The characters in The Catcher In The Rye are influenced by popular culture in their actions, names, histories and speech. Scenes in the novel are also influenced by popular culture, in terms of style and situation. Salinger pays homage to the authors, actors, movies, books, and songs he enjoys and loves. By having Holden display the popular culture Salinger enjoys, he encourages readers also to explore these works.
Vladimir Nabokov's most popular novel, "Lolita," is also his most controversial. Does Humbert Humbert, the narrator and one of the main characters, truly love Lolita or is it simply lust? My argument states that the character Humbert Humbert is a child molesting. Lolita could not have understood fully what love is, and was therefore abused. H. Humbert tricks Lolita into thinking that she is not normal if she does not please him. He frightens her into submission and blackmails her. Although Lolita can not fully understand what is happening to her, she knows that she does not want it to happen, and it is therefore rape. The book "Lolita" is not about pure aesthetic pleasure, as many critics have argued; it is a story of one man's sexual fetishes and criminal activity. The subject has been debated since "Lolita's" publication and will continue to be debated, but if Lolita had been a real child, and Humbert a real man, Lolita's psychological damage would probably have been beyond repair; Lolita was the victim of a cruel man's sick fetishes.

The seventeenth-century poet Robert Herrick mocks the concerns of the Puritan lifestyle in the poems "Delight in Disorder" and "Upon Julia's Clothes." In the 1640's, England was ruled by the Puritan Lord Protector, Oliver Cromwell, whose government reacted against the excesses of the previous Royalist court. In the tradition of other "Cavalier Poets," Herrick focuses his writing on the free-spirited nature that is frowned upon under the Puritan influence. The speaker in "Delight in Disorder" is praising the wind-blown and casual appearance in others; and the previous Royalist court. In the tradition of other "Cavalier Poets," Herrick focuses his writing on the free-spirited nature that is frowned upon under the Puritan influence. The speaker in "Delight in Disorder" is praising the wind-blown and casual appearance in others; and the previous Royalist court. In the tradition of other "Cavalier Poets," Herrick focuses his writing on the free-spirited nature that is frowned upon under the Puritan influence. The speaker in "Delight in Disorder" is praising the wind-blown and casual appearance in others; and

LOVE AND LUST: ARTISTRY VS. PEDOPHILIA IN NABOKOB'S LOLITA

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CAVALIER ATTITUDES IN 17TH CENTURY POEMS OF ROBERT HERRICK

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woman remains unmarried, she can resist the societal confinement that the other two women endure. However, as society does not allow the woman to remain unmarried, she is pressured into accepting matrimony but the clever Restoration lady will only succumb to this demand with a verbal contract ensuring her the retention of her individual archetypal power.

ENGLISH LITERATURE

32 FOYER I 10:00-10:45 PANEL 1

BRYAN MANGANO (DAVID LANGSTON), DEPARTMENT OF ENGLISH LITERATURE, MASS COLLEGE OF LIBERAL ARTS, NORTH ADAMS, MA 01247

AMERICAN REGIONAL WRITING AND THE POLITICS OF LOCAL COLOR

Nineteenth-century American women writers now referred to as regionalists wrote within the context of a chauvinistic nationalist attitude that permeated both the political rhetoric and literature of the era. Regionalist writers often fictionalized the private domestic lives of their protagonists, providing a point of identification that could not be found in the nationalistic rhetoric of the times. However, like excessive nationalism, the regionalist mindset runs into problems when it reduces political life to the duality of region/nation, or, in more general terms, the duality of insider/outsider. In selected pieces by Celia Thaxter, Mary Wilkins Freeman, and Sarah Orne Jewett, local realities are given privilege over global concerns, suggesting that certain regionalist texts run the risk of reversing the bias, and thus creating a new set of limitations.

33 FOYER I 3:00-3:45 PANEL 5

DARRELL PENT (LOIS RUDNICK), DEPARTMENT OF AMERICAN STUDIES, UMASS BOSTON, BOSTON, MA 02125

STRIKING CULTURES: ISSUES OF MARK TWAIN’S LITERARY CONSTRUCTION OF FOREIGN CULTURES IN HIS EARLY TRAVELOGUES

This research paper accounts for Mark Twain’s negative portrayal of foreign cultures in his earliest substantial commercial travel writing, including published letters from the Sandwich Islands to the Sacramento Union newspaper and the travelogue The Innocents Abroad. Research was conducted to determine the implications of Twain’s writing with regard to race and religion within these early texts. The research attempts to shed light on largely underrepresented issues in the critical discourse with regard to such literary constructions. The majority of analysis relating to primary sources involved identifying discrepancies, omissions, and edits between these texts. A number of secondary sources were used to develop a realistic context within which these texts might be analyzed. Evidence suggests that Twain was heavily influenced in the early stages of his writing career by the social, political, and economic realities in which he was raised—including the rhetoric of American cultural superiority. Further, Twain was obliged to meet certain conditions as a writer, both to his employers and to the prevailing travel writing conventions. Although Twain often engages in stereotypical portrayals of foreign culture in his travel writing texts—including the Kanakas of the Sandwich Islands, Muslim and non-Muslim Arabs, and the dark-skinned Christians of various locales—he also calls into question notions of American cultural superiority. Primarily through humor, Twain is able to appease a domestic audience while often subverting the very stereotypes he deploys.

34 BRAEMORE 10:45-11:30 PANEL 2

JESSICA ROBERTS (EVELYN PERRY), DEPARTMENT OF ENGLISH, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

RE-VISIONING GENDER IN FANTASY LITERATURE

Re-Visioning Gender in Fantasy Literature is an exploration of Pamela Dean’s fantasy novel, Tam Lin. Seen through the lens of gender studies, the analysis is a comparison between the protagonists of Tam Lin, Christopher Fry’s The Lady’s Not For Burning (a work referenced in Dean’s novel), and the Scottish Tam Lin, the folk ballad upon which the novel is based. I demonstrate that these works celebrate aspects of the “hero” as they arise subversively in characters of both sexes. I hold that these works are progressive and non-traditional in regard to gender treatment and they serve to transform and re-define gender expectations for contemporary reader. The paper incorporates research from contemporary fantasy critics Charlotte Spivack and Jack Zipes; viewpoints that take progressive stances and encourage cooperation between the sexes, as opposed to the antagonism that fuels stereotypical gender conflicts. My analysis depicts the struggle of two adolescents who attempt to identify their personal values amidst a crisis, examining issues such as female reputation, intimacy vs. autonomy and masculine identity.

35 FOYER I 2:15-3:00 PANEL 4

KARINA SCHRENGOHST (JACK MINO), DEPARTMENT OF PSYCHOLOGY, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

REVISED AND REVISITED: EUGENICS CLOAKED REPRODUCTIVE FREEDOM

Human history is plagued with examples of strategies employed to improve the human race. Despite historical horror, eugenic ideology is alive
and thriving today. The new eugenics movement is fueled by reproductive technology and will potentially privatize eugenics cloaked by the catch phrase “reproductive freedom.” A historical review of the American eugenics movement of the late nineteenth and early twentieth century provides a template to analyze the potential consequences of biotechnological advances involving reproductive technology such as human germline genetic engineering, and reveals connections to our predecessors. An examination of propaganda that targets an already obsessive drive to prolong and improve the quality of human life illuminates that American culture has laid the foundation for a new eugenics movement with its naturally unachievable, impossible ideals. Using Aldous Huxley’s novel “Brave New World” and the film “Gattaca” as fictional future projections that carry cautionary messages, parallels will be drawn which align these futuristic societies to present day American society. Careful analysis reveals that as our genetic understanding increases and our ability to genetically manipulate organisms improves, the possibilities reach beyond parental choice. The new eugenics movement will further divide the human race socio-economically, has potential for utilitarian production of people, and will redefine a life worthy of birth.

NANCY VENEZIA (SUSAN MARTELLI), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

DOWNFALL OF GREAT MEN
This presentation analyzes the effects of the obsession with perfection on men of power and leadership abilities. When these men ignore their human limitations and try to perfect others instead of themselves, they lose human qualities and become agents of destruction. Just as Hitler's attempt to perfect the German race resulted in the murder of millions, and Napoleon's march into Russia sacrificed thousands of soldiers, Alymer, the scientist and philosopher in the short story “The Birthmark”, by Nathaniel Hawthorne, kills his wife in the effort to prove his own power. Alymer marries a beautiful woman with one flaw, a birthmark on her face. In his efforts to make her perfect by removing the birthmark with his scientific methods and knowledge, he causes her death. Alymer becomes obsessed with his own power, and in his egotistic quest to create human perfection, he destroys her life. The search for perfection ignores human limitations and leads to failure. Hawthorne suggests that human success requires human compassion.

AMBER VA(YO (G. ALESSIO), DEPARTMENT OF ENGLISH, WORCESTER STATE COLLEGE, WORCESTER, MA 01602

POLITICS AND THE PLANET: A MULTIFACETED LOOK AT GLOBAL WARMING
This presentation explores global warming and its effects in several areas of the physical environment and the political arena. Environmental impacts, such as deforestation and species extinction, will be the primary focus of the environmental impacts. The political aspects of the discussion will be focused on politics surrounding the issue, including certain special interest groups and why global warming should be treated as a political as well as environmental issue. The economy of global warming will also be discussed briefly.

ANDREW BREAVINGTON (Diane Paul), DEPARTMENT OF POLITICAL SCIENCE, UMASS BOSTON, BOSTON, MA 02125

FEMINISM AND EUGENICS; THE CASE OF FRANCES SWINEY
The Edwardian feminist, eugenicist and theosophist Frances Swiney (1847-1920) has been all but ignored by scholars. This is hardly surprising as, until recently, historians have tended to view eugenics and feminism as contradictory. How could progressive women embrace a movement that sought to solely identify them through their biological roles? By examining the modern scholarly literature on feminism, I will show how Swiney's call for mothers to improve mankind by focusing their minds on gradually feminizing the race, has been largely overlooked, ridiculed or misinterpreted. Using her own books, and writings of her feminist contemporaries, I will argue that Swiney, while certainly radical and perhaps unscientific at times, was hardly unique in envisaging androgyne as the future of the human race. Additionally, a survey of the periodical literature of the time will support my claim that Swiney's work was widely disseminated, appreciated and well-reviewed. Finally, an exploration of feminist theory in the 1970's will demonstrate that Swiney's radical views came back into vogue. History has a habit of repeating itself, and Frances Swiney deserves a place amongst women who have influenced feminist thought.
THE SEARCH FOR KING ARTHUR

The search for King Arthur has continued down through the centuries by historians and archeologists who have been looking for proof of the Arthurian legends. Historians have been unable to verify the existence of King Arthur and as a result they have relegated him to a lesser figure. However, archeologists have discovered three sites which have a tenuous link to Arthur. The first of these sites is Tintagel, which was the possible birthplace of Arthur. The second site is Cadbury (Camelot) which was said to be Arthur’s favorite residence. Thirdly, there is Glastonbury, where Arthur was said to have been buried. Examination of these three sites has spurred historians further to investigate Arthur’s historicity. Archeologists link Tintagel, Cadbury, and Glastonbury to King Arthur through shards of expensive pottery found at these sites and at the fort-hill castles.

A LIFE OF DEATH: THE LATE MEDIEVAL LAITY’S OBSESSION WITH DEATH

Death rituals predate human records. First recorded in the Book of Roland, the process of dying was depicted as an overtly dramatic event. Death rituals became exceptionally fervent in the late medieval ages. The obsession of death was omnipotent and unprecedented. The investigator seeks to answer the question of why and how the laity grew so occupied by death and dying. Art, tombs, prayers, and Church dogma are analyzed to support the argument that the laity’s obsession is a result of the prowess of the Catholic Church. Through art, dogma, doctrine, and ritual, the Church manipulated the laity’s world view and understanding, leading to this obsession.

US ARMS SALES TO THE MIDDLE EAST: 1964-1967

Lyndon Johnson’s accession to the Presidency in 1963 marked a breakdown of the “even-hand” Middle East policy. Largely successful under Kennedy, the policy had nonetheless become compromised by the failures of previous administrations, allowing the USSR to gain a foothold in the region. By foregoing Kennedy’s “even-handedness” and refusal to become a major arms supplier to the region, the Johnson administration radically altered previous US policy towards the Middle East. During the 1964 election year, the Johnson administration agreed to a major tank sale to Israel—a concession to the significant pro-Israel constituency, often used by the Israeli government to exert pressure on Johnson. This group was profoundly influential in determining the course of US policy towards the region at this time. The decision to provide tanks to Israel was also a response to the heightened threat posed to US interests by increased Soviet arms in the region. Not least of these was the threat to Israel by the creation of the United Arab Command. Despite this pan-Arab commitment, the Arab states remained polarized between Revolutionary (UAR, Syria, Iraq) and Monarchical Arab states, supported by the Soviets and the Americans respectively. In the face of this polarization, the United States derived no benefit from the termination of the “even hand.” Of nuclear non-proliferation, containment of Soviet influence in the region, a peaceful settlement to the Arab-Israeli conflict or a prevention of hostilities in the region—none was achieved.

THE HOOP OF ACCULTURATION

The Hoop of Acculturation will examine the role that the sport of basketball played in helping to Americanize Jewish immigrants in the United States. It will focus on the two major waves of Jewish immigration during the 19th and 20th century; Western European Jewish immigration and Eastern European Jewish immigration. The history of the creation of basketball which took place in 1891 will be explored. The major factors that led Jewish immigrants to embrace the sport will be examined as will Jewish contributions to the sport. The Americanization process will be focused on through a look at Jewish community centers such as the YMHA and the settlement house movement, and their evolution in modern times. The Jewish immigrant experience in the inner city and the opportunities for socialization through basketball will be chronicled. The thesis will conclude with a modern day look at Jewish participation in the sport after the drastic decline in professional Jewish play.
THOMAS PLANK, JR. (LUIS MARENTES), DEPARTMENT OF SPANISH, UMASS AMHERST, AMHERST, MA 01003

INFLUENCES IN THE GROWTH OF NELE KANTULE, THE “FATHER” OF THE KUNA REVOLUTION OF 1925

In the early twentieth century, the Kuna leader Nele Kantule developed a strategy to conserve the internal autonomy of the indigenous Kuna as the Republic of Panama applied intense pressure to assimilate. This strategy required the Kunas to re-enforce their own traditions, forge alliances with powerful third parties, and counter-intuitively, co-opt control of selective aspects of western modernization. This paper analyzes the domestic and foreign influences that proved essential to Nele Kantule's political and intellectual development - influences inadequately addressed by the few scholars of Kuna history. This paper utilizes textual analysis of the works of both western scholars and indigenous materials, supplemented by the author's interactions with the Kuna community during his nearly three years in Panama, which included a visit to the Kuna semi-autonomous zone, Kuna Yala, in 1998. Nele Kantule, who studied intensively to become perhaps the greatest Kuna religious authority of his time, thus solidifying his traditional political base, also displayed an impressive ability to learn from and manipulate aspects of foreign cultures. Without Nele Kantule's intelligent awareness of how the knowledge of foreign cultures strengthened the Kunas' resistance to the aggressive Panamanian assimilation program, the Kunas' strategy would have been significantly more reactionary and therefore considerably less successful.

LITERATURE

ELIZABETH CARBONE (GLEN BREWSTER), DEPARTMENT OF ENGLISH, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086

A TRANSFORMATION OF BLINDNESS IN RAYMOND CARVER’S “CATHEDRAL”

The narrator in Raymond Carver's short story “Cathedral” lacks emotion and energy, and as a husband, it is surprising that he has the ability to love. In his failure to mention his wife's name or express any emotions about their relationship, it is easy to assume that he does not value his own wife. He cannot see the love surrounding him in his own house. He relies on guilty pleasures, such as drinking, eating and smoking marijuana instead of directing his focus on the beauty surrounding him. The use of drugs and alcohol in this story is an important component because they make the outcome of the story controversial. Whether or not the narrator experiences a life-changing transformation is hard to determine; however, he does express emotion while drawing the cathedral, which is an indication that his spiritual blindness has been cured for that moment in time. From the beginning of this story to when the wife's blind friend comes to spend the night, the focus of the story remains on the man's disability and our narrator's issues and thoughts surrounding the man. The use of blindness in the story is important not only for learning about our narrator, but it also creates a symbolic relation between the narrator's own blindness and the actual disability. Our narrator is blind to the beauties of life, and learns how to see from the blind man. His blindness is overcome through the lessons of a physically blind man who understands more about beauty than the narrator.

LAURA HECKHAUSEN (SUSAN MARTELLI), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

STIMULATING THE CHILD TO EXPLORE READING WITH VISUAL AND SENSORY LITERATURE

This project is designed to demonstrate the value of using wordless books to convey a multiple level thematic story. Motivating a child to use visual and sensory acuity to identify abstract meanings in a wordless book, brightly colored fabrics, patterns and textures provide visual stimulation. Varied use of textures that are soft, smooth and rough encourages tactile involvement. The wordless book entitled “Seasons” is a compilation of pictures. On each page is a representation of a child, the four seasons, and the twelve months of the year. A child can interpret the activity on each page, using cognitive learning ability, in both visual and tactile ways. The project affords an opportunity for a child to develop enthusiasm for reading. According to Jim Trelease's Read Aloud Handbook, a wordless book builds the beginning reader's attention span and ability to focus. This type of experience enables the reader to progress to the acquisition of other reading skills.

MARK LOWELL (KEN ANANIA), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

INTO THE TWILIGHT ZONE: A DEFENSE OF SCIENCE FICTION AS LITERATURE

With a few notable exceptions, science fiction has been unfairly stereotyped as hack work and ignored for most of the past century. Not only is this characterization invalid and untrue, but science fiction has much to contribute to literature, as it allows the author to use setting as an element in stories in a way that is not possible in traditional fiction. Science fiction has a wide range of themes, conflicts, and settings that are
Oral Session

not limited to the real world. Two works that exemplify science fiction’s artistic merit are Peter F. Hamilton’s “Night’s Dawn Trilogy” and Ray Bradbury’s “Fahrenheit 451.” Both of these novels convey significant and important messages in a way that would be impossible if limited to a modern or historical setting. “Fahrenheit 451” would not have the same impact if it were set in Soviet Russia instead of post-modern America; not only would it lack the Firemen, who are the basis of the story itself, but it would also lack the universality that setting the story in America gives it. Setting “Fahrenheit 451” in a future America makes the story a warning as well as a message. Similarly, “Night’s Dawn Trilogy” would be impossible to set in a modern setting, as the theme of the books—how society deals with proof of the existence of the afterlife—is not a realistic one. Both of these novels are excellent examples of how science fiction expands the range of literature, and they illustrate how the genre can not only be art, but can serve some themes in a better way than traditional fiction can.

LITERATURE

ANGELA MARKIEWICZ (DEBORAH NESTER), DEPARTMENT OF LITERATURE, WORCESTER STATE COLLEGE, WORCESTER, MA 01602

HARRY POTTER AND THE MONOMYTH

Monomyth theory, as popularized by Joseph Campbell, remains an effective mechanism for literary analysis. With the popularity of the Harry Potter series and others such as The Lord of the Rings, it is possible to bring the monomyth back to the forefront. While the monomyth cycle can be applied to J.K. Rowling’s Harry Potter series as a whole, it is a particularly effective tool for analyzing the novel _The Goblet of Fire_. Rowling utilizes each aspect of the cycle—significant birth, call to adventure, crossing of the threshold, helpers, climax, return to the threshold of adventure, and elixir—as a way of illustrating the continued universality of the cycle and the appeal of her works to all generations and cultures.

MANAGEMENT

GREGORY DUCLOS (GEORGE MAHONEY), DEPARTMENT OF MANAGEMENT, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

BARNES AND NOBLE, INC. IMPLEMENTS A STRATEGY WITH FOCUS ON E-COMMERCE DEVELOPMENT

Individuals are buying, selling and investing in goods and services online at an increasing rate in Barnes & Nobles, Inc. highly competitive market. Research tells us this trend will continue and B&N.com, a subsidiary of Barnes and Noble, Inc. will implement critical innovative components to their strategy for the goal of attaining a profit which will contribute to its growing success. B&N.com sells and accounts for their goods and services in the areas of marketing, human resources, customer service, financing, and the handling of inventory, and is developing these areas to succeed in their consumer retail markets. Interaction with primary and secondary stakeholders has been affected by online business and will continue with B&N.com’s approach to serving their world wide stakeholders. The strategy that has been implemented to adapt to these changes and increase success in the fast growing technological environment is examined based on a broad review of literature in general business magazines, trade journals, newspapers, research journals, books, legitimate websites and interactions with company representatives including a store manager, the manager of investor relations, and the director of corporate communications. Employing a case study, a brief history of Barnes and Noble, Inc. is developed, and the major events in the retail industry which led to the creation of B&N.com are analyzed. The development of B&N.com is discussed and future strategies and alternatives for the next 3 years are proposed to describe a plan for B&N.com to excel with the growing e-commerce element in their industry.

LOUIS MIOLA (CHARLES WELLENS), DEPARTMENT OF FINANCE, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

STRATEGIC LEVERAGING: A LOOK AT LARGE PLAN SERVICES IMPLEMENTATION / MERGERS AND ACQUISITIONS AT FIDELITY INVESTMENTS.

Fidelity Investments is regarded as the leader in the financial services industry. They have managed to do this by remaining one of the most technologically advanced companies around as well as being extremely innovative. Fidelity Investments deals in outsourcing, which means Fidelity manages other companies’ payroll, retirement plans, benefits, etc. so that the other companies do not need to form an independent department to handle these issues. When a larger company wishes to have Fidelity manage these issues it is handled by the Large Plan Services segment. This presentation examines the current problems that occur from the way information is currently distributed amongst the segment’s Project Managers and cliental. It will offer answers to the problems that currently slow the flow of information throughout the segment and help make the system more efficient.
THE FUTURE OF SPORT MANAGEMENT: PROFILES AND CAREER INTERESTS OF CURRENT SPORT MANAGEMENT DOCTORAL STUDENTS

When Mahony, Mondello, Hums, and Judd (2003) surveyed faculty members at doctoral sport management programs in North America, they found that most programs had fewer than twenty students enrolled and the typical doctoral student is a Caucasian male. They also found a greater number of students seeking positions in academia than the number of positions available. Additionally, most faculty members believed that research-related items were most important in a doctoral student’s educational experience and that most students were primarily interested in teaching and conducting research after graduation. In this study, doctoral sport management programs are also investigated, but instead of surveying faculty members, the focus is on the students. Through a mailed questionnaire, students at ten colleges in the United States were surveyed for the purpose of compiling demographic and educational profiles of current doctoral students. As the survey data is analyzed, this study will reveal future career expectations of the students and compare these expectations to the current job market. Furthermore, a comparison of the students’ career expectations/perceptions to the current job market will uncover any misperceptions of the field and potential consequences of these misperceptions. Other areas addressed in this study include evaluating differences between male and female educational profiles and sex differences in their preparedness for a career after graduation.

CHARACTERISTICS OF SUCCESSFUL PARTNERSHIPS BETWEEN NONPROFITS AND CORPORATIONS

Nonprofit organizations should approach corporations to form partnerships with great care. Although there is a great deal of research that has been done on partnerships in general, there is little information on how nonprofits should go about finding partners. Before embarking on a partnership, nonprofits should weigh the pros and cons of such a venture, taking into consideration any major differences between the mission statements and beliefs of the organizations. This paper synthesizes research on successful partnerships and develops a model that can be used by interested nonprofits in the future. Included in this paper will be in-depth interviews with nonprofits and corporations currently in successful partnerships. Documenting how these successful partnerships were formed and are maintained will give more value to the academic research that has been collected on this subject. By providing interested nonprofits with examples of successful partnerships and research on how and why these partnerships have succeeded, it is hoped that more nonprofits will be encouraged to form partnerships.

MOTIVATED TO GIVE: WHAT INSPIRES PHILANTHROPY?

In a time of reduced government funding, nonprofit organizations depend more on large philanthropic gifts to enable them to provide their intended services. Simultaneously, baby boomers are starting to receive the largest intergenerational wealth transfer in history, and the economic boom of the 1990’s vastly increased the number of millionaires in the United States. As a result of these trends, there is enormous potential for the nonprofit sector to receive large charitable gifts in the coming years. In order to most effectively market charities and other nonprofit organizations to affluent individuals it is important to learn about the underlying motivations that cause people to give. Using extensive secondary research, this study identifies key motivators for giving by affluent Americans. These motivators include guilt or a feeling that their wealth is undeserved, the desire to gain an identity or membership in a community, religious or moral convictions, a feeling of responsibility to help those less fortunate, reciprocity and self-interest. This study examines each of these motivators, finding examples of them from previous research. In addition, this study will present interviews with people who have recently inherited or expect to inherit large estates, which will further articulate their reasoning. Drawing from the results of this research, nonprofit organizations will be able to develop marketing campaigns to effectively attract potential philanthropists and gain a larger share of the intergenerational wealth transfer.
THE PROGRESSION OF ANIMATION THROUGHOUT THE YEARS

The process involved in the creation of animation has greatly developed in the 20th Century allowing animation to go from flat, two-dimensional pieces to almost life-like representations. Animation is a very popular medium in today's culture, however it evolved through many stages to become as interesting and entertaining as it is today. Employing specific examples, the processes of early black and white animation that was produced on assembly lines, the use of rotoscoping, Technicolor animations, the use of live action, and finally computer animation, both 2D and 3D, will be described. Instead of having to redraw every frame as they did in the past, computers allow animators to manipulate the object in every frame without having to redraw it, saving time and making movements cleaner. With 3D animation there are less boundaries of what can be created leading to the most imaginative and remarkable creations that can sometimes almost seem life-like.

VIVALDI'S CONCERTI: FORMULATED WORKS OR MUSICAL INSPIRATIONS?

Many experts try to reduce the spontaneity and creative impulses of a composer down to a simple formula or set of rules in an attempt to understand the thought process behind the writing. Antonio Vivaldi's concerti have been examined in this fashion. Upon further analysis of his works, it becomes clear that he wrote with such variety that any attempts to apply a formula to his concerti fail, with limited exception. This paper examines the variety of compositional techniques used by Vivaldi when writing his concerti through the use of musical excerpts and analysis of the concerti themselves. It also compares the opinions of the experts to my own harmonic analysis.

"UNE FLEUR"

Rationale: Music is a means of expression which can be achieved through musical composition as well as lyrics. Objective: I wrote this piece as a challenge to myself; my intent was to capture my feelings in the music as well as by means of French lyrics. Methods: This piece was composed through various sketches. Result: The final product includes rich, dense, chords (with main melody involving ninth chords) as well as different colors and tones produced by the various voice parts.

SUITABILITY OF WESTERN METHODS OF FETAL DISTRESS DETECTION FOR PERU

In January 2002, health care workers in the Peruvian Andes raised concerns to the PerUML engineering team about a lack of means to identify fetal distress in pregnant women in time for intervention. It was decided to address this need to see if a technical solution could be devised. This research examined current practices in detecting fetal distress, both in developed and developing parts of the world. Many existing devices were studied. The goal of this research was to come up with a specific design which would meet such technical objectives as effectiveness, simplicity, portability, reliability, durability, low-cost and renewable energy source. The design would be adapted, built and tested by an interdisciplinary team of engineering and health professions students. After an extensive review of literature and corroboration with currently practicing professionals (physicians, nurses and midwives) the surprise result was that current technology for detecting fetal distress, while ubiquitous in the USA, is largely unproven as a way to reduce negative outcomes for mothers and newborns. No fetal monitoring device, invasive or non-invasive, is scientifically reliable to assist in improving outcomes, yet they remain an integral part of modern clinical practice in the developed world. Ethically, therefore, no device could be adapted for export to Peru.
GERM LINE THERAPY AND IMPLIED CONSENT

In their article, “Germ Line Therapy and the Medical Imperative,” Ronald Munson and Lawrence H. Davis state that not being able to obtain consent from someone’s as yet nonexistent descendants before altering portions of that person’s inheritable genetic code (germ line therapy) is not a good reason for rejecting such alterations. They argue that a non-conceived descendant’s possible existence does not equate even to potential existence, as in the case of a fetus, nor does it demand rights associated with personhood, such as respect for autonomy. However, since the procedure in question is designed to have a significant, though indirect, impact on future generations, it can be stated that said generations' well-being is already receiving substantial consideration; it follows that to a certain extent this well-being already exists, which further entails that their autonomy must also exist on some level. Nevertheless, germ line therapy can still be a viable, beneficial option, despite the impossibility of obtaining consent from everyone who would be affected by the procedure. It is possible for one to act in accordance with an unborn relative’s best interests, much in the same way parents are allowed to approve life-saving surgeries in the names of newborn babies.

RESISTANCE TO ARMILLARIA INFECTION BY NATIVE (ACER SACCHARUM) AND INVASIVE (ACER PLANTANOIDES) MAPLE TREES

The susceptibility of native sugar maple (Acer saccharum) and non-native Norway maple (Acer plantanoides) to infection by Armillaria gallica under various levels of defoliation was investigated. New England forest ecosystems have been invaded by European trees and shrubs. A potential explanation for the success of invasive species is their resistance to fungal pathogens in their native and new habitat. This study tries to determine whether locally important invasive species are resistant to infection by Armillaria species, fungal root pathogens with a wide host range. This fungus is one of the main causes of shrub and tree mortality in natural forests. Locally important Armillaria gallica persists throughout New England as a secondary pathogen, which requires a stressed or damaged host to successfully infect. To initiate infection by A. gallica in this study three levels of defoliation have been implemented in an attempt to mimic herbivory in natural forests. I hypothesize that the invasive species will be less susceptible to infection by A. gallica, and that susceptibility will intensify with increasing defoliation in both species.

UNITED NATIONS PEACEKEEPING FAILURE

This paper examines the failure of the United Nations as a peacekeeping entity. The UN has been called upon to act as peacekeepers with increasing frequency over the past fifty years. Since the end of the Cold War in 1990, the conflicts have become predominantly civil conflicts. The UN was designed and exists in a realist international world where the sovereign states that make up the organization, act in their nation’s interest. Case studies of UN peacekeeping failure are the former Yugoslavia and Rwanda. Therefore, the UN is an ineffective peacekeeping organization because it was constructed on a 1945 world order and is not flexible to change and be updated to today’s unipolar world. The UN charter is not designed to allow the UN to function as a peacekeeper and it is not structured to deal with the ever increasing civil conflicts that are occurring across the globe. Finally, the UN is created of sovereign nations who will act in their own national interest, in particular the United States.

DEMOCRATIZATION AND CIVIL SOCIETY IN POST-REVOLUTIONARY NICARAGUA

The Nicaraguan state of the late 1970’s through the 1980’s, like many of its Latin American counterparts, experienced a brutal civil war reflective of decades of social, economic, and political tensions and strains. Despite Nicaragua’s place in a larger pattern of transition throughout Latin America, in many ways, Nicaragua represents an anomaly. From 1979 until 1989, a revolutionary political party, the Fuerzas
Democrats did not use the filibuster, it is likely 100% of Bush's nominees would be confirmed. Would that be acceptable? Would that be
independent judiciary, and a system of checks and balances that prevents one branch from becoming excessively powerful. If Sena
tes
implications of such an approach. This issue is important because it is fundamental to the principles on which this country was
founded: an

appears a majority supports confirmation. The primary basis for this opposition has been based on ideology (nominees who are de
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After losing their majority status in the Senate, Democrats have used the filibuster to prevent confirmation of controversial no
ominees to any federal court below the Supreme Court) have traditionally been confirmed by the Senate with little difficulty, the process

has become incredibly tense and contentious in recent years. This paper analyzes the conflict during the administration of Geo
rge W. Bush.

Nominating federal judges is one of the most important domestic responsibilities the Constitution gives the President. Likewise,
the Senate's
responsibility to confirm or reject a judicial nominee is one of the most important powers it holds. While lower court nominees (mean
ing nominees to any federal court below the Supreme Court) have traditionally been confirmed by the Senate with little difficulty, the process
has become incredibly tense and contentious in recent years. This paper analyzes the conflict during the administration of George W. Bush.
After losing their majority status in the Senate, Democrats have used the filibuster to prevent confirmation of controversial nominees when it
appears a majority supports confirmation. The primary basis for this opposition has been based on ideology (nominees who are deemed "ultra
conservative judicial activists"). What my research does is analyze the specific reasons for opposition, strategies used (the filibuster), and the
implications of such an approach. This issue is important because it is fundamental to the principles on which this country was founded: an
independent judiciary, and a system of checks and balances that prevents one branch from becoming excessively powerful. If Senate
Democrats did not use the filibuster, it is likely 100% of Bush's nominees would be confirmed. Would that be acceptable? Would that be
consistent with the system of checks and balances the Founding Fathers created? There have been calls for a reform of the judicial selection and confirmation process, but my research has indicated there is little or no need for reform. By reading Senate hearings, floor statements, newspaper reports, and political science literature, I have concluded that it is consistent with the Constitution and the principles on which our country was founded to have a Senate that exercises some control over the judicial selection process. It would be unwise for either the Senate or the President to completely decide who sits on our courts.

POLITICAL SCIENCE

63 BRAEMORE 3:00-3:45 PANEL 5

ALMA GOTTLIEB-MCHALE (MARY WILSON), DEPARTMENT OF HISTORY, UMASS AMHERST, AMHERST, MA 01003

PALESTINIAN LABOR AND THE POLICY OF SEPARATION

The Palestinian-Israeli conflict is one of the most enduring violent conflicts of the twentieth century. Today, even the road back to the negotiating table is hard to envision. Recently a heated debate has arisen over the idea of “unilateral separation,” focused on the construction of a wall as a physical barrier, defining the ephemeral borders between Palestinians and Israelis. Israel is in the process of building this “separation barrier” or “security fence,” that will eventually divide the West Bank, leaving the Palestinians on one side and Israelis on the other. This past summer, I observed the “first phase” of the construction of the wall that will run the length of the western border of the West Bank in the Qalqilya, Tulkarm and Jerusalem districts. This wall is just one more step in a policy of separation encompassing a range of events that have resulted in the de-integration of the Israeli and Palestinian economies. The Occupied Territories rely on Israel as the principal market for absorbing their labor and goods. Even before the construction of the Wall, closure of the borders between the Territories and Israel consisted of banning the movement of goods, labor, and other factors of production between and within the West Bank, Gaza and Israel. The Israeli labor market represents a major hub of economic relations between Palestinians and Israelis and has played a crucial role in the history of the Territories’ development. In 1992 one third of all employed Palestinians worked in Israel, an estimated 1.2 million people. Thus closures have a devastating effect on the Palestinian economy as well as a major impact on the demographics of Israel’s labor force. Israel claims to implement total closures when it perceives a threat to its security from terrorist attacks. In this study I will argue that Israeli labor-immigration policies reflect a process of economic separation that has been progressing since the early 1990’s. The decision to build a wall around the West Bank and import foreign laborers in lieu of workers from the Territories has been a political decision, only made possible by this ongoing process of economic separation. I will base my research on accessible primary documents, field research, and secondary source literature.

64 FOYER III 10:45-11:30 PANEL 2

ADAM KEYES (TULLIO NEIMAN), DEPARTMENT OF STUDENT ACTIVITIES, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

TRUSTEESHIP: A STUDENT’S GUIDE

The state college system in Massachusetts allows one student to serve on each school’s board of trustees. These students serve elected periods of one full year and are then either replaced or re-elected. For a student to serve in the position for longer than one year is uncommon. Students tend to need a period of time to become acclimated to the position. A handbook would be most helpful in this process. The objective of this project is to create a detailed handbook in both paper and electronic form that would allow future student trustees and potential student trustees to study and learn the system faster and with more ease. This project is a compilation of information from current administrators, students, former student trustees, current trustees, and current student government members, as well as information provided by the human resources department of the College and the Board of Higher Education. The project serves as a guide to the governance system for the student body. This handbook will inform students of their rights and representation and also assist in shortening the learning curve for future trustees.

65 BRAEMORE 3:45-4:30 PANEL 6

WALTER MARTINEZ (ELIZABETH BUSSIÈRE), DEPARTMENT OF POLITICAL SCIENCE, UMASS BOSTON, BOSTON, MA 02125

UNSPOKEN FORCES: THE INTEGRATION OF FORCES AT WORK IN THE FORMATION OF UNITED STATES POLICY TOWARDS PUERTO RICO

American military leaders, after seizing Puerto Rico from Spanish control in July of 1898, promised its citizens protection, prosperity, and the “blessings” associated with the U.S. government. However, the Supreme Court ruled in Downes v Bidwell and in Balzac v The People of Porto Rico that not all constitutional rights guaranteed to Americans automatically applied to Puerto Rico’s citizens. This thesis examines the forces that affected the judgments reached by the Supreme Court. In addition to scrutinizing the decisions, this requires evaluating academic literature concerning the annexation of properties after the Spanish-American War, studying the backgrounds of the justices, highlighting pertinent Congressional proceedings, and inspecting sources of public opinion public opinion. The findings reject the notion that the Supreme Court based their decisions strictly on legal reasoning or attitudinal influences. While these factors played a role in the outcome, the decisions
rendered in both cases reflected an intertwined complexity between the roles of the various political institutions involved and the strategies that those within them employed. Public opinion, the politics surrounding the 1900 presidential election, and the legislative conflicts surrounding the passage of the Foraker Act all helped in shaping the opinions in both Downes and Balzac.

**POLITICAL SCIENCE**

**66**

**FOYER III**

**10:45-11:30**

**PANEL 2**

**MEGHAN MAURY** (DEBORAH FAIRMAN), DEPARTMENT OF ENGLISH, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

**RADICAL ACTION: A NECESSARY REACTION**

Historians focusing on nonviolent civil disobedience, such as the actions of MLK and his followers, have largely ignored the more radical element of social movements. Obviously, MLK impacted the civil rights movement; however, it is imperative to recognize that the Black Panther Party also played an integral part in the achievement of equality. The trend of intermingling violence with nonviolence continued in the fight against AIDS, exemplified by groups such as ACT UP. Radical action has reached its peak in the current environmental movement, as evidenced by the actions of the Environmental Liberation Front. The research for this paper draws on historical texts discussing the role of the Black Panthers in the civil rights movement, texts and journal articles conveying the impact of ACT UP on the AIDS awareness campaign, texts discussing the emergence of radical action in the environmental movement, journal articles about the actions of groups like the ELF, and personal interviews with members of radical groups. The diversity of sources leads to a more comprehensive look at the purpose and consequence of radical action. This paper contends that the efficacy of nonviolent protest has diminished, while radical action has emerged as a more viable form of dissent. Moreover, in response to what each of the groups perceive as a mortal threat, radical action becomes effectively the only rational reaction.

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**FOYER III**

**10:45-11:30**

**PANEL 2**

**JEFFREY MOGAN** (ELIZABETH BUSSIERE), DEPARTMENT OF POLITICAL SCIENCE, UMASS BOSTON, BOSTON, MA 02125

**ANTI-TRUST ISSUES FACED BY MAJOR LEAGUE BASEBALL (MLB)**

By careful analysis of the political and legislative background concerning anti-trust legislation, including the Sherman Anti-trust Act, the Clayton Act, as well as current legislative hearings being conducted by Major League Baseball (MLB) itself, the question is posed as to why MLB is the only professional sporting league that is legally exempt from Anti-Trust laws. Additionally, the intent of anti-trust legislation is examined, and whether it is, or is not in the leagues’ best interest to follow these restrictions. Baseball acting as a colossal global business will also be dealt with as it helps to set the stage for the tremendous ramifications that exemption from anti-trust laws creates. Specifically, the loss of a competitive atmosphere due to tremendously varying financial capabilities among the teams, which consequently decreases fan interest and results in financial losses for the league as a whole, will be analyzed in particular. Included in this analysis is statistical information suggesting that top money teams are virtually always the most successful, creating an unfair advantage to smaller market clubs, a feature that does not exist in any other professional sporting league. The conclusion of this thesis will examine and offer possible solutions to this very serious problem facing MLB today, one that needs to be remedied.

**68**

**FOYER III**

**3:00-3:45**

**PANEL 5**

**YUNG MEY (JAMES) NG** (KATHLEEN HARTFORD), DEPARTMENT OF POLITICAL SCIENCE, UMASS BOSTON, BOSTON, MA 02125

**CHINA AND TAIWAN’S ECONOMIC TIES DESPITE POLITICAL DIVERGENCES**

It is an inevitable fact that economic goals are a key factor in how political agendas are formed and implemented within nations. A study of the rather unique and crucial economic/political relationship that has developed between Mainland China and Taiwan clarifies the manner in which economic aims shape political policies and/or vice versa. The shared goal of economic prosperity between the two factions, despite the presence of political animosity, is supported through research and reference of previous literature and scholarly query regarding investment, tourism, and trade patterns with particular focus on recent data and case studies. Moreover, research finds that business links — many of which stem forth from the presence of familial and linguistic ties — have bolstered economic and business interaction across the Taiwan Straits. Though China and Taiwan are politically at odds, they are increasingly becoming economically integrated and mutually dependent for economic growth which has been fostered via modifications in policy restrictions and allowances for business partnership and international commerce.

**69**

**FOYER II**

**3:45-4:30**

**PANEL 6**

**PATRICK OVERSTREET** (KIM HICKS), DEPARTMENT OF ENGLISH, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

**INSINUATIONS: CHRISTIAN FUNDAMENTALISM’S GROWING INFLUENCE ON THE AMERICAN ELECTORAL PROCESS**

Over the past twenty years, leaders of Christian Fundamentalist organizations such as the Moral Majority and the Christian Coalition have
acquired considerable influence on the electoral process of the United States. Although throughout the United States’ history organized religion has quietly and privately influenced political activity, in the last two decades religious politicking has come out into the open. Religious groups in general, and Christian Fundamentalist organizations in particular, are mobilizing their members, voting in blocs, and getting results without too much protest from the general public. Where at one time candidates for public office purposely avoided publicly airing their religious affiliations, the practice is now commonplace, if not expected. This paper outlines the changes in the behavior of Christian Fundamentalist organizations over the past twenty years, what effect these changes have had on the public’s perception of religion in politics, how these shifts in the public’s perception have increased these organizations’ political power, and how that increase in power may affect American Democracy as we know it today. Examining these issues during an active presidential election cycle offers an unique opportunity to analyze these conditions first hand and to measure their effect on the electoral process.

YELENA CHEPURINA
(JACK MINO), DEPARTMENT OF PSYCHOLOGY, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

A CROSS-SPECIES BOND: FOUR KEYS TO UNDERSTANDING THE UNIQUE RELATIONSHIP BETWEEN GUIDE DOGS AND THEIR OWNERS
This study explores the attachment relationship between blind people and their guide dogs. A guide dog study questionnaire was used to determine what participants are learning in these educational programs and how likely they are to apply this knowledge in their work with pesticides.
Oral Session

survey six blind respondents (four women and two men) aged 21 to 59, who used guide dogs exclusively from two to thirty-nine years. The questionnaire consisted of 19 questions divided into six sections: general information, guide dog ownership, early contact, current relationship, critical incidents and human animal bond. Respondents reported that their mobility, independence, social interactions, social contacts, and safety improved since procuring a guide dog. The attachment relationship varied for all respondents. For some it occurred immediately, while for others it took up to a year. Still others reported that traveling in unfamiliar places increased their attachment and trust most of all. Critical incidents were noted for their importance in the formation of the attachment bond, e.g., a dramatic escape from the World Trade Center. All respondents indicated that their personalities had been well matched with their guide dogs' and noted a close, trusting and affectionate relationship. The literature review was supported by the survey findings and revealed four major keys to a successful relationship between a guide dog and its owner: love and affection, understanding and communication, trust and confidence, and praise and persuasion. A longitudinal study of the developmental process of attachment between guide dog and owner would be a fruitful direction for future research.

73 KENMORE 10:00-10:45 PANEL 1

LAURA PERKINS (SHEREE CONRAD), DEPARTMENT OF PSYCHOLOGY, UMASS BOSTON, BOSTON, MA 02125

GENDER DIFFERENCES IN RESPONSE TO MEDIA DEPICTIONS OF 9/11

Broadcast news depictions of the terrorist attacks of September 11, 2001 increased the risk of stress responses such as anger, anxiety, and depression among some television viewers. This study investigated whether men and women exposed to news images of 9/11 experienced different kinds of stress responses, reflecting differences in the gender socialization of emotion. Previous studies have shown that men are socialized to limit their emotional expression primarily to anger and aggression while women are socialized to express fear, anxiety, and depression rather than anger (Balswick, J. & Avertt, C., 1977). It was hypothesized that men and women would differ in stress responses to media depictions of 9/11, with men scoring higher on measures of anger and physical violence, while women would score higher on measures of depression and anxiety. Participants were 194 undergraduate men and women who filled out self-report questionnaire measures of anger, depression, anxiety, and media exposure. Data will be analyzed using multiple analysis of variance (MANOVA). It is predicted that there will be an interaction between hours of television news coverage of 9/11 viewed and gender on anger, depression, and anxiety. Preliminary data analysis is currently underway.

RADIO-TELEVISION-FILM

74 BRAEMORE 1:30-2:15 PANEL 3

CHRISTIAN HOLLAND (LINDA DITTMAR), DEPARTMENT OF ENGLISH, UMASS BOSTON, BOSTON, MA 02125

THE NEW AMERICA IN AMERICAN WAR FILM

The Classic Western has re-emerged in American popular culture, but not as a revisitation to the Old West and how it was won. It is now the prevailing storytelling motif for the contemporary American military engagement. The Classic Western represented whites and non-whites, the landscape, and Eurocentric ideology of democracy and civilization in ways that fit into the American national desire to represent us as a morally exceptional and victorious nation in our quest to conquer the West. Now, as globalization bears down upon us, the same tactics and tropes are being used to incorporate American interests and ways of seeing within the global village. Four films which I will discuss, “Three Kings,” “Tears of the Sun,” “Blackhawk Down,” and “Behind Enemy Lines” all reflect a neo-colonialist perspective of the world, the US’s role as the world’s only superpower, and its view of itself as the moral center of the world. To do this, the films all employ the same cinematic attributes and narrative elements of the Western in order to negotiate between these issues and our national desire.

75 BRAEMORE 1:30-2:15 PANEL 3

HEIDI SMITH (DAVID LANGSTON), DEPARTMENT OF ENGLISH LITERATURE, MASS COLLEGE OF LIBERAL ARTS, NORTH ADAMS, MA 01247

MUTUAL INFLUENCE IN THE FILMS OF KUBRICK AND KIESLOWSKI

While Stanley Kubrick acknowledged the influence of Krzysztof Kieslowski on his own film ideas, he did not dwell on the depth of Kieslowski’s influence. Moreover, the influence was not one-sided because both filmmakers’ last films show that they were influencing each other profoundly. Kubrick’s Eye Wide Shut and Kieslowski’s Trois Couleurs both place human relationships at the center of their dramas and emphasize those themes with strikingly similar color imagery. They differ when Kubrick condenses strains of Kieslowski’s broad ideas in his trilogy into his finale film, Eyes Wide Shut.
A MODEL OF SOCIAL INTEGRATION FOR THE MENTALLY ILL

The purpose of this study was to explore the successes of Pioneer House in Peabody, MA, a program of psychosocial rehabilitation of the mentally ill based on the clubhouse model developed by Fountain House in New York City. The programs and support offered at Pioneer House are designed to create a restorative environment for people with various stages of mental illness, which will enable individuals to build confidence, self-esteem, and the skills necessary for vocationally productive and socially satisfying lives. Through visits and tape-recorded interviews with six members of Pioneer House, I evaluated the extent to which this experience transformed their lives. The deinstitutionalization of the mentally ill began in the 1970s when psychiatry began to favor voluntary treatment. The mass exodus of the mentally ill from hospitals left many people in need of social programs to assist them in their integration back into a community where they were forced to return. Interviews show that most members lacked family support and that the acceptance they experience at Pioneer House gave them a sense of confidence and self-worth, allowing them to work in the community and engage in social activities. The Pioneer House model for social integration provides a caring, supportive, and nurturing atmosphere. With the emergence of programs such as Pioneer House, the mentally ill are regaining their voices and advocating for themselves. Socialization is an important part in the treatment of mental illness; those who feel isolated from family and society benefit most from the Pioneer House model.

A STIFLED CLASS: THE FINANCIAL BURDEN OF PUBLIC HIGHER EDUCATION

Recent changes in the U.S. economy signify an increasing demand for a more educated workforce. Given an existing relationship between educational attainment and income, should the financial burden of public higher education continue to be placed upon students and their families or should the Commonwealth of Massachusetts assume an increasing responsibility for educating its citizens? Funding to public higher education, which primarily comes from the state, suffers during times of recession. Currently, state and federal taxation policies are unpopular and this results in an overall state budget reduction. Costs have increased for students and their families and financial aid has fallen behind in providing adequate assistance to needier students, threatening the ability of the mass population to obtain an advanced level of education. In response to a lack of funds, public institutions of higher education have changed their methods of education through use of more cost-efficient forms of educating students such as utilizing Internet technology and replacing full-time faculty with Teaching Assistants and part-time instructors. Through use of pre-existing statistic from the State and U.S. government, University Institutional Statistics, prior studies on Higher Education, and student surveys and interviews, I have come to the conclusion that it is in the state's advantage to develop as much educational capital in its population as is possible given the market demand by providing affordable public higher education in order to enhance the population's capacities to contribute to the common good.

BICYCLING IN WORCESTER: PLANS, POLICY, AND THE COMMUNITY

Bicycle planning, policy, and the community in Worcester are centered around recreation more than commuting. Bicycling has been a recreation and a sport for many years. Increasingly however, it is becoming viewed as a viable means of transportation. Accommodation for bicyclists is included in all transportation plans, as mandated by the passage of the 1991 Intermodal Transportation Act. Major transportation agencies, such as the Federal Highway Administration and the Department of Transportation, now address the needs of bicyclists. New groups have formed as divisions of these agencies. A network of planners, engineers, and community members is created to determine the needs of bicyclists; promote safe travels; and construct bicycle facilities.
VI SUAL ARTS

PETER GREGORIO (PATRICIA GALVIS ASSMUS), DEPARTMENT OF VISUAL ARTS, UMASS AMHERST, AMHERST, MA 01003

PAINTINGS OF CONTEMPLATION BY PETER GREGORIO

The project by Peter Gregorio, consisted of the creation of ten 6ft x 6ft oil paintings on canvas, with the purpose of communicating the nuances of his perceptual experiences, within the visual medium of painting. The paintings were created in his studio over the last two years. He will be exhibiting them at the Student Union gallery at the University of Massachusetts, Amherst, April 5-9, 2004, and at the 55 Mercer Street Gallery, Soho, New York City in July 2004. Gregorio traveled to the Nepal in 2001. This trip expanded the source of his creativity. While there he had the opportunity to visit ancient temples. These architectural spaces had a significant impact on him. They provoked a sense of contemplation and awe. In the execution of these paintings, Gregorio was able to put these intangible experiences into a communicable language. His approach to art has led him to transubstantiate these experiences visually within the series of paintings he created. In these works of art, he is exploring the elements and visions that have intuitively inspired him. He has painted them in a synthetic arrangement to convey the effects of awe and plasticity that these ancient structures have provoked within him. It is his intention to communicate these experiences through the exhibition of these visual forms.

WOMEN’S STUDIES

LARISSA JONES (WILLIAM MILLER), UMASS EXTENSION, UMASS AMHERST, AMHERST, MA 01003

TEEN PREGNANCY PREVENTION AN EVALUATION OF TEEN PREGNANCY PREVENTION PROGRAMS IN BERKSHIRE COUNTY

Teen pregnancy, though on the decline in the United States, remains an issue of concern within many communities across the nation. Teen mothers frequently do not receive adequate prenatal care and both the mothers and their children are at increased risk for of variety of health and social problems. The effects of teen pregnancy can also be costly, adding stress to local social service agencies that are already overburdened. Youth services workers and community members across the state of Massachusetts are understandably concerned about these problems and are interested in reducing rates of teen pregnancy in their communities through a variety of local programs. It is critical to determine how successful individual programs are in addressing these issues. This study will determine the effectiveness of four teen pregnancy prevention programs located in Western Massachusetts. Pretest and posttest surveys will be administered to teens that participate in these programs. Surveys will be composed of items that assess sexual attitudes, risk behaviors and contraceptive use. Results will determine what effect programs are having on the youth who participate. Results will also help program providers to more effectively address this issue.
**BIOENGINEERING**

**81**

**HUNTINGTON BALLROOM**

**3:00-4:30**

**BOARD 22**

**AMY GRACEY** (KATHRYN HOLMES), DEPARTMENT OF ENGLISH LITERATURE, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

**DIVERSIFY OR DIE: SAVING THE APPLE**

Artificial selection is not as advantageous as we once believed. When horticulturists take select cuttings from plants to propagate exact replicas of that plant, the evolutionary process is bypassed, and that plant suffers a gradual loss of genetic diversity. Such gene erosion contributes to the plant becoming fragile and more susceptible to disease and pests. The USDA Curator of Apples and Tart Cherries at Cornell University, Philip Forsline, has demonstrated the immense benefits of returning genetic diversity to apples. His work consists of collecting and storing apple genome types, most especially from the wild apple forests of Kazakhstan. Tests on the Kazakhstan apples have revealed not only their immense genetic diversity, but also their natural resistance to disease and pests. This presentation will provide an overview of the evolution of the apple and its journey away from its genetic diversity. It will also present information gathered from Philip Forsline, including photographs and a travel diary from Kazakhstan, demonstrating the immense advantages of the naturally growing Kazakhstan apples over our American grafted varieties, and why it is urgent to restore diversity to our domesticated apples.

**82**

**HUNTINGTON BALLROOM**

**3:00-4:30**

**BOARD 21**

**JULIE MATTHEW** (SUSAN ROBERTS), DEPARTMENT OF CHEMICAL ENGINEERING, UMASS AMHERST, AMHERST, MA 01003

**DESIGN OF A FLOW-THROUGH BIOREACTOR SYSTEM FOR TESTING ENCAPSULATED CELL**

The purpose of this research is to develop and characterize a flow-through bioreactor system for testing encapsulated cell devices. A flow-through system models true physiological conditions more accurately than traditional static and suspension cultures. The flow-through system has been constructed with a single unit bioreactor to retain encapsulated cells, a separate media reservoir complete with a sparger to oxygenate the system, a variable-speed peristaltic pump to control the flow of the growth media, and air filters to maintain sterility during operation. The design of the bioreactor unit itself is based on the geometry of the encapsulation material being small (~1mm dia.) alginate gel beads. Beads are packed into the reactor so that medium flows up through the beads and to an outlet at the side of the reactor. Preliminary work has been directed towards design and fabrication of the system, and a workable bioreactor is now in place. Further studies involve finding optimal operating conditions such as flow rate and seeding density in order to maximize cell viability and functionality. Various assays will be carried out to measure cell viability for the duration of each experiment; these include a tetrazolium-based colorimetric assay (MTT), a lactose dehydrogenase (LDH) assay, and hemacytometry. At the end of the project, the characteristics and capabilities of the new bioreactor system will be well-understood so that in the future it may be used to study drug metabolism, to improve current bioartificial organ design, and to develop encapsulated tissue transplants.

**BIOLOGY**

**83**

**HUNTINGTON BALLROOM**

**3:00-4:30**

**BOARD 26**

**MEAGAN DAGENAIS** (NATALIE STASSEN), DEPARTMENT OF BIOLOGY, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

**COPRINUS CINEREAUS: EXPLORING THE MYSTERIES OF MEIOSIS**

Meiosis is a characteristic of most eukaryotes and is essential for the survival and variation of genes passed on to future generations. The objective of this research project was to create and identify new meiotic mutants of Coprinus cinereus. By using Restriction Enzyme Mediated Integration (REMI), transformants can be created through the insertion of a plasmid carrying a marker gene, hygromycin resistance. Although this research project is still in the REMI transformation stage, continued research will lead to the identification of mutants by the lack of spore production. This disruption in the meiosis process would be identified in white fruiting mushrooms. There are estimated to be hundreds of meiotic genes, but only a handful has been identified so far. By identifying the genes responsible for meiosis and their functions, a door to the mysteries of meiosis and its evolution could potentially be unlocked.

**84**

**HUNTINGTON BALLROOM**

**3:00-4:30**

**BOARD 23**

**PATRICIA DE OLIVEIRA** (PATRICIA DE OLIVEIRA-SQUITIERO), DEPARTMENT OF BIOLOGY, UMASS AMHERST, AMHERST, MA 01003

**EDEMA IN ZEBRAFISH CAUSES CELL PATHWAY DISRUPTION AND INHIBITION OF JAW AND GILL FORMATION.**

Edema, the accumulation of fluid, during the developmental stages is a problematic phenomenon that occurs throughout species. In some cases this phenomenon leads to developmental defects and is often lethal. Three percent of wild type zebrafish, Danio rerio, acquire edema...
Poster Session

during the early stages of development. Having developed a strategy to create an edema-phenocopy, via tail amputation, we are able to study the aspects of osmoregulation and embryonic development. These edema-phenocopies exhibit 100% edema and lack external jaw and gill structures. Although the external jaw and gill structures of edema-phenocopies lack obvious clues that gill and jaw cells exist, Alcian blue staining of cartilage provides evidence of cells that form the jaw and gill by dense staining in these embryos. Following the cartilage cells that form jaw and gill we have found that the edema phenomenon affects cell migration pathways. Comparisons among the treatment and control groups demonstrate that the average migration distance of cartilage cells decreased with an increase in edema size and that the migration pattern changed. Those amputees, which were reared in an isotonic treatment resulting in minimal edema, exhibited normal external jaw and gill structures. Unlike mutations such as lockjaw, a genetic mutation resulting in lack of complete jaw structure, the inability of cells to communicate through cell-cell interaction may cause cells to follow a different path. We can infer from the data that cell types have the potential to become complete gill and jaw but these cell types do not cooperate with other tissues properly to form the correct structures.

BIOLOGY

85  HUNTINGTON BALLROOM  3:00-4:30  BOARD 25

MAYA DUBEO (THOMAS SHEA), DEPARTMENT OF BIOLOGY, UMASS LOWELL, LOWELL, MA 01854

RE-EXPRESSSION OF VIMENTIN IN DIFFERENTIATED NEUROBLASTOMA CELLS ENHANCES AXONAL ELONGATION

Vimentin (Vm) is initially expressed by nearly neuronal precursors in situ and in culture. Vm is essential for neuritogenesis at least in culture, and is gradually replaced by neurofilaments (NFs) due to down-regulation of Vm expression. This period is accompanied by a slowing of axonal elongation. We examined whether or not continued expression of Vm could foster continued axonal elongation. NB2a/dl cells differentiated with dbcAMP were transfected with constructs expressing Vm or the middle molecular weight NF subunit (NF-M) each conjugated to green fluorescent protein (GFP). Axonal neurites of cells expressing GFP-Vm were 30% longer than non-expressing cells, or cells expressing GFP-NF-M, and exhibited a decrease in neurite caliber. Expression of GFP-NF-M did not enhance axonal neurite length but significantly increased caliber. These findings provide further evidence for a role for Vm in axonal outgrowth. Culturing for non-transfected cells on laminin increased neurite length, but cells expressing GFP-Vm demonstrated an equivalent increase whether cultured on laminin or culture plastic. Axonal neurites of cells expressing GFP-Vm turned to avoid a non-favorable substrate (nitrocellulose), but culturing of these cells on nitrocellulose did not impair axonal outgrowth. These latter findings indicate that the more robust outgrowth following re-expression of Vm is independent of a favorable or non-favorable substrate, but the axonal neurites of these cells still interact with the substrate to the extent that the substrate can influence directionality.

86  HUNTINGTON BALLROOM  3:00-4:30  BOARD 30

PATRICK GETTY (MARGERY COOMBS), DEPARTMENT OF BIOLOGY, UMASS AMHERST, AMHERST, MA 01003

EXCAVATED AND IN SITU DINOSAUR FOOTSPRINTS FROM THE MURRAY QUARRY (EARLY JURASSIC EAST BERLIN FORMATION), HOLYOKE, MA

William Murray operated a quarry on his property in Holyoke, MA during the 1920’s and 1930’s in which he found numerous footprints of bipedal dinosaurs. These footprints were sold locally to institutions and collectors but were never adequately examined scientifically. Here I present the results of my research on excavated and in situ slabs containing the dinosaur ichnites. The 149 footprints on the slabs belong to the ichnogenera Eubrontes, Anchisauripus, and Grallator and most likely represent carnivorous, or theropod, dinosaurs. However, there is enough variability in the footprints to suggest the possibility that the ichnogenera could be synonymized. There is no preferred orientation of trackways or footprints; consequently there is no evidence to support gregarious behavior in the trackmakers. Significantly, eight out of 35 trackways indicate that the trackmaker was trotting, or using a gait between a walk and a run. Additionally, one trackway shows evidence that the trackmaker was running. These results have direct bearing on the interpretation of locomotor behavior of dinosaurs. Running is considered an extremely rare occurrence and is known previously only from six tracksites worldwide, thus evidence from the Murray quarry provides another example of a running dinosaur. Additionally, previous researchers have concluded that trotting was the gait least used by dinosaurs. However, evidence from the Murray quarry shows a significant percentage, 23%, of the trackmakers using a trotting gait. Thus, evidence from the Murray quarry suggests that dinosaurs may have used a trotting gait more often than previously thought. Finally, the morphology of the footprints suggests that they were made over a period of time during which the trackbed desiccated significantly.

87  HUNTINGTON BALLROOM  3:00-4:30  BOARD 27

JOANNE GONNEVILLE (BRIAN HAGENBUC), DEPARTMENT OF BIOLOGY, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

TOOTH REGENERATION THROUGH STEM CELL SCIENCE

Dental researchers predict that within the next two decades individuals will be able to regenerate lost teeth using somatic stem cells. This
The invasion of ecosystems by non-native plants has become widespread. Many factors are probably responsible for observed patterns of invasion and the differential abilities of introduced non-native plants to invade. This project tried to isolate the effects of competition in invasiveness. I predict that more invasive non-native species compete more effectively than non-invasive non-natives and are better able to...
To suppress the growth of the natives. To test this prediction I conducted a greenhouse experiment with four native (Bromus carinatus, Danthonia californica, Hordeum brachyantherum and Elymus glaucus) and six non-native (Lolium multiflorum, Vulpia bromoides, Bromus hordeaceus, Briza maxima, Hordeum murinum and Lagurus ovatus) grass species found in the northern Californian coastal grasslands. Each pot contained the four native species with non-native, native or no neighbors. Performance was measured after approximately three months of growth. Though variation is evident, the data have not been analyzed at this time.

**BIOLOGY**

**92** HUNTINGTON BALLROOM 3:00-4:30 BOARD 31

AMOAH YEBOAH-KORANG (GARTH HALL), DEPARTMENT OF BIOLOGY, UMASS LOWELL, LOWELL, MA 01854

HUMAN TAU MUTANT P301L TURNOVER IN A UNIQUE IN VIVO MODEL OF NEUROFIBRILLARY DEGENERATIVE DISEASE

Rationale: Alzheimer's disease is the leading cause of dementia. According to a report by the National Alzheimer's Association, 10 percent of adults 65 years and older, and about 50 percent of adults 85 years and older suffer from the disease. Tau protein mutations reduce the affinity of tau for binding and maintaining the integrity of microtubules. These mutations lead to toxic intracellular tau deposits that form the amyloid plaques and neurofibrillary tangles that are the hallmarks of Alzheimer's disease. Objectives: This study seeks to determine whether P301L mutant tau protein affects normal intracellular tau protein turnover. Methods: The effects of the P301L mutation on normal intracellular tau turnover in the giant identified neurons of larval sea lampreys are being studied by comparing the rate of turnover of P301L tau with the rate of turnover of the 4-repeat control tau at the same time intervals. Results: We expect to find that P301L is turned over at the same rate as the 4-repeat control tau or that the 4-repeat control is turned over faster than P301L tau mutant. Conclusions: A slower P301L mutant tau turnover relative to the 4-repeat control means that the mutant protein is able to stay in the neuron long enough to form toxic deposits. If so, then some form of treatment like N3 that has been shown by Hall et al. to protect neurons against neurofibrillary tangle formation should be able to slow down, if not arrest, neurodegeneration in Alzheimer's disease cases due to P301L mutation.

**CHEMICAL ENGINEERING**

**93** HUNTINGTON BALLROOM 3:00-4:30 BOARD 71

ALEX AVEKIANCETABRIZI (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

FUEL CELLS

The air pollution in the U.S. mostly comes from transportation. Broadly speaking, there are two different approaches in order to curb pollutions. One method would be to work on current combustion engine technology, using our potential that has already been built and increasing both restrictions and the efficiency of these models. The other possibility is to heavily investigate the use of fuel cells, thereby replacing fossil fuels with a better alternative, namely hydrogen or methanol. Combustion engines have an efficiency of mechanical energy of about 17%, the rest turns into heat and wasted. On the other hand fuel cells have ability to perform at around 90% efficiency. Of course the greatest disadvantage to fuel cell technology is the cost. This research will attempt to demonstrate the advantages and disadvantages of each method. At first glance hydrogen looks futuristic and environmental friendly, but hydrogen is problematic too. In addition there is no indication that produced water from hydrogen fuel cells would not effect the natural balance.

**94** HUNTINGTON BALLROOM 3:00-4:30 BOARD 69

DAVID BABSON (SUSAN ROBERTS), DEPARTMENT OF CHEMICAL ENGINEERING, UMASS AMHERST, AMHERST, MA 01003

DEVELOPMENT OF A GENETIC TRANSFORMATION PROTOCOL FOR TAXUS CELL SUSPENSION CULTURES TO EXAMINE THE OVEREXPRESSION OF KEY GENES IMPLICATED IN METABOLIC CONTROL OF PACLITAXEL ACCUMULATION

An increased focus has been given to characterizing and understanding plant cell metabolism in recent years because of the potential of using plant cell culture to produce valuable plant derived chemicals. These complex chemicals, known as secondary metabolites, are often impossible or uneconomical to produce synthetically. These valuable plant derived products include flavors, colors, perfumes, and pharmaceuticals. One such chemical is paclitaxel, a powerful anti-cancer drug that is synthesized in Taxus plant cells. Currently, low product yields and high variability hinders large-scale bioprocess production of paclitaxel. The goal is to direct biosynthesis towards paclitaxel and away from unwanted byproducts via the application of specific strategies developed through an understanding of Taxus metabolic control. Our laboratory utilizes molecular approaches to identify key genes involved in controlling paclitaxel synthesis, degradation and transport. Once genes are identified, transformation technologies will be applied to create superior Taxus cell lines with greater paclitaxel accumulation. Currently, there is limited literature pertaining to transformation methods of the Taxus system. Thus, a reliable technique for the transformation of Taxus cell
lines must be developed. This project focuses on effectively introducing the desired foreign DNA via Agrobacterium transformation to Taxus cell cultures using an antibiotic resistance selection method. Gentamycin has been identified as an appropriate selectable marker, and cefotaxime is used as a bacteroidal agent to kill Agrobacterium post-transformation, but not affect Taxus cells. The gene encoding green fluorescent protein (GFP) has been selected as the model gene to be transformed since it has been widely studied and provides a simple system for monitoring expression (fluorescent microscopy). The Agrobacterium was engineered with the appropriate vector (includes the gene for antibiotic resistance and the gene for GFP), and subsequently cultured in a selective medium. Next, Taxus and Agrobacterium cells were co-cultivated under optimal Taxus culture conditions (in the dark, shaking at 125 rpm at ~230°C) for 1-3 days. The co-cultivated Taxus cells were transferred to a solid medium (after filtration and rinsing) with the appropriate selectable marker and bactericidal antibiotic to kill any remaining Agrobacteria. Preliminary fluorescent microscopic analysis has identified potentially viable Taxus cells expressing GFP, indicating successful transformation. A

ELECTROSPINNING COMPARISON OF POLYCAPROLACTONE AND POLYLACTIC ACID

Electrospun fibers of biodegradable polymers potentially can be scaffolds for drug delivery if they are uniform enough to meet the degradation requirements for drug release. In this study, the electrospinning and fiber-mat properties of two biodegradable polymers, polycaprolactone (PCL) and poly (L-lactic acid) (PLLA) were investigated to determine which polymer would be a better scaffold. It was found that the 80,000-dalton molecular weight PCL was the best candidate. Using previously optimized conditions of voltage, concentration, etc., a 50,000-dalton molecular weight PCL could be electrospun from acetone for up to 2 min. Under the same conditions, the 80,000-dalton PCL could be electrospun for periods of 9 to 20 min. Characterization via scanning electron microscopy (SEM) showed that, as expected, the 50,000-dalton PCL yielded fewer fibers. The 80,000-dalton PCL, however, yielded uniform nano-sized fibers for each of the time periods electrospun. Since PLLA did not dissolve in acetone, a 3.9 weight percent solution of a 2:1 volume ratio of chloroform to acetone solution was used. As the voltage was increased from 15 to 30 kV, the PLLA solution yielded more fibers, but the average fiber thickness increased. Also, each sample contained spindles, which are non-uniform areas of concentrated polymer. PLLA-chloroform solutions were electrospun with 3.9, 5.8, and 7.9% concentrations, but these systems did not yield fiber mats.

CHEMISTRY

NMR STUDIES OF PITCHER PLANT EXTRACTS

Plant metabolites have always been of great interest to organic chemists and have provided leads for many of our current drugs. The traditional approach is to purify compounds and determine their structure. The most powerful technique for analyzing organic structures is nuclear magnetic resonance (NMR). We are studying the chemical make-up of the pitcher plant, Sarracenia purpurea, by NMR with the following goals: 1. Profiles from plants at various stages of development will be compared with those from plants under stress. Indicators of plant health will be sought that may be useful for environmental studies. 2. NMR will also be used to guide the purification of selected metabolites and to help in their chemical identification. 3. Changes in chemical profiles under different conditions may give information on plant physiology and the functions of plant metabolites. 4. Chemical profiles of plant metabolites might be used for taxonomic purposes. Studying extracts by NMR, promising spectra showing complex mixtures from different parts of the plants (such as red areas of leaf compared
with green areas) were obtained and techniques with high precision were developed. Starting out with different solvents, one compound separated particularly easily from an ethyl acetate extract and NMR indicates it to be reasonably pure. This should help to determine its chemical structure and to begin annotating the complex chemical profile of the extract.

**CHEMISTRY**

98  HUNTINGTON BALLROOM  3:00-4:30  BOARD 64

**SARAH FISCHER** (EDWIN JAHNGEN), DEPARTMENT OF CHEMISTRY, UMASS LOWELL, LOWELL, MA 01854

**THE EFFECTS OF POTASSIUM HYDRIDE ON THIONES**

Potassium hydride has long been known to be a strong base, but a very weak nucleophile. The generally accepted theory is that when potassium hydride is mixed with a ketone, it will cause the ketone to enolize via the removal of a proton; however, in nonenolizable ketones, there is evidence of reduction, i.e. the formation of the alcohol rather than the enol. The purpose of this research is to measure the effect of potassium hydride on thiones, the sulfur analogue to ketones. Both enolizable and nonenolizable thiones will be prepared from various ketones and then will be reacted with potassium hydride. The resultant products will be analyzed using standard spectroscopic methods. All prepared thiones will also be reacted with sodium borohydride, a known reducing agent, to have standard thiols for the comparison.

99  HUNTINGTON BALLROOM  3:00-4:30  BOARD 62

**RYAN GIANATASSIO**, MEGAN PESCH, (JOHN WARNER), DEPARTMENT OF CHEMISTRY, UMASS BOSTON, BOSTON, MA 02125

**NON-COVALENT DERIVATIZATION**

Non-covalent Derivatization is a new method for the synthesis of environmentally benign materials using weak intermolecular forces as a structural design element in the construction of multi-molecular complexes. This methodology derives its inspiration from natural processes found in living systems. The structure of materials in living systems is often controlled less by “conventional” chemical manipulations, and more by intrinsic forces that drive individual components to self assemble into organized constructs. We believe that this process will be useful in a wide variety of practical applications. One such application is the control of the dissolution of materials in pharmaceutical and agricultural processes. In order to demonstrate utility of this method for the control of dissolution kinetics, a series of model systems based on hydroquinone complexes have been synthesized and evaluated. Results will be presented that demonstrate the structure activity relationships that control these processes and their utility in Green Chemistry applications.

100  HUNTINGTON BALLROOM  3:00-4:30  BOARD 66

**KAVITHA KANAGARAYER** (JOHN WARNER), DEPARTMENT OF CHEMISTRY, UMASS BOSTON, BOSTON, MA 02125

**NONCOVALENT DERIVATIVES OF HYDROQUINONE AND TRIMESAMIDES**

Molecular recognition together with self-assembly forms ordered matrices resulting in a crystalline complex. This concept forms the basis for non-covalent derivatization and is an example of Green Chemistry applied to the field of Crystal Engineering. Non-covalent Derivatization is acquired when physical properties of materials are modified by forming intermolecular interactions such as hydrogen bonding, p- stacking and lipophilic-lipophilic interactions. Auxiliary molecules, in order to manipulate the physical property of other molecules, bond to these molecules by forming noncovalent intermolecular interactions. This procedure is conducted in an environmentally benign manner and follows the principles of Green Chemistry. In the presented example, this particular molecular behavior of hydroquinone is illustrated. Hydroquinone molecules have a tendency to be too water-soluble. Noncovalent derivatization, therefore, can be applied to change the water solubility of the hydroquinone. A number of trimesamide derivatives were synthesized and were used as auxiliary reagents to co-crystallize with hydroquinone derivatives. The resulting complex (considered a non-covalent derivative of hydroquinone) modified the intermolecular interactions between hydroquinone molecules and the intermolecular interactions between the hydroquinone and the water molecules. The binary complexes they formed were analyzed by Nuclear Magnetic Resonance Spectroscopy and Differential Scanning Calorimetry.

101  HUNTINGTON BALLROOM  3:00-4:30  BOARD 67

**CHRISTOPHER NEMIROW** (JOHN GOODCHILD), DEPARTMENT OF CHEMISTRY, WORCESTER STATE COLLEGE, WORCESTER, MA 01602

**NMR STUDIES OF PITCHER PLANT EXTRACTS**

In recent years, biomolecular science has focused on the interplay between components within the complex mixture of cell constituents and the way they respond to change. New fields have emerged such as genomics. Just as the genome consists of all the genes in an organism, the proteome is all the proteins and the metabolome all the metabolites. Plant metabolites have always been of great interest to organic chemists and have provided leads for many of our current drugs. The traditional chemical approach is to purify compounds and then to
determine their structure. This has led to a huge catalogue of natural products but has shed less light on their function. We still do not know why plants make many of these compounds. It might be possible to find out more by following changes in the global expression of these compounds during the annual cycle of the plants or in response to stress. The most powerful technique for analyzing organic structures is nuclear magnetic resonance (NMR). While normally used to study pure compounds, NMR could also be applied to studying changes in complex mixtures of plant constituents. We are studying the chemical make-up of the pitcher plant, Sarracenia purpurea, by NMR with the following goals. 1. Profiles from plants at various stages of development will be compared with those from plants under stress. Indicators of plant health will be sought that may be useful for environmental studies. 2. NMR will also be used to guide the purification of selected metabolites and to help in their chemical identification. 3. Changes in chemical profiles under different conditions may give information on plant physiology and the functions of plant metabolites. 4. Chemical profiles of plant metabolites might be used for taxonomic purposes. As a proof of concept, plant extracts have been studied by NMR. Good quality spectra were obtained showing complex mixtures of compounds. These appear sufficiently reproducible for the purposes of the work. Different profiles of compounds were obtained from different parts of the plant (such as red areas of leaf compared with green areas). Different constituents were extracted by different solvents. One compound separated particularly easily from an ethyl acetate extract and NMR indicates it to be reasonably pure. This should help to determine its chemical structure and to begin annotating the complex chemical profile of the extract.

**102 HUNTINGTON BALLROOM 3:00-4:30 BOARD 60**

ROGER O’CONNOR (EDWIN JAHNGEN), DEPARTMENT OF CHEMISTRY, UMASS LOWELL, LOWELL, MA 01854

**REDUCTIONS AND RING OPENINGS OF TETRASUBSTITUTED 1,3-CYCLOBUTANEDIONES**

Several tetrasubstituted 1,3-cyclobutanediones (ketene dimers) have been prepared by the production of the acid chloride and the subsequent deprotonation to form the ketene intermediate. The ketenes were then heated to form the dimers. These materials have been characterized through the use of physical constants and various spectroscopic techniques including FT-IR, H1-NMR and UV/Vis. The ketene dimers produced and characterized so far include those derived from cyclohexylketene, cyclopentylketene and diphenylketene. The dimers of cyclobutylketene and cyclopropylketene will produced shortly. The primary investigational reaction yet to be performed include the experimental reductions of the ketene dimers using potassium hydride in dry tetrahydrofuran (THF) and comparative reductions using sodium borohydride and lithium aluminum hydride. The specific area of interest is the potential for the opening of the cyclobutane ring by the action of potassium hydride in anhydrous THF in contrast to the known reductive product alcohols using sodium borohydride and lithium aluminum hydride. Although potassium hydride is thought to react as a reducing agent in the presence of carbonyl systems it is believed a ring opening of the cyclobutane dione system may occur. The potential ring-opened products and the alcohols will be analyzed by FT-IR and NMR spectroscopy.

**103 HUNTINGTON BALLROOM 3:00-4:30 BOARD 59**

AMELIA THOMAS (BAL RAM SINGH), DEPARTMENT OF CHEMISTRY, UMASS DARTMOUTH, N. DARTMOUTH, MA 02747-2300

**BOTULINUM NEUROTOXIN HEAVY CHAIN AND 33KDA HEMAGGLUTININ AS AN ORAL VACCINE CANDIDATE**

Botulinum Neurotoxin (BoNT) produced by Clostridium botulinum is the most poisonous natural substance known. A single gram of crystalline toxin, evenly dispersed and inhaled, would kill more than 1 million people. The threat of the use of BoNT as a biological weapon has created the desire for a more distributable vaccine. BoNT is a complex of Neurotoxin Associated Proteins (NAPs) and the botulinum toxin. The toxin is composed of two sections, the lethal Light Chain and the non-lethal Heavy Chain. The 33kDa Hemagglutinin 33 (HN33) is an enzymatically stable component of NAPs which protects the BoNT complex from digestion after ingestion. The HN33 protein is a candidate to protect a recombinant Heavy Chain for use as an oral vaccine. Our experiments with two types of HN33 (A and B) suggests that while B-HN33 is prone to proteolysis by trypsin, chymotrypsin, and pepsin, A-HN33 is completely resistant. This result suggests that A-HN33 is a good candidate for development into an oral vaccine carrier. Supported by the United States Army Medical Research and Material Command under contract number DAMD17-02-C-001 and by the National Institutes of Health through New England Center of Excellence for Biodefense (AI057159-01).

**104 HUNTINGTON BALLROOM 3:00-4:30 BOARD 65**

ALEX YAZHBIN (CRAIG MARTIN), DEPARTMENT OF CHEMISTRY, UMASS AMHERST, AMHERST, MA 01003

**PROMOTER CLEARANCE IN T7 RNA POLYMERASE**

Transcription is the process by which DNA is copied into RNA. Transcription errors have been implicated in various genetic disorders. T7 RNA polymerase (RNAP) is the simplest enzyme that carries out transcription. Studying and characterizing this simple model may have applications to more complex RNAPs. There are two distinct phases comprising transcription: initiation and elongation. The former characterized by abortive cycling while the latter entails high processivity. Abortive cycling refers to the synthesis of many short RNA fragments as the RNAP binds the DNA, makes RNA, falls off the DNA, and repeats this cycle, all while remaining near the start site. In leaving the start site, T7 RNAP undergoes a conformational change in which the N-terminal domain shifts relative to the rest of the protein. In this study, mutations will be strategically inserted into T7 RNAP, which will aim to prevent the transition from initiation to elongation. Promoter clearance occurs during the aforementioned transition as the RNAP releases the promoter contacts and begins transcribing DNA roughly 8 bases downstream. It is not
known precisely when promoter clearance occurs nor is it known when the conformational change occurs, but both of these events are thought to happen concurrently and corresponding to a synthesized RNA chain of 8-10 bases. Locking the polymerase in an initiation complex will produce an RNA chain of unknown length, which will help determine the position at which promoter clearance occurs. Insight will consequently be gained into the point of transcription at which this large conformational shift occurs.

CHEMISTRY

105 HUNTINGTON BALLROOM 3:00-4:30 BOARD 63

NASRIN ZAMAN (JOHN WARNER), DEPARTMENT OF CHEMISTRY, UMASS BOSTON, BOSTON, MA 02125

DISSOLUTION KINETICS OF CO-CRYSTALS OF HYDROQUINONE AND TEREPTHALAMIDE

In our work to understand the individual contributions of various intermolecular forces with respect to molecular complexation, we have synthesized a number of N,N-dilakyl substituted terephthalamides. By varying the substitution pattern on these molecules [manipulating steric and electronic forces] we are developing a library of complexing auxiliaries. These derivatives form 1:1 co-crystalline solids with hydroquinone. We are correlating the physical properties of these complexes with structural features of the auxiliary agent. If successful, we hope to create a series of rules that govern crystal formation and resulting physical properties.

CIVIL ENGINEERING

106 HUNTINGTON BALLROOM 3:00-4:30 BOARD 18

JENNIFER GOSSELIN (PEGGI CLOUSTON), DEPARTMENT OF FORESTRY, UMASS AMHERST, AMHERST, MA 01003

CYCLIC BEHAVIOR OF SLENDER DOWEL-TYPE FASTENERS IN WOOD/STEEL CONNECTORS

Bolted wood connections with steel side plates are a common detail for heavy timber structures. Previous studies have found that large stocky bolts, which are greater than one inch in diameter, cause brittle wood failure, abruptly and without warning. Recently there has been a move towards the use of slender dowels in place of large bolts. Such slender dowels, with diameters less than one inch, have been found to better dissipate energy by yielding and deforming plastically. Though this results in large deformations in the structure, there is less risk of catastrophic collapse. Structural stability is of particular importance when demanding dynamic loading conditions are present, such as those experienced during earthquakes. The objective of this research is to investigate the behavior of slender dowels used in hidden connections with Parallel Strand Lumber (PSL), a relatively new composite lumber product. Specifically, the cyclic loading behavior of slender dowel-type fasteners in steel plate connections slotted into PSL was studied. Resulting experimental data was input into an existing computer program “DOWEL”, to simulate various connection configurations under different testing protocols. The effectiveness of the program is to be verified through comparison of experimental and simulated results. Results from testing and data analysis will lead to a better understanding of connection details and overall improved safety guidelines for timber structures.

107 HUNTINGTON BALLROOM 3:00-4:30 BOARD 17

GERSHON LARSEN (SCOTT CIVJAN), DEPARTMENT OF CIVIL ENGINEERING, UMASS AMHERST, AMHERST, MA 01003

LABORATORY BASED ANALYSIS OF THE STABILITY OF FLEXURAL STEEL MEMBERS WITH REDUCED BEAM SECTIONS

This research project concerns the behavior and stability of Reduced Beam Sections (RBS), a type of connection frequently used in the seismic design of steel structures. Following the Northridge Earthquake (1994), the welds connecting columns and beams in many structures failed due to a lack of ductility. The failures sparked extensive research, resulting in the approval of Reduced Beam Sections and eight other connection designs. The RBS design has portions of the beam flange removed from (typically) the top and bottom of the member. This weakens the beam and thereby reduces the moment transferred to the connection at the column, reducing the possibility of weld failures. Dimensions of the RBS cutout have been arbitrarily prescribed, and are not applicable to designs where they may work (such as retrofit where only one flange may be accessible). In order to investigate RBS detailing requirements, seven different specimens with varying RBS dimensions were tested in the laboratory. To determine their flexibility and capacity, the specimens were loaded to various deflections while strain gages recorded the different strains undergone at the connection. The results of the tests were then compared with extensive computer modeling performed by a UMass Amherst graduate student. The results of this project and the aforementioned computer modeling are intended to provide a basis for guidelines on selecting RBS dimensions in a wider range of applications.
CLASSICAL LANGUAGE & LITERATURE

MICHAEL SHAMGOCHIAN (REX WALLACE), DEPARTMENT OF CLASSICAL LANGUAGE & LITERATURE, UMASS AMHERST, AMHERST, MA 01003

ETRUSCAN TEXTS PROJECT
The goal of the Project is to collect recently recovered Etruscan inscriptions (from 1990 to the present) and to produce an online edition of inscriptions accompanied by a searchable database. The language of the Etruscans, the most important pre-Roman population in Iron Age Italy, is known only from inscriptions—documents written or painted on metal, stone, or ceramic. In 1990, Helmut Rix published “Etruskische Texte,” an edition of the entire corpus of Etruscan inscriptions. Etruscan studies leapt forward because the texts were now readily accessible to all scholars for study. However, there has been no edition of Etruscan inscriptions since “Etruskische Texte” even though archaeologists have unearthed hundreds of new inscriptions during field work and new inscriptions have been discovered in private collections, museum exhibits and museum storerooms. The study of the Etruscan language has progressed because scholars have made the investment in time and effort to collect, edit, and publish inscriptions for the scholarly community. Advances in our knowledge of the language, history, and the culture of the Etruscans can take place only if we make recently recovered Etruscan inscriptions available to scholars in a timely fashion. The Project aims to fill this need. In my presentation I will discuss the Project, which is among the first of its kind in classical epigraphy, and my role in it. This will include an outline of the information technologies used by the Project, its adaptability to similar projects in Latin and Greek and other ancient languages, and a live demonstration of the Etruscan Texts Project online epigraphic library.

COMMUNICATION

LISA CLARK (CHARLES WELLENS), DEPARTMENT OF FINANCE, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

THE WORLDS THEY LIVE IN: A STUDY OF REALITY CONSTRUCTION IN MALES AND FEMALES
The social constructionist theory believes that our personalities and realities are created through our communicative interactions with others. Truth is found in language, and the context a language is in defines the meaning of a conversation. In looking closely at the everyday interactions we have and the aspects that are often taken for granted, we can determine how the cultures of Males and Females begin to construct their realities. The purpose of this study was to look closely at the way Male and Female high school seniors go about making their decisions for life after graduation. By using the method of circular questioning and appreciative inquiry based on the theories of Dr. John Chetro-Szivos and Patrice Gray (2002), four gender-specific groups (2 male groups, and 2 female groups) were able to share stories about their goals and hopes for the future, and the factors that helped them realize the first steps toward the rest of their lives. A directed conversation revealed dramatic differences in the way males and females construct their realities and what factors in life they find important. By looking at the differences in male and female reality construction we can make connections between the “worlds they live in” and the choices they make.

KELSEY DOHERTY (JEFF WARMOUTH), DEPARTMENT OF COMMUNICATION, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

WEBSITE AND CARTOON DESIGN, PROCESS, AND IMPLEMENTATION
This research project is to create a cartoon-themed website called “The Thinking Impaired”, and an online cartoon series to be showcased on it. The cartoons will focus on eight young boys and the fun and humorous adventures they have. The website, while being the primary home of the cartoon will also have other features, based in the cartoon’s universe that will serve to strengthen any fan-base that forms from the cartoons themselves. The research part of the project is spent looking into the few websites online that also feature and focus a cartoon series as well as have a successful fan-base. I will research the website’s history, what the site’s offer, how the designed their site, and how they advertise their product (the cartoon). I would take this data and organize the various successes and failures of each site and apply them to my own venture. I will design my own functional cartoon website and create a journal of the entire process. Similar research would then be undertaken with the production of the cartoon itself. The data would be reviewed, applied to my own knowledge of animation and movie production, and finalized as the finished cartoons. It is my hope that by the end of this project I will have a working website, at least three finished cartoons, and - if all goes right - a fan base of some sort.
COMMUNICATION

111  HUNTINGTON BALLROOM  10:00-11:30  BOARD 17

MATTHEW THOMAS  (JAMES PELLETIER), DEPARTMENT OF CHEMISTRY, BRISTOL COMMUNITY COLLEGE, FALL RIVER, MA 02720

PLANNING A WATERWAY CLEAN UP IN THE SOUTH COAST AREA

Massachusetts rivers are polluted. Among these rivers are the Charles River in Boston and the Taunton River in Southeastern Massachusetts. This state has the second poorest water quality in the nation. Our rivers and streams, bays and shorelines serve as vital sources of drinking water, wildlife habitats, and places for swimming and boating. We must care for these habitat treasures and not pollute them. The alternative would be to continue to ruin our environment and the habitats within it. Conducting local, regional and state cleanups of these bodies of water is an important step which may solve these problems. This writer will describe efficient and effective procedures for planning and executing cleanups which he has used in the Water Watch program at Bristol Community College.

112  HUNTINGTON BALLROOM  10:00-11:30  BOARD 16

JUSTIN THOMAS  (ROD KESSLER), DEPARTMENT OF ENGLISH, SALEM STATE COLLEGE, SALEM, MA 01970

HOWARD STERN AND HIS AUDIENCE

Howard Stern, the controversial, self-proclaimed king of all media, influences his large following by his daily pronouncements and public stands. What accounts for his popularity, notoriety and impact? A content analysis of Stern's syndicated radio and television shows over a one-week period reveals that Stern's milieu is neither politics, religion, education, nor environmental issues; rather, it is sex and sexual controversy. Further analysis profiling his phone-in callers reveals that his apparent audience is critical, offensive, insulting, violent, sexual and controversy-driven. It is argued that Stern's focus on sex-and-controversy accounts for his popularity.

113  HUNTINGTON BALLROOM  10:00-11:30  BOARD 19

KATHERINE WALSH  (JOHN CHETRO-SZIVOS), DEPARTMENT OF COMMUNICATION, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

THE IMPACT OF TELEVISION ON CONTEMPORARY LIFE

Television has invaded our lives and our society. It is very rare to walk into a home that does not have at least one television. The alternative to reading a newspaper or listening to the radio, television was our connection to the world. It still is, however, now it has become the Frankenstein of society. The television was created with good intentions, though now it seems we have lost control of its powers. Our babysitter, our constant source of entertainment, our source of comfort and relaxation and our perception of truth and reality –television. Now new inventions such as home media servers, will create an even greater dependence on television, disturbance in society and the possible extinction of television advertising. By examining theorists such as Marshall McLuhan and Neil Postman, this study suggests that television poses more effects on society than just the messages themselves and explores what those effects are. If we, as a society, are made conscious of the effects television has on our society, we will then be able to begin to take control back and stop "Frankenstein" dead in his tracks and return "him" to his to his original position, an educator and a liaison between us and the rest of the world. We may also then discuss new ways to advertise and promote businesses i.e. interactive advertising and public relations.

COMMUNITY OR PUBLIC SERVICE

114  HUNTINGTON BALLROOM  10:00-11:30  BOARD 33

LEANNA BARLOW  (DANIEL GERBER), DEPARTMENT OF COMMUNITY HEALTH STUDIES, UMASS AMHERST, AMHERST, MA 01003

THE CONNECTICUT RIVER VALLEY FARMWORKER HEALTH PROGRAM, TURNERS FALLS MA, AND THE COMMUNITY NURSES' AID PROGRAM, BELIZE: A COMPARATIVE STUDY

This research project attempts to complete a comparative study between the Community Nurses’ Aid (CNA) program found in the Mayan Villages of Southern Belize and the Connecticut River Valley Farmworker Health Program run through the Community Health Center of Franklin County (CHCFC) in Turners Falls, Massachusetts. The objectives of this study are trifold: 1. Provide a complete assessment of the Community Nurses’ Aid program of Belize. 2. Provide a complete assessment of the Connecticut River Valley Farmworker Health Program at CHCFC. 3. Compare and contrast the two studied programs. The methods used to obtain this data include: participant and non-participant observation, formal and informal interviews, a questionnaire, and literature reviews. The programs will be assessed using the following criteria: 1. Quality of healthcare provided, 2. Accessibility of healthcare provided, 3. Long-term sustainability and cultural sensitivity of
Poster Session

Programs. Field research was conducted in Belize and Turners Falls, MA, between the dates of September 2002 and December 2003. Finally, the researcher compared and contrasted the two hospitals and public health programs, so further understanding could be achieved in regards to the similarities and differences between the public health programs in Belize and in the USA, as well as the strengths and shortcomings of the individual public health programs. The conclusions state that while both programs have the same goal, to provide health care to otherwise uninsured populations of people from Central America and the Caribbean, the programs are implemented in substantially different ways, leading to substantially different outcomes. Both programs suffer from design flaws, though the program in the United States provides more comprehensive health coverage, while the program in Belize is more sustainable.

115 HUNTINGTON BALLROOM 10:00-11:30 BOARD 32

COLLEEN MONTGOMERY (BRIAN MCCULLOUGH), DEPARTMENT OF CRIMINOLOGY, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

THE LINK BETWEEN ACADEMICS AND EXTRACURRICULAR ACTIVITIES

It was hypothesized that students who participate in extracurricular activities throughout their educational experience will have a higher academic output. A survey conducted with Fitchburg State College students supported this prediction. Specifically, students who were involved with extracurricular activities maintained a higher grade point average. Other studies throughout the United States have also supported this finding. Based on a review of the literature as well as the present survey results, it is believed that students engaged in extracurricular activities perform at a higher standard for an assortment of reasons. One explanation is that students who participate in extracurricular activities take more pride in their schooling. By becoming connected to one’s educational institution it helps the individual establish an increased level of integrity for him or herself. Therefore, the student wishes to impress others by way of the classroom. Another idea is that those who take part in intercollegiate sports must maintain a set G.P.A. which students who are not athletes may not need to uphold. One last explanation is that students who join extracurricular activities must manage their time in ways to accommodate both studies and their activity. Students who are not involved are at greater risk of getting caught up in activities that may divert a student from his or her academics, and which may result in negative behavior. These explanations hold true at other colleges, as well as at Fitchburg State College.

COMPUTER SCIENCE

116 HUNTINGTON BALLROOM 3:00-4:30 BOARD 11

BRANDON ANGUS (BILJANA JOHN), DEPARTMENT OF COMPUTER SCIENCE, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

CYBERATTACKS AND COMPUTER CRIME

Computer crime is on the rise in spite of the efforts of the entire software industry and law agencies. People feel less comfortable and less secure with regard to who can access their private information and who already has it without the owner knowing about it. This paper strives to explain some of the ways this kind of crime happens because food, water, electricity, transportation, and everything else around us relies on technology to function properly. Some questions addressed are how do computer systems get attacked, types of attacks and what can we do to protect ourselves from cyberattacks. Once a system has been attacked, how does a small system (e.g. a personal computer) recover compared to a large one? What are some of the procedures we need to have in place so that our losses are bearable. The purpose of this project is to educate people about these things with the hope that once they are aware they do something about some of them.

117 HUNTINGTON BALLROOM 3:00-4:30 BOARD 15

BOGDAN CALOTA (ETHAN BOLKER), DEPARTMENT OF COMPUTER SCIENCE, UMASS BOSTON, BOSTON, MA 02125

SIMPLE PROTEIN FOLDING

In my research, I helped Professor Bolker develop an interactive software application that uses a simple model for proteins that allows students to experience folding proteins, emphasizing the structure of proteins and the importance of the amino acid’s properties in the folding process. Although the model is too simple to help with real life analysis of protein folding, it provides novices in biochemistry with a concrete visual experience, rather than the abstract notions in textbooks. In this model, proteins are sequences of amino acids (represented by disks) that arrange on a virtual grid, exposing or not exposing acids to water depending on their properties. The current version of the application has two algorithms for folding: a brute force algorithm that can fold up to 18 amino acids and an incremental algorithm that can fold up to 100 acids in a reasonable amount of time. The program also allows a choice of grids onto which the protein is drawn; some grids are two-dimensional and one grid is three-dimensional.
WHAT IS WRONG WITH THE MICROSOFT NETWORK?

There are different kinds of troubleshooting on a network. The most obvious kind is when a particular hardware component does not work, like a printer, for example. Or maybe an application cannot be invoked. But there is a more subtle kind—like when the network is very sluggish. In this case nothing obvious is “broken” but the network is crawling. To be able to troubleshoot a problem of this kind, one needs to know the “normal” behavior of that particular network, also called baselining. There are different tools to achieve this. The System Monitor is part of Windows, but there are 3rd party products, which also work this OS. To be a successful troubleshooter one must follow certain steps and not be too eager to start deleting software or unplugging hardware. Collecting information on the possible causes for the problem can be a good step to start with. There are some other common-sense guidelines one needs to follow. Windows offers several good tools for troubleshooting: The Event Viewer, the ScanDisk, the Computer Management Tool are just a few mentioned here. Someone of the areas for troubleshooting are: installation, printing, RAS, network, disk, permissions and some miscellaneous ones.

WALKING THE LINE: USER RIGHTS AND SYSTEM SECURITY

The topic of RIGHTS in just one of the layers that the term SECURITY encompasses. After a user is logged in only the rights bestowed upon her by the administrator keep users “honest” and thus objects and files on a network do not just disappear from the server. It is the rights on a network, which a user needs to get from the administrator, which determine the various level of accessibility to a resource on a network, like a printer, server, software programs or data files. A network administrator must walk a fine line between granting sufficient rights so that a user can do her/his job, but at the same time to prevent this same user from her/his being able to use or misuse resources which she is not entitle to, based on the function a person perform with in a department. Granting rights makes a user to become a trustee of a resource on a network. Only trustees are valid objects in the eDirectory structure of objects. I am going to compare the two sets of rights in NetWare: the eDirectory (also called NDS under NewWare 5) object/property rights and the File System rights. To have a secure network with regard to rights, one must develop a great plan first before administering it. As part of this plan, one must know all the default rights NewWare starts a network with, and then an administrator takes it from there. At the end I am going to elaborate on how the directory tree structure of a network greatly affects how rights are implemented. Also, there are some other security features in NetWare, which can play a supporting role to the administrator so she/he can end up with a secure and yet very functional network.

STUDENT SELECTION SOFTWARE

This project represents the creation of a software program to assist in the selection of students going from primary schools (grade school) into high schools in Kenya. Students in Kenya are required to take a national standardized exam after completing grade school; they are then chosen by merit to attend a high school of their choice. Presently the selection is done manually and is tedious and time consuming. This project will develop a software program to select students by merit into three categories of schools namely, National, Provincial and District schools, in that order. The software program will then select students using what is called the ‘Quota System,’ whereby students from the rural districts are given a chance to attend National Schools even if they did not perform well academically. This policy reflects the belief that such students are at a disadvantage in terms of resources as compared to students from the urban areas. The project is created on a two-level architecture: The back end is the database and the front end is a java base interface. The database will hold the information of all students and the interface will be the logic. The logic will determine which student should be selected where and by what category. I will use sample data (from Kenya) to test whether the project works. Assuming a positive outcome, I will expand the program to handle the selection of students for the whole country.
in person), etc. We hear stories about people having their identity “stolen”, their credit destroyed, their information “hacked” into and so on. This project describes one aspect of security that people can learn about - and hopefully implement - to do something to prevent their information from getting into unauthorized hands. My emphasis will be the components of a “Firewall” feature. How does it restrict access from outside the network, how does it restrict unauthorized access from inside the network, and how do you give clients limited access to external hosts (proxy servers)? Ultimately, how does one protect their computer system against hacking?

122  HUNTINGTON BALLROOM  3:00-4:30  BOARD 10

JAMES MURPHY (BILJANA JOHN), DEPARTMENT OF COMPUTER SCIENCE, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

VETERANS REFURBISHING COMPUTERS

In the fast paced world of cyber technology, the sky is the limit on what you do and can accomplish. Yet there are people who use the excuse “I can’t afford to get online: or “I can’t afford a computer.” The shame of it all is that many companies who are either downsizing or upgrading their equipment decide to throw out their old equipment or put it in a warehouse to sit and collect dust - only to be thrown out at a later time. Along with George Newcomb, we surveyed many companies in the Boston area and found that they would be willing to hand over old computer equipment to a non-profit organization to have it refurbished and given away where the need arises, at no cost to the requestor. Beyond this we have done a large amount of research into motherboard and daughter-board repair that can extend the life of the computer components. To date we have given away over three hundred refurbished computers. The farthest recipient was a Catholic priest who went to Nigeria - this was six years ago and the computer is still running. Our group is made up of twenty people: two are in wheel chairs, fourteen of us are on disability, and yet none of use really wants anything for this. We believe in what we do and why we do it.

123  HUNTINGTON BALLROOM  3:00-4:30  BOARD 12

ELMUTAZ OSMAN (BILJANA JOHN), DEPARTMENT OF COMPUTER SCIENCE, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

PROTECTING THE MOST VALUABLE RESOURCE A COMPANY HAS—ITS: INFORMATION

Information is power! How do you guard this information? This project describes some of the techniques from the field of SECURITY, and features that both Novell and Microsoft offer to keep the information on a network safe, and accessible only by the appropriate trustees. Anti-hacking techniques, encryption, firewalls, proxy servers, digital certificates are some of the items to be introduced in the complete project. With regard to trouble shooting, in addition to hardware problems, yje project focuses on problems related to software issues such as programs that lock-up, printers that suddenly won’t print, operating systems that won’t boot, and several other commonly encountered dilemmas. As difficult as it may be to accept, there’s no magic solution that can tell you exactly what’s causing the problem when a piece of software doesn’t work right. Even utilities that claim to solve system software problems are only partially successful, and sometimes they introduce new incompatibilities of their own. This project will show why software troubleshooting is so tough- and often-such a frustratingly inexact science.

CRIMINOLOGY

124  HUNTINGTON BALLROOM  1:30-3:00  BOARD 80

CHRISTINE BRIGHAM, KRISTOPHER M. KVENVOLD, BRAD NILES-JOYAL, LORELEI B. SHIELDS, KRISTY M WEBSTER (SHEILA MURPHY), DEPARTMENT OF PSYCHOLOGY, MOUNT WACHUSETT COMMUNITY COLLEGE, GARDNER, MA 01440

HOW THE WAR AGAINST TERRORISM IMPACTS CIVIL LIBERTIES

When Congress passed the USA Patriot Act, parts I and II, in response to the terror attacks of September 11, 2001, and in response to the threat of future terror attacks, many Americans were unaware of how their civil liberties would be affected. Several government procedures such as the airline prescreening and profiling system, homeland security technology, including biometrics and nanotechnology, and the deportation of immigrants from the United States have raised concern for citizens and non-citizens alike. The legality and effectiveness, as well as the future of these procedures, are investigated in this research project. This presentation investigates the detention of adults and children with suspected ties to terrorism at Guantanamo Bay in Cuba. An in depth examination of the Patriot Act, parts I and II, is also the focus of this presentation. The information for this presentation has been obtained from various sources including publications from civil liberties groups and government agencies, news articles and scholarly journals. This data has been studied and analyzed to illuminate the impact of the war against terrorism on civil liberties.
CYBERCRIME
What is cybercrime? A simple yet working definition of cybercrime reads as follows: “unlawful acts wherein the computer is either a tool or a target or both.” This project will investigate identity theft, fraud, cyber-stalking, unsolicited e-mail (spam), and piracy. While overall crime in the United States has declined over the past decade, cybercrime and its resultant damages are on the rise. Cybercrime costs taxpayers an estimated $1.6 trillion dollars a year. This research was conducted to bring about an awareness and understanding of this innovative and obscure enterprise. This project approaches the topic by studying, researching, and analyzing data from Federal and State agencies as well as independent research sources. The rapid growth of the internet, infinite numbers of unsuspecting users and technological innovations are promoting advances in virtually every aspect of society. Many advances represent positive change in society, but unfortunately many do not. Low cost, ease of use, and anonymity all make the internet an attractive medium for illegal activity. Despite the growth of cybercrime, there is relatively little increase in public awareness. This project attempts to highlight this new form of criminal activity, and to educate the public about the threat it poses to individual privacy.

THE VICTIMS’ RIGHT MOVEMENT
Victims’ rights, a core aspect of the criminal justice system once forgotten, is being revived and is effectively transforming society’s idea of justice. In its beginning stages, the Criminal Justice System was formed with the intent of making restitution to its victims. Over the decades, punishing its criminals and paying debts to society were the focus of justice. The United States is now returning to its roots after a tumultuous journey of institutional neglect of victims’ rights. This project will examine the history of the judicial system’s acceptance of victims’ rights in both federal and state court systems with an emphasis on Massachusetts’ Victims’ Bill of Rights. Secondly, this project will examine the importance and impact of victims’ rights for domestically abused women and sexually assaulted adults. In addition the history, theory, method and effectiveness of Restorative Justice, an increasingly popular movement to bring accountability to the offender and justice to the victims and communities that have been victimized will be examined. Through interviews and research of secondary sources and internet sources this project will shed light on the dramatic change in the justice system’s perception and handling of crime as a result of the victims’ right movement.

THE EFFECT OF LEGAL RECOGNITION LIMITATIONS FOR PROPERTY RIGHTS AND DIFFICULTIES IN STARTING A BUSINESS IN PERU ON ECONOMIC DEVELOPMENT.
This paper studies the problems with gaining legal recognition of property rights for housing and the bureaucratic hindrances in starting a new business in Peru as compared to the U.S. It takes a look at the steps necessary to secure formal title of one’s housing in these separate countries and the differences in experiences therein. Also, it looks at the process of formally starting and registering a new business with the government and how the difficulty in both of these tasks can keep a country from growing economically. Successful economic growth does not occur only because of free trade agreements (or lack thereof) between nations; it occurs in large part because citizens have legal recognition of their property and are able to leverage that right to greater economic success. Sources of data will come from books about the informal sector in Peru, economic development, real estate and property rights in America, small business growth in America and its causes.

ADAPTING TO CHANGE: INDUSTRIAL RESPONSES OF CALIFORNIA VITICULTURISTS DURING PROHIBITION
My thesis explores how California winemakers adapted to survive Prohibition’s “Noble Experiment.” Implemented in January 1920, the Eighteenth Amendment, or Prohibition, intended to rid the United States of the evils of alcohol, including the alcohol-producing industries.
Poster Session

Using written histories, journal and newspaper articles from the period, agricultural reports, and conversations with workers at family-run wineries that survived Prohibition, this paper documents how winemakers survived. Winemakers had a number of options when faced with Prohibition. Firms could sell fresh grapes, replace vineyards with orchards, apply for licenses to make sacramental or medicinal wine, move production to a different location unaffected by Prohibition, or sell the business. A proviso in the Volstead Act, which executed the Prohibition amendment, allowed heads of households to make 200 gallons of wine for personal use. This stipulation led to increased planting in California, but changing consumer demands for certain varietals during Prohibition affected the industry years after the repeal of Prohibition in 1933. At the end of Prohibition, firms faced an excess supply of grapes and vineyards full of inferior wine grapes, so the initial decisions made by firms to survive Prohibition hurt many firms after Repeal. The experience of the survivors shows the resiliency of the industry to an extreme change in the business environment and serves as an example of how firms adapt to stress.

129 HUNTINGTON BALLROOM 10:00-11:30 BOARD 25

LAURA MUKANIA (JAMES CLARK), DEPARTMENT OF MARKETING, SALEM STATE COLLEGE, SALEM, MA 01970

AFRICAN IMMIGRANTS AND THE AMERICAN ECONOMY

Immigration typically has a huge impact on the economy of a welcoming country. In the United States, many Americans believe that the US will be better off without immigrants, whom they regard as burdens to the economy. My research, using statistics from the immigration and census bureaus and current articles in The Wall Street Journal, suggests that immigrants, in fact, also bring substantial benefits of every kind to American society: social-cultural-intellectual as well as economic. My focus is exclusively upon immigrants from the African continent, a choice prompted in part by my own experiences as an immigrant from the Democratic Republic of the Congo but also because Africans are the one group of immigrants that is least studied.

EDUCATION

130 HUNTINGTON BALLROOM 1:30-3:00 BOARD 77

JAMES BLAIR II (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA

REDEFINING EDUCATION AND NATURAL EXPERIENCE

Nature is a familiar place to children; a place for discovery, mystery, exploration and a place where their imaginations play uninhibited. Extensive research has found that within a natural setting children are notably engaged in more creative play than in a man-made setting. The biophila hypothesis asserts the existence of a biologically based human need to affiliate with life and lifelike processes (Wilson 1984). Children need to rebuild a relationship with nature, which inescapably influences their emotional, aesthetic and cognitive development. Implementing this hypothesis as a tool to advocate for redesigning our traditional curriculum and schoolyards, to replicate and include nature, as a vital role in nurturing positive childhood development is the ultimate goal of this study. This study will be based upon observations in classrooms while two lessons are taught, one in a traditional classroom setting and one in a natural environment. To supplement this research, interviews of children will be conducted along with drawings to completely envision their ideas of nature and its role in their lives. This study will hopefully parallel prior research findings.

131 HUNTINGTON BALLROOM 1:30-3:00 BOARD 75

ANTONIO GUIMARAES (GREG SETHARES), DEPARTMENT OF MATHEMATICS & STATISTICS, BRISTOL COMMUNITY COLLEGE, FALL RIVER, MA

THE GEOMETRY COMPANION PROJECT

This project seeks to produce The Geometry Companion, a Braille reference booklet for blind students taking geometry at the high school level. The ultimate goal is to produce and market this booklet so that more blind students will study this subject with more confidence. The material in this booklet will include definitions, formulas, illustrations, notation and other specific geometry information included in the Nemeth Braille Code for Mathematics and Science Notation. The Geometry Companion will serve as an aid for blind students taking geometry, giving them quick access to formulas, postulates, definitions, as well as the Braille code for mathematics right at their finger tips. Students and teachers will benefit greatly by having immediate access to diagrams which illustrate such geometric concepts as alternate interior angles, the perimeter of a square, the properties of a parallelogram and other such topics. The Geometry Companion will not be another text book, but will be used in conjunction with a text. Its contents will be selected from one or more geometry texts. The presentation will include some print materials to be included in the Braille version, as well as some Braille copy to be included in the booklet.
THE NEGATIVE EFFECTS OF THE ELECTRONIC MEDIA ON THE 21ST CENTURY STUDENT

In a society oversaturated and inundated with electronic stimulation, where the push of a button on the remote control, or a left click on the mouse can get you the answer to almost any question that you have, it’s no wonder that student attention spans are declining and motivation seems to have found a new low. Students of the Nintendo generation are constantly faced with electronic distractions that children of previous generations did not have to contend with. Through extensive research, I hope to show that the power, allure, and simplicity of three major electronic media areas - TV, internet, video games - are causing students to plug-in and tune out in alarming numbers. More precisely, the paper will examine the detrimental effects that the electronic media can have on student motivation and production.

ASSESSING THE IMPACT OF THE MASSACHUSETTS COMPREHENSIVE ASSESSMENT SYSTEM (MCAS) EXAMINATION

The intent of this project is to explore the effects of the math portion of the MCAS test on both students and teachers in the Massachusetts public schools. Many changes were launched by the passage of the Education Reform Act in 1993, including the creation of statewide curriculum frameworks, the introduction of the Everyday Math series as a practice tool, and the formation of the MCAS assessment. Many opponents of the MCAS exam initially argued that teachers were being forced to “teach towards the test,” thus eliminating the creative aspect of teaching. Since schools have now had years to accommodate to the new requirements, our project aims to gain a thorough understanding of the complications and improvements since the implementation of this high-stakes exam, as well as the distinct approaches educators are taking to overcome such obstacles. In order to gain evidence and documentation, we combine classroom observations and interviews with teachers from different school systems. The interview questions are similar for each teacher, in order to obtain comparable results. Our goal is to evaluate the current outcomes of the alterations within the classroom and to assess the impact on the teaching styles, as well as on student learning. Our analysis will help make third parties aware of the various effects, both positive and negative, since the education system was revamped over ten years ago.

MASSACHUSETTS TEACHERS TEST

The Massachusetts Teachers Test affects thousands of teacher candidates because it is necessary to become certified. The MTEL is a controversial test which may not be the most ideal way to evaluate a candidates teaching ability. The MTEL tests were brought to Massachusetts by the National Evaluation Systems, Inc. The company was sued by a group of students in Alabama for discrimination and other charges and has been questioned regarding the correlation between teacher candidates’ scores and their teaching ability. This study was conducted to determine the problems with the MTEL, the view of supporters and creators of the test, and teacher candidates’ views on the test. The study involved extensive research, surveys of teacher candidates and interviews with MTEL experts/critics/supporters.

EXPLORING THE AUDIO SPECTRUM ANALYZER

The audio spectrum analyzer (ASA) is an electronic device that translates sound into a series of visually charts. Since its invention, recording studios have used ASAs in conjunction with graphic equalizers (a device that allows amplification or reduction of fixed frequency ranges in an audio system) as the standard to interpret and fine tune recordings. Despite their long history in the recording studio, it has only been recently that ASAs have started to appear in consumer products. ASAs are now so commonplace that they can now be seen anywhere from car stereos to personal MP3 players, yet knowledge of the relatively simple technology behind how an ASA works is, as of yet, nowhere near as widespread. The purpose of this project is to educate the public on how an ASA works by documenting the construction of a typical ASA assembled from consumer-accessible parts in such a way that an average person will be able to understand its construction and functionality.
ENGLISH

136  HUNTINGTON BALLROOM  10:00-11:30  BOARD 6

AMY BOBROWSKI (DORIS SCHMIDT), DEPARTMENT OF ENGLISH, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

"MY POINT: A GUIDE FOR STUDENT NEWSPAPERS"

Collegiate newspapers have a staff that changes almost every year. Training takes much time and effort. Not all staff members are experienced in media communication. Although there are many full-length textbooks that explain the necessary steps of publishing a student newspaper, there are few general guides that explain the most important factors. "My Point, A Guide for Student Newspapers," was created. The sections of the 19-page guide discuss how to write and structure each type of newspaper article (features, news, sports, etc.), photography standards and effective layout. Each section contains at least one example newspaper article, exemplifying the guidelines in practice. Student newspapers were collected from public state colleges (much like Fitchburg State College). These newspapers were analyzed to discover their areas of strength and weakness. The guide will be distributed to the Fitchburg State College newspaper, journalism classes, and to collegiate newspapers that have allowed their publication to be studied. Newspaper staffs will have to spend less time training individuals and will have an easy-to-read reference guide to answer their style questions.

137  HUNTINGTON BALLROOM  10:00-11:30  BOARD 1

MOISE BOURDEAU (LUKE SALISBURY), DEPARTMENT OF ENGLISH, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

ETHICAL AND MORAL DILEMMA THAT ARISE IN STEM CELL RESEARCH

In the fight to find a cure to some degenerative diseases, human stem cells have provided a great hope and created exciting opportunities. The Embryonic Stem Cell research (ESC) uses cells from early embryos because they have the capacity to develop into any organ of the body. Thus in theory, by injecting these pluripotent cells into any damaged or diseased tissue, they might be able to bring it back to normal. For instance, stem cell therapy could help fight or even cure diseases like Parkinson’s disease, myocardial infarction, hepatitis, diabetes, and other conditions. However, since an embryo is considered as an early stage of life, many people believe that this research should not be done because it destroys human beings. From this dilemma emerge many questions - many ethical problems that scientists still can’t resolve. Our results will evaluate the moral dilemmas as well as the benefits that could result from this research.

138  HUNTINGTON BALLROOM  10:00-11:30  BOARD 13

JENNIFER KOWOLENKO (REGINA FLYNN), DEPARTMENT OF ENGLISH, SALEM STATE COLLEGE, SALEM, MA 01970

SEEING THE PHOTOGRAPH: IMAGES OF YOUTH

Photographers take pictures for a reason. When I look at a photograph, I wonder where it came from. I want to know why a scene or an object is important, why was it worth photographing. In this project combining image and text, I use my own photographs to explore the meaning of the photograph to the photographer. Rather than images accenting text, text will accent image. The ten black-and-white images, shot using a Canon EOS Rebel Camera, an 80-100mm lens, and a 60-200mm lens, explore and perhaps define the concept of youth. All are matted and displayed in gallery form, with an accompanying narrative text. While the project is similar to photojournalism, its ultimate goal is to enable the engaged viewer to understand the photographer’s thought processes and to realize why a photo is worthy of viewing.

139  HUNTINGTON BALLROOM  10:00-11:30  BOARD 11

JESSICA ULMER (GLEN BREWSTER), DEPARTMENT OF ENGLISH, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086

BLOOD AND SEX: THE CONTROL OF CHARACTERS IN DRACULA

In the novel “Dracula,” Bram Stoker employs many blood and sexual references. He uses graphic imagery and dialogues in the letters of the characters to frame the gruesome tale of death, sexuality, and control. This paper uses the article “Transcending the Virgin/Whore Dichotomy: Telling Mina’s Story in Bram Stoker’s ‘Dracula’” to show how both Mina and Lucy are portrayed as female stereotypes. I review other articles that connect the novel to late-twentieth-century society and point out how many of the scenes involving sexual behavior and witchcraft, very apparent to the readers of today, went virtually unnoticed by contemporary readers. My paper also highlights the erotic plot which went virtually unnoticed by the early readers. The graphic images depicted in the novel “Dracula” create a powerfully moving book in which blood and sex are used as aspects of control, a complex which stems from ancient Pagan rituals in which blood and sex were intertwined in ritual settings.
ENGLISH LITERATURE

140  HUNTINGTON BALLROOM  10:00-11:30  BOARD 8

JENNIFER BROWN (KIM HICKS), DEPARTMENT OF ENGLISH, HOLYOKE COMMUNITY COLLEGE, HOLYOKE, MA 01040

SHIELDMAIDENS AND ELF QUEENS: REVEALING GYNEPHOBIA IN THE EPIC ADVENTURE THE LORD OF THE RINGS

J. R. R. Tolkien masterfully wove his personal, theological, and professional ideologies into the heroic epic The Lord of The Rings. Like one of Shelob's webs, the epic's mythology is so intricately woven that by the time a reader becomes fully cognizant of its textural beauty the entrapment is already complete. Yet in the 21st century one thread may unravel the very fabric of Middle Earth's tapestry: the rigid stereotypical gender boundaries that bind Tolkien's female characters. Many Tolkien devotees would argue that the preceding opinion is feminist propaganda, and that the characters in The Lord of The Rings could not have been presented in any other fashion. Conversely, feminists would assert that Tolkien was unequivocally gynephobic, and that Peter Jackson's screenplay adaptation demonstrated that a more pro-feminine mythology could have been realized. In the spirit of raising awareness rather than passing judgment, “Shieldmaids and Elf Queens” will examine Tolkien's anti-feminist, patriarchal world, demonstrate that his gynephobia manifested itself in the Middle Earth epic, and elucidate whether or not the cycle of gynephobia has been perpetuated by Peter Jackson's The Lord of The Rings movie trilogy. This research will assert that gender analysis is central to a contemporary interpretation of an epic so deeply rooted in ancient myth, and that the recent surge in global Middle Earth mania has provided fertile ground on which to confront gender issues in The Lord of The Rings.

141  HUNTINGTON BALLROOM  10:00-11:30  BOARD 4

KAREN GOSCIMINSKI, RANDY D. ALLAIN, REGINA M. LYNCH, SONDRA MORIN, KRISTIN PURDY (THERESE PASQUALE), DEPARTMENT OF COMPARATIVE LITERATURE, UMASS AMHERST, AMHERST, MA 01003

SHORT CUTS: UNDERGRADUATE SHORT-FICTION JOURNAL

Short Cuts is an undergraduate short-fiction journal that has committed itself to injecting a new dimension of artistry into the UMass community. Short Cuts prides itself on expanding all aspects of literary publication beyond the humanities departments at UMass in order to embrace and reflect the diversity of the campus community. The journal provides a creative outlet for students who may not have the opportunity to showcase or share their literary talents within their particular majors. Every year, Short Cuts publishes a diverse array of voices. The staff of Short Cuts is also a microcosm of the amazing array of talents that the UMass campus offers. Students from departments such as biology, political science, history, sociology, and computer science have the opportunity to contribute to the enhancement of the UMass literary community by serving on our staff. By dipping into the vast pool of talent that the entire campus has to offer, Short Cuts has become a bastion of diversity, an extraordinary product of the dovetailing of our campus population's many gifts and flairs. A healthy sign of any good publication is progress, and over the past five years, Short Cuts has done nothing but improve, grow, and flourish. The number of submissions received increases every year, and demand for the journal is always beyond expectations. As a result, the Short Cuts staff decided to significantly increase the number of journals produced this year.

142  HUNTINGTON BALLROOM  10:00-11:30  BOARD 2

ANNE-MARIE PASSANISI (RICHARD ELIA), DEPARTMENT OF ENGLISH, SALEM STATE COLLEGE, SALEM , MA 01970

VIRGINIA WOOLF: THE ARTIST AND HER FEMALE INFLUENCES: A MULTIMEDIA WEB SITE

Virginia Woolf (1882-1941) was a major literary voice of the early twentieth century. Influenced by Homer and Shakespeare, she was interested in the female artist and the creative process. She also looked toward such major female writers for insight, as Jane Austen, Charlotte and Emily Bronte, and George Eliot. This project, which touches on the life and major works of Woolf, suggests how the above-mentioned writers influenced her writing, all via the medium on an online web site. The investigator's interpretation of Woolf's essays and the connection to other authors is presented in an accessible, easy-to-understand, online format, one combining graphic representation with written information. The larger goal is to reach a wide audience and present Woolf in a new light, with this site available in the future as a resource for students and faculty.

143  HUNTINGTON BALLROOM  10:00-11:30  BOARD 9

BRADEN PERKINS (PAT COLLELLA), DEPARTMENT OF ENGLISH, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

COMPARISON OF TWO WRITERS

This project analyzes the works of two great writers and attempts to understand the effect their environment had on each work. I will be reading Hemingway's A Movable Feast and Thoreau's Walden and visiting Walden Pond and the area around the pantheon where Hemingway wrote. In addition to photographs and visuals from the locations, I will give commentary on what direct influences came from the locations. I hope to find not only a better understanding of a writer's locales, but also the many ways in which location influences a piece of literature.
ENTOMOLOGY

144  HUNTINGTON BALLROOM  3:00-4:30  BOARD 37

ADRIENNE DESNOYERS (BENJAMIN NORMARK), DEPARTMENT OF ENTOMOLOGY, UMASS AMHERST, AMHERST, MA 01003

A PHYLOGENETIC STUDY OF CRYPTOCOCCUS FAGISUGA

Beech Scale (Cryptococcus fagisuga) is an environmental pest that in association with a fungal pathogen (Nectria coccinea) causes Beech bark disease. Beech bark disease results in the death of local Beech trees and is altering the species composition of the New England forests and as a result has become a major economic and environmental problem. This study provides molecular data that help determine the relationships between species of Cryptococcus and their placement within Coccoidea (scale insects) as well as the phylogeographic relatedness of C. fagisuga populations. A preliminary phylogenetic analysis using 18S ribosomal primers has shown that C. nudatus and C. fagisuga are related to a group of Eriococcidae including Eriococcus eucalypti, Madarococcus viridulus, Ascelis praemollis, Lachnodius sp. and Opisthoscelis mammularis. C. ulmi is related to a separate group of Eriococcidae including Cylindrococcus spiniferus, Eriococcus buxi, Stictococcus Sjostedti and Beesoniidae sp. Amplified Fragment Length Polymorphisms (AFLP's) were used to perform an intraspecific comparison among C. fagisuga from several North American and European populations. These results were analyzed in order to examine the relatedness within and between each population of C. fagisuga. The molecular data obtained in this study can be used to help determine the native region of C. fagisuga where natural enemies would be found. Further sampling of Old World populations is needed to accurately determine this region.

ENVIRONMENTAL STUDIES

145  HUNTINGTON BALLROOM  3:00-4:30  BOARD 46

HENRY ALLEN JR (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA

HOW PEOPLE ARE AFFECTED BY CHANGES IN THEIR ENVIRONMENT AT BHCC

The Physical environment that we can visualize, stimulates our emotional and mental inner processes. This study was conducted to see what effect, if any, recent changes at BHCC had on students and faculty. We did a multi-questioned survey using students and faculty as a random sample set. The answers to the survey will show how the environmental changes at BHCC were viewed. The results of the survey indicated how people look at these changes in the environment.

146  HUNTINGTON BALLROOM  3:00-4:30  BOARD 53

ROBIN ANDREW (ROBERT RAK), DEPARTMENT OF ENVIRONMENTAL STUDIES, BRISTOL COMMUNITY COLLEGE, FALL RIVER, MA 02720

PREPARATION OF A BATHYMETRIC MAP OF SOUTH WATUPPA POND IN FALL RIVER, MA USING GPS, DEPTH SOUNDING, AND ARCGIS

In the study of the dynamics of any body of water, an understanding of its bathymetry is essential. This project was conducted to prepare a map of the bottom contours of South Watuppa Pond in Fall River, MA for use by pond residents, visiting fisherman, and others wishing to enjoy or study the pond. The first phase of this project was the collection of the actual data from the pond. The data were collected from a boat over a period of 4 days using a global positioning system instrument and a depth sounder. Latitude, longitude and depth were collected at 729 points on the pond. The points were selected by crisscrossing the pond and locating depths of 3, 6, 9, 12, 15, 18, and 21 feet. In phase two of the project the data were applied to a map. Latitude and longitude data were converted from the degree-minute format to decimal degrees. This was accomplished by creating an EXCEL spreadsheet which performed the conversion. This data was then entered into ArcGIS, a geographic information system software package, and layers were created for points at each depth contour. These layers were then applied to GIS data provided by MassGIS for the Fall River area to create the final map of the pond. Contour lines were created by connecting the points of similar depth. This map will serve as a basis for further refinements as more data points are collected in the future.

147  HUNTINGTON BALLROOM  3:00-4:30  BOARD 48

DINEEN CASILLI (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA

IMPACT OF ADVANCED TECHNOLOGICAL ENVIRONMENT

In the past decade, the technology revolution has sparked substantial growth in terms of our technological capabilities. As individuals work harder to keep up with these continuing advancements, unintended consequences are impinging on our lives. Specifically, the quality of our lives has begun to take a new shape, as technology increasingly demands more of our time. The purpose of this study is to determine
whether the average individual is significantly affected as a result of placing more of his/her energy into the technological arena. Furthermore, the data will indicate if such changes are in fact taking place within an individual's life. If so reported, the data will also indicate whether or not individuals are conscious of the changes taking place. Assessments will be made by both a quantitative and qualitative measurement survey. In addition, individual interviews will be conducted. Based on the findings, conclusions will be drawn about the technological impact on individuals as well as their awareness level. Ultimately, results will identify further areas of research in social change and the limits of technological usefulness.

ENVIRONMENTAL STUDIES

148       HUNTINGTON BALLROOM       3:00-4:30       BOARD 56

TING-JAN CHO (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA

VIRTUAL LIFE VS. REAL LIFE SOCIAL INTERACTION STUDY

With the help of high speed computer processing power, high detail graphics and broadband Internet, creation of, and participation in virtual worlds has become possible. Virtual worlds provide an online interactive system with its own economy, political, and social structures. Although these virtual worlds take the form of video games, participation might have an impact on real social life. This study attempts to identify common characteristics within the majority of one virtual world's participants, and to determine how the participation in virtual worlds affects these participants' social life. The study used an online survey posted through forums, an online newspaper, and online organization leaders to gather information about virtual world participants. Along with the survey, personal chat interviews were conducted to gain more in-depth information. Both the survey and interview results were analyzed, graphed, and interpreted allowing conclusions to be drawn about the social impact of virtual world participation. The final result indicated that participation in the virtual world has both positive and negative impact on participants. For people who are physically challenged, the virtual world gives them a positive influence both sociologically and psychologically. However, some of the participants exhibited addictive behavior toward virtual world activities which impeded their daily routine. It is concluded that the virtual world could be very beneficial under the right circumstances. At the same time, the virtual world could also create some serious addictions that detrimentally affect daily life.

149       HUNTINGTON BALLROOM       3:00-4:30       BOARD 54

MARIA FERREIRA (JAMES PELLETIER), DEPARTMENT OF CHEMISTRY, BRISTOL COMMUNITY COLLEGE, FALL RIVER, MA 02720

COOK POND: A VALUABLE, HISTORICAL, RECREATIONAL AND ECOLOGICAL RESOURCE FOR THE CITY OF FALL RIVER

Cook Pond has been a valuable historical, recreational, and ecological resource for the City of Fall River, including providing power for Fall River's first cotton mill. Unfortunately, various sources of pollution are impeding the community's ability to enjoy these resources. The purpose of this project is to expand past educational and clean-up efforts of Cook Pond with focus on the Portuguese community. Past educational efforts have focused primarily on education in English and have included the creation of a 22-page Cook Pond Care Guide with a community forum about the Pond. This author has created an initial Portuguese translation of the Cook Pond Care Guide, and will work with Bristol Community College's LusCentro and the Natural Science Department. The B.C.C. Massachusetts Community Water Watch organization will distribute copies of the translated Care Guide designed to increase participation among politicians and members of both the English and Portuguese-speaking communities. Correspondence with faculty at the University of the Azores is planned and will outline for them what has been done with the Cook Pond clean-up, and research the similarities of the Cook Pond problem with the lakes on the Islands of the Azores. A list of recommendations will be developed as to how Azorean students can become involved in the clean up of their lake. An international video-conference is planned as a communication vehicle for B.C.C. and Azorean students. A report describing the activity will be written which will serve as a model for future collaborations. Through these efforts a methodology for educating diverse communities about environmental issues will result in a better global environmental future.

150       HUNTINGTON BALLROOM       3:00-4:30       BOARD 55

LAUREN GOODMAN (JUDITH DAVIDOV), DEPARTMENT OF ENGLISH, UMASS AMHERST, AMHERST, MA 01003

EXPLORING OUR HOME AREAS: THE IMPACT OF PLACE ON PERSONAL IDENTITY

The relationship between human beings and natural places, especially those areas defined as “home” places, often has considerable impact on the formation of personal identity. My goal is to discover where we are in the world and how we experience places where we make our homes, using my own home place of Adams, Massachusetts as the focus for my project. By combining archival and literary research, historical inquiry, personal experience and information obtained through oral history interviews, I have attempted to discover place and people's senses of place in multiple ways. Interview participants were chosen based on their connection to the land and degree of participation in local land politics. They were identified by their attendance at public meetings and personal contacts in Adams. The sections of my thesis follow a path
from inner to outer exploration, with a primarily experiential inquiry into place. “Home” and “Town” discuss the importance of place in personal and community identity. “Glen” focuses on ecological activism and the controversy surrounding the development of the Greylock Glen, a 1,060 acre area of undeveloped land in Adams. “Mountain” explores the spiritual aspects of place and “Body” addresses the place is known through the body, thus bringing the narrative back to the most personal level of being. This experiential, in-depth approach into the way people interact with place and nurture relationships with the natural world allows us to further understand and explain the motivations behind ecological activism, how place becomes part of identity, and the importance having a sense of place has in the lives of all human beings.

**Poster Session**

**151**

**HUNTINGTON BALLROOM** 3:00-4:30  BOARD 45

**CATHERINE HARTUNIAN** (KATHLEEN ARCAIO), DEPARTMENT OF ANIMAL SCIENCES, UMASS AMHERST, AMHERST, MA 01003

**EFFECTS OF ESTROGENIC TOXINS ON VITELLOGENIN EXPRESSION IN MALE MEDAKA FISH**

The goal of this project is to develop an efficient, inexpensive protocol for assessing the presence of estrogenic pollutants in waterways. Exposure to estrogenic pollutants may be correlated with reproductive problems, including infertility, reduced sperm count, cryptorchidism and testicular cancer. Estrogens are routinely added to the environment through the daily use of pharmaceuticals, oral contraceptives, pesticides, and industrial and household chemicals. Water treatment plants do not always detect and filter out all these estrogenic compounds, causing them to remain in the waterways where animals and plants are exposed. Male fish exposed to the estrogenic pollutants respond by producing vitellogenin, a precursor egg-yolk protein, which is normally expressed only in female fish. In the present study male medaka (Oryzias latipes) were used because they are a small, hardy freshwater fish that survive in a wide range of temperatures. Livers of adult male medaka fish were excised and RNA was extracted using QiaGen’s RNeasy mini kit. Due to the small amount of starting tissue (<2ml/liver), established protocols for RNA extraction were insufficient and modifications had to be resolved to obtain a better yield of RNA. Levels of vitellogenin expressed in the RNA were measured using MLT’s Vitellogenin mRNA Assay kit. Fish will be exposed to solutions containing known concentrations of β-estradiol, estrone and 17β-estradiol. Delta-15N values, measured using mass spectrometry, will be compared to determine if there are differences between control and exposed fish.

**152**

**HUNTINGTON BALLROOM** 3:00-4:30  BOARD 44

**MAUREEN KELLY** (WILLIAM HAGAR), DEPARTMENT OF BIOLOGY, UMASS BOSTON, BOSTON, MA 02125

**THE FRACTIONATION OF DELTA13C AND DELTA15N IN SCALE AND MUSCLE TISSUE OF TWO LEPOMIS SUNFISHES**

In the past, stable isotope values in fish were mainly analyzed from dorsal muscle tissue, requiring the fish to be sacrificed. This study compared the values of delta13C and delta15N in the dorsal muscle tissue and the scale tissue of 24 sunfish. The fish were sampled in two ponds of differing pH in Southeastern Massachusetts. Bluegill (Lepomis macrochirus) and pumpkinseed (Lepomis gibbosus) sunfishes both showed a mean 2.5% enrichment in delta13C in scales as compared to muscle. Between pond analysis of bluegills delta13C mean values showed a nonsignificant (p<0.14) separation with 2.7% in Maquan Pond and 2.3% in Furnace Pond. Studies with other species suggest that 13C fractionation levels between scale and muscle tissue may be species specific but generally are about 3%. 15N however was not as consistently fractionated. Bluegills showed a mean enrichment of 0.9% in 15N of muscle over scales. Pumpkinseed showed a mean enrichment of 1.5%. Between pond analysis of delta15N mean values of bluegills showed a significant (p<0.007) difference with Maquan bluegills showing 1.4% and Furnace bluegills showing 0.6%. These results and other studies suggest that the fractionation of 15N in one species may vary in different ecosystems. The advantages of using scale tissue for analysis is that fish do not have to be sacrificed, rare and endangered species can be studied and decades-old archived scale samples can be analyzed.

**153**

**HUNTINGTON BALLROOM** 3:00-4:30  BOARD 49

**CORINNE MICHAUD** (JUDITH BURCHSTED), DEPARTMENT OF BIOLOGY, SALEM STATE COLLEGE, SALEM, MA 01970

**GENETICALLY MODIFIED FOODS IN THE MARKETPLACE: AN ANALYSIS OF RISKS AND BENEFITS**

Genetically modified (GM) crops in the world marketplace are under intense scrutiny. GM crops are continually being developed and cultivated, and harvests are being used as ingredients in everyday foods and personal care products. GM crops increase harvest yields, and reduce chemical use and production costs. Health benefits include increased nutritive value and increased agricultural surplus for poor countries. Benefits are tempered by environmental and health problems, including harm to native species and potential effects on long term human health. To determine which GM food interests and concerns to focus on in this report, an original survey was developed and administered to students at Salem State College in Spring 2003. Survey results showed that environmental and human health effects were the greatest concerns. Potential nutritional and novel benefits to human health were the greatest interests of the surveyed students. Based on the survey results, the topics of history, benefits, risks, and regulations of GM crops are presented in this report. The aim of this report is to provide scientific and unbiased information on the issues identified by the survey, in an effort to educate consumers and allow them to make informed decisions regarding food purchases and legislative action.
**ENVIRONMENTAL STUDIES**

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<td>Phytoremediation is the use of green plants and their associated rhizosphere microbiota to remove, degrade, or stabilize environmental contaminants. Current research in this area involves the clarification of heavy metal-plant-microbe interactions, including the distribution of contaminants in plant tissue. One major restriction to this research is the large amount of plant material required to measure contaminant concentration using conventional atomic absorption spectroscopy. Often, a series of whole plants must be collected and processed to obtain enough biomass for a precise analysis, limiting analyses to measurements of total concentrations in a plant as opposed to concentrations in plant root, stem, or leaf. This problem particularly affects the study of metal removal over long time periods. The degree to which plant sample size could be reduced in heavy metals phytoremediation was investigated using a new electrothermal atomic absorption spectrophotometry (ETAAS) method. Lemna minor (duckweed) from a cadmium-contaminated site on the Blackstone River in southeastern Massachusetts and from an EPA stock culture were grown in both clean and Cd-contaminated water. Using ETAAS, samples of a very small size, as small as one Lemna leaf, were found to provide an accurate measure of Cd concentration. The results suggest that the new method can provide a faster and less invasive method of monitoring plant metal concentrations in phytoremediation.</td>
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| 155    | HUNTINGTON BALLROOM | 3:00-4:30 | BOARD 50 |
| **JAMES PAICOPOLOS** (JAMES PELLETIER), DEPARTMENT OF CHEMISTRY, BRISTOL COMMUNITY COLLEGE, FALL RIVER, MA 02720 |
| MERCURY AWARENESS |
| Massachusetts has the second worst water quality in the United States. Two-thirds of our water is unusable due to human negligence which is extremely harmful to our health and to the environment. Mercury gets into our rivers, streams, lakes, ponds, and ocean waters through acid rain. The mercury affects fish making them unsafe to eat. It also makes the water unsafe to use for swimming and drinking. It is particularly harmful to children because it causes learning disabilities and serious health problems. We look to solve these problems by having a public awareness campaign. We will also be working with the community in curtailing this serious problem with events centered on Earth Day Week. Our strategy is to spread awareness by involving a series of educational experiences revolving around Earth Day. These include educational presentations in local schools, clean-up events, producing and distributing literature, and a community forum where experts will speak to the community members about water quality issues. It is anticipated that by doing this we will have a community that is fully aware of the serious problems that are affecting our local area. |

| 156    | HUNTINGTON BALLROOM | 3:00-4:30 | BOARD 51 |
| **ANA PALACIOS** (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA |
| ENVIROMEDIA PROJECT |
| The recent development of powerful multimedia hardware and software has set the stage for creative new explorations in cross discipline activities. Our group investigated the exciting new possibilities of merging science and art through a project we call “The Enviromedia Project”. In this project we collected data using a variety of scientific methods including online sources, observation, and ecological sampling. Upon data collection we joined in collaborative brainstorming to decide new media sensory displays of our data. Using digital sound and photography, along with graphic design software, we developed a series of multisensory data displays that present scientific results in creative “outside the box” forms. We have also created interactive data collection displays, where observers contribute to the data collection in a real-time “on-the-spot” experiment. This project shows how through the use of modern graphics and sound technology, we can merge science and art in a new multi-sensory, aesthetically pleasing and engaging form. |

| 157    | HUNTINGTON BALLROOM | 3:00-4:30 | BOARD 47 |
| **ANDREA PALPINI** (MICHAEL VORWERK), DEPARTMENT OF BIOLOGY, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086 |
| TEMPERATURE, A LIMITING FACTOR OF ATLANTIC SALMON LIFE STAGE HABITAT. |
| Each year, nearly one million Atlantic salmon fry are released from points along the Westfield River Watershed in western Massachusetts. However, recent runs had fewer than ten adults return for spawning. If the water temperature is greater than the tolerable range for salmon (3°C – 15°C), adults may not survive in the river to spawn. Also, the stocked fry may not be able to survive upon release. Atlantic salmon are endangered; therefore, the fry are released into the watershed in an attempt to restore the population. However, if the temperature of the water is not suitable for salmon to survive, the attempt to reestablish the population may be in vain. Potential habitats for Atlantic salmon at different life stages are presented at various points along the Westfield River during critical months in the late spring, summer, and early fall. Data were collected at 13 locations using 23 HOBO Temperature Loggers. The loggers have recorded data every 15
minutes or every hour for most of the sample season. We present our results as a series of maps illustrating regions of the river with suitable habitats. This allows managers to understand the dynamics of habitat change with respect to time. During the summer months, much of the available habitat is too warm to support salmon.

**FAMILY STUDIES**

158  HUNTINGTON BALLROOM  10:00-11:30  BOARD 30

SEAN TIERNEY (SUSAN MARTELLI), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

COUNTRY AND CULTURE: A LOOK AT THE IMPACT OF POP CULTURE ON AMERICA

This poster presentation will look at the effect of pop culture on America. It will include visuals comparing and contrasting images from other cultures with those of America. The culture of Spain, for example, is based on family and tradition. In Don Mclean’s classic hit song “American Pie” he describes his generation as “Lost in Space”. The traditional ties we recognize in our country are not those of a shared history and heritage but emanate from popular entertainment. National holidays such as the 4th of July and Christmas have strong undertones of consumerism. Pop culture has come to overshadow other ideals in America. Perhaps because America is the great melting pot, comprising many cultures that have immigrated here, there is difficulty in sustaining and articulating a sacred heritage. The question then becomes not only what is the impact of pop culture on the American consciousness, but also what is the result of the fusion of pop culture with American culture and national identity.

**GEOLOGY**

159  HUNTINGTON BALLROOM  3:00-4:30  BOARD 58

TAMEE ALBRECHT (LAURIE BROWN), DEPARTMENT OF GEOLOGICAL SCIENCE, UMASS AMHERST, AMHERST, MA 01003

MAGNETIC SIGNATURE OF THE PENNSYLVANIA PIEDMONT: ORIGIN AND RELATIONSHIP TO DEFORMATION AND METAMORPHIC EVENTS

The Appalachian Piedmont in southeastern Pennsylvania exhibits a linear, but wavy contour pattern on aeromagnetic maps. Strong positive anomalies occur over some areas of multiply deformed schists of the Octoraro Formation. Aeromagnetic measurements show variation over 1200 nT from the average value of the magnetic field. In the 1x3 km field area, a dramatic range (10-4-10-1) of magnetic susceptibilities was recorded. Irregular patterns of magnetic susceptibility cut across lithologic and structural fabrics, locally with boundaries at decimeter- scale. However, on a regional scale, magnetic susceptibility roughly correlates with the geologic unit; the Tucquan Creek member has high susceptibility, but the Stewart’s Run member is low. Rock magnetic studies show low natural remanent magnetism intensities; 90% of cores are under 0.2 A/m, suggesting the anomalies are produced primarily by induced magnetization. In hand sample, magnetite grains are as large as 1 cm in diameter. Thin section analysis reveals two main oxide phases, magnetite and ilmenite. Magnetite occurs as homogeneous, subhedral grains. Because the S2 fabric bends around the grains, and some have beards of quartz or chlorite, magnetite is a syn-S2 growth. Susceptibility shows a direct relation to the amount of magnetite in the rock. Ilmenite occurs as laths or “wormy” grains with rutile and/or hematite exsolution. Most ilmenite is flattened and folded with the S2 fabric as a pre-S2 phase. The oxide assemblage, and therefore the magnetic susceptibility, varies throughout the area due to the movement of hydrothermal fluids, broadly correlating with, but not restricted to the Tucquan Creek member.

160  HUNTINGTON BALLROOM  3:00-4:30  BOARD 57

KATHLEEN STAFFIER (DONALD WISE), DEPARTMENT OF GEOLOGICAL SCIENCE, UMASS AMHERST, AMHERST, MA 01003

TIMING AND P-T CONDITIONS OF DEFORMATIONAL AND METAMORPHIC EVENTS IN ROCKS ON THE FLOOR OF THE SUSQUEHANNA RIVER, HOLWOOD, PA

Paleozoic rocks of SE PA preserve deformational fabrics and garnet-grade assemblages. Garnet grade schists of the Paleozoic Octoraro formation are 80-90% exposed in a 3 km2 exposure on the lower Susquehanna River in Pennsylvania. Stratigraphy progresses from greenstone volcanics through garnet and magnetite bearing schists with quartz layers along foliation, to sulfidic schists to quartz and feldspathic schists. Garnets up to 5 mm in diameter locally form clots up to 5 cm, possibly as a result of hydrothermal alteration of aluminum-rich volcanic clasts associated with the greenstone volcanics. Inclusion trails in plagioclase porphyroblasts preserve at least three distinct deformational fabrics with the later two preserved in the matrix. Ilmenite and tourmaline inclusions within albite porphyroblasts define an early layering (S1) which is crenulated by two later foliations. Quartz stringers, residual from metamorphic reactions, define S1 in outcrop, and regional relationships suggest correlation of this event with the Taconian (~ 450 Ma) orogeny. The dominant schistosity (S2), possibly Taconian also, is subparallel to S1 and trends generally east-west. Superimposed is a widespread, steeply southeast-dipping spaced cleavage (S3) of
probable Alleghanian age (~325-265 Ma) with local F3 folds. This event reactivated and rotated S2 creating space for deposition of bull quartz veins by hydrothermal fluids, suggesting cooling of the rocks from ductile to brittle conditions during deformation. Microprobe analyses are underway to constrain the P-T conditions and absolute timing of each deformational event. Hopefully these rocks can provide a high-resolution P-T-D-t path for correlation with exposures around the region.

JOURNALISM

161 HUNTINGTON BALLROOM 10:00-11:30 BOARD 14
CARA BEDICK (ALEXANDRINA DESCHAMPS), DEPARTMENT OF WOMEN'S STUDIES, UMASS AMHERST, AMHERST, MA 01003

[RE]VISIONING AN ALTERNATIVE YOUNG WOMEN'S MAGAZINE

The majority of magazines that exist for adolescent females promote questionable ideas and approach readers as passive consumers. These magazines are commonly categorized in studies as merely the younger version of the more general genre of women's magazines. It is important to research them as a separate group because of the impact they have on the learning of gender roles and formation of identity in young women. In an effort to create an alternative magazine that could motivate adolescent female readers as active participants in the reading of magazines, this study was conducted to determine whether it was possible to combine feminist ideas with the commercial design of popular young women's magazines. Multiple qualitative research methods were used in this study including interviewing, questionnaires, analyses, and participatory research. Adolescent women's magazines were studied from an academic perspective, a reader's perspective, an editor's perspective, and a marketing perspective. This extensive research enabled the production of a feasible “dummy” for an adolescent women's magazine that incorporates feminist ideologies and theories. A “dummy” is a book made up of color Xeroxes of edit pages and advertisements that gives a preview of the finished product before it goes to print. This dummy aims to address women as active readers, which is one way of incorporating an empowering feminist ideology into the layout of a young women's magazine.

LANDSCAPE ARCHITECTURE

162 HUNTINGTON BALLROOM 10:00-11:30 BOARD 34
PETER CADIEUX (JUDITH DAVIDOV), DEPARTMENT OF ENGLISH, UMASS AMHERST, AMHERST, MA 01003

A REGENERATIVE COMMUNITY FOR THE NORTHEAST

The current living system in the United States, and most of the rest of the world, is unsustainable because it relies on a one way flow of resources; input natural resources such as food or fossil fuels, output waste such as air pollution or solid wastes. This project was completed to show that a regenerative living system, a system that is cyclical and renewable rather than unidirectional, could be designed to operate sustainably in the Northeastern region of the United States. Research about regenerative and sustainable design along with renewable energy sources, solar heating techniques, and permaculture led to the design of a regenerative community that is particularly suited to the climatic variations of the Northeast. The result is a design for a community where people could live in sync with the natural cycles of the environment. It is situated on a hypothetical twelve acre site that is meant to be a general representation of a New England landscape. Energy is produced entirely from renewable resources such as windmills situated on hilltops and solar panels located on building tops. Heating and cooling is controlled by careful design to control exposure to sunlight and ventilation. Food is grown in a permaculture system on the site, utilizing vertical space and interdependent relationships among plant species. Wastes are composted or processed by wetland bacteria, fish, and plants. Regenerative communities are a feasible system for living more in harmony with natural processes, even in colder climates like the northeastern United States.

LINGUISTICS

163 HUNTINGTON BALLROOM 10:00-11:30 BOARD 10
PETER HOTCHKISS (MARGARET SPEAS), DEPARTMENT OF LINGUISTICS, UMASS AMHERST, AMHERST, MA 01003

EVIDENTIALITY IN TIBETAN

When stating a sentence in English, the speaker has the ability to either express how s/he knows the information conveyed, or to leave it understood. This is shown in the following sentences: (1) I've done it before, and know that it is hard to ride that bull. (2) I've seen a lot of people do it before, and can attest that it is hard to ride that bull. (3) That bull must be hard to ride – just look at how high it bucks. (4) I have
heard from a lot of people that it is hard to ride that bull. There are languages where these distinctions cannot be implicit. Such languages require a prefix or suffix on the verb that expresses the source or type of evidence the speaker has for the statement. Tibetan is one of these languages. It uses evidential morphemes attached to the verb at the end of a sentence. This research explores the use of evidentials in Tibetan and rules that govern their use. The goal of all research in Linguistics is to discover how human language is related to human thought. Seeing how Tibetan expresses thoughts and beliefs in a different way than English is yet one more way to investigate this relation.

LITERATURE

164  HUNTINGTON BALLROOM  10:00-11:30  BOARD 5

MARI BLACK (LUKE SAILSURY), DEPARTMENT OF ENGLISH, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

TWO LITERARY VIEWS OF 'THE OTHER'

Often in great literature, authors speak of “the Other” - those people that are different from ourselves in caste, class, nationality, lifestyle, race, or religion. The mysterious Other appears in countless different forms, and authors vary greatly in their methods for portraying it to their readers. This variation in presentation is a direct result of different authors attempting to answer a question that has puzzled mankind for centuries. How do we deal with the Other? This project examines that question as it manifests itself in the novels of two master storytellers, Chinua Achebe and Joseph Conrad. In each of their most famous novels - Achebe’s Things Fall Apart and Conrad’s Heart of Darkness - these two authors represent the Other in very different ways. Through individual and comparative analysis of these novels, as well as an examination of several related essays, this project works to gain insight into the nature of the two contrasting versions of the Other, identify the possible reasons for the difference between them, and determine which author’s view might be more useful in today’s world. In discovering how both Conrad and Achebe think of and represent the Other, it is hoped that a parallel can be drawn between these fictional creations and the challenge of dealing with the Other in real life.

165  HUNTINGTON BALLROOM  10:00-11:30  BOARD 12

VICTORIA HOWLAND (WILLIAM MOEBIUS), DEPARTMENT OF COMPARATIVE LITERATURE, UMASS AMHERST, AMHERST, MA 01003

LOVE AND NATURE IN MYTHOLOGY IN MUSIC

Stories and themes from classical mythology have appeared in many musical settings. Using written sources and performance experience, I will explore themes of love and nature within three vocal settings of mythological material. I plan to see how composers and poets have interpreted the myths of Orpheus, Pan, and the god of Love in three pieces by Maurice Greene, Claude Debussy, and Christoph Gluck. In addition to the written thesis, I have performed and recorded an accompanying vocal lecture recital. I have orally disclosed my findings during the recital, and thus the recording serves as an accompaniment to my paper. Using this thesis paper and recital I have presented my ideas through written detail and through example.

166  HUNTINGTON BALLROOM  10:00-11:30  BOARD 3

DENISE LIPPER (SUSAN MARTELLI), DEPARTMENT OF ENGLISH, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

“LE PETIT PRINCE”: ENTERTAINMENT AND ENLIGHTENMENT FOR CHILDREN AND ADULTS

This presentation demonstrates the ability of children's literature simultaneously to entertain the child and enlighten the adult. Using the English translation of Antoine de Saint-Exupery’s classic book “Le Petit Prince” as an exemplary and insightful example of children’s literature, the project displays the value to the child in the form of entertainment, imagery, and simple life lessons, and the merit to the adult as a work of political satire, an expose of human frailty, and an exposition of universal life issues. “The Little Prince” serves the simple appetites of the child for imagination and adventure, and the more understated tastes of the adult for biting wit and commentary on the human condition. Various vignettes from the book are scrutinized for their attraction to children; there are planets to explore, grownups to contend with, and losses to bear. For adults, the same vignettes speak about the hypnosis of conformity, isolation, death, imagination lost to maturity, and the uniqueness of each of us. “The Little Prince” is full of excitement and danger, fantasy and reality, foxes, talking roses, and sheep that fit into pants pockets. Children find the treasure of natural curiosity in these vignettes even as the adult wonders what happened to his or her own inquisitiveness. Adults write the books that children read, and Antoine de Saint-Exupery’s magnum opus is a testament to his connectedness with his own childlike brilliance. “The Little Prince” is imbued with ironies, subtleties, and irreverent concepts cleverly disguised as children’s literature. The delicious non-conformity of this tour de force delights the child, yet provides the adult with a good chuckle and a wise nod of recognition.
MARKETING

167 HUNTINGTON BALLROOM 10:00-11:30 BOARD 22

ANDREA AMARAL, JESSICA BARRON, DANIEL COHEN, CHRISTINE FLAHIVE, MICHAEL MARCOUX, BROOKE MAYNARD, AUGUSTA PRATT (NORA BARNES), DEPARTMENT OF MARKETING, UMASS DARTMOUTH, N. DARTMOUTH, MA 02747-2300

TOURISM COMMITTEE OF THE SOUTHCOST DEVELOPMENT PARTNERSHIP

The Tourism Committee of the Southcoast Development Partnership is looking to increase tourism in the Southcoast region of Massachusetts. This region includes communities from I-195 to the Cape Cod Canal. It is our job to research specific areas of interest and concern regarding the desirability of the Southcoast as a tourist destination. In addition to finding out whether people find the Southcoast as a desirable tourist destination, we are also investigating which factors they consider to be the most important when choosing a vacation destination. The method we used to conduct this research is telephone interviews of residents from Massachusetts (excluding Bristol County), Rhode Island, Connecticut, metropolitan New York and northeastern Pennsylvania. On average we have a response rate of 20%. Through this research we intend to give the Tourism Committee of the Southcoast Development Partnership a better understanding of tourists’ perception of the Southcoast. Our results will give them a better focus in targeting tourists.

168 HUNTINGTON BALLROOM 10:00-11:30 BOARD 21

LINDSEY ARRUDA, JEFF BELAND, DARA CHHIM, KERRY O’NEIL, THERESA SOUSA (NORA BARNES), DEPARTMENT OF MARKETING, UMASS DARTMOUTH, N. DARTMOUTH, MA 02747-2300

A CONSUMER OPINION STUDY OF NEW PRODUCT DEVELOPMENT

A local housewares manufacturer has developed a new type of chair cushion and needs to investigate the potential demand for it. This unique chair cushion is the first to provide consumers with both a non-skid surface and the ability to use both sides. Before this technological advancement, it was not possible to have grip and reversibility and maintain a competitive price. The primary issue to be studied is whether or not consumers see a perceived value in this new reversible grip style chair cushion as compared to competitive products. This study also examines issues such as the price consumers would be willing to pay and the likely places where they shop for housewares. The method used to conduct this research is intercepts at local malls. A statistically valid sample of two hundred and sixty-one women over the age of thirty will be surveyed at different times and on different days to ensure validity. The results of this study will be used by the housewares manufacturer to assist him in implementing an effective marketing strategy.

169 HUNTINGTON BALLROOM 10:00-11:30 BOARD 20

NICOLE LASHUA (LOU ZIVIC), DEPARTMENT OF MARKETING, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

NEW SOURCE FOR MUSIC

People have turned to the Internet as a method of obtaining music. The craze has stirred up much controversy both in the legal and social realms. The music industry believes that the sharing of music is against the copyright laws, yet people believe that it is their right to share music with others and music will be shared with or without the use of the Internet. Many articles have been written in order to convey the controversy and the legal issues that surround the issue, but this study takes a closer look at the company in the spotlight, Napster, and a new rival, i-Tunes. It continues on to examine how such services became available and the legal battles against Napster as well as individuals for using such methods of gathering music. Moreover, it answers the question of whether people are still using free download sites, the consequences of using such sites, and finally, whether Napster and i-Tunes have discovered a successful new business.

MATHEMATICS & STATISTICS

170 HUNTINGTON BALLROOM 3:00-4:30 BOARD 6

BRIAN KREJCA (JAMES GRAHAM-EAGLE), DEPARTMENT OF MATHEMATICS & STATISTICS, UMASS LOWELL, LOWELL, MA 01854

EXTINGUISHING COMBUSTION WAVES WITH A FIRE BREAK

A simple model for the propagation of an exothermic reaction is proposed in which the reactant ignites at a specified temperature. It has been shown elsewhere that the model allows for the propagation of a stable wave. In this paper the behavior of this wave as it encounters a break in the fuel is considered. In particular estimates are obtained for the size of the break required to extinguish the wave.
Stability of Pendant Liquid Drops

Equilibrium solutions play an important role in understanding the behavior of any mechanical system. For an equilibrium solution to be physically realizable, however, it must be stable. In this study, the stability of a pendant liquid drop hanging from the tip of a cone is investigated. Numerical evidence is presented showing that a drop which is stable when hanging from a flat surface can be unstable when suspended from a cone. A drop is stable if its potential energy is less than that of drops with slightly different shapes. To test whether the energy of a drop is a local minimum, the eigenvalues of the Hessian matrix of an approximate energy function are calculated. Positive eigenvalues indicate stability, whereas one or more negative eigenvalues indicate instability. The software package MATLAB is used to perform all calculations.

Mechanical Engineering

Analysis of a Heat Exchanger to Increase Supermileage Vehicle Engine Fuel

For my Commonwealth College culminating experience I have decided to research the potential use of a heat exchanger to improve the efficiency of the Mechanical and Industrial Engineering (MIE) Department's Super Mileage Vehicle. The Super Mileage Vehicle is a project in which a team of engineering students design, build, and test a car. This car is designed to carry one person and to get the best possible gas mileage. Past years came up with the idea that by using a heat exchanger to warm the intake air of the engine, you could increase the engine's efficiency. The goal of this project would be to fully investigate the use of a heat exchanger as a means of increasing the efficiency. The first part of the project was research and a theoretical analysis of the heat exchanger idea as a whole. I attempted to answer questions about the viability of the exchanger to increase the efficiency. Also, there was a theoretical aspect looking at if this heat exchanger could potentially hurt the fuel economy by choking the engine. Calculations using a computer simulation were made to determine the benefits to the overall gas mileage in a best case scenario. After studying the thermodynamics and fluid flow of the heat exchanger design parameters were selected. The second part of the project will be the practical design and fabrication of the actual heat exchanger. Using the design requirements created during the research phase, an exchanger that can be put into use will be built. Using purchased materials and the help of the MIE machinists I will build a working prototype of the heat exchanger. This prototype will be attached to the engine for the super mileage vehicle. The effectiveness of the device as a pure heat exchanger will be determined using temperature and pressure analysis. From this I will be able to determine what the average decrease in fuel consumption is and therefore determine the efficiency gain.

Design of a Flywheel for a Supermileage Vehicle

The super mileage vehicle competition is a yearly event held by the Society of Automotive Engineers (SAE). SAE describes, “The Supermileage competition provides engineering and technology students with a challenging design project that involves the development and construction of a single-person, fuel-efficient vehicle. Vehicles are powered by a small four-cycle engine. Students have the opportunity to set a world fuel economy record and increase public awareness of fuel economy.” At the University of Massachusetts of Amherst, a group of mechanical engineers took on this task and are currently designing and building the vehicle. In May, teams from around the country travel to Michigan to test and compete with their vehicles. The winning team last year, Homestead High School, won with a fuel economy of 1305 miles per gallon. To help our team, I am investigating the incorporating of a flywheel to the supermileage vehicle. A flywheel is a method of storing energy using the rotation of the wheel. Flywheels have been used in the past to store energy for power plants but most recently are being used in vehicles to get better fuel economy. The University of Texas has designed a flywheel system to be used in city buses in Houston. The use of a flywheel allows for an engine to operate more efficiently, thus have better fuel economy, because the engine is running at a more constant speed. They use the flywheel to gather and hold energy that is used to accelerate the bus without affecting the engine speed. I plan to incorporate a similar system into our vehicle. Through research of current flywheel systems and calculations of the dynamics of flywheels some conclusions were made. The best shape for the flywheel is a hoop with an inside-outside diameter ration between 0.4 and 0.8. This allows for the best energy storage per unit weight and unit volume. Next it was decided that the flywheel should be implanted as the rim of the back wheel or by using a clutch system. Last it was concluded that the best material for the flywheel would be cast iron.
**MICROBIOLOGY**

**174  HUNTINGTON BALLROOM  3:00-4:30  BOARD 34**

**LAURIE FALKIN (MICHELE KLINGBEIL), DEPARTMENT OF MICROBIOLOGY, UMASS AMHERST, AMHERST, MA 01003**

**BACULOVIRUS EXPRESSION OF A NOVEL MITOCHONDRIAL DNA POLYMERASE**

Trypanosoma brucei is the protozoan parasite that causes the devastating diseases African sleeping sickness in man. Currently, no vaccine is available and existing drug treatments are ineffective or highly toxic. New anti-trypanosomatid drug development is essential, but our understanding of the basic biology of trypanosomes is still incomplete. Trypanosomes display a number of unusual biological properties that could be exploited as potential drug targets, such as the catenated mitochondrial DNA network of minicircles and maxicircles called kinetoplast DNA (kDNA). In contrast to mammals that contain a single replicative mitochondrial DNA polymerase, pol γ, T. brucei contains at least six mitochondrial DNA polymerases including four enzymes related to bacterial DNA pol I. One of these polymerases, TbPolIB, localizes near the kDNA where minicircle replication intermediates are detected, and genetic studies using RNA interference indicate that TbPolIB plays a role in minicircle replication. However, it is unknown if TbPolIB exhibits polymerase or exonuclease activities that are crucial for a proofreading replicative protein. The focus of this study is to use the baculovirus/Sf9 system for heterologous expression of TbPolIB and in vitro biochemical assays to test the hypothesis that TbPolIB is a proofreading DNA polymerase. TbPolIB PCR products corresponding to the full-length protein (4212 bp) are cloned into the pAc-HLTB shuttle vector to produce an N-terminal His tagged protein. Recombinant baculoviruses are plaque purified, and recombinant protein is produced in infected Sf9 insect cells. Production of this recombinant novel DNA polymerase is an essential first step toward enzymatic characterization and drug target validation.

**175  HUNTINGTON BALLROOM  3:00-4:30  BOARD 33**

**CATHERINE REYES (RACHEL SKVIRSKY), DEPARTMENT OF BIOLOGY, UMASS BOSTON, BOSTON, MA 02125**

**INTERACTIONS BETWEEN COLICIN V-PRODUCING & NON-PRODUCING E. COLI STRAINS**

Produced by diverse strains of enteric bacteria, colicin V (ColV) is a small extracellular protein toxin with antibacterial activity. Plasmids encoding production of this bacteriocin also encode an export system and an immunity function. Although bacteriocins are believed to confer a competitive advantage to the producing strain in mixed populations, the exact role of these toxins in bacterial interactions is not understood. In this study, experiments with naturally occurring, single-copy transmissible ColV plasmids were carried out to examine ColV-mediated interactions. Using mixed populations of ColV+ and ColV- E. coli strains, we studied the rate of plasmid transfer from producers to non-producers, as well as competition between the strains. These interactions were compared in rich and minimal media and in log and stationary phase, with initial ColV+/ColV- cell ratios of 1:1000, 1:1, and 1000:1. The plasmid was transferred from ColV+ to ColV- cells at different rates depending on conditions, ranging from 100% in three hours to 0% in four days. The rate of plasmid transfer was higher on rich medium than on minimal medium and faster with higher ratios of ColV+/ColV- cells. Log phase cultures produced a higher rate of transfer than stationary phase cultures. Under the conditions tested, the two strains co-existed. These findings suggest that the cell density, the ratio of ColV+/ColV- cells, and the growth rate of the cells all affect the rate of plasmid transfer, and thus the outcome of ColV-mediated competition.

**MOLECULAR BIOLOGY**

**176  HUNTINGTON BALLROOM  3:00-4:30  BOARD 36**

**KATHRYN LEVASSEUR (ALICE CHEUNG), DEPARTMENT OF MOLECULAR BIOLOGY, UMASS AMHERST, AMHERST, MA 01003**

**THE SMALL GTPASES ARAC8 AND ARAC10 ARE INVOLVED IN HORMONE SIGNALING PATHWAYS IN ARABIDOPSIS**

Plants respond to external and internal stimuli through varied and intricate signaling pathways that are not fully understood. Understanding how stimuli elicit a response to change a plant's growth is important for further research and will have agricultural implications. Racs, a small GTPase family in plants, have been implicated in diverse signaling pathways, including hormone response. Of this protein sub-family, three type II Racs in Arabidopsis thaliana contain an extra exon allowing for an alternative lipid modification of the C-terminal region. High sequence homology between two, Arac8 and Arac10, may indicate similar function. Arac8 is a known negative regulator of abscisic acid (ABA) response, a pathway classically opposing auxin response pathways. In order to further explore the roles of these small GTPases in such hormone pathways, T-DNA insertion mutants for Arac8 and Arac10 were obtained. After confirming plants were homozygous for the insertion, gene expression was examined using RT-PCR. Seedlings were observed for auxin and ABA-related phenotypes, with or without exogenously applied hormones, throughout development. Results indicate that Arac10 null mutants are less sensitive to exogenously applied auxin, and initial studies indicate Arac8 has a similar phenotype. In ABA assays, the phenotype of Arac10 is similar to Arac8. Both Arac8 and Arac10 may be positive regulators in the auxin pathway, and Arac10 may also be a negative regulator of ABA. Further studies, including phenotypic rescue, overexpressing lines, and analysis of crosstalk between other hormone pathways must be performed to confirm these theories.
TELOMERES AND THE POTENTIAL CURES FOR AGING, CANCER, AND WHATEVER ELSE AILS YOU
Linear genomic DNA loses several bases off the 3' with every replication as the RNA primer is removed from the parent strand, called the End Replication Problem. In order to prevent this loss from becoming loss of genetic information, linear chromosomes are buffered with telomeres, repeating segments of TTAGGG (or a very near variation thereof). As somatic cells undergo mitotic division, the telomeres shorten. Current theory is that when the telomeres become too short, cellular senescence sets in. Theoretically, activation of telomerase, a ribonucleoprotein complex with reverse transcriptase activity, could stay senescence and immortalize it. Currently, telomere/telomerase research is a booming field in medicine that shows promise to help treat or prevent aging, cancer, heart disease, and many other ailments. This is a presentation of archival research providing an overview of where some telomere-based research stands today and where it may go in the future.

MUSIC
THE DOCTRINE OF ETHOS
The ancient Greek ethos put forth by Boethius offers insight into the importance of music in both the physical and metaphysical world. The philosophies explored in this paper are taken from Beothius’s De institutione musica. The paper discusses, individually and cumulatively, the three parts of The Doctrine of Ethos; music of the spheres, music of the soul, and audible music. The relationship between the three parts of the ethos is paralleled with Sigmund Freud’s theory of personality structure. Individually, the three parts of the ethos hold little ground; but together, they explain the harmony of the universe and the life in it.

FILE SHARING AND THE RIAA
During the past few years, there has been quite an increase in the number of reports concerning the use of the personal computer to download copyrighted material without proper compensation to the creator. The Record Industry Association of America (RIAA) claims that this recent trend has become so extreme that they question whether or not the industry as a whole will survive. While there is evidence that the RIAA and the artists themselves are certainly being affected by this, a deeper look at the problem reveals some interesting facts about the way the RIAA and most of the recording industry conducted their research. The use of College Students in surveys, singling out particular companies, and resistance against market competition all are contributing factors to the biased results that are being reported. The purpose of this research project is to determine the effects of the current situation on the Recording Industry as a whole using a properly conducted anonymous survey, and figures collected from reputable sources. Comparing these results with ones obtained through the RIAA should show a significant discrepancy.

NURSING
THE ATKIN'S DIET: A QUICK FIX, BUT IS IT A SMART CHOICE?
Obesity rates in the United States have been steadily increasing. An estimated 64% of U.S. adults are at least overweight, and 30% or more are considered obese. As a result, dieting has become a frequent regimen in the daily lives of many Americans, and most recently interest in the Atkin's diet has been renewed. The American Heart Association has acknowledged that the Atkin's diet helps people lose weight and as a result lowers their cholesterol. However, the general public may be unaware that these results are only temporary, and as a result professional associations have deemed the Atkin's diet both inappropriate and unsafe. The Physicians Committee for Responsible Medicine (2004) states that the Atkin's diet fails to address critical health implications of diets that emphasize animal products. The purpose of this project is to
compare and contrast the Atkin's diet with a healthy balanced diet, identify potential health complications of the Atkin's diet, and address these hazardous health implications. Although this diet has been in existence since the 1970's there has not been extensive research on its long-term potentially harmful effects. There is mainly anecdotal data supporting the adverse outcomes of a high protein, low carbohydrate diet characteristic of the Atkins diet. This project's literature review will highlight current data on potential consequences and long term implications of the Atkin's diet.

NURSING

181 HUNTINGTON BALLROOM 1:30-3:00 BOARD 68

JENNIFER AYOTTE (JEANNE LEFFERS), DEPARTMENT OF NURSING, UMASS DARTMOUTH, N. DARTMOUTH, MA 02747-2300

NON-PHARMALOGICAL METHODS OF COPING WITH EMOTIONAL PAIN

Non-pharmalogical methods of pain relief, supported for physical pain in the hospital setting, can also be used as a coping method for emotional pain. Therapeutic methods studied include poetry writing and meditation. Poetry and meditation, unlike pharmacological approaches, don’t work by alleviation, distraction, or sedation. These methods work not by making painful thoughts disappear, but reorganizing those thoughts in a more useful format, helping the patient to understand them and thus promoting coping. These methods can be used in the hospital setting for a wide span of patients including oncology patients, post-partum depression patients, and patients suffering with a chronic illness or even a new life-altering diagnosis. Family and health care providers who suffer indirectly can also use these methods to reorganize their thoughts, understand, and cope with death and dying. In this subjective study, a sample of people was interviewed to gain better understanding of exactly how this process works. Through interviews, the subjects explain the impact of non-pharmalogical methods of poetry and meditation to coping with emotional pain. Included in this presentation are examples of the poetry written by those who suffer with a difficult diagnosis or have lost someone unexpectedly, along with their testament of poetry as an influential factor in helping them cope. Review of these interviews by health care providers will bring a greater understanding of an alternative intervention that can be implemented with their patients to promote emotional healing.

182 HUNTINGTON BALLROOM 1:30-3:00 BOARD 72

DIANA ELLIOTT (ELIZABETH SHAW), DEPARTMENT OF NURSING, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

DEFINING QUALITY NURSING CARE

Since Florence Nightingale, quality nursing care has been idealized as compassionate and caring. Now, more than one hundred years later, what is the definition of quality nursing care? Based on an extensive literature review, I have developed my own definition of quality nursing care supported by examined definitions of quality nursing care and examples from personal experiences. Quality nursing care requires a good bedside manner, teaching, communication skills, technical skills, an awareness of culture, patience, a full understanding of one's own specialty and of sciences, a genuine personality, confidence, critical thinking, good organization, and compassion. A specific written definition of quality care will provide prospective nursing students with goals and standards of care to strive for throughout their journey into the health care field. This definition will also assist current nurses in motivating themselves to become better care givers.

183 HUNTINGTON BALLROOM 1:30-3:00 BOARD 66

HEATHER HERBOWY, CHRISTINE NOLETTE (JEANNE LEFFERS), DEPARTMENT OF NURSING, UMASS DARTMOUTH, N. DARTMOUTH, MA 02747-2300

ACHIEVING CULTURALLY SENSITIVE CARE: NURSING STUDENTS CROSSING BORDERS

In today's diverse society, it has become the responsibility of nurses to be culturally sensitive in the provision of care. This poster represents the journey of two senior nursing students to the Dominican Republic where they spent two weeks providing care to an underserved population. Though this experience was powerful and enlightening, the students returned with the feeling that, though they helped resolve health problems temporarily, they needed to create a program that would provide more sustaining healthcare. The method they chose to achieve this goal was to create a collection of culturally appropriate, bilingual care plans aimed at educating and providing preventive and treatment strategies that the target population can realistically use when healthcare is not available. The students’ purpose in creating this poster is to share the hands-on knowledge they gained while in the Dominican Republic, to highlight the research they gathered through a comprehensive literature review of the most prominent health problems they encountered, and to offer strategies for providing more culturally sensitive nursing care. The students hope that future groups who travel to the Dominican Republic will use the care plans as guides for health education and promotion.
DIAGNOSIS: PREDIABETES...WHAT DOES THIS MEAN?

The incidence of Type 2 Diabetes is increasing at an alarming rate in the United States. Goals set forth by the Healthy People 2010 project focus on using preventive programs to reduce the incidence of Type 2 Diabetes and to improve the quality of life for those who have or are at-risk for Type 2 Diabetes. This presentation will explain the development of a community-based outreach project designed to raise awareness of risk factors and the need for screening for Type 2 Diabetes. The project includes a brochure that highlights several areas including a simplified explanation of Type 2 Diabetes, risk factors, screening procedures, and simple lifestyle changes that can be used to decrease risk. An explanation of Prediabetes is also given in lay person’s terms because this is a new term used to target high risk individuals. Being diagnosed with Prediabetes allows time for lifestyle changes before the onset of Type 2 Diabetes, therefore preventive education is imperative to decrease risk. In order to increase the number of people being screened for Prediabetes and Type 2 Diabetes, local clinics that provide screening are also listed along with other resources. The brochure will be distributed to a sample of the at-risk population of Fitchburg, MA. The intent of the public to be screened after receiving the brochure will be evaluated by voluntary responses to a postcard survey that will be attached to the pamphlet. If the educational outreach project is successful, there will be an increased rate of screening for and awareness of Prediabetes and Type 2 Diabetes in the at-risk population of Fitchburg, MA.

NURSES OF ALZHEIMER’S PATIENTS: A QUALITATIVE STUDY

This project is a qualitative examination of the effects that caring for a patient with Alzheimer’s disease has on the registered nurse. By taking a qualitative approach, we attempt to develop a different view of a quantitatively well-researched topic. The study is set in a small nursing home in Northbridge, Massachusetts—a 118-bed, Medicare-certified healthcare facility that offers its patients both rehabilitation services and long-term care. The sample is a voluntary, non-random group of no more than ten currently practicing, registered nurses working for at least one year in a facility with an Alzheimer’s unit. An open-ended narrative questionnaire and a short demographic tool are used to provide basic information about each nurse. Through the participants’ narratives, we hope to better recognize the true effect that working with Alzheimer’s patients has on the nurse. Anecdotal observation suggests that this area of nursing is particularly stressful and discouraging. By analyzing results, establishing correlations and noting reoccurring themes, we can help to make suggestions and offer strategies to improve the work atmosphere in this area of nursing care.

ASSESSING PATTERNS OF HEALTH

Purpose: To assess patient’s health patterns, as well as to explore interrelationships between life, health, and illness. Method: A nursing theoretical framework, Newman’s Health as Expanding Consciousness, guided data collection and interpretation of findings. The data was collected during a face-to-face interview as part of a shift assessment. The sophomore students asked, “tell me about the most meaningful and significant events and people in your life?” The students applied active listening strategies to gather pertinent details and when it was needed used lead in questions to elicit additional information. Results: Sophomore students were able to learn more about who their patient was through them sharing their momentous life events. In doing so they established a more solid personal relationship with them, therefore, the students developed more therapeutic nursing interventions and realistic outcomes with their patients. On the other hand, this methodology was not appropriate for those who were seriously ill with limited energy. Students also found it difficult to find time to interview the patients on top of carrying out optimal nursing care. Conclusions: Research has a dual role: to test theory and establish a scientific knowledge base for the practice of professional nursing. Newman’s theory permitted nursing students to establish rapport with patients and guide the students in understanding what health meant to their patients. This in turn allowed the students to provide individualized care.

EFFICACY OF THE SEXUAL ASSAULT NURSE EXAMINER

This study determines if Sexual Assault Nurse Examiners (SANEs) provide more effective services for survivors of sexual assault than those compared with non-SANE trained nurse and physician colleagues. Data was collected through journals, books and Internet resources. The selected research-based articles on sexual assault and the Sexual Assault Nurse Examiner (SANE) programs were analyzed and compared to previous data. Compared to the non-SANEs, examinations executed by SANEs had a better collaboration with law enforcement, higher reporting rates, shortened examination time, better forensic evidence collection, more complete documentation, and improved prosecution.
The findings document the effectiveness of the Sexual Assault Nurse Examiner (SANE) programs and support the utility of the SANE model as an efficient program for the assessment and treatment of survivors of sexual assault. Sexual assault is a problem faced by every community. Nurses and student nurses need to be knowledgeable of both the physical and mental trauma that a survivor of sexual assault may experience in order to provide proper treatment.

**NURSING**

**LIGHT AND COLOR: A COMPLEMENTARY MODALITY IN NURSING**

Color Therapy is one of the most ancient healing modalities in the world. The effects of light and color on living beings have been demonstrated even before Sir Isaac Newton discovered the prism. The purpose of this presentation is to reintroduce the practical application of color as a holistic adjunct in treating physical and emotional disorders. The field of nursing is an ideal forum for patient education and treatment using accessible and inexpensive color techniques to promote wellness. A relatively new theory of the origin of illness is that physical symptoms are manifestations of emotional disease. This project will explain the effects of light therapy for conditions such as Seasonal Affective Disorder, Attention Deficit Disorder, and Post-Traumatic Stress Syndrome.

**INTERCULTURAL HEALTHCARE EDUCATION**

Purpose: To design a framework from which to build a culturally competent healthcare teaching curriculum. Ultimately, this framework is to be used to train local villagers to provide effective basic healthcare with a focus on women’s health issues, specifically those that most frequently impact the rural areas of the target population. This effort stems from an experiential learning project in the rural Dominican Republic in January of 2003 which revealed a need to teach proper breastfeeding techniques to the large population of relatively young mothers in this area. Method: This project used sources such as nursing journal articles, books on cultural competency, and personal cultural experience to explore existing research on the subject of intercultural nursing and teaching to aid in the design of the general curriculum plan as presented. This research, along with resulting teaching format, will be presented in poster format. Results: The research resulted in an outline for a culturally competent teaching curriculum with research-based rationales. Culturally competent training of basic healthcare providers requires first understanding the nurse’s own personal prejudices. Furthermore, in order to be an effective intercultural teacher a nurse must possess a clear vision of the tradition of learning and healthcare in the target population. When gearing a curriculum towards a specific cultural community, both research and contact with local community and resources is needed. Lastly, the local people must have a sufficient motivation to be trained and a desire to fulfill their new roles in their community for this teaching to be successful. Conclusion: This framework provides a basis from which an effective teaching curriculum can be built. The researchers hope to take this

**NUTRITION & FOOD SCIENCE**

**LOW MOLECULAR WEIGHT B-GLUCANS SIMILARLY REDUCE LDL-COLESTEROL AS HIGH MOLECULAR WEIGHT B-GLUCANS FROM BARLEY IN HAMSTERS**

The cholesterol-lowering activity of barley is similar to the activity of oat bran and is commonly attributed to the B-glucan fractions. However, the cholesterol-lowering activity of various molecular weight B-glucans has not been evaluated. In the present study, the hypocholesterolemic properties of low vs high molecular weight B-glucans from barley were evaluated in Syrian Golden F1B hamsters consuming a semi-purified hypercholesterolemic diet (HCD) containing cholesterol (0.15g/100g), hydrogenated coconut oil (20g/100g) and cellulose (15g/100g). Following a 2-wk lead-in, control hamsters were maintained on HCD while experimental hamsters consumed HCD formulated to include cooked B-glucan (8g/100g) by addition of either low or high molecular weight B-glucans prepared from barley at the expense of cellulose. Compared to hamsters fed the HCD, a decrease in total plasma cholesterol and LDL-cholesterol concentrations was observed in the hamsters fed the low and high molecular weight B-glucans after 6 weeks of dietary treatment. The hamsters fed the HCD had significantly higher plasma triglyceride concentrations compared to both experimental diets after 6 weeks of treatment. The aortic cholesterol ester concentration was
significant lower in the hamsters fed the low molecular weight barley B-glucans compared to the hamsters fed the HCD only. Only the
hamsters fed the low molecular weight barley B-glucans significantly increased the fecal excretion of cholesterol compared to the hamsters
fed the HCD. In conclusion, the hypocholesterolemic properties of barley B-glucans does not depend on whether the B-glucan is a low or high
molecular weight product, however, a greater reduction in aortic cholesterol ester concentrations was only observed with the low molecular
weight barley B-glucans.

SPORTS SUPPLEMENTS: SPORTS HINDERS OR SPORTS HELPERS
In light of the recent banning of Ephedra, the discussions of Pro-Hormones, and the general negative press surrounding sports supplements
has prompted this research. This topic is important because the field has never been studied and many people in the government are trying
to ban products based on limited information. The focus of the study is whether these supplements help the body or cause harm. A 30
question survey given to true athletes and gym members was administered. This Study will attempt to show that the benefits of these
supplements far outweigh the negative consequences associated with these products.

MUNGBEAN BOOKIES: A CLASSIC BUTTER COOKIE WITH A LOW FAT SUBSTITUTE
For this study, three different recipes were developed and used in the preparation of the butter cookies. Two full-fat control recipes were
prepared using butter, one with 225g of butter and the second with 175g of butter. An experimental recipe was also prepared using
mungbean paste as a substitute for 12% of the fat, based on the fat in the full-fat cookie. Two experiments were performed. The first
compared the full-fat control cookie with 225g of butter to the 12%(27g) mungbean paste cookie. The second compare the full-fat cookie
with 175g of butter to the 12% (21g) mungbean paste cookie. The authors concluded that mungbean paste is an acceptable fat substitute in
butter cookies in terms of overall acceptability. The flavor characteristic score for the mungbean paste cookies decreased as the amount of
total butter in the recipe decreased.

PHENOLIC ANTIOXIDANT AND A-AMYLASE INHIBITION ACTIVITIES OF COMMERCIAL JUICES
(1) Department of Psychology and Neuroscience, University of Massachusetts, Amherst, MA-01003 (2) Department of Food Science, University
of Massachusetts, Amherst, MA-01003 The beneficial effects of fruits on managing oxidation-linked diseases such as cancer, CVD and
diabetes are associated and linked to phenolic-antioxidants. a-amylase is an enzyme involved in starch to glucose breakdown. Acute
postprandial increase in blood glucose as a result of a-amylase activity has been linked to Type-II diabetes. Phenolic phytochemicals have
been shown to have a-amylase inhibition activity. Inhibition of a-amylase activity via the consumption of fruits with phenolic-antioxidants offers an
exciting strategy for dietary management of type-II diabetes. This is due to their lower side effects and other health benefits such as
prevention of neuro-degeneration diseases. The objective was to investigate the phenolic antioxidant and a-amylase inhibition activity of
commercial juices. Total phenolics were assayed using Folin-Ciocalteu method. The antioxidant activity was measured using 1,1-diphenyl-2-
picrylhydrazyl- radical (DPPH) inhibition (DRI) system. a-amylase activity of was assayed using standard agar diffusion method. To this point my
results show the total phenolic content of grape and cranberry juice was 2.64 mg/ml and 0.68 mg/ml respectively. The DRI of grape juice was
44.1% and 29% for cranberry juice. The a-amylase inhibition with grape and cranberry juice was 15.4% and 58.3% respectively. Cranberry
juice had lower phenolic content and antioxidant activity but had higher a-amylase inhibition activity suggesting that the type of phenolics
present in the phenolic profile had an effect on a-amylase inhibition. Identification of these functional phytochemicals and

COMMUNICATION DISORDERS

THE INCIDENCE OF MOTOR SPEECH IMPAIRMENT AMONG INDIVIDUALS WITH AUTISM AND ASPERGER’S DISORDERS
Autism and Asperger's disorders are the fastest growing developmental disabilities affecting one in 250 births (Shames et al, 1998). Communi-
cation abilities among this population vary greatly and range from primarily verbal, nonverbal, to repetitive language consistent with echolalia. Communication difficulties may affect language, phonology, articulation, and social skills. While a motor impairment has been suggested to underlie communication difficulties, there is little empirical evidence to support this theory. This study was conducted to identify the percentage of subjects diagnosed with Autism and Asperger's disorders who exhibit behaviors consistent with or suggestive of motor impairment affecting motor planning, motor programming, motor speech, and general motoric abilities. The subject pool consisted of forty individuals with Autism and Asperger's disorders ranging in age from 22 months to 21 years. Parents or guardians of individuals with Autism and Asperger's disorders completed a comprehensive questionnaire to obtain specific information regarding the individuals' developmental, medical and communication histories, and specific motoric abilities. A brief telephone survey was also performed to review specific information reported in the questionnaires and to ascertain test-retest reliability. Statistical analyses to interpret empirical findings are in progress. However, initial summary statistics suggest that there is some degree of motor impairment among individuals with Autism and Asperger's disorders as evidenced in delayed or impaired general motoric abilities, muscular weakness of the oral speech mechanism, and impairment in motor planning. Important distinctions will be identified between Autism and Asperger's disorders and possible neurological substrates and neuronal mechanisms underlying these communication deficits will be discussed.

PHYSICAL THERAPY

195 HUNTINGTON BALLROOM 3:00-4:30 BOARD 42

REBECCA RAMSDELL (STEVEN DION), DEPARTMENT OF SPORT, FITNESS, AND LEISURE STUDIES, SALEM STATE COLLEGE, SALEM, MA 01970

CAUTION, CURVES AHEAD: LEARN ABOUT THE SPINAL CONDITION OF SCOLIOSIS, FEATURING HANDS ON EXPLORATION AND CRITIQUE OF THE ALTERNATIVE TREATMENTS CURRENTLY

This research project serves to provide an overview of the spinal condition known as Scoliosis, including emphasis on self-awareness and early detection. The latter section of the project concerns research and detailed evaluation of alternative methods of treatment, including the distinction between symptom relieving (short-term) and structurally beneficial (long-term). Traditional methods are also noted for comparison. Research consisted mainly of scholarly reviews, Scoliosis publications, custom medical evaluations, personal reflection containing documented evidence, and assessment of various healing methods. Such treatments examined include sleeping aids and other similar products, neuromuscular reeducation, manipulation of the spine, and several forms of exercise concluding with massage therapy. Maintenance is also highlighted for the purpose of indicating how patients cope with an often restrictive and painful lifestyle. Many results are based on a personal, subjective viewpoint and may not solve or heal other cases of Scoliosis. Future research could examine larger-scale populations, provided greater funding, for more in depth coverage of the treatments available worldwide.

PHYSICS

196 HUNTINGTON BALLROOM 3:00-4:30 BOARD 1

ELIZABETH CASSIDY (JIM TRESSEL), DEPARTMENT OF PHYSICS, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

THE PHYSICS OF A CATAPULT

As with many learning experiences in life, a hands-on approach is often needed to fully understand the concepts taught in a Physics class. Building a catapult seemed to be the most efficient, and the most enjoyable, way of learning the concepts of a spring, torque, angular motion, projectile motion, work and power. Throughout the building process, and many pages of calculations, I came to understand not only the physics of each component, but also how each component interacts with each other, culminating in a working spring-powered catapult. Using Newton's Law's of motion, Hooke's Law, and equations for torque, angular and projectile motion, moment of inertia and air drag, as well as three springs and projectiles of varying masses, the range was predicted and then compared to the measurement of the actual range observed. The resulting error was relatively small. This visual display demonstrates some of the fundamental laws of physics, and some more advanced, calculus based laws inherent in a spring powered catapult.

197 HUNTINGTON BALLROOM 3:00-4:30 BOARD 5

HONG DICICCO (JOAN BRENNER), DEPARTMENT OF PHYSICS, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA 02129

MEASUREMENT OF TIME

This project explores the development of time measurement from ancient times through today's highly technical atomic clocks and to present standards of time measurement. The project will also present current and future research on increasing precision in time measurement. Time
Poster Session

is a fundamental unit that impacts many areas. High technology and the international time standards depend on precise time measurement. In this project current advances in high precision time measurement will be surveyed, along with the history of time measurement. The grandfather clock was an early clock based on gravity influencing the motion of a pendulum. Then, the marine clock, a marine chronometer invented by John Harrison, overcame the effect of motion and temperature variations. The quartz crystal clock runs electromechanically and the Cesium Fountain clock has the precision of one part in a 10^-15. The Rubidium Atomic Clock Experiment, currently being developed, is expected to a precision time of 1 part in 10^-16. The future measurement of time must also consider the possible effects of relativity and gravity.

198 HUNTINGTON BALLROOM 3:00-4:30 BOARD 2

BARRY GUTTING (KEN DEMERS), DEPARTMENT OF PHYSICS, MASSASOIT COMMUNITY COLLEGE, BROCKTON, MA 02402

IMPORTANCE OF THE SCIENTIFIC METHOD AS SHOWN BY THE ANALYSIS OF MATTER

This presentation demonstrates the value of the scientific method by exploring the evolution of the Atomic Theory. A summary of the scientific method's origin and a description of the scientific method's structure are given with emphasis on the role of experimentation. Explanations for the basic building blocks of matter are reviewed by examining the experiments of scientists such as Dalton, Thomson, Rutherford, Bohr, and others. As each hypothesis gives way to the next, insight from the experimental evidence brings about a clearer understanding for future research. The focus is that the scientific method has helped verify the pivotal events that created what is known as the Atomic Theory. The credibility of the scientific method is indicated by these various examples of quintessential experiments used in theorizing the existence and structure of the atom. The success of the Atomic Theory in turn validates the scientific method.

199 HUNTINGTON BALLROOM 3:00-4:30 BOARD 4

HENOCK LEGESSE (D. RAO), DEPARTMENT OF PHYSICS, UMASS BOSTON, BOSTON, MA 02125

OPTICAL CORRELATION TECHNIQUES FOR HOMELAND SECURITY

In the present day complex world, data security has become part of our everyday lives. A passport, fingerprint, bankcard, and credit card have to be secured. Over the past few years, use of optical information processing for designing security systems is becoming increasingly popular. In the present study, we adopt an optical correlator (Ferroelectric Liquid Crystal Spatial Light Modulator based Nonlinear Joint Transform Correlator) with random phase encoding for security verification. Alternative ways for verification of the authentic item were also studied. In addition the robustness of the optical security system was studied in terms of input and output signal-to-noise ratios.

200 HUNTINGTON BALLROOM 3:00-4:30 BOARD 3

RANDY LEITER (ANTHONY DINSMORE), DEPARTMENT OF PHYSICS, UMASS AMHERST, AMHERST, MA 01003

FORMATION AND ELECTRICAL CHARACTERIZATION OF JUNCTIONS AMONG METALLIC SPHERES IN SUSPENSION

Motivated by goal of forming electronic devices by self-assembly of particles in suspension, we explore the possibility of using metallic spheres to make wires of low resistance. We measured the electronic properties of junctions among microscopic particles suspended in an insulating solvent. Spherical particles of the alloy Woods Metal were formed by immersing the metal in Castor oil, then heating above the metal's melting temperature and agitating to form droplets. The resulting spherical particles were then sorted into samples of similar size by sedimentation. Chain-like assemblies (wires) were then formed in Castor oil by applying a high voltage in the range of 500-700V across two platinum-wire electrodes. Upon formation of a wire, current through it was measured as a function of the voltage across it for different particle sizes and wire lengths. We found that the resulting wires exhibit Ohmic behavior at low voltages up to 50mV. In this range, the typical resistance for a six-particle wire was found to be 3-5 Ohms. When the applied voltage exceeds a threshold of approximately 1.5V, the current drops toward zero, despite the absence of any observable change in the wire's morphology. By application of a high voltage, the low-resistance state is again attained. As the Woods-Metal particles are soft (melting point = 70oC) and are held together by relatively weak forces, the wires are sensitive to external forces such as convection and vibration. The results may lead to the ability to form low-resistance wires of controlled three-dimensional shape and reversibly-variable resistance.

POLITICAL SCIENCE

201 HUNTINGTON BALLROOM 10:00-11:30 BOARD 26

PAMELA JULIAN (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

CRITICAL THINKING VOTING

The purpose of the study is to examine the relationship between critical thinking and voting behavior. The study would include a survey of 200
MassBay Community College Students registered to vote in the upcoming US Presidential General election. Of the 200 students, 100 of the students are currently enrolled in a civic or evaluative critical thinking study program, the remaining 100 students are not enrolled in either study program. The survey results will measure the effect of critical thinking on voting behavior. An Analysis of related studies will be examined as well.

202 HUNTINGTON BALLROOM 10:00-11:30 BOARD 27

NATHAN RAWDING (JOHN BRIGHAM), DEPARTMENT OF POLITICAL SCIENCE, UMASS AMHERST, AMHERST, MA 01003

POLITICS, THE CONSTITUTION, AND REGULATION OF THE INTERNET
The U.S. Supreme Court's recent ruling holding the Children's Internet Protection Act (CIPA) as constitutional poses many threats to First Amendment freedoms. In my paper I examine and provide an analysis of the legislation, librarians' responses, and the potential impact on accessing the Internet in public libraries. For my research I conducted interviews with librarians and also visited various different libraries. The results of my research demonstrate that the CIPA does place a burden on First Amendment freedoms. I argue that there exists other methods for regulation, including modification of the spatial design used by the library. Included is a critique of different library spaces and their ability to impact the Internet user's behavior. The Internet is emerging as a crucial part of our everyday lives. The paper concludes that legislation such as the CIPA is not an example of effective regulation of the Internet. In conclusion, I suggest we turn to alternative approaches, such as the spatial design, to regulate Internet access in public libraries.

PSYCHOLOGY

203 HUNTINGTON BALLROOM 1:30-3:00 BOARD 19

KIMBERLY ANGELO (JAMES AVERILL), DEPARTMENT OF PSYCHOLOGY, UMASS AMHERST, AMHERST, MA 01003

CONCEPTIONS OF HAPPINESS
Happiness has often been the topic of discussion and examination. The term “happiness,” however, is vague, and can refer to a variety of different goals or states of being. In short, happiness means different things to different people. The goal of this study is to understand what people are thinking of when they speak about happiness. It aims to discover 1) whether significant individual differences exist in conceptions of happiness, 2) whether these differences correspond to the conceptions defined by this investigation (joy, contentment, eudemonia, and well-being) and 3) whether these differences are related to personality traits and/or values. Participants are asked to determine how well each of the four conceptions matches their own ideas of happiness, in a series of open-ended questions and agreement statements. Participants are also given the NEO personality test and Schwarz's Value Survey. It is hypothesized that specific personality traits will correlate with certain types of happiness; for example, introversion with contentment, conscientiousness with eudemonia, etc. A better understanding of how people think of happiness is essential to the growing field of positive psychology, the construction of happiness scales and surveys, and the appreciation for the complexity of the emotion of happiness.

204 HUNTINGTON BALLROOM 1:30-3:00 BOARD 3

KIMBERLY BAKER, ANGELA S BENWAY (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

COLLEGE STUDENTS' PERCEPTIONS OF THE INFLUENCE OF UNIFORM TYPES IN COMPETITIVE SPORTS ON EATING DISORDERS
Research suggests that many factors may contribute to disordered eating patterns among young athletes. This study was designed to examine the perceived relationship between uniform types and disordered eating patterns as well as self-esteem levels among college athletes. A sample of 120 college women (91% Caucasian) was randomly presented with one of four scenarios describing a college athlete competing in either a female or gender-neutral sport. The scenario athlete was described as wearing a tight or loose-fitting uniform. After reading the scenario, the students answered questions about the scenario character and completed several personality measures. In addition, the students also provided information on their age, race, GPA, marital status, and sports participated in now and as a child. It is anticipated that results will show perceptions of higher rates of eating disordered symptoms and lower self-esteem are dependent on type of sport and uniform style. Several hypotheses also predicted that body self-esteem of participants will be related to higher levels of exercise and dieting patterns. Preliminary analyses have yielded partial support for these hypotheses. Implications for pressures on female athletes will be discussed.
THE RELATIONSHIP BETWEEN CODER CHARACTERISTICS AND PERCEPTIONS OF PARENT-CHILD BEHAVIOR

Parent and child behaviors may be perceived differently by individuals of different backgrounds. Previous research has shown both ethnicity (Melby et al., 2003) and gender (Reid et al., 2000) affect the way individuals view certain behaviors. This study is being conducted in order to determine how ethnicity, gender, and previous upbringing are related to subjective ratings of parenting and child behavior. African American, Latino, and White undergraduate college students first individually code twelve videotapes of parent child interactions. Each videotape consists of a three minute segment of an African American, Latino, or White parent-child dyad. The participants then fill out questionnaires detailing their gender, ethnicity, and upbringing. Based on previous research on coder bias, the first predicted result of this experiment is that there will be an interaction between coder ethnicity and parent/child ethnicity, such that coders will rate individuals of other ethnicities more favorably than their own. Similarly, it is predicted that there will be a gender of coder by gender of child interaction, such that coders will rate other gender children more favorably than same gender children. However, these predictions are tentative because other research and theory on ingroup/outgroup bias suggest that people make more favorable evaluations of other people from their own group. Finally, it is expected that coder's own parenting experiences will be related to their ratings of the parents. These results will lead to a better understanding of how characteristics including ethnicity, gender, and individuals' own upbringing are related to their subjective ratings of videotapes of parent-child interactions.

IDENTIFICATION OF NEUROPSYCHOLOGICAL PROFILES IN MITOCHONDRIAL DISORDERS

Mitochondrial disorders were first discovered in the 1980's. A variety of these disorders have since been identified. A commonality amongst these disorders is their devastating effects on an individual's physical and mental functioning. Although research has investigated the physical aspects associated with these disorders, very little is known regarding mental or brain-related deficits and their effects on everyday functioning. The current project aims to investigate these deficits by administering a series of neuropsychological assessments to individuals with various types of mitochondrial disorders. Patients with genetically confirmed mitochondrial disorders will be given assessments to examine abilities related to verbal and visual memory, decision-making skills, visual spatial abilities, vision abilities, and other cognitive functions. This project will be the first to compare neuropsychological profiles of performance across different types of disorders. It is predicted that each disorder will yield a unique profile of neuropsychological performance. Information from this study will aid both in the diagnosis of these disorders and in the development of intervention strategies aimed at improving the lives of individuals stricken by mitochondrial disease. To date, participants have been recruited, the test battery has been established, and testing will commence by early January, 2004.

NATURE VERSUS NUTURE

This study will use archival data to explore the idea of nature versus nurture in regard to the human personality. Extensive research will be done to determine how much of personalities are determined by genes as opposed to environmental influences. Archival research is expected to reveal that each personality is developed with a combination of these two forces. While there is no set percentage of each influence, this study will try to narrow down which aspects of a personality are biological and which are influenced by environment. The idea of how nature and nurture work together to complete the identity of a person will also be examined.

DEPRESSION

This project defines depression and reviews causes, symptoms and possible forms of treatment. Many sources were consulted to obtain an overview of this disease and to document that depression is more than just the “blues”. It is a serious medical illness. It is a leading cause of disability in the USA and the world. The research explains that a neurotransmitter imbalance is the most common cause for depression, but genetic and environmental factors also must be taken into consideration. It also gives an understanding of why women are at greater risk for depression than men. Finally, the research leads to the conclusion that depression is a persistent illness with symptoms that often get worse over time, but it is also treatable, and no one needs to fight this illness alone.
PSYCHOLOGY

209  HUNTINGTON BALLROOM  1:30-3:00  BOARD 44

NYSSSLE CLARK (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

MASS MEDIA AND OTHER SOCIOCULTURAL INFLUENCES ON BODY IMAGE, BODY DISSATISFACTION, AND DEVELOPMENT OF EATING DISORDERS AMONG FEMALE ADOLESCENTS

The purpose of this study is to compare the degree of relationship between Mass Media (Television, Advertising, Music, Fashion Magazines, and Internet) and other sociocultural influences (family and peer pressure and adolescent physical development) on low body image, body dissatisfaction, and eating disorders among female adolescents. In this study, archival research regarding Mass Media and other Sociocultural influences on body image, body dissatisfaction, and development of eating disorders among female adolescents will be evaluated and used as a database. The results suggest that mass media has a strong influence on body dissatisfaction, low body image, and eating disorders among female adolescents. However, other influences such as peer pressure, family pressure, and physical development will also reveal that these influences could prove to be as significant as mass media.

210  HUNTINGTON BALLROOM  1:30-3:00  BOARD 34

HEIDI CONNEELY (MICHAEL MILBURN), DEPARTMENT OF PSYCHOLOGY, UMASS BOSTON, BOSTON, MA 02125

STEREOTYPES OF MALE AND FEMALE COMPETENCE

In a classic study of gender role expectations, Philip A. Goldberg (1968) had participants read on topics that included stereotypical male and female professions including architecture and law for males and dietetics for females. Half of the participants were told that the author of the articles was a female, Joan McKay, while half were told that the author was a male, John McKay. The participants were then asked to rate the articles on a variety of measures including professional quality of the article and the competency of the author. Regardless of the rater's sex or the job content, if the participants thought an article was written by a female, the article was judged lower. The purpose of this study will be to replicate Goldberg's study with the addition of the Sexual Intelligence Questionnaire (Milburn and Conrad 2001). 150 participants will be recruited from the University of Massachusetts Boston, a campus with a student population rich in diversity. Data will be analyzed using multiple regression. The researchers anticipate that participants low in sexual intelligence will also possess more stereotypical views of gender roles and thus rate the work of women lower than that of men.

211  HUNTINGTON BALLROOM  1:30-3:00  BOARD 33

MATTHEW CREEN, PETER J ANTALEK, KIM FETHERSTON, DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

PERCEPTIONS OF BODY IMAGE AND EATING HABITS IN MEN

The vast amount of literature on women's eating habits, body image, and self-perception deficits has not attempted to investigate perceptions on these issues relative to men. A sample of 137 college students (47 men) with an average age of 21.06 years were randomly assigned to read one of four scenarios depicting an either overweight or underweight male eating either a large amount or small amount of food in a public setting. After reading the scenario, they answered a series of questions about the scenario character's eating habits and body image perception. Next, they provided demographic information and measures that assessed the participants' body image, and eating and diet questions. While analyses are pending, it is predicted that people who rated their own body satisfaction high will also rate scenario character body satisfaction high. It is also predicted that people will have a more positive perception of a scenario character's personality depending on the scenario character's body size. Furthermore, it is predicted overweight men who consume a small amount of food in public will be perceived as eating a large amount of food in private. Implications of body image and eating habits related to stereotypes and society will be discussed.

212  HUNTINGTON BALLROOM  1:30-3:00  BOARD 7

LINDSEY DEARDORFF, AUTUMN-ANN BOLDUC, SARAH L. LEVASSEUR (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

FEMALE UNDERGRADUATES PERCEPTION OF ALCOHOL USE ON COLLEGE CAMPUSES

With the beginning of the millennium, binge drinking continues to be widespread among American college students. Alcohol is the primary leisure drug among college students. The perceptions of alcohol use by college students may not accurately reflect the actual drinking behaviors and consequences faced by college students. Therefore, the purpose of our study is to further clarify the perceptions that college women hold for their older, younger, and same aged peers with respect to drinking behaviors. Participants included 240 female college students who read a scenario depicting a student who either drank heavily (8 drinks) or very little (2 drinks). In addition, the scenario characters were presented as either freshmen or seniors and either male or female. First, the students completed measures assessing their
perceptions of the scenarios. Next, they provided demographics and measures of their own substance use, risky behavior, and academic achievement. Preliminary results suggested that college women hold negative views of their peers who drink heavily. Findings for gender and class status were non-significant. Further analyses will investigate participants’ drinking and risk taking behaviors. Implications for alcohol awareness on college campuses will be discussed.

213  HUNTINGTON BALLROOM  1:30-3:00  BOARD 46

KATE DELTUFO  (PAUL GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

ATTITUDES TOWARDS SELF-ESTEEM AND PHYSICAL ATTRACTIVENESS WHEN RELATED TO A JOB INTERVIEW

Physical attractiveness and self-esteem seem to be important factors during a job interview. This study looks at what effects physical attractiveness and self-esteem have on a job interview. This study proposes that a person with high self-esteem will be viewed by the scenario character as more confident and capable than a person with low self-esteem. One hundred and twenty female students completed a questionnaire packet that contained a resume with a photo and a job transcript, and then were asked to answer questions about the scenario characters as well as themselves. The study indicated that participants are more likely to rate a scenario character with high self-esteem behaviors as more confident and capable than a scenario character showing low self-esteem behaviors. Physical attractiveness was not found to have an effect on a job interview in determining whether a person is perceived as confident and capable.

214  HUNTINGTON BALLROOM  1:30-3:00  BOARD 18

LAURA DOW  (MARGARET VAUGHAN), DEPARTMENT OF PSYCHOLOGY, SALEM STATE COLLEGE, SALEM, MA 01970

JUVENILE DELINQUENCY: A BEHAVIOR ANALYSIS OF TWO SOCIOLOGICAL MODELS

The best predictor of future delinquency is past involvement in delinquent behavior. The job of psychologists and sociologists is to explain how, as a society, we can deter these children from committing a life of crime. Many theories are constructed to attempt to explain how and why juvenile delinquency occurs. Two theories will be discussed in this paper: one is the differential association theory, which describes delinquency as resulting from association with delinquent groups; and social learning theory, which explains delinquent behavior as a function of reinforcement and imitation. Both theories imply that delinquent behavior can be unlearned by the same process it is learned. This paper will also include an analysis of common traits and behaviors of juvenile delinquents, as well as an analysis of the treatment programs associated with these theories. Differential association was derived from social learning theory. Since these theories are closely related, the paper will attempt to explain both of them from a behavior analysis view, which is a growing field within psychology that attempts to explain behavior by means of antecedents and consequences.

215  HUNTINGTON BALLROOM  1:30-3:00  BOARD 29

JESSICA EATON  (JAMES AVERILL), DEPARTMENT OF PSYCHOLOGY, UMASS AMHERST, AMHERST, MA 01003

EXPLORATION OF MOOD, MUSIC, AND WRITING

Music, it is widely assumed, induces changes in a person’s emotional state or mood. The results of laboratory studies, however, have been inconsistent. One possible reason for this inconsistency is the insensitivity of the mood rating scales typically used in experimental research. The present study attempted to look for more subtle differences in mood by studying subjects’ written text. Participants listened to background music that was previously rated to be either happy or sad while they wrote two stories. One story was in response to a neutral but ambiguous visual stimulus, and the other was an account of a happy/sad memory. Participants also were given two self-report mood questionnaires during the study. The stories were analyzed by the Sunderarajan-Shubert word count (SSWC) text-analysis program. The SSWC analyzes the emotional-motivational content of speech by comparing the occurrence of words to a dictionary of close to 2,000 entries. It is more sophisticated than other word counting programs, because of its ability to take the context of the text into account while analyzing word frequencies. It was expected that the background music would influence the stories participants wrote, with the greatest divergence being in those conditions where the affective quality of the music and story coincided (for example, happy music/happy memory versus sad memory/sad music). Other combinations (neutral story during happy or sad music, happy memory/sad music, etc.) served as control and/or exploratory conditions (e.g., to explore the relative potency of music versus memory in determining mood). The possible influence of Emotional Creativity and Alexithymia, two personality variables that have been shown to influence the verbal expression of emotion, were also examined.

216  HUNTINGTON BALLROOM  1:30-3:00  BOARD 39

JENNIFER FAITEL  (JEFFERY BLAUSTEIN), DEPARTMENT OF PSYCHOLOGY, UMASS AMHERST, AMHERST, MA 01003

LIGAND-INDEPENDENT ACTIVATION OF PROGESTERONE RECEPTORS IN THE SEXUAL RECEPTIVITY OF FEMALE MICE

The purpose of this study was to test the hypothesis that intracellular progesterone receptors could be activated in the absence of progestosterone by the dopamine agonist apomorphine and induce sexual receptivity in female mice, as is the case with progesterone. If it can be shown that these hormone receptors can be activated by neurotransmitters, then we will have evidence that the environment, acting through neurotransmitters, is influencing behavior. Although this phenomenon of ligand-independent activation has been studied before, it has been difficult to replicate in a laboratory setting. Further, this study examines the effect of RU-486, a progesterone receptor antagonist, on female
sexual receptivity, and this makes the project unique. A group of 60 female mice were ovariectomized and exogenously treated with estradiol and progesterone until significantly receptive to a male stimulus. To test sexual receptivity, females were placed in a Plexiglas arena with a male, and a lordosis quotient was recorded. Once receptive, females were split into two groups of four, one group receiving oil and the other receiving RU-486. Each of the four groups also received progesterone, progesterone vehicle, apomorphine, or ascorbic acid. The data are tentative. If apomorphine is in fact acting through progesterone receptors to induce sexual behavior, then the following results are anticipated: animals that received either apomorphine or progesterone should show significant sexual behavior, while animals that received controls should not, in the group that received oil. In the group that received RU-486, there should be no significant sexual behavior exhibited across any of the four groups.
**Poster Session**

scenarios depicting a 21-year-old male or female college student. In addition, a brief description of the character's parents' relationship status (continuously married, recently divorced, or divorced since childhood) and the level of contact the student had with them was provided. Students responded to scenarios by answering questions concerning the characters drinking habits, relationship status and self-esteem. Measures concerning students’ own drinking behavior, relationship satisfaction, self-esteem and demographics were also completed. Preliminary findings indicate divorce during any developmental stage is perceived to be a major factor influencing future potential substance abuse and disrupted intimate relationship formation. Remaining analyses will examine the effects of divorce on students from divorced homes relative to the development of severe drinking problems as well as its impact on self-esteem. Implications for the timing of divorce as it affects various stages in development will be discussed.

**220**

**HUNTINGTON BALLROOM**

**1:30-3:00**

**BOARD 49**

**LAURIE FORD, LAURETTA A. CHARPENTIER (CHARLOTTE MANDELL), DEPARTMENT OF PSYCHOLOGY, UMASS LOWELL, LOWELL, MA 01854**

**THE EFFECT OF GENDER ON REACTIONS TO INFIDELITY**

Past literature has distinguished two separate types of infidelity, sexual and emotional. Evolutionary based theories of gender difference in jealousy suggest that men and women respond differently to these two types of infidelity; men are more upset by sexual infidelity and women by emotional infidelity. Although some previous studies have supported this theory, others have not. Previous research asked participants to report on actual break-ups. In contrast, my study asks participants to report on their likely responses to hypothetical situations involving sexual or emotional infidelity. Participants were asked to read ten scenarios all involving some form of infidelity. They were then asked to respond to five statements characterizing the likelihood of the participant's breaking up with his/her significant other in such a situation, the perceived level of dishonesty in the situation, as well as the perceived level of betrayal in the situation. In a preliminary study a 2x2 factorial analysis of variance showed that scenarios involving sexual infidelity produced a significantly higher likelihood of break-up, greater perceived betrayal, and more perceived dishonesty than scenarios involving emotional infidelity. This was equally true for men and women; there was no significant gender difference and no significant interaction. These data do not support the evolutionary theories that imply that men and women respond differently to infidelity.

**221**

**HUNTINGTON BALLROOM**

**1:30-3:00**

**BOARD 24**

**ANNE FORD, STEPHANIE A. JOHANSON, (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702**

**EYEWITNESS TESTIMONY: THE EFFECTS OF WEAPON FOCUS AND MISLEADING INFORMATION ON THE ACCURACY OF EYEWITNESS ACCOUNTS**

The testimony of eyewitnesses to crimes has an immense impact on the American legal system. In some instances, it can save communities from heinous murderers and rapists. In others, it can sentence an innocent person to a life in jail for a crime that another has committed. Throughout the years, researchers have demonstrated that human memory is not infallible. The present study attempts to identify relationships between misinformation and weapon focus as an effect on eyewitness testimony. Participants were 120 voluntary college students from a small Northeastern state college. Each student viewed one of four video clips depicting a crime. The perpetrator had a weapon in two of the four video clips, and did not use any weapon in the remaining clips. Students were given questionnaires pertaining to events depicted in the video. Half the students in each group received a questionnaire containing misleading pictures while the other half did not receive any pictures. Preliminary results suggest that students who received misleading information in the form of pictures produced more inaccurate responses than students who did not receive any misleading information. Further analyses will be conducted examining the effect of the presence of a weapon on the accuracy of eyewitness accounts. Implications for the impact of misleading information and weapon focus effects in jury trials will be discussed.

**222**

**HUNTINGTON BALLROOM**

**1:30-3:00**

**BOARD 5**

**DEIRDA FRUM (MARVIN DAHLER), DEPARTMENT OF PSYCHOLOGY, UMASS AMHERST, AMHERST, MA 01003**

**YOUNG CHILDREN’S REPRESENTATIONS OF GEOMETRIC OBJECTS IN DRAWING FROM LIFE, PHOTOGRAPHY AND ART**

This experiment is a stepping-stone in developing a clearer understanding of how young children interpret objects in their environment and translate these objects into their own artwork. It also looks at the way these same children interpreted the artwork of other children. It is helpful to understand the way children express themselves in art when trying to cultivate the newest generations of artists most effectively. Looking at children between the ages of four and six, the experiment focused on geometric-based objects. Three different objects were presented (an apple, a party hat, and a cube) in one of three different forms (the actual object, a photograph, or a realistic drawing). Each child was introduced to the three objects though all participants received different arrangements of form and order of presentation. We hypothesized that the two dimensional representations of a photograph and a drawing would yield more background detail from the children then the three dimensional actual object and would be highest in cases where the actual object was presented last and either the photograph or drawing was presented first. This is because when a child is first presented with a photo or drawing the entire page can be perceived as the object because it creates a composition. Alternatively, when presented with an object it is logical to presume that the object
Poster Session

alone will be focused on and not the surrounding objects in the scene. We also hypothesized difficulties in representing depth because in
drawing depth is an illusion and can be intimidating to represent. It was of interested to see how children interpreted the artwork of a
different child though made no predictions in the outcomes of these interpretations. Preliminary results support the hypotheses and lead to
additional suggestions for future research.

PSYCHOLOGY

223 HUNTINGTON BALLROOM 1:30-3:00 BOARD 50

LEILA GALLAGHERBREEN (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

PERCEPTIONS OF MENTAL ILLNESS AT A COMMUNITY COLLEGE

The goal of this study was to evaluate attitudes about mental illness at a Massachusetts community college. During the spring semester 2004
a voluntary and anonymous survey was given to faculty, staff and students. A total of 75 subjects were surveyed. Each survey consisted of a
set of true / false questions, as well as demographic questions. Results suggested that many of the people surveyed accept fallacies as fact
when it comes to mental illness, often to the detriment of those on campus who struggle with mental illness. These findings have important
implications for interventions aimed at reducing stigma, and replacing fiction with fact.

224 HUNTINGTON BALLROOM 1:30-3:00 BOARD 51

DIANA GALLUZZO (PAM LUDEMANN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

THE PERCEIVED RELATION BETWEEN STUDY SKILLS AND ACADEMIC ACHIEVEMENT

This study was designed to examine whether studying to music positively or negatively affects college students’ academic achievement.
Participants included 112 college men and women, 18-24 years of age, who completed surveys that included one of the four scenario
conditions which varied by character and roommates’ preferences for studying with music on or in silence. After reading their assigned
scenarios, participants evaluated the characters’ academic motivation. They also answered items assessing their own locus of control, study
habits, and academic anxiety. Results indicated that students perceived roommate conflicts over the need for quiet while studying as
detrimental to study efforts. Unexpectedly, personal music use as a study method was not related to academic outcomes. However, students’
external locus of control, academic organizational skills, and self-awareness with respect to best learning style were positively impacted. The
results contradict some past evidence and suggest that when students need quiet environments to study, music preferences of roommates
may be too distracting, thwarting efforts to do well in course work. Therefore, it is important for students to know what type of learning
style works best for them and to respect the needs of roommates.

225 HUNTINGTON BALLROOM 1:30-3:00 BOARD 16

MARY ELLEN GARLAND, COLLEEN M. FRY (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

PERCEPTIONS OF THE GENDER STEROTYPING OF EMOTIONS SPECIFIC TO CONTEXT

While much research has investigated the gender stereotyping of emotions, little is known about the actual emotions men and women
experience in various contexts. The purpose of this study was to examine the gender differences of emotion and stress in situations where
gender stereotypes typically exist. Specifically, we were interested in the differences in perceptions of gender stereotypes in the workplace
versus in intimate relationships. A sample of 107 college students (60 women) with an average age of 25.39, were randomly assigned to read
one of four scenarios describing stressful situations for a man or a woman in either a work setting or relationship setting. After reading the
scenarios they completed a set of questions related to the scenario. Next, they provided demographic information and measures that
assessed the participants’ expressivity of emotion, level of stress, and coping skills. It is predicted that participants will perceive the male
scenario character as less emotional in handling stress than the female scenario character when placed in a stressful workplace setting. It is
also predicted that women will react to stress in a more emotional way than men in a relationship setting. Implications for understanding the
gender stereotypes placed on emotions in the workplace and in intimate relationships will be discussed.
ATTITUDES TOWARD HOMOSEXUALITY AND THE LEGALIZATION OF SAME-SEX MARRIAGES

There is currently a great deal of controversy over same-sex marriage and the actual views of younger voters is unclear. This study was designed to examine attitudes towards homosexuality in general. Attitudes towards same-sex marriages being legalized and, therefore, allowing for parenthood were also studied. Participants’ provided demographic information and completed several scales designed to measure homophobia. They also evaluated acceptance of same-sex marriages in general, by family and legally after reading one of four scenarios varying by couple gender and desire for children. It was shown that women were more tolerant of homosexual marriage than men and that number of homosexual friends was associated with tolerant attitudes. However, homophobia did increase when items indicated risk of personally being perceived as homosexual. Family views on their acceptance of the homosexual couple getting married and having children were examined. Also examined were views on laws being changed to accommodate homosexual marriage and provide homosexual couples the same opportunities that heterosexual couples are provided. The results of this study also indicated that men continue to be more homophobic than women and less tolerant of same-sex marriage legalization. This is especially true when mention of children is made. Such gender-based differences in attitudes could have definite impact on the successes of movements within states to allow for legalized same-sex marriages.

DIMENSIONS OF COMPASSION: EXAMINING THE CORRELATION BETWEEN MINDFULNESS, EMPATHY AND EMOTIONAL CREATIVITY

Based on Buddhist concepts of equanimity and compassion, it is the goal of this study to show that the recognition of similar desires for happiness and aversions to suffering provides a basis for compassion and life-satisfaction. One hundred and two undergraduate students at the University of Massachusetts at Amherst read a short story in which the main character is experiencing the death of a brother. A Story Character Parity Scale (SCPS) was created to measure the extent to which participants could relate to and show compassion for the main character’s experience. To establish general compassion levels and provide validity to the SCPS Wang, Yu-Wei et al.’s (2003) Ethnocultural Empathy Scale (EES) and Davis’s (1983) Interpersonal Reactivity Index (IRI) were included in the study. It is expected that participants who receive high scores on Brown and Ryan’s (2003) Mindfulness Attention Awareness Scale (MAAS) will prove to be more receptive to recognizing the pain and suffering of the story character, particularly under conditions in which the character is dissimilar and negatively portrayed. Individual scores on the MAAS and SCPS are expected to positively correlate with emotional creativity as measured by Averill’s (1999) Emotional Creativity Index (ECI). A Dimensions of Awareness Scale was created with the intent to further analyze mindfulness awareness and its relationship to emotional creativity. Finally, in support of the Dalai Lama’s suggestion that, “compassion, a sense of warm-heartedness towards others, is the basic source of all happiness, this study uses Pavot and Diener’s (1993) Satisfaction with Life Scale to examine correlations between compassion and life-satisfaction.

DOPAMINERGIC RECEPTORS IN THE CROSS-SENSITIZATION OF MORPHINE AND AMPHETAMINE

The cross-sensitization between opiates and psychostimulants was examined. Since prior exposure to one class of drug leads to greater sensitivity to a second class of drug, the nucleus accumbens was targeted as the possible site for the interaction of morphine and amphetamine. The nucleus accumbens was targeted for the possible interaction of the two drugs by microinjecting into the brain structure in vivo. The analysis of D1 and D2 dopamine receptors contributions to morphine-amphetamine cross-sensitization, as indexed by the conditioned reinforcement paradigm is the goal of the study. In the conditioned reinforcement paradigm, rats were trained to associate reward e.g. sugar pellets with a conditioned stimulus - a light and a click. After the association was made, the rats were presented with two levers. Depressing the conditioned reinforcement lever resulted in the compound stimulus, while the other had no effect. After training and conditioned reinforcement and the acquisition of lever responding, the animals had four treatments of morphine followed by a challenge with amphetamine intra accumbens. The drug treatments were separated by one day and administered after the animal was placed in the conditioned reinforcement paradigm and lever presses were recorded. It is hypothesized that D1 will decrease the observed priming effect of morphine pretreatment on amphetamine induced CR responding.
RICHARD HUNT  (PAUL GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

VISUAL ATTENTION UNDER COGNITIVE LOAD: AN INVESTIGATION OF THE ATTENTIONAL MYOPIA MODEL OF SELF-REGULATION

Mismanagement of unhealthy behaviors and maladaptive emotions is often central to human dysfunction and unhappiness. The attentional myopia model posits that self-regulation of unhealthy behaviors and emotions demand considerable attentional resources. According to the model, when individuals’ attentional capacity is limited, their behavior will be disproportionately influenced by highly salient internal and external cues, to the exclusion of more distal stimuli. In this study, 54 young adults’ eyes were tracked to measure attentional fixations to forbidden images on a computer screen. Cognitive load was induced in half of the sample while viewing two separate slide presentations while all participants received inhibitory instructions prior to viewing two slide presentations. Attentional biases were measured by comparing mean fixation time upon the forbidden stimuli. Contrary to the attentional myopia models prediction, participants under load did not have greater fixations on the forbidden stimuli than the control group. However, several secondary findings reveal those under load looked less at the target images and fixated more so on regions above and below the target images. This attentional divergence indirectly supports the attentional myopia model, yet the intense nature of the inhibitory instructions may have led to an unusual degree of obedience and compliance.

PHILLIP KYRIAKAKIS  (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA 02181

A STUDY OF HUMAN BEHAVIOR IN CONFINED SPACES

This research will involve observations of human behavior in confined spaces, namely elevators. Anecdotal evidence shows that elevator riders will stare at the elevator buttons, walls, floor, ceiling, doors, items in their hands and anything else in order to avoid eye contact. The purpose of this experiment is to monitor and observe human behavior in the confined space of an elevator. It is believed that these behaviors create social habits that allow people to conform to what they believe is normal behavior. Elevator passengers will be observed using naturalistic observation techniques. Every attempt will be made to ensure the anonymity of the researcher. A hidden chart will be used to quantify the subject’s behavior as to where their gaze is focused during the elevator ride. This study will demonstrate that humans will engage in a form of avoidance and escape behavior when placed in a confined space.

ELENA LANDAU-SEIDEN  (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

THE EFFECT OF PERCEIVED LESBIANISM: FIRST IMPRESSIONS AND THE EFFECT THAT CLOTHING HAS ON THE ABILITY TO DEVELOP SAME SEX FRIENDSHIPS.

The literature indicates that physical characteristics such as physical attractiveness, gender, and style of dress may influence perceptions of others’ personality traits. In fact, the levels of acceptance and close friendship development may actually decrease when women dress in a more masculine manner. The purpose of this project was to investigate how style of dress would influence college women’s perceptions of friend potential among their peers. A sample of 124 college women in Massachusetts with a mean age of 21.3 years (85% Caucasian) were randomly assigned to read one of the four scenarios describing the clothing of a male or female wearing either gender appropriate or gender inappropriate clothing. After reading the scenarios women answered a series of questions about the character and then completed several personality measures. It is predicted that women will perceive their peers who dress in more masculine style of clothing as less desirable for a friend than women who dress in a more feminine style of clothes. Implications for style of clothing and friendship development will be discussed.

REBECCA MANSON, LISA M. JOYCE, MONICA L. LYNCH  (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

SELF-ESTEEM AND DATING: THE IMPACT OF PAST EXPERIENCES ON PERCEIVED DATING

One issue that is highly sensitive to young adults is the area of dating. Past dating experiences correlated with personality characteristics such as shyness or low self-esteem may influence dating success. Research indicates that bad past dating experiences can contribute to a lower self-esteem. The purpose of this study was to examine the relationship between past dating experiences and self-esteem to perceptions of future dating success. Surveys were administered to 131 undergraduates, ranging in age from 18 to 25 years old. The students were
randomly assigned to read one of four scenarios, examining self-esteem and past dating experiences. Next, students rated items assessing their self-esteem, past dating experiences, and social anxieties. It is expected that results will reveal that young women with past negative dating experiences will be perceived to have less future dating success. It is further expected that participants who report lower self-esteem will report having more negative previous dating experiences. Implications for how self-esteem levels can effect future experiences will be discussed.

233 HUNTINGTON BALLROOM 1:30-3:00 BOARD 4

VERONIKA MATUNIN, MELISSA A. SHARRON (BRIDGETT GALVIN), DEPARTMENT OF PSYCHOLOGY, FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA 01702

GENDER STEREOTYPING IN THE MEDIA: PERCEPTIONS AND ATTITUDES TOWARD WOMEN ON TELEVISION
An abundance of research has indicated that the media have traditionally portrayed men and women in heavily gender stereotyped roles. Many factors have contributed to the under representation of women in the media especially on television, and specifically in music videos. Historically, women in the media were more likely to play minor roles, and hold behind the scenes job titles that under characterized their abilities. Research in the 1990's suggests that women are under represented in music videos. The purpose of this research was to clarify the representative roles of men and women as they are portrayed in 23 top music videos listed on VH1 for the year 2003. Based on historical representation, it was assumed that women and men's roles may have changed little in recent years. Therefore, it was predicted that the typical gender stereotyped roles that women have portrayed in the last two decades would also dominate the most recent videos of 2003. The 23 top hit videos listed by VH1 were coded by two independent coders (inter rater reliability = .80 or greater for all codes) to examine the presence of prevailing gender stereotypes. Preliminary results are expected to yield findings similar to those of the late 1990's. Issues relating to the influence of music on prevailing stereotypes will be discussed.

234 HUNTINGTON BALLROOM 1:30-3:00 BOARD 40

TAMMI MEEHAN (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

THE INFLUENCE OF THE CREATIVE PROCESS
How much the creative process influences the outcome of a product was the purpose of this study. Customers at a custom frame shop voluntarily filled out a questionnaire in which the creative process was rated. The questionnaire was developed through research of the Torrece Tests of Creative Thinking(TTCT), the Creative Product Semantic Differential Scale(CPSS), and Mihaly Csikszentmihaly's extensive research on the Psychology of Discovery and Invention. Five basic categories were derived from the research and incorporated into the questionnaire. Of the eighty respondents, 92% were found to have been influenced by the creativity of the staff more than 50%. The retail establishment at which the study took place currently runs a radio advertisement which states “Our designers make the difference”. Through this study, this statement was shown to be true. Other considerations which were not tested by this study pertain to the individuality of creative thought. The study looked souly at the effect of the sales staff as a whole and not at the individual aspects of both the design team member or customer. Demographics were not studied as the information on the survey was optional and there was a 3% response rate.

235 HUNTINGTON BALLROOM 1:30-3:00 BOARD 47

TINA MIARIS (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

CHILD ABUSE IN THE UNITED STATES: A THREE PRONG APPROACH
Child abuse is an ever-spreading problem in our society today. The number of cases that involve physical abuse, sexual abuse, emotional abuse, and physical and emotional neglect have all risen in the last few years. There are three main views of child abuse. Quantitative, which is how wide spread the problem is and how many people it affects, Qualitative, which is how a person is affected, and harm, which is the physical harm done to the child. The other issue that comes up with child abuse is Ethics. Ethics are what is believed to be “crossing the line” and the point where it is felt that something has to be done to help a child being abused. This presentation will summarize the current findings in the field using these three diverse viewpoints on a very emotional topic.

236 HUNTINGTON BALLROOM 1:30-3:00 BOARD 11

YUDY MUNETON (KARLA MURDOCK), DEPARTMENT OF PSYCHOLOGY, UMASS BOSTON, BOSTON, MA 02125

ASTHMA AS A RISK FACTOR AND SUPPORTIVE RELATIONSHIPS AS A RESOURCE FACTOR IN ASTHMATIC CHILDREN’S SCHOOL FUNCTIONING
Asthma is the most common chronic illness of school-age children and youth in the United States. There is some empirical evidence that asthma can be a risk factor for children’s school functioning. Studies have found that children with asthma tend to be absent more, experience higher levels of anxiety, get lower grades, and that their interactions with peers are more restricted in comparison to children without
This bias reflects that individuals tend to communicate information at higher levels of abstraction when describing others (e.g., rely on global exams) when describing stereotyped targets. Further, few researchers have investigated affective experiences other than happiness and sadness. The current research demonstrates that individuals in happy moods tend to use stereotypes, whereas those in sad moods do not. Despite the large amount of evidence for these differences, researchers have not examined the extent to which mood influences how individuals communicate their impressions. Research examines the influence of affect on participants' tendency to show a linguistic expectancy bias (LEB) when describing stereotyped targets. This bias reflects that individuals tend to communicate information at higher levels of abstraction when describing others (e.g., rely on global traits). This leads individuals to form dispositional inferences about the causes of a target's behavior and, consequently, may perpetuate
FREE RESPONSE


development. Parents, caregivers and teachers can do a great deal to structure the direct musical
environment of a child and often times the partnership between the caregivers and the child can enhance not only the child's musical ability
but other abilities as well. Methods: A between subjects, three-group design in conjunction with survey research as to the nature of the home
musical environment provided by the primary caregivers, parental attitudes towards various modes of musical instruction, and possible effects of this environment on cognitive task performance, as well as examine the effects of mood and musical preference on task performance. Rationale: Early cognitive development is inextricably
linked with physical, emotional, and social development. Parents, caregivers and teachers can do a great deal to structure the direct musical
environment of a child and often times the partnership between the caregivers and the child can enhance not only the child's musical ability
but other abilities as well. Methods: A between subjects, three-group design in conjunction with survey research as to the nature of the home
musical environment was implemented. Cognitive tasks were administered to the three groups of subjects. The independent variable was
operationalized as the three different conditions: Mozart music, children's music, or no music. The dependent variable was thus
operationalized as performance on cognitive tasks measuring mental aspects such as spatial-temporal reasoning through the use of embed-
ded figure tasks, part-whole tasks, and mental rotation tasks. Results: It is theorized that elements of not only just Mozart music, but various
other pieces of music as well will bring about a slight increase in a child's spatial reasoning abilities. It is also theorized that mood and musical
preference will hinder or advance any subsequent effected abilities. Conclusions: The advantages of carefully planned and implemented
musical opportunities are social, cognitively, and musically advantageous, enhancing and supporting learning in other subjects, and making an
important contribution to a child's early education.
### RESPECT FOR INDIVIDUALS THAT ENGAGE IN PREMARITAL SEXUAL INTERCOURSE: THE INFLUENCE OF GENDER AND FAMILY STRUCTURE

Many factors, including an individual's gender and family structure, influence the way in which those who engage in premarital sexual intercourse are viewed. Research has yet to examine the impact of family structure on level of respect for individuals who engage in premarital sexual intercourse. This study examines the impact of gender and family structure on respect of individuals who engage in premarital sex. Participants consisted of 119 undergraduate college students. Participants read a short scenario and completed scales rating their level of respect and perceptions of aggressiveness for that scenario character. Results indicate that males who engage in premarital sex are viewed with a higher level of respect than females. Furthermore, males who engage in premarital sex were perceived to be more assertive than females. The findings indicate that gender appears to influence perceptions of males, however, the influence of family structure is in need of further research.

### SPORTS PSYCHOLOGY: THE USE OF IMAGERY, GOAL SETTING, AND ELIMINATION OF DISTRACTIONS IN STRESS AND INJURY MANAGEMENT FOR ATHLETES

This research was conducted to show the important role that the mind plays in physical sport. The implication and use of sports psychology and research over the years was examined to determine the impact of such methods on athletes. For the past thirty years, sports psychology has grown and advanced the overall performance of athletes at every sport level. Different methods, practices and guidelines have been adopted so that coaches, trainers, parents and even athletes themselves can learn how to operate at peak athletic performance. Studies show an overwhelming positive response to the use of sports psychology. Integrating sports psychology into the already dominant physical regimen of athletes can lead to a better overall performance, using the mind and body of the athlete.

### SPRING BREAK ACTIVITIES: GENDER DIFFERENCES IN PERCEPTIONS OF SEXUAL ACTIVITY

The purpose of this study was to assess the perceptions of college students’ ideas of casual sex among their peers and examine a gender bias as it relates to different settings. The settings included 'Spring Break locations' in which the most relaxed state of sexual and social mores probably exists and a “routine daily” setting in which more restrictive norms apply. A sample of 120 college students were randomly assigned to read one of the four scenarios describing sexual encounters. They also answered questionnaires assessing perception of the scenario character and personality measures on themselves. Preliminary results indicate college students hold stereotypical beliefs for men and women with respect to sexual behaviors. Women who engage in casual sex regardless of setting are viewed more negatively than their male counterparts. In addition students who have higher self-esteem also report more liberal attitudes towards sexual behaviors and report engaging in fewer risk taking behaviors. Implications for changing gender stereotypes are discussed.

### EXAMINATION OF PERSONAL ADVERTISEMENTS: HOW DOES AGE AFFECT THE PRESENTATIONS AND PREFERENCES OF HETEROSEXUALS AND HOMOSEXUALS?

The conventional means for meeting people and initiating relationships have changed dramatically over recent years. It is more common for people to seek potential partners through such channels as newspaper and internet advertisements. However, little is known about the differences in partner preferences for males, females, heterosexuals, and homosexuals. The purpose of this study was to investigate these differences. A total of 320 personal advertisements were sampled from two Boston-area newspapers and an internet personals service. These ads were examined and compared according to gender, sexual orientation and age for preferred partner characteristics. Preliminary results yielded interesting differences and similarities between and among these groups.
Phase 3. Discussion focuses on the implications of these findings. Reports of actual childcare tasks at Phase 3. Results also indicated that there was a significant decline in fathers’ marital love from Phase 1 to Phase 3. Overreaction would be related to increased peer aggression in children. Parental displays of laxness would be associated with higher levels of both aggression and withdrawal in children. Parent overreactivity would be related to increased peer aggression in children.

The present study shows that frequent displays of parental warmth toward the child, would be related to the child engaging in high levels of prosocial behavior. Peer interactions were collected through videotapes collected in preschool classrooms, which were then coded for children’s level of aggression, withdrawal and prosocial behaviors. The present study examined parent-child interactions to determine relationships between parental overreactivity, laxness and warmth to children’s aggression, withdrawal and prosocial behavior with peers. Participating in this study were approximately 60 children and their primary caregivers who were involved in a larger project. The participants were initially recruited from 7 different childcare centers and 18 preschool classrooms in Western Massachusetts, and were diverse with respect to both ethnicity and socioeconomic status. Parents and their children were videotaped interacting during various tasks a portion of a home visit assessment. For the present study, a clean up task was used to assess parenting behaviors. Two trained research assistants coded the tapes for parental warmth, parent laxness, and parent overreactivity. Peer interactions were collected through videotapes collected in preschool classrooms, which were then coded for children’s level of aggression, withdrawal and prosocial behaviors. The present study evaluated the following hypotheses based on theoretical models of the effects of parenting as well as on relevant previous empirical studies. It was predicted that frequent displays of parental warmth toward the child, would be related to the child engaging in high levels of prosocial behavior with peers. Parental displays of laxness would be associated with higher levels of both aggression and withdrawal in children. Parent overreactivity would be related to increased peer aggression in children.

The goal of the present study was to determine the relationship between men’s violated expectations and marital outcomes during the transition to parenthood. This is important to look at because little is known about male expectations and the implications of these expectations for marital quality across the transition to parenthood. Specifically, little is known about the relationship between fathers’ violated expectations and reports of marital love and conflict. Data were drawn from a 5-year longitudinal study conducted at the University of Massachusetts at Amherst, in which parents experiencing the transition to parenthood were interviewed at five different time points called phases. The present study used data from Phase 1, during the third trimester of pregnancy, and Phase 3, after the child was born and the mother had returned to work for one month. Fathers experiencing the transition to parenthood were given questionnaires used to assess their level of violated expectations in regards to childcare tasks and juggling work and family responsibilities, as well as questions assessing marital love and conflict. Initial results showed that what fathers reported as expecting to do in terms of childcare tasks at Phase 1 differed significantly from reports of actual childcare tasks at Phase 3. Results also indicated that there was a significant decline in fathers’ marital love from Phase 1 to Phase 3. Discussion focuses on the implications of these findings.

The question of whether gender-specific behavior is genetic or nurtured has existed for a very long time. Both psychiatrists and scientists have proposed numerous theories and conducted various experiments on this subject. Using data collected from an experiment completed in the
An abundance of research indicates that the media, especially print ads, has a major influence on women’s perceptions of their body image. Much of the research indicates that women may perceive themselves in a negative light as a result of the unrealistically thin and attractive print models they observe. This study was designed to further explore media influences on body perceptions.

One hundred fifty-three college students (86 women) with a mean age of 21.6 years (96.7% Caucasian) were randomly assigned to view a picture of a lingerie attractive print model that was either very thin or heavy. The students rated the model, themselves and their perception of the ideal body on a six-point scale. In fact, much of the research indicates that women may perceive themselves in a negative light as a result of the unrealistically thin and attractive print models they observe.
Poster Session

(extremely thin) to nine (obese) scale. Next, they provided basic demographic information and completed questionnaires measuring their own self-esteem and body esteem. It is predicted that viewing the thin model will negatively impact women's self-esteem and body image. Furthermore, they should rate their own bodies as very discrepant from the ideal. For men, the direction of the expected results is unknown. Preliminary analysis of demographic data reveals that 81.7% of participants watch television and 65.4% read magazines regularly. Furthermore, 88.8% exercised and 45.1% diet regularly. Further analyses are underway. Implications for further research on the impact of viewing such images on the self-perceptions of women and men will be discussed.

254 HUNTINGTON BALLROOM 1:30-3:00 BOARD 45

MONIKA WENCEK (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

MALADAPTIVE PERFECTIONISM AND NEGATIVE PSYCHOLOGICAL FUNCTIONING IN COLLEGE STUDENTS

This study was performed in an effort to develop a hypothesis confirming previously conducted research about the correlations between maladaptive (negative) perfectionism, low self-esteem, and distress. A mixture of library research and interviews administered to 87 undergraduates (35 men and 52 women) generated information about psychological implications such as low self-worth, self-doubt, and depression that may be linked to the neurotic form of perfectionism. All participants completed the APS-R test along with the Rosenberg Inventory scale to examine the degree of correlation. The findings indicate that maladaptive perfectionism (self-oriented) characterized by holding excessively high standards is a cause of profound self-criticism, concern over mistakes, self-doubt. The research extends other studies indicating neurotic (negative) perfectionism as having a major affect on college students who despite meeting their own expectations, can report lack of pleasure in pursuing the academic performance, difficulties in college adjustment and integration due to the low self-esteem, persistent self-evaluation, and self-doubt.

RELIGIOUS STUDIES

255 HUNTINGTON BALLROOM 10:00-11:30 BOARD 29

KATHERINE KELLY (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

HEALING AND PRAYER

Prayer has a lot of attitudes surrounding it, both beneficial and negative. The beneficial properties need to be looked at. This study was conducted to determine whether prayer has any benefit. Information from surveys and current articles served as the data. Articles used human subjects in double blind studies and surveyed subjects to gain information on attitudes, beliefs and actions involving prayer and its benefits if any. The results were: prayer has a beneficial role in aiding emotional needs and some physical symptoms not as cure all of diseases but helps in reducing pain, length of hospital stay, fevers and depressive mood traits. This study is important because prayer can be used to have a positive measurable change in subjects. Hopefully it will give prayer a more positive connotation then in current years past. It may allow doctors one more tool to offer people who already have a spiritual background. I suggest further double-blind studies and a continuation of surveys to uncover more information.

SOCIAL WORK

256 HUNTINGTON BALLROOM 1:30-3:00 BOARD 10

KATE FONTANA (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

SEXUAL ABUSE AND THE FAMILY DYNAMIC

My research project will focus on the effects of sexual abuse disclosure on the dynamics of a family, from the victims’ perspective. It also examines how such a disclosure alters the many different facets of the family unit. This project includes ten research interviews of sexual abuse survivors. The interviews examined the personal experiences of each individual and how they have perceived their victimization and disclosure to their families. The interviews go into great depth regarding the experiences and the perceived effects of the disclosure form the perspective of the victim. The interviewees consist of six females and four males from the ages of twelve to seventeen. Throughout the study “sexual abuse” is used with the understanding that “incest” and “rape” fall under the same heading Conclusions from this study showed strong family reactions of denial, anger, and excommunication towards the victim upon disclosure of his/her sexual abuse. Repercussions are strong and direct as seen by the ten interviews conducted. The victims were forced to choose breaking the silence regarding the abuse or continuing some form of relationship with his/her family.
SOCIAL WORK

257 HUNTINGTON BALLROOM 1:30-3:00 BOARD 53

MELANIE PFAFFINGER (ROBERT WELLMAN), DEPARTMENT OF PSYCHOLOGY, FITCHBURG STATE COLLEGE, FITCHBURG, MA

RESILIENCY IN CHILDREN

The purpose of this presentation is to define resiliency, explain what factors can lead a child to be “at-risk” or “resilient,” and offer ways professionals can help to foster resiliency in children. My reason for choosing this topic is that today so many children are labeled as at-risk. This research aims at finding how children can use adversity to help them grow into successful and healthy adults. The method of research will be a literature review, using journal articles and books. The research will compare and contrast differing theories on risk and resiliency and discuss practical applications of these theories. The presentation will begin by defining resiliency. Also, I will define risk factors. Next, the paper will discuss traits researchers find to be common in resilient children. Then the research will explore external factors that contribute to resiliency. Finally, I will discuss ways teachers, parents, and others in the community help at-risk children become resilient. In conclusion, the research has found that many children are born with a natural disposition to overcome obstacles. However, outside factors, such as families, schools, social workers, and mentors, can have a strong influence on how children cope with adversity. Emphasizing each child's positive characteristics and teaching effective coping skills can help enable a child to develop resiliency.

SOCIOLOGY

258 HUNTINGTON BALLROOM 1:30-3:00 BOARD 56

CORINNE BOURGOIN (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA

NEXT STOP, INFLATION: PUBLIC TRANSPORTATIONS AFFECT ON HOUSING COSTS

Public transportation plays a major role in the sprawl, growth and economics of urban areas. This study was conducted to determine how a neighborhood's housing costs, rental prices and quality of life are affected by MBTA service. We will compare one neighborhood with access to public transportation and one without, using real estate records, census data and interviews with MBTA employees. As a result of this research we are testing the hypothesis that in a neighborhood with public transportation we will find a higher cost of living, but also more diversity and recreational outlets.

259 HUNTINGTON BALLROOM 1:30-3:00 BOARD 60

CINDY CORREIA (SCOTT BENJAMIN), DEPARTMENT OF ENVIRONMENTAL STUDIES, BUNKER HILL COMMUNITY COLLEGE, BOSTON, MA

PUBLIC REACTIONS TO CELL PHONE USE

In our society today, technology has advanced tremendously. Cell phones are an integral part of this technologic revolution. We will attempt to discern the role that cell phones play in our society and we will look at how cell phones can negatively affect people's environment. We will look at the impact of cell phones on the immediate environment. The methods we will use to conduct this study will include surveys, interviews, and observation. Observations will consist of viewing how people interact with one another while cell phones are in use. We will make these observations both in public and private settings as well as indoors and outdoors. From our continuous observations, we have found evidence to support our theory that cell phones can be sources of irritation at best and a dangerous distraction at worst. We suspect that our observations, interviews, and surveys will provide us with ample evidence to support our theory that cell phones are a disturbance to a significant percentage of people.

260 HUNTINGTON BALLROOM 1:30-3:00 BOARD 61

DESPINA LIANOS (CAROLYN COHEN), DEPARTMENT OF PSYCHOLOGY, MASSACHUSETTS BAY COMMUNITY COLLEGE, WELLESLEY HILLS, MA

THE PREVELANCE OF SUICIDE AMONG THE HOMOSEXUAL POPULATION

The stigma associated with being homosexual is still prevalent in this country. The Gay and Lesbian population always puts themselves at risk when disclosing their sexual preference to another person. Anthing from ridicule to extreme violence has been seen. Since there is so much pressure to conform to societies' norms, this population is at a high risk for developing depression, which may also lead to suicide. This research will explore the prevalence of suicidal acts in the gay and lesbian population, including the unique risk factors and preceding variables that lead up to suicide. This research will also look into suicide rates among teenage homosexuals. Archival data will be explored and possible suggestions for decreasing the suicide rate in this population will be discussed.
THE EFFECTS OF CELL PHONES ON DRIVING

Due to large increases in the number of wireless service subscribers in recent years, coupled with previous research estimating that 60% of cell phone owners’ usage occurs while driving (Goodman et. al 1999), the topic of driving while operating a cellular telephone has become a major safety concern. In this study the effects of cell phone use on driving will be investigated in 50 – 100 subjects who both own or use a cell-phone and operate a motor vehicle on a regular basis. This will be done by means of a survey containing questions of a “Yes/No” variety, as well as questions asking the participant to use a scale from 1-5 to rate certain behaviors and impressions of the effects of cell phone use while driving, both on themselves and other drivers on the road. Using the information collected from these surveys I expect to find a positive correlation between the use of a cellular telephone while driving and vehicular accidents /hazardous driving.

A CROSS NATIONAL COMPARISON OF EMERGENCY MEDICAL SERVICES

The area of Emergency Medical Services (EMS) is overlooked in current international health policies and initiatives. This study carries out a cross-national comparison and evaluation of EMS as a subsystem within existing Health Systems to better understand its basic components, both social and structural. Data on existing Health Systems from the World Health Organization was used to gain a base knowledge and ranking of the field. The elements of a medical emergency were mapped in a schematic representation. A framework for a dimensional analysis of EMS was created based on various factors affecting the schematic. A bi-polar extreme was identified, with the United States and Western Europe exhibiting high levels of care when compared to developing nations such as those in Africa, Latin America, and Eastern Europe. While developing nations lack the financial resources to implement elaborate and high tech EMS systems, understanding the basic elements of an effective system, especially social factors, can help to create EMS systems that work within the context of the country.

THE IMPACT OF INCARCERATION AND THE DEATH PENALTY ON THE URBAN COMMUNITY

The impact of high rates of incarceration and the use of the death penalty falls most heavily on urban communities. This project will illustrate that rates of incarceration and capital punishment are statistically disproportionate and aimed at minorities, particularly those in low socio-economic brackets. The research project will explore the social, political, and economic effects of incarceration and the death penalty on urban communities. The influence that these types of criminal punishment have on the families of those subject to incarceration or, in some states, the death penalty will be specifically addressed. Emphasis will be placed on the social consequences that result from the reentry of the incarcerated back into society. In addition, an analysis will be conducted comparing the effects of incarceration in selected cities in Massachusetts to that of other comparable communities in the United States. Through the utilization of both primary and secondary sources, interviews, and empirical data, and extensive and scholarly analysis of the effects of incarceration and the death penalty on urban communities is conducted.

THE BUSH ADMINISTRATION AND THE PROMOTION OF MARRIAGE

Marriage is no longer a sacred institution. America has seen the decline of marriage in recent years due to several factors. There have been increases in alternatives to marriage such as cohabitation, which is widely accepted by society on the presumption that the couple are participating in a trial marriage. In addition, children born outside of the institution of has also become widely accepted by society. Premarital sex is also on the rise due to the break down of moral and religious values. President Bush’s administration is attempting to address this issue by implementing a $ 1.5 billion plan to promote marriage. According to the plan, the goal would be accomplished by awarding an annual $200 million to states to promote marriage and responsible fatherhood through partnership with nongovernmental organizations, including faith-based groups. Looking at the Bush administration’s plan it appears to be good on the surface, but it does not focus on the main issues. This research will study the proposed plan and its possible outcomes.
**SOCIOLOGY**

**Poster Session**

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**RACHEL SYMAN (MILLICENT THAYER), DEPARTMENT OF SOCIOLOGY, UMASS AMHERST, AMHERST, MA 01003**

**DISSENT IS PATRIOTIC: A COMPARISON OF PAST AND PRESENT SOCIAL MOVEMENTS AGAINST GOVERNMENT POLICY**

As history reveals many parallels in America, such as the 1950’s McCarthyism and the present day USA Patriot Act, it also reinvents great social movements against oppressive policies. In the past, Americans fought McCarthyism through universities and political opposition, today the Northampton Bill of Rights Defense Committee (BORDC) is organizing to stop the Patriot Act through the internet. The BORDC differs from the movements of the past because of technological advancements which have allowed the BORDC to connect with Americans across the country. There are many similarities and differences between the social movements against McCarthyism and the BORDC’s efforts upon the Patriot Act, but both movements consisted of communities and individuals coming together to protect the Bill of Rights. My analysis is based on New York Times reports from the 1950’s, articles from news-oriented websites, such as the Village Voice, and participant observation with the BORDC. I also draw on theoretical work by authors such as Manuel Castells, Margaret Keck, Kathryn Sikkink, and Doreen Massey. While BORDC has brought Americans together, it has also made global connections, as a visible example of the resistance against rights abuses by government policy.

**Melissa Vinneau (Carolyn Cohen), Department of Psychology, Massachusetts Bay Community College, Wellesley Hills, MA**

**People, Patience, and the Expression of Aggression**

Studies have been done to show that individuals are more outwardly aggressive while driving than in everyday non-driving situations. Furthermore, studies have also been conducted to test whether or not gender plays a role in aggressive driving. This study pertains to how local individuals deal with frustrating scenarios both while driving and directly interacting with others in everyday non-driving situations. The study is designed to show and measure three different ways of expressing frustration, suppression, appropriate expression, and outward aggression. The subjects will be divided into two categories according to age. One group will examine college-aged individuals ranging from 18-30 years of age. The second group will look at people who are 30 years old and above. Both groups will be equally proportioned by gender. Data will be collected through the use of various methods such as interviews, telephone interviews, observations, and a survey designed to compare and contrast the theory that men are more outwardly aggressive than women while driving.

**STUDIO ART**

**Poster Session**

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**Katrina Scanlan (Richard Lewis), Department of Art History, Salem State College, Salem, MA 01970**

**The Study of Pinhole Photography Through Uncommon Media**

This project showcases an ongoing study of various facets of pinhole photography. With the advancement of technology, the original concept of photography, I believe, has been abandoned. I am fascinated by the power of a tin can; the pinhole’s ability to transform an image so basic into something so ancient and mystic is amazing to me. I love the simplicity of it. I first chose a basic medium for my pinhole camera: the tin can. After mastering the fundamentals of pinhole photography, I explored several different media including an egg carton, a large tube and a five-gallon pail. The pinhole camera is quite fickle, but after a full semester have gathered a focused collection of work highlighting my experience and exploration into the simplicity and complication of pinhole photography.

**VETERINARY SCIENCE**

**Poster Session**

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**Denille Van Buren (Cynthia Baldwin), Department of Animal Sciences, UMass Amherst, Amherst, MA 01003**

**WC1 Isoforms Role in Determining Gamma Delta T-Lymphocyte Activation**

Previous work has determined the presence of a scavenger receptor molecule, WC1, which is unique to gamma delta T-lymphocytes and believed to play a role in regulating lymphocyte activation. This study is being conducted to prove/refute preliminary evidence that suggests
Poster Session

that the cytoplasmic tail sequences of the three known isoforms, WC1.2, WC1.2, and WC1.3 may undergo post-transcriptional modification as cell with this receptor are subjected to a variety of experimental conditions. After testing primers developed in our laboratory, work will begin on looking at how the cytoplasmic tail sequences change under different culture conditions which are known to activate gamma delta T-cells. Evidence for such post-transnational modifications will be gathered by isolating peripheral blood mononuclear cells from whole bovine (Bos taurus) blood, and subjecting them to various culture conditions. From these cells DNA will be extracted, amplified using PCR, and run using gel electrophoresis to gain a rough idea of the fragments size, and cloned into a vector for later nucleotide sequencing done by an outside company. In undertaking this research I hope to be able to identify where and what type of post-transnational modification occurs in the intracellular tail sequences of gamma delta T-lymphocytes. In determining how the role of the WC1 molecule affects activation it will be possible to piece together how the immune response may work in Bos taurus by uncovering the role of molecule and proving or disproving its importance.

VISUAL ARTS

269  HUNTINGTON BALLROOM  10:00-11:30  BOARD 35

PAULINA ENGEL  (DIANE EDSTROM), DEPARTMENT OF VISUAL ARTS, NORTHERN ESSEX COMMUNITY COLLEGE, HAVERHILL, MA 01830

SPIRITUALITY: MY SEARCH FOR THE LIGHT

Before I can put paint on a canvas I write down many words that come to my mind. From there I select what inspires me, and I make many thumbnail sketches from different perspectives that are related to my inspiration. In this process the size of the canvas is selected, the position of the painting and the medium. The sizes of the canvas I chose are 18 by 36 and 24 by 36; acrylics are the medium used in this series. This series of five paintings is a reflection of my own search for spirituality. With this series of paintings I want to express my feeling of closeness to the inner me in the search for what I call “the light.” Many people have been blessed with a gift and how we use this gift is up to us. By using this gift of expression I can accomplish many things that will help me get to my final destination: the truth of my existence and the purpose of it. Maybe others can be touched in some way as they view my work.

270  HUNTINGTON BALLROOM  10:00-11:30  BOARD 37

ADONIRAM SIDES  (JEFFERY WARMOUTH), DEPARTMENT OF COMMUNICATION, FITCHBURG STATE COLLEGE, FITCHBURG, MA 01420

YOU ARE WHAT YOU EAT: AN INSTALLED METAPHOR FOR AMERICAN TELEVISION’S CULTURE OF SELF-CANNIBALISM

There can be little doubt that the supply and demand model of economics is a driving force behind consumer trends and little doubt that the mass media, particularly television, are beholden to this truism. After study and research of the progress of the television media in recent years and witnessing the trend of homogeneity in prime time broadcasts I decided to fuse the consumer-media relationship in an installation work. Using both interactive art and fine art techniques I planned and designed a representational work of current trends: a man in a parody of Rodin’s “The Thinker” with head slightly raised to observe a monitor. The monitor and man are literally fused in a Shodo type of composition: an open but fluid circle where the base of the sitting man becomes the form of a wave that raises to support the monitor. The monitor is directly connected to a camera that is then mounted discretely within the installation space. The implication is clear: consumers engage to witness real life as it occurs around us. The objective is to inspire viewers (of the installation) to think upon their own lives and how this process abridges participation in social contact especially when the purpose of these actions is to witness social contact.

271  HUNTINGTON BALLROOM  10:00-11:30  BOARD 36

MARGIT WHITE  (MARY MELILLI), DEPARTMENT OF VISUAL ARTS, SALEM STATE COLLEGE, SALEM, MA 01970

CREATING A SUCCESSFUL PRESENTATION FOR SELLING HANDWOVEN TEXTILES THROUGH COMMERCIAL AND INTERIOR DECORATORS

This project is the development of a presentable portfolio for commercial and interior decorators reflecting the presenter's German apprenticeship and education as a journeyman hand-weaver. The presentation combines actual woven samples with printed information. The woven sample textiles consist of rugs, tapestries, transparencies, lampshades, and vessels. The printed information is a workbook to inform potential customers about products and their possible uses, as well as to assess the customer's needs. The workbook is intended as a tool for better understanding customers as well as for customers to better understand how products can enhance their living spaces. The project, an interdisciplinary effort joining marketing and art, is guided by books on interior design, color theory, and weaving. The presentation is intended as promotional material for a business based on hand-woven textiles.
**MUSIC**

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NICOLE CHEVALIER (ANDREW BONACCI), DEPARTMENT OF MUSIC, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086

“UNE FLEUR”

Rationale: Music is a means of expression which can be achieved through musical composition as well as lyrics. Objective: I wrote this piece as a challenge to myself; my intent was to capture my feelings in the music as well as by means of French lyrics. Methods: This piece was composed through various sketches. Result: The final product includes rich, dense, chords (with main melody involving ninth chords) as well as different colors and tones produced by the various voice parts.

**THEATRE**

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KEVIN NORTON (ANN MARIE SHEA), DEPARTMENT OF THEATRE, WORCESTER STATE COLLEGE, WORCESTER, MA 01602

THE SUNSET SAINTS

The Sunset Saints is a ten minute play that deals with issues such as death, the afterlife and the religious beliefs our society holds. These themes are set to the backdrop of a funeral and the mythology of beings known as The Saints. These beings [Saints] are spirits of those who have lived before; reluctant to accept death, they must search eternally to fill a void that was caused by their demise. While doing so, they guide the spirits of dead souls on a path that will not lead to that same fate. In this play, a Saint by the name of Keith confronts a young girl named Kate who was killed tragically in a motor vehicle accident. As she is unaware of her own death at the start, Keith must attempt to gently walk her down a path he himself once strode. Upon becoming aware, the girl's reaction forces Keith to confess the truths about who he is, and, most importantly, why he is. Keith is already forced to endure the fate of The Saints and only through his honesty can he guide Kate away from the same future. With a sentimental flair, The Sunset Saints attempts to show us the possibilities and meanings to death as well as life. Stopping along the way to touch upon the ideas of broken promises and misguided emotions, Saints hopefully brings us all to a world which we have never been before.
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