The Ruhlman Conference

It gives us great pleasure to welcome you to the 2002 Ruhlman Conference. Made possible by the Barbara Peterson Ruhlman Fund for Interdisciplinary Study, the Ruhlman Conference is intended to foster collaboration among students and faculty across the disciplines and to enhance the intellectual life of the College. The event will provide an opportunity for students, faculty, staff, friends, family and alumnae to come together in celebration of student achievement.

The conference celebrates intellectual life by sponsoring a communal, public event where students will have an opportunity to present their work to an unusually wide audience. By providing an opportunity for public presentation of what is often a private, isolated activity, the conference will demonstrate that research can be part of the ongoing conversation in a community of scholars.

Attentive to the diversity of student interest and accomplishment, the Ruhlman Conference will include a variety of formats for the presentation of student work: papers, panels, posters, exhibitions, musical and theatrical performances and readings of original work. Representing the work of nearly 300 Wellesley students, the 2002 Ruhlman Conference is organized around nine major themes: The Arts; About Wellesley; Economic Issues; Gender and Sexuality; Multiculturalism and Diversity; Political Development; Analysis of Literature and the Arts; Science and Technology; and Social Institutions and Processes.

We encourage you to experience the diversity and richness of student achievement at the conference and wish to express our thanks and congratulations to all students participating in this special event.

The 2002 Ruhlman Committee

Bob Bossange  
Auxiliary Enterprises

William Cain  
English Department

Nora Hussey  
Theater Studies

Margaret Keane  
Psychology Department

Andrea Levitt  
Office of the Dean of the College

Judy Mitchell  
Office of the Dean of the College

Mary Pat Navins  
Office of the Dean of the College

Joy Paradissis Playter  
Office of the Class Deans

Glenn Stark  
Physics Department

Mary Ucci  
Child Study Center

Jennifer Gregory  
Class of 2002

Dana Huebert  
Class of 2003
### Thematic Overview

#### About Wellesley
- **Wellesley Women: Who Are We?** (paper session) at 9:30 in Pendleton East 117
- **Speaking Up** (panel) at 11:00 in Pendleton East 116

#### Analysis of Literature and the Arts
- **The Body of Memoir** (paper session) at 11:00 in Pendleton East 339
- **Identity and the Arts** (paper session) at 11:00 in Science Center 278
- **Narrative Identity** (poster session) at 1:30 in Jewett Lobby
- **Practicing a Literary Genre: Novel, Essay, Poem** (paper session) at 1:30 in Davis Museum
- **Early to Late Modern in the Arts** (paper session) at 3:00 in Jewett 450
- **Existentialism and Anxiety in Fiction post-1945** (paper session) at 3:00 in Pendleton East 116
- **Reading, Eating and Singing** (paper session) at 3:00 in Pendleton East 239
- **Narrative, Politics and the Family** (paper session) at 4:30 in Pendleton East 117
- **An International Perspective on Literary Identity** (paper session) at 4:30 in Science Center 264

#### Economic Issues
- **International Economic Issues** (paper session) at 1:30 in Pendleton East 139
- **Growing Concerns: Current Issues in Economic Policy** (paper session) at 3:00 in Pendleton East 139

#### Gender and Sexuality
- **Gender Violence and Social Response** (paper session) at 9:30 in Science Center 264
- **From the Centers for Research on Women** (panel) at 11:00 in Pendleton East 139
- **Anthropology and Feminism** (panel) at 11:00 in Science Center 264
- **Sex, Sex Roles and Society** (paper session) at 1:30 in Science Center 278
- **Gender Perceptions** (poster session) at 3:00 in Science Center Focus
- **Feminist Art at Wellesley College** (panel/presentation) at 4:30 in Science Center 377

#### Multiculturalism and Diversity
- **Cross-cultural Issues** (poster session) at 9:30 in Science Center Focus
- **Enduring Spirits: Women’s Roles and Rights** (paper session) at 9:30 in Science Center 278
- **Perception and Personality** (poster session) at 11:00 in Science Center Focus
- **Asian Voices** (panel) at 11:00 in Jewett 372
- **After the Holocaust: Its Legacy in Art** (paper session) at 1:30 in Founders 120
- **Multiculturalism and Diversity: An American Perspective** (paper session) at 3:00 in Pendleton East 339
- **Through an Hispanic Lens** (paper session) at 4:30 in Pendleton East 139

#### Political Development and Conflict
- **Armed Conflict** (panel) at 11:00 in Science Center 377
- **Nationalism in the Twentieth Century** (panel) at 1:30 in Pendleton West 212
- **Getting it Right for the Earth** (panel) at 3:00 in Pendleton East 117
- **American Policy Issues** (paper session) at 3:00 in Pendleton West 212
- **The Buddhist Approach** (panel) at 4:30 in Pendleton West 212
- **Current Perspectives on China and Korea** (paper session) at 4:30 in Science Center 278
### Science and Technology

- **Genetic and Physiological Study of Yeast (panel)** 9:30 Pendleton East 116
- **Probing the Cell (paper session)** 9:30 Pendleton West 212
- **Algorithms, Models and Measurements (paper session)** 9:30 Pendleton East 339
- **Enzymes and Organic Synthesis (poster session)** 11:00 Jewett Lobby
- **Of Mice and Lobsters (panel)** 11:00 Pendleton West 212
- **A Guide to the Galaxies (panel)** 1:30 Pendleton East 117
- **From Paintshop Pond (panel)**
  - **Interdisciplinary Research on Adaptation in Bacteria** 3:00 Science Center 377
  - **Natural Sciences: From Synapses to Stars (poster session)** 3:00 Jewett Lobby
  - **The Art and Science of Multimedia 2002**
    - **Student Projects (multimedia)** 3:00 Science Center 277
  - **The Welcome Warrior Within (panel)** 4:30 Pendleton East 239

### Social Institutions and Processes

- **American Popular Culture (paper session)** 11:00 Founders 120
- **Contemporary Social Concerns (paper session)** 1:30 Pendleton East 239
- **American Political Images (poster session)** 4:30 Science Center Focus

### The Arts

- **Studies in Color Photography (exhibition)** 9:30 Jewett
- **Music from Beethoven (performance)** 9:30 Jewett Auditorium
- **A Prickly Question (exhibition)** 11:00 Pendleton Student Gallery
- **Cultural Expression in the Arts (panel/performance)** 11:00 Pendleton Salon West 220
- **Works from a Master (performance)** 11:00 Jewett Auditorium
- **The Femme Fatale Imagined (exhibition)** 11:00 Jewett
- **Light and Shadow (exhibition)** 1:30 Pendleton West 213
- **Installation Art (exhibition)** 1:30 Jewett Student Gallery
- **Some Transcribed Classics (performance)** 1:30 Houghton Chapel
- **Wellesley College Theatre Presents (performance)** 1:30 Jewett Auditorium
- **Book Arts (exhibition)** 1:30 Clapp Library Book Arts Room
- **Visual Rhythm (exhibition)** 1:30 Jewett Student Gallery
- **Chamber Music (performance)** 3:00 Jewett Auditorium
- **Synergy Jazz Recital (performance)** 3:00 Davis Museum
- **Skeletal Art (multimedia)** 3:00 Jewett
- **Lobster Lust (exhibition/performance)** 3:00 Jewett Sculpture Court
- **The Art of Translation in Children’s Literature (exhibition)** 4:30 Jewett
- **Prism Jazz Recital (performance)** 4:30 Jewett Auditorium
- **Modern Music (performance)** 4:30 Pendleton Salon West 220
Conference Schedule

8:30 – 9:30 Continental Breakfast

Continental breakfast served in Jewett Lobby, Pendleton Atrium and Science Center Lounge.

9:30 – 10:40

About Wellesley

Wellesley Women: Who Are We? (paper session) Pendleton East 117
Nicole Deterding, “The Changing Face of Wendy: Wellesley College as Presented in Admissions Literature”
Sonya Lai, “Personality, Values and the Dark Side of the American Dream: A Study of Wellesley Students”
Maria-Christina Stewart, “Perceptions of Women with Anorexia Nervosa”

Gender and Sexuality

Gender Violence and Social Response (paper session) Science Center 264
Tara A. Chiatovich, “Making the Most of Violence: Protection for the Transgendered Community through Hate Crime Legislation”
Lili Schwan-Rosenwald, “Contemptible Passion: The Effects of Rape on Early New England Society”

Multiculturalism and Diversity

Enduring Spirits: Women’s Roles and Rights (paper session) Science Center 278
Stacey E. Gutkowski, “For Her or For Them: Women’s Human Rights in the Context of Group Rights”
Hanna Jung, “Rights of Females in Refuge: Comparative Study of Afghan Refugees in Iran and Pakistan”
Erin Humphrey, “From Womb to Tomb and Tomb to Womb: A Feminist Buddhist Vision for Elderly Japanese Women”

Cross-cultural Issues (poster session) Science Center Focus
Cory A. Phelps, “Cultural Orientation and Young Children’s Perceptions of Visual Stimuli”
Toshie Imada, “Individualism and Collectivism: A Content Analysis of Textbook Stories in Japan and the United States”
Sudarat (Bo) Ananchotikul, “The Spread of Financial Crises across Emerging Markets”

Science and Technology

Probing the Cell (paper session) Pendleton West 212
Allison D. Dupuy, “Biophysical Investigation and Characterization of Chloroplasts in Arabidopsis thaliana Using Optical Tweezers”
Maggie Waung, “The Role of Apoptosis in Immune System Response”
Yamini M. Ohol, “Does the Novel F-actin-binding Protein, AtABP1, Bind Phospholipids?”
Algorithms, Models and Measurements (paper session)  
Pendleton East 339
Pip M. Huang, "Chaos in the Heart"
Larissa J. Ranbom, "Conceptual Combination and Constraint in Thought-disordered Individuals"
Theresa A. Green, "Searching the Sewer for Insights into the South-Shore Stratigraphy of the Boston Basin"
Veera Pollard, "Finding a Needle in a Haystack: Resolving Cross-document Co-referencing Ambiguity"

Gender and Sexuality (panel)  
Pendleton East 139
Marta Allyson White, "Oral Sex and Adolescents: The Gender Gap in Physical, Social and Psychological Risk"
Sara Villarreal, "Linkages between Drinking Patterns and Domestic Violence in a Sample of Hispanic Men"

About Wellesley

Speaking Up (panel)  
Pendleton East 116
Bettina Scholz, Katrina Spicer, Morgan Caplane and Morgan Munro, "Challenges of Public Speaking at Wellesley"

Music from Beethoven (performance)  
Jewett Auditorium
Hannah Lee, Julie Lee, Jonina Allan and Eliza Heaton, "Beethoven's String Quartet in B Flat Major, Op. 130"

Studies in Color Photography (exhibition)
Ella Coscolluela, "Home: A Series of Observations"

Identity and the Arts (paper session)  
Science Center 278
Elizabeth A. Repass, "Heaven on Earth?: Tahiti through the Eyes of a French Explorer"
Vanessa L. Morrison, "A Modern Adaptation of One Yuan Play"
Yu Christina Yu, "Representing Self: The Identity of Contemporary Chinese Women Artists"

The Body of Memoir (paper session)  
Pendleton East 339
Katharine R.S. Freeman, "Defining Ourselves Through Our Words"
Maria A. Zambrano, "Candombe: an Afro-Uruguayan Expression of Resistance"
Sarah E. Argue, "From the Pulpit: A Collection of United Methodist Sermons"

Genetic and Physiological Study of Yeast (panel)  
Pendleton East 116
Jeanne Hsu, Natasha Teutsch, Melissa Morris and Melanie Prasol, "Morphogenesis in the Yeast, Y. Lipolytica"

Continental breakfast served in Jewett Lobby, Pendleton Atrium and Science Center Lounge.

10:40 - 11:00 Break

11:00 - 12:10
Asian Voices (panel) Jewett 372
Winnie Tam, Wakaba Yonaiyama, Nefertari Browne and Aimee Mizuno, “In Recent Memory: How ‘History’ is Made in Narratives of Postwar Japan and the Asian Diaspora”

Perception and Personality (poster session) Science Center Focus
Erzsi Szilagyi, “From Patient to Technophile: The Information Revolution in Diabetes Self-Management”
Sheree M. Schrager, “Elite Athletes: Why Some Succeed and Some Do Not, Examined through Life-Story Interviews”
Lauren K. Dennis, “Goal Dynamics of Shy People”
Sara B. Edwards, “Artist Block: Fits of Passion and Fury”

Armed Conflict (panel) Science Center 377

Of Mice and Lobsters (panel) Pendleton West 212
Sara Wasserman, Jennifer Mahoney, Reezwana Chowdhury, Yolanda Huang, Jing-Yu Pan and Andra Dingman, “Birth and Death of Neurons”

Enzymes and Organic Synthesis (poster session) Jewett Lobby
Stephanie A. Chan, “Ribosidation of S-substituted 1,2,4-triazole”
Cara A. Rabik, “Synthesis of Biologically Active 1,2,4-triazole-based Compounds”
Sarah Rose Edwards, “Binding of Natural and Artificial Substrates to the Enzyme Thimet Oligopeptidase”
Nalyn Siripong, “Activation of Halogenated Triazoles toward Nucleophilic Substitution via Triazolium Formation”
Shelley Walsh and Ana Tablante, “The Involvement of Surface Cysteines on Thimet Oligopeptidase Activity and Multimer Formation”

American Popular Culture (paper session) Founders 120
Alessa A. Podolak, “The Spectacle of Sports and Politics”
Christine E. Kitzmiller, “‘A Car with a View’: Roadside Culture and American Frontiers in the 1930s and 1950s”
Emily E. Coddington, “Cultural Consciousness and Choreography in the Broadway Musical”
Colbie M. Paulson, “Olympic Propaganda”

The Femme Fatale Imagined (exhibition) Jewett
Faye Park, “Bitter/Butter Lies”

A Prickly Question (exhibition) Jewett Student Gallery
Laura Cincotta, “The Body Bizarre: A Pointed Inquest”

Cultural Expression in the Arts (panel/performance) Pendleton Salon West 220
Works from a Master (performance)  Jewett Auditorium
Yuko Shimokawa, Kristina Nilsson, Tara Chiatovich, Young-Joo Ahn, Eliza Heaton, Jonina Allan,
Leah Morse and Lael Greenstein, "Dvořák: Two Late Masterworks"

12:10 – 1:30 Lunch

All members of the Wellesley College community are invited to have lunch on Severance Green.
(In the event of rain, lunch will be served in the residence halls.)

1:30 – 2:40

Analysis of Literature and the Arts

Narrative Identity (poster session)  Jewett Lobby
Allison M. Price, "Characteristics of Environmental Settings in Children’s Prize-winning Fiction"
Yelena Biberman, "Family Storytelling"

Practicing a Literary Genre: Novel, Essay, Poem (paper session)  Davis Museum
Linda M. Schneider, “What is Real and What is Not”
Thu A. Nguyen, “Mud – A Poetry Reading”
Nausheen N. Eusuf, Alenxandra Dunne-Bryant, Semida Munteanu and Aimee S. Mizuno,
"Writing Nostalgia: A Collection of Personal Essays"

Economic Issues

International Economic Issues (paper session)  Pendleton East 139
Stephanie L. Simmons, “Facing the Future: the Common Agricultural Policy of the EU and
Eastward Expansion”
Ding Wu, “Exchange Rate Behavior in the Post-Bretton Woods Era”
Tuyet-Catrina N. Huynh, “Cruise Ship Waste Dumping: Assessing Levels of Environmental
Regulations”

Gender and Sexuality

Sex, Sex Roles and Society (paper session)  Science Center 278
Leslie Warner, “The Poverty Associated with Motherhood”
Natalie M. Hoyt, “I Would Like a Girl, Please’: The Ethics of Sex-Selection in the United States
and India”
Andrea N. Maginot, "Exploration of the Relationship between Sexual Attitude, Self-Esteem
and Parenting Style”
Rusha S. Desai, “Let's Talk about Sex, Baby! South Asian Women: Sex and Sexuality”

Multiculturalism and Diversity

After the Holocaust: Its Legacy in Art (paper session)  Founders 120
Emily B. Levine, “Children’s Holocaust Literature”
Blair Asbury Brooks, “Being Pushed out of History: The Politics of Peggy Guggenheim’s Life
in the Arts”
Nicole M. Parent, “Shaping Memory: The Complicated Role of Museums and Memorials in
Holocaust Remembrance”
THE R U H L M A N R

CONFEREN C E

Political Development and Conflict
Nationalism in the 20th Century (panel) Pendleton West 212
Ashley Benner, Jill Brewer, Amy Corriveau, Molly Earle, Larissa Higgins, Sushama Sajiwani, Kavita Sridhar and Jamie Dickson, “Ireland and Israel: A Case Study of Two Twentieth Century Nationalist Movements”

Science and Technology
A Guide to the Galaxies (panel) Pendleton East 117
Carolin Cardamone, Tara Donner, Bena Chang, Leah Graniela, Chelsea Tiffany and Jennifer Huff, “Hitchhiking through the Universe on Wellesley’s 24-inch Telescope”

Social Institutions and Processes
Contemporary Social Concerns (paper session) Pendleton East 239
Charlotte V. Sears, “The Portrayal of Bullies on Children’s Television Programs”
Kathleen M. Regan, “Simone de Beauvoir, Hannah Arendt and Freedom”
Judy Liao, “Needle Exchange Programs: Do They Really Work? Analyzing the Efficacy of NEPs in the Reduction of HIV Transmission”

The Arts
Light and Shadow (exhibition) Pendleton West 213

Installation Art (exhibition) Jewett Student Gallery
Devon Miller, “My Eight-Month Creative Journey: Taking Flight in the Jewett Student Gallery”

Visual Rhythm (exhibition) Jewett Student Gallery
Toshie Imada, [témou]

Some Transcribed Classics (performance) Houghton Chapel
Presenters: Patricia Diaz, Yoon Jung Lee, Jane H. Park and Yuko Shimokawa
Performers: Jonina Allan, Lael Greenstein, Eliza Heaton, Jane M. Park, Yoon Jung Lee, Leah Morse, Jane H. Park, Lauren Prusiner, Yuko Shimokawa and Nita Vivatrat, “The Classics Have New Clothes!”

Wellesley College Theatre Presents (performance) Jewett Auditorium

Book Arts (exhibition) Clapp Library Book Arts Room
Jamie Eidsath, Katie Hayes, Libby Sproat and Katharine Stebinger, “Creating an Artist’s Book”
Analysis of Literature and the Arts

**Reading, Eating and Singing (paper session)**  
*Pendleton East 239*

Abigail Jones, "Music is Made from Relationships, Not Rhymes"
Amanda L. Freeman, "What Do Shepherds Have To Do with It?: Exploring Theocritus' Pastoral World"
Alexandra Dunne-Bryant, "Convivial Cuisine: The Effect of Dining Customs on the Reinforcement of Power Structure among Rome’s Political and Social Elite"
Molly V. Dorfman, "Home, Home on the (Viking) Range: The Evolution of Women Chefs"

**Existentialism and Anxiety in Fiction post-1945 (paper session)**  
*Pendleton East 116*

Corrina Moucheraud, "Two Nations, Two Languages, Two Cultures, One Book: Lolita, a Novel by Vladimir Nabokov (Deux Pays, Deux Langues, Deux Cultures, Un Livre: Lolita, un Roman de Vladimir Nabokov)"
Jesse-Anna C. Corlew-Haines, "Speak up, Holden!: Themes of Social Anxiety in J.D. Salinger’s Fiction and Biography"
Annette D. Lienau, "Violence, Force and Social Conscience: The Vortex of French Existentialism and Post-Modern American Absurdism"

**Early to Late Modern in the Arts (paper session)**  
*Jewett 450*

Kathryn E. O’Rourke, "Juan O’Gorman and the Meaning of Modern Architecture in Mexico: The Rivera-Kahlo Studios"
Christine J. Frogozo, "The Inter-Participation of Surrealist Artists and Writers in France"
Emily Coit, "Henry James and Guy de Maupassant: Ambition, Morality and Death in The American and Bel Ami"

Economic Issues

**Growing Concerns: Current Issues in Economic Policy (paper session)**  
*Pendleton East 139*

Abigail H. Emison, "Local Impacts of Brownfield Redevelopment"
Olga S. Panchenko and Kristin A. Fye, "Making Economic Sense of U.S. Trade Regulations"
Mae S. Podesta, Nalyn Siripong and Lysandra C. Ferentinos, "Can’t Buy Me Love: The Economics of Dowry in Sri Lanka"

Gender and Sexuality

**Gender Perceptions (poster session)**  
*Science Center Focus*

Rachel Cheng, "Radiation Effects of Personality Characteristics within Male-Female Relationships: If He’s Got Such a Wonderful Personality then His Girlfriend Must Be Pretty Great too, Right? WRONG!"
Hope E. Hamrick and Noelle J. Morrison, "Perceptions of Professor-to-Student Sexual Harassment"
Multiculturalism and Diversity

**Multiculturalism and Diversity: An American Perspective (paper session)** *Pendleton East 339*
- Ashley B. Bullock, “The Development of Materialism”
- Julie Chang, “Chinese Restaurants and the Construction of Authenticity”
- Stephanie M. Morales, “Rethinking Multiculturalism: An Analysis of Discourse and the Construction of Self-Identity”

Political Development and Conflict

**American Policy Issues (paper session)** *Pendleton West 212*

Science and Technology

**Natural Sciences: From Synapses to Stars (poster session)** *Jewett Lobby*
- Jing-Yu Pan, “Effects of Environmental Enrichment on Learning and Brain Chemistry”
- Ruth Coffey, “The Sediments from Hell...The Hell Creek Formation that Is...”
- Ann G. Zalzman, “Adaptive Responses to Reduced Sunlight: Seasonal Affective Disorder and Lactose Tolerance”
- Elizabeth M. Wolkovich, “Anatomy in Ontogeny: Does Dolphin Vertebral Structure Change with Age?”

**From Paintshop Pond (panel)**

**Interdisciplinary Research on Adaptation in Bacteria** *Science Center 377*
- Laura Lydigsen, Natalie Stein, Sylvia Navato, Ashley Palmer and Tina Wang, “Characteristics of Heavy Metal Resistant Bacteria Isolated from the Former Henry Woods Paint Factory Site in Wellesley, MA”
- Catherine K. Brinkley, Catherine A. Bue, Melissa A. Davis, Amanda R. Esparza, Leslie E. Gibson, Dana J. Huebert, Jiae Kim, Amy F. Nyan, Jennifer T. Redfean, Erica L. Richardson, Levita Y. Robinson, Katherine M. Shea and Julie A. Wright, “How do Cyanobacteria Deal with Stressful Conditions?”

**The Art and Science of Multimedia 2002 Student Projects (multimedia)** *Science Center 277*
- Nandita Ahmed and Stephani Yeunjoo Cho, “Princess to the Rescue”
- Maren Swanson and Jennifer Langer, “Mythic Missions”
- Patricia Diaz and Jennifer Carlile, “SoundStage”
- Cristi Collari and Selena Malla, “Bums’n’Tums”
- Wileen Kao and Poh Sim Saw, “From Abstract to Physical: The Boston Architecture of I.M. Pei”
- Wen-Chi Alice Tiao, Candice Cage and Keren Rosenfeld, “Reality Bytes”
- Kathy Roche and Marjorie Frankel, “Case of the Midnight Murder”
The Arts

**Synergy Jazz Recital (performance)** *Davis Museum*
Karen Gruber, Dong Min Kim, Sarah Lee and Jane Park, "Structure and Freedom: Creating Spaces for Improvisation"

**Skeletal Art (multimedia)** *Jewett*
Kristina Chan, Sophia Greenbaum, Lila Hamilton, Abigail Henderson, Larissa Higgins, Hou Xuelan, Kattayoun Kordy, Vanessa Morrison, Mia Murrieta, Danielle Norris, Maggie O'Grady, I-Won Park, Allyson Solorzano, Emily Stokes, Katherine Webbink, Leah Wener and Natasha Yetman, "Bare Bones: An Exploration of the Human Skeleton in a Variety of Drawing Media"

**Chamber Music (performance)** *Jewett Auditorium*
Cindy Kang, Nita Vivratrat and Kim-Mi Whitehead and Yuko Shimokawa, “Chamber Music of Beethoven and Brahms”

**Lobster Lust (exhibition/performance)** *Jewett Sculpture Court*
Sheree Schrager, Larissa Ranbom, Sarah Barton, Elizabeth Murphy, Shelley MacAskill, Sara Sinclair, Emily Carlin, Kristine Liu, Francesca D'Arcangelo and Tarja Rechsteiner, “Lobster Porn!”

4:10 – 4:30 Break

Refreshments and hors d'oeuvres served in Jewett Lobby, Pendleton Atrium and Science Center Lounge.

4:30 – 5:40

Analysis of Literature and the Arts

**An International Perspective on Literary Identity (paper session)** *Science Center 264*
Natalie S. Ondiak, “An Exploration of Turkish-German and Jewish-German Writers in Contemporary Germany”
Christine Dunbar, “The Ideal Russia, as Present in the Lyrics of Boris Gebenshchikov”

**Narrative, Politics and the Family (paper session)** *Pendleton East 117*
Maria Celeste Alvarado, "Historia de Tejas, Espejo de mi Familia"
Nickolette D. Patrick, "The Image of Lenin in Soviet Children’s Literature"
Amy L. Chen, "A Twice-Told Tale"

Gender and Sexuality

**Feminist Art at Wellesley College (panel/presentation)** *Science Center 377*
Sarah Ligon, Emily Flitter, Amelia Johnson, Sara Edwards, Ruth Chan, Molly Earle, Megan Tucker, Rachel Coker, Jochelle Perena and Jee Eun Yoon, “Power Suits: Guerilla Art at Wellesley”

Multiculturalism and Diversity

**Through an Hispanic Lens (paper session)** *Pendleton East 139*
Hyunjoo Kang, “Carlos Saura, the Iconoclast”
Jennifer M. Sciscio, “Democracy, Politics and Gender: A Costa Rican Case Study”
Lindsey B. Stuart, “Aymara? Chola?: The Construction of a Domestic Servant’s Identity in La Paz, Bolivia”
Political Development and Conflict
Current Perspectives on China and Korea (paper session) Science Center 278
Marta Allyson White, “Population Politics and Policies in China”
Sandy Y. Ho, “Kim Dae Jung and Min Jung Theology”
The Buddhist Approach (panel) Pendleton West 212
Sarah Argue, Jeanne Perrin, Naomi Warren, Laura Pena, Michelle Hollembæk and Vickie Baldasarre, “Responding to Terrorism from a Buddhist Perspective”

Science and Technology
The Welcome Warrior Within (panel) Pendleton East 239
Lin Huang, Catherine Bue, Rebecca Leary, Yamini Ohol and Shelley Walsh, “Immunology Today”

Social Institutions and Processes
American Political Images (poster session) Science Center Focus
Sarah A. Treul and Kathryn M. Harvey, “Connecting with Constituents: Congress in the Electronic Age”
Eva Kaplan, “...and our flag was still there...”

The Arts
The Art of Translation in Children’s Literature (exhibition) Jewett
Maren Swanson, “The Trials of the Titmouse: Creating Relief Prints for Bilingual Children’s Book”
Prism Jazz Recital (performance) Jewett Auditorium
Jessica M. Lee, Nalyn Siripong, Beverly Luther, Jennifer Gordon, Alissa Agnello and Kimberly Huestis, “Musical Expression through Improvisation”
Modern Music (performance) Pendleton Salon West 220
Anna Nousek, Yoon Jung Lee, Clara Pau, Brooke Bryant, Jonina Allan and Jenny Tang, “Twentieth Century Music”
## Conference Planner

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Abstracts
About Wellesley

Wellesley Women: Who Are We? (paper session)

The Changing Face of Wendy: Wellesley College as Presented in Admissions Literature
Nicole Deterding '03, Sociology
Advisor: Thomas Cashman, Sociology

Historically, Wellesley College, like most of our country's liberal arts colleges, has educated a relatively homogeneous, white, and upper-income elite. Over the last 35 years, however, a desire and ability to recruit students from various minority groups and a national trend towards need-based rather than merit-based financial aid have supported a growing diversity of the College's student body. One strategy for attracting students from diverse backgrounds has been the production of recruiting materials geared to their perceived needs and desires.

A content analysis of admissions materials from the early 1970s through the present clearly demonstrates the different strategies of recruiting students, and a comparison between minority and general-audience brochures during each period serves to emphasize the College's perceived concerns of potential Wellesley women. These materials greatly affect students' expectations regarding their college experiences, and thus provide an interesting area of analysis.

Personality, Values and the Dark Side of the American Dream: A Study of Wellesley Students
Sonya Lai '03, Economics and Psychology
Advisor: Jonathan Cheek, Psychology

When one describes the typical Wendy Wellesley, the word "successful" is often used. Through stellar grades, a slew of awards, membership in a multitude of extracurricular activities and assertiveness ("knowing what we want and getting it"), Wendy has thus far been "successful" at "success." This study, using the following tests: 1) The Myer-Briggs Type Indicator (MBTI) to gauge personality type, 2) Amabile, Hill, Hennessey, and Tighe's Work Preference Inventory (WPI) to assess motivation type, 3) The Deci-Ryan Aspiration Index and 4) a specially-designed questionnaire, seeks to determine which personality types and temperaments best fit the "success" formula, an updated American Dream model. More specifically, using Wellesley students as a sample, the study tries to find the correlation between personality, motivation (extrinsic: external gratification such as wealth and prestige, and intrinsic: personal enjoyment and satisfaction) and aspiration in terms of self-acceptance, affiliation/relationships, community feeling/social responsibility, and financial success.

Perceptions of Women with Anorexia Nervosa
Maria-Christina Stewart '02, Psychology
Advisor: R. Steven Schiavo, Psychology

The literature on attitudes toward mental illness reflects that many people stigmatize people diagnosed with such mental illnesses as schizophrenia and depression. However, detailed literature searches show that there has not yet been any research conducted on attitudes reflected specifically toward people with anorexia nervosa, and how they compare with attitudes toward other mental illnesses. My research therefore investigates both the extent to which undergraduate women at Wellesley College believe that most people stigmatize women diagnosed with anorexia nervosa and what form this stigma takes. By looking at the subjects' personal attitudes toward anorectics, and the extent to which personal contact affects attitudes toward specified mental illnesses, I will analyze and compare the stigmatization of anorexia nervosa with that of schizophrenia, depression and mononucleosis.

Where Are You From? A Critique of "Culture" and "Race"
Amy Delamaide '02, Anthropology and French
Advisor: Lauren Leve, Anthropology

Culture, according to sociocultural anthropologists, is the set of ideas, behaviors and practices that help humans to order and interact with their environment. Race is a socially constructed concept associated with - but not inherent in - phenotypic markers. In theory, "culture" is different from "race," but in practice these concepts are both "place-bound": located in space such that cultures and races are believed to be "from" specific places. This uncritical association naturalizes certain categories of identity and difference and obscures the arbitrariness of the social relations that these uphold. Moreover, a place-bound concept of culture results in efforts to foster "multiculturalism" without truly interrogating the underlying assumptions (Gupta and Ferguson 1992). This presentation extends this critique of place-bound notions of "culture" to the concept of "race." Providing evidence from fieldwork conducted at Wellesley College, I argue that reconceptualizing these categories has practical implications for current understandings of racism and multiculturalism.

Gender and Sexuality

Gender Violence and Social Response (paper session)

Making the Most of Violence: Protection for the Transgendered Community through Hate Crime Legislation
Tara Chiatovich '03, French and Psychology
Advisor: Esther Iwanaga, Writing

People with gender identities that do not match their biological sex are greatly misunderstood. While evidence suggests that gender identity is innate, not a choice or a consequence of an unhealthy childhood, the transgendered are accused of being immoral and maladjusted. Such
This paper uses Betsy's case to explore challenges. Rape offers a glimpse of what norms of the time. How men and women reacted to such supposed to preserve social order failed. By including the term "gender identity and expression" in the definition of sexual orientation in hate crime statutes, hate crimes against transgendered individuals would be more likely to receive the concern they deserve, and offenders would be subject to the enhanced penalties outlined by these laws. (Supported by the Multicultural Research Project.)

Contemptible Passion: The Effects of Rape on Early New England Society
Lili Schwan-Rosenwald '02, American Studies
ADVISOR: Nathanial Sheidley, History

Betsy Wheeler was thirteen in 1806 when her father Ephraim Wheeler raped her. The court case and execution that followed from that act open a window into the vast complexities associated with rape in early New England. Rape forced women to confront their sexuality and the dual nature ascribed to them by religious authorities. It forced New England's leaders, meanwhile, to consider what happened when the rules that were supposed to preserve social order failed. This paper uses Betsy's case to explore how men and women reacted to such challenges. Rape offers a glimpse of what happened when New Englanders, who lived in a society strictly controlled by rules and regulations, had to deal with a situation that flagrantly broke the social norms of the time.

Enduring Spirits: Women's Roles and Rights (paper session)
For Her or for Them: Women's Human Rights in the Context of Group Rights
Stacey Gutkowski '02, Philosophy
ADVISOR: Maud Chaplin, Philosophy

What is the debate over group rights, sometimes also referred to as cultural rights? In what ways do group rights present a special challenge to the protection of individual rights? Why is there concern that group rights might infringe on the rights of women? Are the human rights of women the same as the human rights of men? Are separate protections for women's rights legitimate? Is the idea of a right a concept that can be understood cross-culturally? How might women's rights be preserved while still allowing for group rights?

These are some of the questions that I will explore, offering a critique of Susan Moller Okin's argument in Is Multiculturalism Bad For Women? that group rights and women's rights may be conceptually incompatible. Instead, I argue that group rights claims fall along a continuum of increasing social and legal jurisdiction over individuals and that certain claims may be satisfied that do not infringe on the rights of women.

Demystifying the JUBU: What Brings Modern Ashkenazi American Jews to Zen Buddhist Practice?
Jennifer Schwalenberg '04 and Lael Greenstein '04
ADVISOR: James Kodera, Religion

Over the past fifty years, American Jews in noticeable numbers have become involved in Buddhism. More than any other cultural group, Jews have left their tradition for or included in their own tradition Buddhist practices. Through research and extensive interviews with these individuals, commonly known as "JUBUs," we hope to demystify this phenomenon and understand the developing identities of these individuals as both Jews and Buddhists.

We hypothesize that the cultural, rather than religious, nature of American Jewry makes this Jewish population more open to adopting aspects of Buddhist doctrine and practice without giving up their Jewish heritage, culture or identity. As eastern philosophy, including Buddhism, entered America, it became westernized and Americanized. We predict that this adapted form of Buddhism is the form practiced by these individuals. Our hypothesis is that the focus of this westernized Buddhism on meditation and personal spiritual journey compliments American, modern Jewish thought and practice.

Rights of Females in Refuge: Comparative Study of Afghan Refugees in Iran and Pakistan
Hanna Jung '03, Political Science
ADVISOR: Christopher Candland, Political Science

Making up approximately 80 percent of the world's refugee population, female refugees are particularly vulnerable to inadequate health, education and personal security. However, conditions vary widely. What factors influence the protection of female refugees? To identify the policies and conditions that lead to better protection of the human rights of girls and women, I comparatively study Afghan refugees in Iran and Pakistan. Specifically, I examine why some indicators of female empowerment in the host population are strong indicators of effective protections and opportunities for female refugees. (Research supported by the Office of the Dean of College)

From Womb to Tomb and Tomb to Womb: A Feminist Buddhist Vision for Elderly Japanese Women
Erin Humphrey '02, Religion and Japanese Studies
ADVISOR: James Kodera, Religion

Since the mid-sixth-century AD Confucian and Buddhist conceptions of ideal womanhood influenced the creation of limited and defined gender roles for women in Japan. Elderly Japanese women of the twenty-first century face not only the feminist challenge to traditional female role expectations, but also changes in and
shortages of physical and psychological support from family, elderly communities, professional care providers and spiritual communities. When aging women encounter the role-shift from caregiver to care-receiver, they may enjoy liberation and independence or struggle with isolation. Advocacy for women as equal members of the Buddhist community and teachers of the Dharma (the teachings of the Buddha) continues to grow, signaling tremendous potential to create future spaces for contemplation, practice and support for elderly women. The female Bodhisattva of Compassion, an enlightened being who chooses to come back to this world to help others, provides Buddhist women with a positive spiritual redeemer/guide for their own lives from womb to tomb as mothers, friends, listeners and liberators.

Cross-cultural Issues (poster session)

Cultural Orientation and Young Children’s Perceptions of Visual Stimuli

Cory A. Phelps ’02, Psychology and Educational Studies

ADVISOR: Nancy Genera, Psychology

Recent findings suggest that perceptions of visual stimuli may vary by culture. For example, individuals from cultures that emphasize an independent view of self are likely to perceive objects separately from the context in which they are embedded and to communicate information about objects through the use of direct and succinct language. By contrast, members of interdependent cultures are highly attuned to contextual cues and are likely to utilize background information to describe objects and to use indirect and elaborate language. This study explored the effect of low – versus high – context on preschoolers’ perception of visual stimuli. The data suggest that children who predominantly speak English or Spanish in their home will perceive stimuli in a culture-specific manner. Although preliminary, these findings suggest that perception of visual stimuli may vary among preschool children in predictable ways. This may have implications for our understanding of cognitive development among young children.

Individualism and Collectivism: A Content Analysis of Textbook Stories in Japan and the United States

Toshie Imada ’02, Psychology

ADVISOR: Robin M. Akert, Psychology

The purpose of this study is to compare the cultural values of Japan and the United States through an analysis of the themes presented in children's textbooks. Stories will be sampled from Japanese and American elementary-school language textbooks. First, the themes present in each story will be rated and analyzed for their reflection of collectivistic or individualistic cultural values. Second, specific details in the stories will also be coded. It is hypothesized that stories in American textbooks will reflect more individualistic cultural values than Japanese stories, while Japanese stories will reflect more collectivistic cultural values than American stories. It is also hypothesized that American stories will take place in a wide range of locations, have fewer characters and have more clear-cut, happy endings. The implication of results in relation to previously established theories and findings will be discussed. (Research supported by a Schiff Fellowship)

The Spread of Financial Crises across Emerging Markets

Sudarat (Bo) Ananchotikul ’02, Economics and Mathematics

ADVISOR: Akila Weerapana, Economics

The Mexican crisis of 1994 and the East Asian crisis of 1997 are prime examples of financial difficulties that occur in one country and then spread to other countries in the same region and, in some cases, to other regions. In the economics literature this process of rapidly, and widely, spreading financial panic is known as “contagion.” While crises tend to originate in countries with vulnerable domestic fundamentals, the spread of the crisis may be caused by external factors such as common stocks, trade linkages, financial linkages and pure contagion. This study examines the causes underlying the origination and spread of crises in currency markets, stock markets and money markets. The sample consists of 45 emerging markets and covers a 20-year period from 1980 to 1999. (Research supported by a Schiff Fellowship)

Science and Technology

Probing the Cell (paper session)

Biophysical Investigation and Characterization of Chloroplasts in Arabidopsis thaliana Using Optical Tweezers

Allison Desiree Dupuy ’02, Physics and Biology

ADVISOR: Theodore Ducas, Physics

Optical tweezers are one of the most innovative and promising among the new tools that allow us to address important questions about biological processes and phenomena. With an optical tweezers system we can manipulate micrometer-sized objects with minimal intrusiveness. The device is based on the principle that microscopic objects can be trapped in the waist of a strongly focused laser beam. The special features of optical tweezers allow investigators to work in the interior of living and unopened plant cells. For my honors thesis, I conducted a biophysical investigation and characterization of chloroplasts in plant leaves of Arabidopsis thaliana using optical tweezers. Optical trapping of chloroplasts within the natural environment enabled me to investigate the intercellular frameworks, movement, transport processes, and forces inside living plant cells. These properties were measured and compared to some basic models. (Research supported by the Howard Hughes Medical Institute and the Jerome A. Schiff Fund)

The Role of Apoptosis in Immune System Response

Maggie Waung ’02, Physics

ADVISOR: Beverly Blazar, Biological Sciences and Nir Hacohen, Whitehead Institute for Biomedical Sciences

The goal of this project is to elucidate the cellular basis of self recognition. Apoptotic cells are a possible means by which the immune system recognizes self antigen. Dendritic cells (DCs) that are capable of taking up apoptotic cells directly interact with T cells, which are involved in cell-
mediated immune response. Reactions in vitro show proliferation of CD8+ T cells after treatment with DCs and apoptotic cells. Cytotoxic lysis assays of these killer T cells exhibited antigen specific lysis of target cells. These results, along with immunoassays of cytokine release, suggest that although induction of killer T cells occurs, proliferation of activated cells may result in a minor immune response. Parallel in vivo experiments with fluorescence-activated cell sorting analysis support these results. Future T cell tracking experiments in mice will reveal more about the nature of self antigen presentation within the body. (A portion of this research was supported by the John and Marie Zimmermann Foundation.)

**Does the Novel F-actin-binding Protein, AtABPl, Bind Phospholipids?**

*Yamini M. Ohol '02, Biological Chemistry*

*Advisor: T. Kaye Peterman, Biological Sciences*

AtABPl was recently discovered and isolated in this laboratory, and found to contain a region of homology to the yeast protein Sec14p. Sec14p transfers phosphatidylinositol (PI) and phosphatidylcholine between membranes and is essential for Golgi-associated protein secretion. We hypothesized that AtABPl also binds phospholipids. AtABPl was expressed and purified from E. coli and an assay using phospholipid vesicles was developed to characterize its binding activity. Binding to a range of PL mono-, bi- and tri-phosphate derivatives was also tested using a “fat blot” assay. AtABPl was found to bind most strongly to PI-3-P and PI-5-P, with some binding to other PI derivatives. Since PI-3-P is required for the formation of Golgi-derived secretory vesicles and AtABPl is located at the cell plate, AtABPl may link the actin cytoskeleton to the Golgi and play an important role in the vesicle trafficking required for cell division. (Research supported by a Schiff fellowship.)

**Light Transmission Changes due to Chloroplast Movement in Arabidopsis thaliana (L.)**

*Marlana Brown '05, Saroj Fleming '05 and Vanessa Hsu Chen '04*

*Advisor: Robbie Berg, Physics and Glenn Stark, Physics*

The chloroplast movement of Arabidopsis thaliana is studied by exposing leaf samples to blue light. The samples are first dark-adapted to achieve the face position in which the chloroplasts are aligned perpendicular to the light. The transmission of weak red light through the leaf is monitored using a helium-neon laser. The transmission level through the leaf is measured with a photodiode. After blue light exposure, chloroplasts achieve the profile position in which they are lined up parallel to the light and therefore achieve maximum transmission of red light. An increase of 30% in transmission is observed. In previous studies, however, the transmission rate increased by roughly a factor of 2. Different factors of the experiment will be manipulated in order to maximize the transmission of the leaf due to exposure to blue light.

**Algorithms, Models and Measurements (paper session)**

**Chaos in the Heart**

*Pip Huang '02, Mathematics*

*Advisor: Martin Magid, Mathematics*

Over the past few decades, technology has advanced so greatly in medicine that the expected lifespan is now much longer than previously. Recently, new ways to analyze data have been developed and utilized that doctors can understand more about a person’s condition and prognosis. The field of nonlinear mathematics and its analytical methods has turned out to be one of the most useful tools in many fields of medicine, including cardiology. Research has shown that nonlinear mathematics may often give much more information about a person’s condition than conventional methods. With the use of this theory, doctors can measure heart rate variability and can use the results to predict whether a person is going to go into heart failure or have other fatal problems. I will explain the idea behind Chaos Theory and how doctors and mathematicians can use Chaos Theory in order to better predict patients’ prognoses.

**Conceptual Combination and Constraint in Thought-disordered Individuals**

*Lanisa J. Ranbom '02, Cognitive Science*

*Advisor: Margery Lucas, Psychology*

The process of conceptual combination involves generating a novel image or meaning from a head/modifier noun pair, such as "zebra bag." Studies in normal individuals have found that the predominant type of response is property-based: a property of the modifier, such as a zebra's stripes, is mapped onto the head noun, resulting in an interpretation such as "a bag with black and white stripes." The majority of the remaining responses are relational, such as interpreting "zebra trap" as "a trap used to capture zebras."

This study applied a conceptual combination paradigm to a group of schizophrenic subjects. We were interested in how response types for this group would differ from those of normal individuals, between low and high levels of thought disorder, and whether the degree of contextual constraint in the noun pairs would influence that relationship. The results of this study have implications for the nature of language processing in thought-disordered individuals and the mechanisms underlying conceptual combination.

**Searching the Sewer for Insights into the South-Shore Stratigraphy of the Boston Basin**

*Theresa A. Green '02, Geology*

*Advisor: Margaret Thompson, Geology*

Study of the bedrock geology in the Boston area is frustrated by sparse outcrops and complicated structural relationships. The Braintree-Weymouth Tunnel, currently being constructed to connect communities on the south shore to the Deer Island sewage treatment facility in the Boston Harbor, offers an opportunity to study the continuous subsurface relationships between rock units needed to clarify regional stratigraphic and structural relationships. This research focuses on lithological similarities and differences.
between well-documented and -dated surficial outcrops, such as the Middle Cambrian Weymouth Formation, and similar types of rocks in the tunnel using petrographic microscope study, X-ray diffraction scans, electron microscope analysis, and U/Pb Zircon dating where available.

**Finding a Needle in a Haystack: Resolving Cross-document Co-referencing Ambiguity**
Veera Pollard '03, Computer Science
Advisor: Ellen Hildreth, Computer Science

Topic detection and tracking is the attempt to automatically pull out the most important aspects of a collection of news stories. The relevant questions are: What happened? Who is this story about? Where and when did this event occur? Cross-document co-referencing occurs when more than one story refers to the same person, place or event. A human reader can easily aggregate the names - Martin Luther King, Dr. King and MLK - into one person, but this task is challenging to do automatically. Mathematical models and name normalization algorithms are being used successfully to resolve some of these ambiguities.

**Genetic and Physiological Study of Yeast (panel)**

**Morphogenesis in the Yeast, *Y. lipolytica***
Jeanne Hsu '02, Biological Sciences,
Melissa Morris '02, Neuroscience and Spanish, Melanie Prasol '02, Neuroscience and German Studies and Natasha Teutsch '02, Biological Sciences
Advisor: Douglas Brown, Biological Sciences

*Yarrowia lipolytica* is a 'non-conventional,' eukaryotic yeast. It is dimorphic, having the ability to switch between a filamentous form of growth and a yeast form of growth. Dimorphism is a characteristic shared by many pathogenic yeasts and *Y. lipolytica* has been reported to cause infections in the blood of immunocompromised patients. These findings support earlier suggestions that *Y. lipolytica* is an emerging opportunistic pathogen.

Since little is known about *Y. lipolytica* dimorphism, our lab is interested in exploring the genetic and physiological responses of *Y. lipolytica* as it undergoes a dimorphic switch. This panel will present information on how different mutagenesis strategies have been employed to identify genes involved in dimorphism. The presumptive genetic, physiological and structural roles of the candidate genes isolated will also be discussed.

**The Arts**

**Music from Beethoven (performance)**

**Beethoven's String Quartet in B Flat Major, Op. 130**

Hannah Lee '02 (violin), English and Economics, Julie L. Lee '02 (violin), English and Economics, Jonina Allan '04 (viola), Music and English and Eliza Heaton '02 (cello), Religion
Advisor: Suzanne Stumpf, Music

Beethoven's late string quartets are known for their darkness and introspective character. Opus 130 reveals the multifaceted talents of his genius. In addition to expanding the parameters of compositional structure, its six movements are imbued with myriad emotions that run the gamut from playful to idyllic to tortured.

With this complex composition, the challenges to a chamber ensemble include the virtuoso technical demands for the individual players, ensemble execution and intellectual and emotional discipline for interpreting the work. Studying this masterpiece has helped us to grow as individuals and as an ensemble, both musically and intellectually. We are pleased to be able to present this work to you, and we hope you enjoy the performance.
About Wellesley

Speaking Up (panel)

Challenges of Public Speaking at Wellesley

Bettina Scholz ’03, Political Science and Russian Area Studies, Morgan Caplane ’03, English, Katrina Spicer ’03, Anthropology and Morgan Munro ’03, International Relations

ADVISOR: Barbara Boger, PLTC, Director of Programs

Can students help students become better public speakers? We think so. Tutors in the PLTC Public Speaking Program help students hone their public-speaking skills. There are various expectations of public speaking at Wellesley and many challenges in achieving them, whether it be participating actively in class, giving good oral presentations or utilizing PowerPoint properly. Public Speaking Tutors give workshops addressing these challenges and meet with students in courses where public speaking is emphasized. One of the benefits of students helping students is that the personal experiences of the tutors often provide examples for dealing with common difficulties.

Analysis of Literature and the Arts

Identity and the Arts (paper session)

Heaven on Earth?: Tahiti through the Eyes of a French Explorer

Elizabeth Repass ’02, Geography and French

ADVISOR: Anjali Prabhu, French

Is Tahiti really Paradise? A terrestrial Paradise is impossible, yet the French explorer Louis-Antoine de Bougainville portrayed Tahiti as a veritable Garden of Eden. He spent barely a week on the island in 1768, but went on to write one of the most influential descriptions of it. In fact, much of the picture of Tahiti that de Bougainville portrayed still lingers today. In this paper I will address de Bougainville’s representation of Tahiti and the manner in which he glosses over negative impressions of the culture in order to sustain this utopian picture. Bougainville’s utopian image of Tahiti is constructed through a narrative which becomes the point of intersection of important discourses that articulate various forces such as, the colonial enterprise, rivalry between the French and British Empires and theories on the Noble Savage.

A Modern Adaptation of One Yuan Play

Vanessa Morrison ’03, Chinese Studies and Studio Art

ADVISOR: Sherry Mou, Chinese

The Injustice Done to Tou Ngo, a Chinese supernatural play from the Yuan Dynasty (1271-1368), describes the tale of a condemned woman who in death fights to clear her name. In an attempt to save her mother-in-law, Tou Ngo is falsely accused of a murder and sentenced to death; thus, at her execution, Tou Ngo can only call upon heaven and hell as witnesses of her innocence. One can see how these themes remain relevant even today. I am working on a contemporary adaptation of this seven-hundred-year-old play.

My talk focuses on ways to update the play without losing the integrity of the original or changing the basic plot. This adaptation will show how to make the transition from the written word to the modern stage.

Representing Self: The Identity of Contemporary Chinese Women Artists

Yu Christina Yu ’02, Art History

ADVISOR: Heping Liu, Art

Women artists are still a minority in the male-dominant Chinese art community today. Although the bracket “women artists” may give them opportunities for public exposure, gender identity is not their only interest or concern. More recently Chinese women artists have experimented to explore self identity at an unprecedented personal level. As their art does not seem to address their collective experience as women, it is hard to generalize any collective languages these artists share. By looking at several women artists currently active in China and overseas, this presentation examines the identity issue of representing self in light of gender politics in contemporary Chinese art.

The Body of Memoir (paper session)

Defining Ourselves through Our Words

Katharine Freeman ’02, English and American Studies

ADVISOR: Lawrence Rosenwald, English

The current popularity of memoir, from Angela’s Ashes to A Heartbreaking Work of Staggering Genius, has been remarked on repeatedly in the last decade. Memoirs, with their double focus on the self and the world, present us with numerous questions about identity formation, representation of culture and gender and external versus internal truth. In my thesis, I look at these issues, focusing on individual texts and on larger culture issues, in order to come to conclusions about how we write our lives, what stories we choose to tell and how those published memoirs are both critically and popularly received.

Candombe: an Afro-Uruguayan Expression of Resistance

Maria Alejandra Zambrano ’02, Peace and Justice Studies and Latin American Studies

ADVISOR: Johnny Webster, Spanish

Candombe is an African-derived rhythm that has survived in Uruguay despite the “white” society’s effort to ignore the “black” legacy. This rhythm traveled to Uruguay with thousands of slaves, and now it has become a symbol of resistance and memory. Three different drums – the piano, the chico and the repique – tell together the story of the Afro-Uruguayan community that is still discriminated against. My presentation will focus on the role of women and local grass-root organizations – such as Mundo Afro – within this cultural expression, and the political
challenge they face to prevent Candombe from becoming a colorful spectacle for tourists without real historical significance. (Supported by the Office of the Dean of the College-Multicultural Research Grant)

From the Pulpit: A Collection of United Methodist Sermons
Sarah E. Argue '03, Political Science and Economics
Advisor: Stephen Marini, Religion

After twenty-four years in the pulpit of the largest United Methodist church in Arkansas, Dr. James B. Argue, Sr. retired and left behind a legacy of powerful preaching. Seven years after his death, members of his congregation even now remember his sermons with a sense of awe. While my grandfather did not inspire awe in me, he was a potent influence in my life. Through the collection and analysis of his sermons – published, unpublished and broadcast – a manuscript will be created to send to a United Methodist publishing house. The presentation will focus on the process involved in developing this manuscript, including the selection process, the problem of broadcast versus written text, the challenge of summarizing a career through original documents and my editorial introduction.

Gender and Sexuality

From the Centers for Research on Women (panel)

Oral Sex and Adolescents: The Gender Gap in Physical, Social and Psychological Risk
Marta Allyson White '02, Biological Chemistry and Chinese Studies
Advisor: Deborah Tolman, Center for Research on Women

Recent anecdotal and statistical evidence suggests an increased frequency in oral sex among heterosexual adolescents. While health risks relative to intercourse are unclear, the social climate and individual meaning of this behavior is highly salient to adolescents. Data on sexual health were gathered through a literature review of popular and academic literature for the past twelve years and a subset (n = 72 interviewed) of participants from a longitudinal study (n = 281 surveyed) as they progressed from middle to high school. Content analysis was used for analyzing these data. Popular literature focused on girls’ oral sexual behavior as sensational, while mention of boys’ oral sexual behavior was predominantly limited to factual reporting. The interviews revealed increased apprehension among female adolescents regarding oral sexual behavior (fellatio), predominantly due to the social risk of labels such as “chickenhead” and “pigeon”, while boys felt they gained higher status among their peers for having had oral sex.

(Research supported by Stone Center, Class of ’67 Fellow)

Anthropology and Feminism (panel)

There WILL Be a Feminist Ethnography
Suzanne Bonfiglio '03, Anthropology and Philosophy, Amanda Freeman '02, Classical Civilizations, Laura Lane '03, Anthropology, Jessica Majerus '03, Anthropology and Political Science, Lindsey Pyler '02, English
Advisor: Lauren Leve, Anthropology

In September 2001, a group of Wellesley College anthropology students left the classroom for the ethnographic field. One studied vegan students at Wellesley; another, American nationalism following September 11; a third, the eclectic “Pit” scene in Cambridge’s Harvard Square. Other projects examined Black Lesbians in the greater-Boston area, a Wellesley café cooperative and on-line pro-anorexic groups. Each student hoped to portray her subjects honestly while still recognizing the implications of her personal subjectivities on her study itself. The group’s diversity of employed theories and methods speaks to a burgeoning field of feminist ethnographic practice and writing. This presentation examines and utilizes feminist ethnography by means of personal, lived experience and its relationship to established feminist anthropological theory and method. Feminist ethnographic processes will be presented as dynamic experiences negotiated by the scholar’s subjectivities and those of the subjects studied.
**Multiculturalism and Diversity**

**Asian Voices (panel)**

In Recent Memory: How ‘History’ is Made in Narratives of Postwar Japan and the Asian Diaspora

Nefertari Browne ’02, Japanese Studies, Aimee Mizuno ’04, Japanese Studies and English, Winnie Tam ’02, Philosophy and Japanese Studies and Wakaba Yonaiyama ’02, Psychology and Japanese Studies  
**ADVISOR:** Eve Zimmerman, Japanese

History demands to be interpreted by the writer. Our panel explores how literary representations encode, challenge or mold the past, specifically in postwar Japan and contemporary Asian America. Nefertari Browne explores Kenzaburo Oe’s portrayal of women, showing how their roles as guardians of memory may complicate his position as a left-wing Japanese writer. Aimee Mizuno, in an examination of Medoroma Shun, a contemporary Okinawan writer, traces the process by which individuals and a culture retain war memory. Winnie Tam uses the tools of narrative and memory to trace her mother’s experience in America and to examine the complex process of constructing an Asian American identity. Finally, taking a new approach to a Christian writer, Wakaba Yonaiyama shows how Shusaku Endo remembers and recasts events surrounding World War II in order to question Japan’s ethical position in future.

**Perception and Personality (poster session)**

From Patient to Technophile: The Information Revolution in Diabetes Self-management  
**Erzsi Szilagyi ’04, Chemistry**  
**ADVISOR:** Alison McIntyre, Philosophy

Diabetes is a disease in which patients provide their own day-to-day care, so patient education plays a dramatic role in determining outcomes for patients with diabetes. I collaborated on a study that aimed to identify factors that hindered the successful self-management of Type 2 diabetes in patients served by a hospital clinic. The interviews with patients documented startling informational gaps: Patients who used glucometers to monitor and record their blood glucose values did not know how to interpret the results that they recorded and some did not even know what their target values were. What could explain this? I hypothesize that patients generally receive their most comprehensive diabetes training at their diagnoses, and this is not updated as treatment options and technologies evolve. The new frontier in medicine is the successful integration of patient education with new technologies and the fostering of collaborative relationships between patients and health care providers.

**Elite Athletes: Why Some Succeed and Some Do Not, Examined through Life-Story Interviews**

Sheree M. Schrager ’02, Psychology and Mathematics  
**ADVISOR:** Laurel Furumoto, Psychology

Previous research indicates that, regardless of sport, most elite athletes have quite similar behavioral patterns and attitudes. Why, then, do some continue on to succeed in sport where the others cannot? This thesis examined the worldview of a group of elite athletes in relation to their professional success. Life-story interviews were conducted with a group of top college ice hockey players, some of whom had already achieved professional success in their sport (selection in the NHL entry draft, signing a professional contract, etc.) and some of whom had not realized success beyond the college level. The taped interviews were transcribed and given a narrative analysis that looked for themes or indicators differentiating between the two groups. This thesis helps address why, given a set of elite athletes in a sport who possess the same talents and skill level, some transition easily into successful professional careers while the rest do not.

**Goal Dynamics of Shy People**

Lauren Dennis ’02, Psychology and French  
**ADVISOR:** Jonathan Cheek, Psychology

Psychologists have conducted a great deal of research on shyness during the past 25 years, but little of that research has concerned the goals of shy individuals, specifically how the goals are determined, what the goals are, why they are set at certain levels and how they differ from the goals of nonshy individuals. I devised a packet of questionnaires, including the Shyness Syndrome Inventory, the Stanford Shyness Survey, the Goal Orientation Index and the Aspects of Identity Questionnaire, and administered it to 100 Wellesley students. The results were analyzed to identify differences between shy and nonshy participants.

**Artist Block: Fits of Passion and Fury**

Sara B. Edwards ’02, Art  
**ADVISOR:** Thomas Cashman, Sociology

Madness is often romantically associated with the mind of the genius. In relation to fine artists, one might additionally include intoxication, narcissism, violence, isolation and masculinity. Through various forms of popular media, the image of the artist has been rendered as one of a obsessive and troubled man, seeking understanding and solace through art. Clips from a variety of movies depicting the lives of artists will be presented and analyzed in the context of the mythology of the artistic profession. There will also be a strong focus on how the exclusionary identity of the artist is constructed with respect to the mentally stable, the privileged and the female. The identity of the artist as outsider will be explored by examining socially constructed definitions and expectations of the artist, past and present. Paintings of my own will help to facilitate a more personal narrative about the effects of the artist archetype and its ability to influence the work that I create.
Political Development and Conflict

Armed Conflict (panel)

The World at War: Understanding Contemporary Conflict

Morgan Adams '03, History and Latin American Studies, Adona El-Murr '03, International Relations and Environmental Studies, Nora Jarrah '02, International Relations, Anabay Sullivan '02, International Relations and Shruti Yadav '02, International Relations

A collaborative research project has sought to answer three questions: How did these wars are driven by ethnic or religious tensions, some by territorial or resource competition, some by national security interests. Some are new, some have been going on for generations. This panel will draw upon a semester-long effort (INAT 301) to understand the historical origins of seven contemporary conflicts in Algeria, Bosnia, Chiapas, Northern Ireland, Central Africa, Israel/Palestine and Kashmir. The collaborative research project has sought to answer three questions: How did these seven conflicts start? Why have they endured for so long? What accounts for their intensity? The presentations will draw upon each of these case studies and offer thematic explanations for the sources of contemporary conflict in a global perspective.

Science and Technology

Of Mice and Lobbies (panel)

Birth and Death of Neurons

Reezwana Chowdhury '02, Economics and Neuroscience, Andra Dingman '02, Neuroscience, Yolanda Huang '03, Neuroscience, Jennifer Mahoney '02, Africana Studies and Biology, Jing-Yu Pan '02, Neuroscience and Sara Wasserman '02, Neuroscience Advisor: Barbara Beltz, Biological Sciences and Joanne Berger-Sweeney, Biological Sciences

Nerve cells (neurons) are unique cells within the body because in adulthood they have a very limited potential for regeneration. Without regrowth, the nervous system has a limited capacity for recovery after injury and cell death, which makes diseases of the nervous system particularly devastating. One of the most exciting discoveries in neuroscience in the last decade is that neurons in the adult nervous system do have some capacity for proliferation. This discovery has spawned extensive research into the multitude of factors that control cell birth (neurogenesis) and cell death. In this session, we will explore neuronal birth and death in invertebrate and vertebrate animal models. Specific topics will include how circadian rhythms and sex hormones influence neurogenesis throughout the life of the animal. These findings have implications for disorders of the nervous system as diverse as schizophrenia, brain metastasis of cancer and spinal cord injury.

(Advisors: William I. Hitchcock, History)

Enzymes and Organic Synthesis (poster session)

Ribosidation of S-substituted 1,2,4-triazole

Stephanie A. Chan '02, Chemistry Advisor: David R. Haines, Chemistry

The synthesis of a series of potentially biologically active nucleosides involves ribosidation at the N-4 position of 1,2,4-triazole (1). Our work has focused on developing a methodology for this selective N-4 ribosidation. Direct chemical ribosidation of 1,2,4-triazole (1) at the N-4 position has not previously been reported. When an electrophilic substituent is added to 1,2,4-triazole (1), it is placed at the undesired N-1 position. Previous work has shown that the substitution of a sulfur at the C-3 position of 1,2,4-triazole (1) to form 1,2,4-triazolin-3-thione (2) activates the N-4 position. Therefore, we are working on various strategies utilizing C-3 S-substituted 1,2,4-triazoles. Once the ribose group is added on to 1,2,4-triazole (1) at the desired N-4 position, we will then remove the C-3 substituent to obtain our desired product. The resulting product will then be subjected to other chemistry being developed in our lab for N-4 substituted 1,2,4-triazoles.

(Research supported by a Schiff Fellowship)

Synthesis of Biologically Active 1,2,4-triazole Based Compounds

Cara Rabik '02, Biological Chemistry Advisor: David R. Haines, Chemistry

Nucleoside analogs have been shown to exhibit chemotherapeutic and anti-viral effects in the body. The ability to substitute 1,2,4-triazole (1) at N-1 has led to the synthesis of a series of N-1 substituted nucleoside analogs. Methylation of 1-phenyl-1,2,4-triazole occurs at C-5, upon addition of butyllithium followed by methyl iodide, forming 5-methyl-1-phenyl-1,2,4-triazole (2). Reaction with a second equivalent of butyllithium results in deprotonation of the methyl group, as shown by the formation of a 5-ethy1-1-phenyl-1,2,4-triazole in a second methylation reaction. However, reaction of the methyl anion with more complex electrophiles has not been successful. Reaction with cyanogen bromide has generated the methyl-triazole dimer (3), indicating that substitution can take place. Current work is focusing on creating an eight-membered ring in the center of this ring system, resembling tricyclic antide-
pressants. Work is ongoing to attach a cyanide group to the methyl group, which would enable the desired purine analog to be synthesized.

Binding of Natural and Artificial Substrates to the Enzyme Thimet Oligopeptidase
Sarah R. Edwards '02, Chemistry
Advisor: Adele J. Wolfson, Chemistry and Jeffrey A. Sigman, Chemistry

The enzyme thimet oligopeptidase (TOP) is important in the metabolism of several biologically-active peptides. A modified version of TOP, with one negatively-charged amino acid residue changed to a neutral one, was found to have decreased activity toward natural substrates but increased activity toward artificial substrates. This suggested that the negative residue is in the binding site of the enzyme, interfering with the binding of negatively-charged groups on the artificial substrate but essential for binding positively-charged groups on the natural substrate. We have previously shown that positively-charged metal ions increase TOP's activity toward artificial substrates, perhaps by neutralizing the charge on either substrate or enzyme. In testing the activity of the enzyme in the presence of these metal ions, both the natural and modified enzymes had increased activity toward the artificial substrate and decreased activity toward the natural substrate. The negative residue may play a role in the binding of substrates to TOP.
(Research supported by the Dreyfus Foundation; NSF-REU; Howard Hughes Medical Institute)

Activation of Halogenated Triazoles toward Nucleophilic Substitution via Triazolium Formation
Nalyn Siripong '02, Chemistry and Economics
Advisor: David R. Haines, Chemistry

Some nucleoside analogs have practical use as enzyme inhibitors. This is our motivation in proposing a new series of nucleoside analogs. My synthesis is based on the compound 4-phenyl-1,2,4-triazole. Recent studies have shown that 4-phenyl-1,2,4-triazoles can be activated toward nucleophilic addition and substitution via N-substituted triazolium intermediates (1). The triazolium nitrogen can act as a nucleophile to attack either alkyl groups or halogens to yield the triazolium ion. A nucleophile can then add to the adjacent carbon in the triazole ring, to give the C5-substituted triazole or triazoline. Using either alkyl groups and halogens as N1 substituents, I will discuss the use of various nucleophiles to make bonds at the C5 position of the triazole ring.
[Research supported by NSF REU (Research Experiences for Undergraduates) and by the Arnold and Mabel Beckman Foundation]

The Involvement of Surface Cysteines on Thimet Oligopeptidase Activity and Multimer Formation
Shelley Walsh '02, Biological Chemistry and Ana Tablante '04
Advisor: Adele Wolfson, Chemistry and Jeffrey Sigman, Chemistry

Thimet oligopeptidase (TOP) is an enzyme that cleaves short neuropeptides. Unlike most enzymes, it is activated by dithiothreitol (DTT), an agent which breaks S-S bonds. These bonds are formed by neighboring cysteine residues. TOP contains several cysteine residues on its surface, and the enzyme can form dimers when S-S bonds form between them. When this happens, activity is lower. Several mutant forms of TOP have been made in which either one or two of these surface cysteines have been mutated so as to prevent S-S bond formation. Two of the mutants (one with modification at Cys 46 and one with modification at Cys 682 and 687) were separated into their monomeric and dimeric form and the activity was tested. The results indicate that dimerization through one side of the enzyme decreases its activity, while dimerization through the opposite side has little effect.

Social Institutions and Processes

American Popular Culture (paper session)

The Spectacle of Sports and Politics
Alessa Ann Podolak '02, Sociology
Advisor: Thomas Cashman, Sociology

This presentation addresses the spectacular dimensions of sports and politics in the modern world. Sporting events are not only attended for the audience to watch the talents of the players involved, but to view other spectacles that accompany the "show". There are lights, flashy uniforms/costumes, music and special shows during timeouts and halftime. These types of spectacles can be seen in politics as well, in the tactical use of music, parades and flashy lights also. This presentation is based on research on spectacles which unify sports and politics. Such spectacles are looked at through the lens of sociological theory, which considers the production of modern spectacles and their effects, conscious and unconscious, on the audience.

A Car with A View: Roadside Cultures and American Frontiers of the 1930s and 1950s
Christine Kitzmiller '02, American Studies and History
Advisor: Paul Fisher, English

The introduction of the automobile into American society caused great cultural changes, including the development of roadside architecture and literary road narratives in the 1930s and the 1950s. In a parallel to Frederick Jackson Turner's myth of the frontier, automobiles created new cultural frontiers for Americans to explore during these two decades.
The development of roadside institutions - such as gas stations, touring camps, motels, restaurants, drive-in movies and fast food restaurants - as well as the social history of American attitudes toward them, provides important historical context for two important American literary works of these decades, The Grapes of Wrath and Lolita. Careful readings of these texts reveal the changing American roadside and these authors' developing conceptions of America. The nostalgia surrounding road trips and roadside culture in America today shows the importance of these developments, as Americans today try to preserve the disappearing roadside institutions of the 1930s and 1950s.

**Cultural Consciousness and Choreography in the Broadway Musical**

*Emily Coddington '02, History and Theatre Studies*

**Advisor:** Jerold S. Auerbach, History

Choreographer Agnes de Mille said, "Bodies never lie. Therefore the truest expression of a people is in its dances..." Dance, however, has been an overlooked resource in the illumination of our society's cultural identity. As an indigenous art form, musical theatre is particularly American in both its creation and production; and throughout the 20th century, the choreography of Broadway musicals served as a form of expression that explored major issues confronting the American public. This presentation will focus on the 1970s, a decade that proved especially turbulent as Americans came to terms with the implications of Watergate, as our armed forces withdrew from Vietnam, and as an amendment granting equal rights to women was proposed. Videotaped examples of choreography from period Broadway shows (such as Bob Fosse's Pippin and Chicago and Michael Bennett's A Chorus Line) will demonstrate how dance can be analyzed as a reflection of cultural identity. (Research supported by a Schiff Fellowship)

**Olympic Propaganda**

*Colbie Paulson '02, Art History*

**Advisor:** Thomas Cushman, Sociology

The rituals of the modern Olympic Games are fundamental elements in crystallizing the public's perceptions of nationalism, supernaturalism, internationalism and transnationalism. They build on the myths we know about our world, play up our emotions and visually express our hopes for the future of mankind. They function as a world stage on which individuals, groups and nations manufacture consent or choose to protest the current state of the world.

The spectacle of the opening ceremonies in modern Olympic history is examined in order to determine the multiple messages of the Olympic Games. Topics of special concern are the growing size of Olympic ceremony, the role of television in compensating the viewer for his or her absence from the actual ceremonies, and the life span of public awareness of the messages of the Olympic Games. An analysis of the 2002 Salt Lake opening ceremony is presented in comparison with the ceremonies of previous Olympic Games, focusing on the recent games' continuity with or difference from past Olympic opening ceremonies and ascertaining the techniques and strategies which make the opening ceremonies effective.

**The Arts**

**Cultural Expression in the Arts (panel/performance)**

**L'chol dor v'dor: From Generation to Generation: Exploring the Identity of Jewish Women**

*Carissa Wyant '02, Peace and Justice Studies and Religion*

**Advisor:** Barbara Geller, Religion

This play explores the lives of Jewish women at particular points in history. The late nineteenth-century Eastern European Jewish "shetel" is recreated through the eyes of a rabbi's daughter. Her family will follow the paths of many of the ancestors of today's American Jewish community in emigrating to New York at the turn of the century. Entering a world of poverty, discrimination, and tenement life, our narratrice dreams of a better time for her and her people. Her descendants will experience the social revolutions of the 1960s and 1970s, and finally offer their reflections on women in the contemporary American Jewish community.

**A Glance of South Asian Classical Dance: Bharata Natyam, Kuchipudi and Kathak**

*Rusha Shreyas Desai '02, Computer Science, Aparna Ramaswamy '02, Spanish and Vandana Reddy '03, Neuroscience*

**Advisor:** Geeta Patel, Women's Studies

Bharata Natyam developed chiefly in Tamil Nadu, India over the past 3,000 years. Performances were a part of daily rituals and religious occasions. Bharata Natyam is known for its vigorous footwork and crisp movements. Kuchipudi derives its name from the village of Kuchlapuram, in Andhra Pradesh, India, and consists of dance, drama and music. It was originally a male dance tradition, and groups of men traveled to villages enacting stories from Hindu mythology. In the last century women have been introduced to this dance form. Kuchipudi is characterized by fast rhythms and fluid movements. Kathak, the most widely performed dance in North India, dates back over 2,000 years. Modern-day Kathak is a theater art which has the vigor of dynamic footwork and pin-point spins, as well as subtle face and hand movements; it incorporates elements from both Muslim and Hindu cultures. We also present how each dance form has impacted us as first generation South Asian Americans.
**Works from a Master (performance)**

**Dvořák: Two Late Masterworks**

Yuko Shimokawa '03 (violin), International Relations and Music. Leah Morse '04 (violin), Cinema and Media Studies. Jonina Allan '04 (viola), Music and English. Eliza Heaton '02 (violoncello), Religion Studies. Lael Greenstein '04 (piano), Religion Studies and Spanish. Kristina Nilsson '05 (violin), Tara Chiatovich '03 (violoncello), Psychology and French and Young-Joo Ahn '05 (piano)

**Advisor:** Nancy Cirillo, Music

Anton Dvořák, a prominent Romantic composer of the late nineteenth century, is recognized for the Czech nationalism in his music. Born in a Bohemian village, he suffused his works with folklike tunes and the popular dance rhythms of his culture. His flair for portraying geographic elements is further exemplified by his “American Quartet,” composed while residing in the United States.

Dvořák’s style is beloved for its joyousness. The freshness and gaiety that spring forth from his works are without parallel in Western music. The *Piano Quintet Op. 81* perfectly illustrates also the sensuous happiness and nostalgia that emerge from his evocation of country life. After bursting with a fiery, spirited allegro movement, the second one derives from a European melancholic folk ballad, the Dumka. The third movement gives an impression of happy provincial life, and the final movement bustles with rich interflowing melodies. In Dvořák’s music it is easy to see how the simple, rustic folk tunes work so well as joyous music; the vitality of folk music is a celebration of man’s traditions of community which Dvořák brings to the level of nationalism. Another remarkable feature of the work is the equal importance of each part: with Dvořák’s fertility of inventions there are many intoxicating melodies to be shared and enjoyed by everybody.

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**A Prickly Question (exhibition)**

**The Body Bizarre: A Pointed Inquest**

Laura Cincotta '02, Studio Art and Italian Studies

**Advisor:** Bunny Harvey, Art

In a series of mixed-media drawings on paper and other surfaces I investigate the burr, an organic object with a fascinating aesthetic. Also known as the Chinese Chestnut, this bizarre and intricate specimen with its mass of matted, viciously sharp spines paradoxically represents both the menacing and the nurturing. I began an exploration of this extraordinary subject through a number of different approaches: large gesture drawings, small intimate studies, digitally enlarged prints, transparencies. As I continue to examine the burr through drawing, I discover its myriad associations with the environment that surrounds me every day. In my works, the burr becomes a vehicle to express an uneasy yet passionate relationship between self and the environment, between self and spirit, between self and family. I present the results of my sustained and intense interrogation not only of a natural object, but also of human identity in a threatening ecological or social space.

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**The Femme Fatale Imagined (exhibition)**

**Bitter/Butter Lies**

Faye Park '02, Spanish and Economics

**Advisor:** Phyllis McGibbon, Art

My work consists of five cigarette boxes three times enlarged from the actual size in different states of assembly. This work turned two-dimensional prints into a three-dimensional structure. The images on the cigarette boxes are that of shoes, flat geometrical shapes, butterflies, snakes and text that are relief-hand printed. What we perceive about the things around us are not entirely true since there are always tricks that can deceive our perception. “Butter lies” - “Lies” as smooth as butter - can be one of these deceptions, while it can simply be a typo of “butterflies.” The texts on my work can be read in different tones and have multiple meanings. Both creatures, a butterfly and a snake, do not seem to have much in common, but both have to shed their skin in order to change or grow. My work expresses a hope to shed the skin of deceptions and try to see the real truth.
Analysis of Literature and the Arts

Narrative Identity (poster session)

Characteristics of Environmental Settings in Children’s Prize-winning Fiction

Allison Price ’02, Psychology
Advisor: R. Steven Schiavo, Psychology

This study examined how fiction might shape children’s stereotypes of specific environmental settings. We conducted a content analysis of fiction that, between 1975-2001, won either the Newbery award (given by the American Library Association for distinguished contributions to children’s literature) or the Coretta Scott King award (given to a distinguished children’s book by an author of African descent). The themes examined included the main physical setting of the novel, the occurrence of threats from weather, the evaluative depiction of nature, the environmental competence of the central character, and the presence or absence of environmental issues (e.g., overpopulation, pollution.) We also compared the winners of the two prizes on the type of main setting. Preliminary findings suggest there is some bias regarding how various places are presented: urban and rural settings are over-represented, negative aspects of urban settings are emphasized and weather-related threats are associated with small town and rural settings.

Family Storytelling

Yelena Biberman ’04, International Relations
Advisor: R. Steven Schiavo, Psychology

This study is concerned with family storytelling, the stories which family members tell each other about their histories and lives, as well as the histories and lives of extended family members and ancestors. One research question is the content of such stories. A second question is whether the content is related to aspects of family dynamics – for example, the degree of family cohesion or the values that families stress. Undergraduate females completed several standard questionnaires measuring family relationships and dynamics. In addition, each wrote two stories. One story described an event or episode involving family members that the participant felt best exemplified her family. A second story was one that she had been told by others regarding an event or episode involving family members (but which she did not experience herself). These stories are being content analyzed and the content will be related to various dimensions of family dynamics. (Research supported by National Science Foundation Award for the Integration of Research and Education Program)

Practicing a Literary Genre: Novel, Essay, Poem (paper session)

What is Real and What is Not

Linda M. Schneider ’02, English
Advisor: Marilyn Sides, English

My novel is about a “typical” middle class family living in suburban New York in the 1960s and 70s. But “typical” with a slant. The parents, Bertram and Helen, are schizophrenic. Their psychoses result in numerous explosive as well as subtle clashes with the world, each other, and their two girls, Clay and Lacy. The challenge has been to write from inside the minds of Bertram and Helen in an effort to help the reader “see” and “feel” what it’s like to “inhabit” their “realities.” The novel is not for the squeamish, with frank scenes of sexual abuse, of physical and emotional violence. The novel is for those who are moved and moved even at times, in spite of everything, to laugh as these characters struggle so hard to achieve a family. (Research for novel supported by a Schiff Fellowship)

Fogland: A Collection of Nonfiction Essays

Linda Andrade Rodrigues ’02, English and Medieval/Renaissance Studies
Advisor: Susan L. Meyer, English

Presenting a selection from my Creative Writing Honors Thesis, I will read from a collection of meditations on the sea. The following is excerpted from an essay entitled “The Windsurfer.”

“She rounded the curve near the ocean’s edge and spotted something in the water. It appeared to be a black trash bag, flotsam being hurled back and forth in the tide. Climbing down the steep bank, she investigated. A man in a wet suit floated in the foam. Terrified, she stumbled up the rocky shore, calling for help. At first the neighbors didn’t notice. A beach is a noisy place, where yells of children echo as they jump the waves or play games in the sand. However, her persistent screams finally alerted neighbors who rushed to the seashore. Two men pulled the battered body of a windsurfer from the water. He was dead.”

Mud – A Poetry Reading

Thu Nguyen ’02, English and Political Science
Advisor: Frank Bidart, English

Mud is a collection of poems written and edited over a period of two years. It is the poetic documentation of an exploration – it is the author’s attempt to answer questions about poetry, story-telling and autobiography.

Where do stories originate? Is it possible to write without the influence of personal experiences? Can writing ever be completely fiction, can it ever be without the lingering presence of autobiography, and if so, is it any good?

By examining the processes through which each part of Mud was produced, from word choice to paper and script type of the limited edition printing, and then taking in a reading of the poems by the author, we discover the true dimensionality of poetry that is more than just the written word, but also performance, and art.
Writing Nostalgia: A Collection of Personal Essays

Nausheen Eusuf ’02, Computer Science, Alexandra Dunne-Bryant ’02, Greek and Latin, Semida Munteanu ’03, Economics and Aimee Mizuno ’04, Japanese Studies
Advisor: Paul Fisher, English

This presentation will consist of excerpts from essays written by four students in WRIT 225, nonfiction writing, last summer. The focus of the course was the personal essay, and to encourage creativity we were given a great deal of freedom in choosing topics to write about. Despite this latitude, it was striking how as the summer progressed we all circled back to the same themes: that of our relationships to and our conceptions of home, family, self and mortality. We came into the course from very different backgrounds – an American, a Romanian, a Japanese-American and a Bangladeshi – yet the stories we share evoke a hauntingly familiarity of shared nostalgia, hope, fear, sorrow and joy. This is the story of these remarkable connections explored through the personal essay.

Economic Issues

International Economic Issues (paper session)

Facing the Future: The Common Agricultural Policy of the EU and Eastward Expansion

Stephanie Simmons ’02, French and International Relations
Advisor: Wendy Harper, Economics

The European Union’s Common Agricultural Policy sets internal prices for goods such as grains, dairy products, wine, olive oil and beef. The prices are much higher than world prices, meaning that consumers and taxpayers transfer huge sums to farmers annually. After World War II, fresh memories of shortages and starvation motivated this plan to ensure supply, but today there is no longer a need to promote self-sufficiency at such a cost. The CAP is an outdated policy that threatens the EU’s future. The budgetary pressures of the CAP must be sharply reduced before the EU enlarges to discharge pollution. International pollution standards for ships have been set; however, for eight randomly selected countries, political, economic and environmental factors vary and must be examined in order to identify the overall effectiveness of regulations from protecting the marine environment against polluters.

Exchange Rate Behavior in the Post-Bretton Woods Era

Ding Wu ’02, Economics and Mathematics
Advisor: Brock Blomberg, Economics

The current international monetary system, since the collapse of the Bretton-Woods system, is based on three pillars – monetary policy sovereignty, flexible exchange rates and free movement of capital. It is, however, at the cost of highly volatile exchange rates, particularly at short-term horizons. Short-term exchange rate behavior has remained a puzzle in international finance. This paper constructs a theoretical model that combines models from the finance and economics literature to explain empirical findings. The model evolves from a multi-factor affine model, applies the pricing kernel hypothesis to exchange rate movement in continuous-time form, and discusses the special cases where two countries have symmetric/asymmetric mutual influences. Employing continuous-time framework and allowing for asymmetric interaction cross the border, the new exchange rate model is able to show that the forward premium anomaly is indeed normal and that non-linearities in exchange rate behavior can result from country asymmetry.

Cruise Ship Waste Dumping: Assessing Levels of Environmental Regulations

Tuyet-Catrina Huynh DS ’03, Environmental Studies
Advisor: Elizabeth DeSombre, Political Science

Under what conditions does a country promote strict regulations and enforcement for protecting the oceans from cruise ship waste? Cruise vacations have been steadily rising for decades. With tourism comes waste generated by humans and the cruise ships that carry them to their destinations, and it is likely that each person will be affected by the waste
post-conceptive selection are three possible methods. The United States and India are not only different in their populations, cultures, and medical venues, but also in the ethical arguments which surround sex-selection. Gendercide, as sex-selection is sometimes called, is entirely immersed in ethical debate, highlighted especially by feminist ethics and cultural relativism. Are the ethical debates different for each country’s support of sex-selection? Should the ethical arguments be different? Why is sex-selection of fetuses such an ethical dilemma? These questions are explored as parents from both countries continue to pick and choose between the X and Y chromosomes of their offspring.

Exploration of the Relationship between Sexual Attitude, Self-Esteem and Parenting Style
Andrea N. Maginot ’03, Psychology

Sexual attitude is a construct used to define how one views sexual activities. The two extremes on the scale are conservative and liberal. My two hypotheses were that students with higher self-esteem would be more liberal and students who came from an authoritarian household would be more conservative. The Rosenberg Self-Esteem Scale, the Texas Social Behavior Instrument and a modified version of the Sexual Attitude Survey and Profile were administered to the student. The Parental Authority Questionnaire was posted online for parents of the student to fill out. Convergent validity was found between the Rosenberg Self Esteem Scale and the Texas Social Behavior Instrument. The modified Sexual Attitude Survey and Profile had an alpha of .90. No correlation was found between parenting style or self-esteem and sexual attitude.

Let’s Talk about Sex, Baby!
South Asian Women: Sex and Sexuality
Rusha Shreyas Desai ’02, Computer Science and Economics

According to recent statistics, the average American has sex 124 times a year with 14.3 partners. That’s more than one and a half times more than the average Indian who has sex with 3.0 partners. (Source: SSL International study, 5/2001) What about South Asians in the U.S.? Women of South Asian descent are often caught between the stereotypes of the exotic, Kama Sutra-learned sex goddess and the shy, inhibited prude. In one of the first surveys of its kind, we will take a real look at sex amongst college-age South Asian and South Asian-American women in the Boston area. As we turn our gaze towards the sub-continent, voices of women from different backgrounds will share their experiences with sex, sexuality and social constructs.

Multiculturalism and Diversity

After the Holocaust: Its Legacy in Art (paper session)

Children’s Holocaust Literature
Emily B. Levine ’02, History

Since the end of World War II, changes have occurred in the approaches and materials used to teach children the history of the Holocaust. Historical events such as the Eichmann trial, conflicts in Israel, and the coming of cultural consciousness in America have sparked new awareness and priorities among educators and lawmakers. These historical events and their impacts are reflected in the evolution of children’s Holocaust literature. A close examination of picture and story-books, the written and staged versions of Anne Frank’s Diary of a Young Girl, and recently published controversial memoirs indicates this progression.

Being Pushed Out of History: The Politics of Peggy Guggenheim’s Life in the Arts
Blair Asbury Brooks ’02, Art History and Economics

Peggy Guggenheim’s story as a patron of the arts, a poor scion of the prominent Smelting family, an expatriate, a Jew, a business woman and a liberated woman is not easily placed in history – and even more so, because she chose to spend the last portion of it in Venice. To her biographers, and even in her autobiographies, Peggy Guggenheim’s life in Venice appears as the epilogue to an already completed and noteworthy existence. Yet it is through the prowess of the eccentric dowager who lived in Venice that the rest of Peggy Guggenheim’s story is held together and of consequence. During her time in Venice, Peggy’s identity became synonymous with prowess of her collection – a synthesis that she cultivated the most ardently in Venice. Peggy did not retire to Venice; Peggy completed herself – the myth of herself – in Venice. By adding the epilogue of Venice to her career as a patron, Peggy made her story unique, thus ensuring its place in history. It is through the image of Peggy Guggenheim that Peggy projected in Venice that history views the earlier, and equally juicy parts of her life.

Shaping Memory: The Complicated Role of Museums and Memorials in Holocaust Remembrance
Nicole Parent ’02, American Studies and History

Two simple words, “Never forget,” surface in almost every Holocaust museum and memorial. Indeed, most agree that we have a moral obligation to remember the Holocaust, and to pay tribute to the victims of the Nazi state. Many would argue that we also have an obligation to educate future generations about the evils and legacies of National Socialism. From Poland to Israel, and even here in the United States, communities have wrestled with how to remember best the past and educate for the future. My studies of Holocaust history and my visit to several Holocaust sites both here and in Europe have illuminated the importance and complexity of Holocaust memory and education, a subject which raises difficult and painful questions but offers few clear answers. My presentation will assess the design and function of selected Holocaust museums and memorials as they endeavor to address the challenges these questions pose.
explore the fundamentals of imaging the night sky with the astronomical digital camera on our 24-inch telescope. We will then describe how we measured: the mass of Saturn by following the motions of its moons; the spin of an asteroid by tracking its light through the night; the distance to a star cluster by determining star colors; the structure of a supernova remnant by using an image mosaic; and the shape and structure of spiral galaxies by analyzing multicolor images.

**Social and Technology**

A Guide to the Galaxies (panel)

Hitchhiking through the Universe on Wellesley's 24-inch Telescope

Carolin Cardamone '02, Math and Astronomy, Bena Chang '04, Tara Donner '02, English, Leah Graniela '02, Spanish, Jennifer Huff '04 and Chelsea Tiffany '04

Advisor: Kim McLeod, Astronomy

Come along with ASTR 206 as we take you on a tour of research projects and images produced from data taken at Wellesley’s Whitin Observatory. We will

Nationalism in the Twentieth Century (panel)

Ireland and Israel: A Case Study of Two Twentieth Century Nationalist Movements

Larissa Higgins '03, Architecture, Kavita Sridhar '02, Economics, Sushama Saljwani '03, International Relations, Molly Earle '03, English, Amy Corriveau '02, History, Ashley Benner '02, Peace and Justice Studies, Jill Brewer '02, Sociology and Jamie Dickson '02, International Relations

Advisor: Frances G. Malino, Jewish Studies

Over the course of the fall semester in HIST 327, we have traced, through comparison and contrast, the emergence and evolution of two expressions of twentieth century nationalism: Zionism and Irish Nationalism. In the course of our exploration of political, social, religious and ideological trends in nineteenth and twentieth century Irish and Jewish cultures, we examine various facets of the two nationalist movements: the role of women in both movements, the expression of Jewish and Irish immigrant solidarity and acculturation in Boston and New York and the construction of nationalist histories and worldviews, with an emphasis on the way the film medium has propagated these worldviews.

Contemporary Social Concerns (paper session)

The Portrayal of Bullies on Children's Television Programs

Charlotte V. Sears '02, Psychology

Advisor: Sheila Brachfeld-Child, Psychology

This presentation will explore how bullies are portrayed on children's television. Bullying is a pervasive problem throughout schools worldwide. How bullies are depicted on TV may influence children's conceptions of bullies and bullying. Because TV is a major source of information, it may affect children's abilities to identify real-life bullies. This presentation will submit findings from a content analysis of children's TV programs and will examine the portrayal of bullies and victims, context and outcome of bullying, and types of bullying behavior. Comparisons will be made between TV's depiction of bullies and bullying and research studies' findings in this area.

Simone de Beauvoir, Hannah Arendt and Freedom

Kathleen Regan DS '02, Philosophy

Advisor: Nicolas de Warren, Philosophy

Both Simone de Beauvoir and Hannah Arendt, contemporary twentieth-century philosophers, believed in the fundamental contingency of human existence and wrote about freedom in light of this contingency. I will compare de Beauvoir's understanding of freedom as explained in The Ethics of Ambiguity with that of Arendt as she describes it in her essay, "What Is Freedom?" Despite the sharp differences in their respective conceptions of freedom, both of their approaches converge on the central idea of freedom as action. I will trace the trajectories of their respective articulations of freedom, the ways in which they come together and explore what I think is important about that convergence.

Needle Exchange Programs: Do They Really Work? Analyzing the Efficacy of NEPs in the Reduction of HIV Transmission

Judy Liao '02, Political Science and Economics

Advisor: Wilbur Rich, Political Science

The spread of AIDS and the transmission of HIV, constitutes one of the most prolific and frightening pandemic of our time. In the United States, as of 1997, one third of all new HIV infections were transmitted through the sharing of contaminated needles and syringes. Needle exchange programs target this high-risk group of intravenous drug users and attempt to curtail the epidemic by supplying clean hypodermic needles and syringes in exchange for used contaminated needles. Advocates propose that this reduces the transmission of HIV by reducing the risk of sharing contaminated needles. However, opponents feel that NEPs perpetuates the pandemic, exacerbating the problem by supplying addicts with a steady supply of needles. Both arguments will be evaluated in determining the efficacy of NEPs. Such programs have been implemented in Europe as well as the U.S., with various factors such as politics, ethical issues and funding influencing their performances.

Education and Change: The Israeli Educational System and Israeli Jews of African and Asian Descent

Rachel Schwartz '02, Sociology

Advisor: Jonathan Imber, Sociology

Jews of African and Asian descent have struggled to close the educational gap between themselves and Jews of Eastern European descent. While the goal of raising the educational achievement of those of African and Asian descent, has not changed, the methods used to attempt
to achieve parity have. One of the most recent initiatives, the Kedma School, founded by Jews of African and Asian descent and their supporters, is funded by the Israeli educational system. This new school challenges traditional definitions of the center and periphery in Israeli society as well as the curriculum and practices of the Israeli educational school system. (Research supported through a stipend from the Office of the Dean of the College)

The Arts

Some Transcribed Classics (performance)

The Classics Have New Clothes!

Presenters: Patricia Diaz '02, Cognitive and Linguistic Sciences, Yoon Jung Lee '03, Music and International Relations, Jane H. Park '04, Music and International Relations, Jee Hyun Shimokawa '03, Music and International Relations.

Performers: Jonina Allan '04 (viola), Lael Grenstein '04 (piano), Eliza Heaton '02 (violoncello), Religion Studies, Jane M. Park '04 (cello), Yoon Jung Lee '03 (flute), Lauren Taigue '04 (viola), Leah Morse '04 (violin and violoncello), Jane H. Park '04 (violin), Lauren Prusiner '04 (violin), Yuko Shimokawa '03 (violin), Music and International Relations and Nita Vivatrat '02 (piano), Music

Advisor: Arlene Zallman, Music

Transcription is a noble art; besides being a phenomenal pianist and composer, Franz Liszt was famous for his numerous transcriptions of orchestral and vocal works for piano solo. In MUS 300: Instrumental and Transcription, we learned to transcribe music that we loved but was not written for our own instrument. In order to complete our transcription projects, we studied instrumentation, the fundamentals of the piece of music we were transcribing, the balance and architecture of the music; the range, playing techniques and colors of individual instruments that we were writing for; and the interplay between them. This knowledge needed to be internalized within our musical understanding in order for us to make successful transcriptions. By working on these projects, all of us have greatly improved our musicianship. We have gained familiarity with different instruments as well as the pieces of music we transcribed. Our final projects reflect our personal tastes: Jane Hyoun-ju Park transcribed Frank Martin's Agnus Dei (originally for double SATB choir) for organ and string quartet. Yuko Shimokawa transcribed Beethoven's Egmont Overture (for orchestra) for her chamber music group, a piano quintet. Patricia Diaz transcribed Solo e Pensoso, an Italian madrigal by Luca Marenzio based on a Petrarch sonnet (originally for five voices) for flute, piano and two trombones. Yoon Jung Lee transcribed a well-known Brahms song for flute, cello and piano. These works will be played by the performers in this session.

Installation Art (exhibition)

My Eight-Month Creative Journey: Taking Flight in the Jewett Student Gallery

Devon C. Miller '02, Studio Art and Art History

Advisor: Elaine Spatz-Rabinowitz, Art

In an installation in the Jewett student gallery I have attempted to express space as it is experienced both physically and spiritually. Transforming shoes into a delicate flock of migrating birds, I question the grounded-ness and groundless-ness of our existences. In my presentation I will discuss the frustration and inspiration I've experienced while completing this studio art thesis project.

Visual Rhythm (exhibition)

[témou]

Toshie Imada '02, Studio Art

Advisor: Phyllis I. McGibbon, Art

A tempo is a speed at which a musical composition is performed. Just as a concerto consists of several movements of different tempos, this collection of prints, [témou], has four parts - largo, andante, moderato and allegro. Using similar images of a plant repeatedly, various colors, techniques and compositions of each section express different emotional states, which affect the visual perception. For example, in largo, the mood is slow and relaxed, so the plant is perceived as calm and mellow. In contrast, in allegro, the mood is lively and excited, so the plant is bright and vivid. The collection includes various printing techniques such as relief, intaglio, lithograph, monotype, or combination of these.

Light and Shadow (exhibition)

Self-Evidence: An Interactive Multimedia Paper-Based-But-Not-Confined Art Exhibit

Katrina Weber '02, Peace and Justice Studies

Advisor: Bunny Harvey, Art

Put simply & simply put: A self in evidence. Identity, under glass. From the flecks of skin that form the dust under my bed to the gender I am continually constructing: my multifaceted roles in all their glory, the objectifier & the objectified: the reduction of the self to a product simple enough for general cultural consumption.

Peel it back.

Where is the 'me' that is of more substance than the boxes I put myself in & struggle to take myself out of? Only when we seek to see beyond the paper forms & singular identities of our fellow human beings do we understand them at all.

The viewer is invited to touch & play with everything in the exhibit.
Wellesley College Theatre Presents
(performance)

Love, Lunacy and Loss: A Theatrical Retrospective
Sarah E. Barton '02, Theatre Studies and Classical Studies, Emily Coddington '02, Theatre Studies and History, Elana Hayasaka '02, English, Andrea Kennedy '03, Women's Studies and Theatre Studies, Cameron Salisbury '02, Women's Studies, Lili Schwan-Rosenwald '02, American Studies and Theatre Studies, Sara M. Simons '03, Women's Studies and Sara Wasserman '02, Neuroscience and Theatre Studies
ADVISOR: Nora Hussey, Theatre Studies

Over the past year, Wellesley's theatrical community has brought an array of fascinating stories to life. During this 70-minute presentation, audience members will be treated to a retrospective of the work created throughout the 2001-2002 season. Orchestrated with the assistance of director, Nora Hussey, choreographer, Katie Griswold, and musical director, Jeanne Munroe, this piece represents the efforts of over 100 students involved with the theatre program at Wellesley. As in the very successful performances of the past five years, the emphasis of this year's program will be on the essence of theatre. That essence is the communication of ideas, feelings and thoughts to the audience and the establishment of compelling relationships between actors onstage. This presentation will provide an alternately touching, funny and insightful look at an assortment of issues all of which fall under the umbrella of "triumph of the human spirit."

Book Arts (exhibition)

Creating an Artist's Book
Jamie Eidsath '02, English, Katie Hayes '02, American Studies, Libby Sproat '03, Math and Cognitive Science and Katharine Stebinger '03, Women's Studies and Art History
ADVISORS: Ruth Rogers, Special Collections Librarian, IS/Library and Katherine McCanless Ruffin, Visiting Instructor in the Book Arts, IS/Library

During the current spring semester 2002, 12 women explored the history and the production of the book through Book Arts Studio (ARTS107). Instructed by Ruth Rogers, Special Collections Librarian, and Katherine McCanless Ruffin, Visiting Instructor in the Book Arts, each member of the class produced a limited edition artist's book, drawing on weekly class sessions on typography, page design and format. The unusually rich holdings of rare books and contemporary artists' books in the College Library's Special Collections provided the historical context and inspiration for our individual projects. We were guided through the stages of page layout with text and image, setting lead type by hand and printing on hand presses, while overcoming the challenges of two-color registration. Each student's completed artist's book was printed in an edition of 30 copies, allowing us to exchange them with each other and to deposit one in the archives of Special Collections.
As we'll as the legacy of the shepherd, Theocritus. Culminating in detailed readings of selected Idylls from Theocritus, heralded as the shepherd persona as a key to understanding the originality of Theocritus' works as well as the legacy of the shepherd within Greek cultural thought.

Convivial Cuisine: The Effect of Dining Customs on the Reinforcement of Power Structure among Rome's Political and Social Elite
Alexandra Dunne-Bryant '02, Latin and Classical Civilization
Advisor: Ray Starr, Classical Studies

In any community, the ways in which food is divided, shared and eaten reveals "what a particular society judges most important in its general understanding and patterning of human and social relationships" (K. Bradley). It is a commonality between every culture—all humans must eat—but is specific to each culture based on the geographical consideration of what they are able to grow, slaughter or trade. In Ancient Rome, food and dining practices served to establish, reinforce and maintain the power relationships between the elite and the others. Strict rules governed who was invited to a banquet, where they sat, how they behaved and what they ate; differentiated cuisine and treatment based on social status was a hallmark of Roman dining. Convivia, with its emphasis on "living together," was an ideal opportunity for Rome's elite to demonstrate their wealth, authority and power.

Home, Home on the (Viking) Range: The Evolution of Women Chefs
Molly Dorfman '02, Spanish and Neuroscience
Advisor: Susan Reverby, Women's Studies

Although women have always had a place in the domestic kitchen, they have had less glory in obtaining recognition as chefs in large restaurant kitchens. Because women tend to be self-deprecating in the kitchen, and generally more focused on simple methods, they tend to be perceived as having less authority in the culinary world. They have had to overcome several multifaceted obstacles regarding how professional kitchens and restaurants are run. Major assumptions that women have had to battle include a prejudice against the required physical work of a chef, the desire for a family that inhibits long hours, an inferior level of taste sensitivity, a "personal" connection to the food, and a lack of necessary business and organizational skills. These biases are unjust, and many women's experiences are documented and discussed here, with a purpose to show that women, too, can “kick it up a notch!”

Existentialism and Anxiety in Fiction post-1945 (paper session)

Two Nations, Two Languages, Two Cultures, One Book: Lolita, a Novel by Vladimir Nabokov (Deux pays, deux langues, deux cultures, un livre: Lolita, un roman de Vladimir Nabokov)
Corrina Moucheraud '02, French
Advisor: James Petterson, French

By the time Lolita was translated into French (Eric Kahane, 1959), Vladimir Nabokov had tired of l'affaire Lolita. He only hurriedly looked over the proofs for the translation, leaving it riddled with textual inconsistencies. Nabokov was multilingual, and he carefully chose the narrative language for each of his novels, especially the American English of Lolita. American life, culture, landscape and language fascinated Nabokov, and Lolita is as much a testament to this fascination as it is a love story or a murder mystery. There is no doubt that Nabokov carefully crafted Lolita as a multileveled masterpiece, and that the story cloaks many different layers of meaning. In examining the French translation I suggest that there was some manipulation of the novel's content as it changed languages—some of the novel's layers were subtracted deliberately, some were lost in translation, yet others were purposely added. (Research supported by the Office of the Dean of the College)
Speak up, Holden!: Themes of Social Anxiety in J.D. Salinger's Fiction and Biography
Jesse-Anna C. Corlew-Haines '02, English and Psychology
Advisor: Jonathan Cheek, Psychology
Type his name into an Internet search browser, and you will retrieve about 40,500 sites. Ask a bookstore clerk about him, and you will soon face a wall of texts in every color and size – some the “real thing,” others carefully crafted spin-offs. Yet, try to get an interview with J.D. Salinger, and your request will fail before it reaches his mailbox. Though Salinger has become a mainstay in tenth-grade English courses, he has not published since 1965, and he seldom leaves his Vermont home. Rumor has it that he does not cut his hair or fingernails and eats only organic foods and Baskin-Robbins' peach ice cream. Is Salinger a brilliant psychopath or an unusually modest scholar? Is he anti-social, or does he have a social phobia? Answers to these questions and others will be discussed, with the aid of psychological studies on social anxiety, along with Salinger-related literary works.

Violence, Force and Social Conscience: The Vortex of French Existentialism and Postmodern American Absurdism
Annette D. Lienau '02, Comparative Literature and Economics
Advisor: Adam Weimer, Russian
At the current threshold of a new epoch of violence, a revived sensitivity to the absurd is to be expected. In an era where passenger planes crash into urban skyscrapers, where bombs and wheat rain upon a single country, and where civilians are caught at random by the dissemination of a murderous white powder, the once fantastic subject of the absurdist writer becomes eerily familiar to contemporary audiences.
An examination of two strains of Absurdism that emerged in response to the mechanisms of mid-twentieth-century war makes manifest an ominous foreshadowing – and possible warning – for the coming millennium. In consideration of their literary treatment of violence, force and social conscience, a case will be made for the contemporary revisitation of postmodern, Existentialist and absurdist writers, including Sartre, Camus, Genet, Beckett, Ionesco, Heller and Vonnegut.

Early to Late Modern in the Arts (paper session)
Juan O'Gorman and the Meaning of Modern Architecture in Mexico: The Rivera-Kahlo Studios
Kathryn E. O'Rourke '02, Architecture and English
Advisor: James Oles, Art and James O'Gorman, Art
In the early 1930s, Mexican architect Juan O’Gorman (1905-1982) blended an international industrial aesthetic with national traditions to create a new architecture in a country reinventing itself. His most important work of this period included elementary schools and modernist house-studios designed for artists in Mexico City. Though O’Gorman would ultimately abandon modernism, these early buildings symbolize Mexico’s transition from an agrarian past to an industrialized future.
This talk considers a pair of studios built in 1929-1930 for Diego Rivera and Frida Kahlo in the Mexico City suburb of San Angel. Recently restored, the Rivera-Kahlo complex serves as a case study for understanding O’Gorman’s interpretation of international modernism and its meanings in the context of the artistic and political climate of Mexico City. I will address his engagement with architectural precedent and international currents in design, with modern Mexican art, and his understanding of his famous clients’ particular needs. (Research supported by a Schiff Fellowship and the Dean’s Office)

The Interparticipation of Surrealist Artists and Writers in France
Christine de Jesus Frogozo '02, French and Art History
Advisor: James Petterson, French and Patricia Berman, Art
Bizarre, strange, subversive. These words are often used to describe the art and writing of the Surrealist movement. Sprung from the tradition of Dada, the new art was born under the shadow of World War I with World War II on the horizon. During these interwar years, Surrealist artists and writers in France, particularly Paris, worked together, weaving a complex artistic and literary narrative, and affecting each other greatly. Writers and poets such as André Breton and Robert Desnos wrote about works of art by such artists as Alberto Giacometti and Marcel Duchamp. If these artists were not affected and influenced by the writings of Breton and Desnos, they were certainly aware of their Surrealist presence. Through analyses of literature and art, I will highlight the close relationships between these artists and literary figures and how these relationships affected the intensely creative works of each.

Henry James and Guy de Maupassant: Ambition, Morality and Death in The American and Bel Ami
Emily Coit '02, Comparative Literature
Advisor: Margery Sabin, English and Nathalie Rogers, French
Henry James and Guy de Maupassant wrote about their late nineteenth-century world with divergent perspectives on the place of morality in literature. James called Maupassant "a lion in the path"; the French author was a conundrum to contend with because his admirable style often served to communicate content of questionable moral worth. In these early novels about driven parvenus, James and Maupassant scrutinize the ambition that fuels their protagonists. Each author writes death into his narrative in order to bring the weight of mortality to bear on our consideration of unbound aspirations. James’s Christopher Newman demonstrates moral superiority by ultimately renouncing his ambition in the face of this grave reality; Maupassant’s Georges Duroy, however, never sets limits on his own desires. In comparing these works, we observe the different attitudes of each author towards morality as they operate their examination of ambition.
Economic Issues

Growing Concerns: Current Issues in Economic Policy (paper session)

Local Impacts of Brownfield Redevelopment
Abigail Emison '02, Economics and Political Science
Advisor: Courtney Cole, Economics

There are over 600,000 idle brownfield sites in the United States today. Brownfield neglect creates blight on the landscape and wastes useable land, thus encouraging urban sprawl. In addition, a less-recognized problem with brownfields is that they may discourage growth and development in the surrounding areas. This paper uses data from the U.S. Census Bureau and the EPA to explore whether brownfield redevelopment during the 1990s helped revitalize the areas adjacent to cleaned-up sites, specifically in the New England area. Success will be measured through examination of the effect of brownfield clean up on income, total population and the age, sex and racial composition of the population. Through this analysis, a conclusion may be drawn about the benefit of redeveloping environmentally contaminated sites on the surrounding areas throughout the United States.

Making Economic Sense of U.S. Trade Regulations
Kristin Fye '03, International Relations and French and Olga Panchenko '03, English
Advisor: David Lindauer, Economics

An increasing number of American firms are appealing to the International Trade Commission (ITC) for protection against foreign firms that are accused of “dumping” cheap goods in U.S. markets. The U.S. anti-dumping law serves as a protective measure that can impose tariffs and quotas on foreign firms whose goods injure U.S. producers. Unfortunately, the current anti-dumping regulations discriminate against foreign firms by punishing them for practices American firms themselves employ and which deprive consumers of the benefits of free trade.

We focus our analysis on a specific 1998 ITC trade dispute in which two U.S. manufacturers of Elastic Rubber Tape (for use mostly in leg openings, waists and trimming in swimsuits and underwear) filed a dumping complaint against an Indian competitor. Fortunately, the ITC did not rule in favor of the U.S. petitioners, but it employed legal rather than economic reasoning in reaching its decision.

“Can't Buy Me Love”: The Economics of Dowry in Sri Lanka
Mae Podesta '02, International Relations, Nalyn Siripong '02, Chemistry and Economics, Lysandra Ferentinos '03, Economics and German Language and Literature
Advisor: Phillip Levine, Economics and Akila Weerapana, Economics

Although outlawed in some South Asian countries, dowries continue to be prominent in Sri Lankan society. This culture prompts many Sri Lankan parents to objectify their daughters by advertising them in newspapers with details about the daughters’ attributes and their dowry—almost as if one were selling a car. Using marriage proposals from the on-line and printed newspapers the Sri Lankan Daily News and the Sunday Observer, we analyze the statistical relationship between the value of a woman’s dowry and ‘important’ marital characteristics. By determining the relationship between the price of dowry and other characteristics, we will explore to what extent dowries are used to signal perceived preferable attributes such as higher education and lightness of skin of the partner; or whether dowries are more often used to compensate for perceived negative characteristics such as age and divorce.

Gender and Sexuality

Gender Perceptions (poster session)

Radiation Effects of Personality Characteristics within Male-Female Relationships: If He's Got Such a Wonderful Personality Then His Girlfriend Must Be Pretty Great too, Right? WRONG!
Rachel Cheng '03, Psychology and Chinese Studies
Advisor: R. Steven Schiavo, Psychology

This study examined how the perception of an ambiguously described female is influenced by the personality characteristics of her male companion. A 2 (personality) x 3 (relationship) factorial design was used. Undergraduate female participants read personality descriptions of a favorable or unfavorable male and a neutral female companion. The pair was described as dating, friends or cousins. It was hypothesized that social radiation would occur most strongly in the dating condition, followed by the friends condition, and least strongly in the cousins condition. Findings revealed that social radiation did not occur; the quality of the male description did not impact participants' perceptions of the female companion. However, the type of relationship did have an effect on the perception of the female stimulus. The female was perceived as most positive in the cousin condition, followed by the dating condition, and least positive in the friend condition.

Perceptions of Professor-to-Student Sexual Harassment
Noelle J. Morrison '02, Psychology and Hope E. Hamrick '03, Psychology
Advisor: R. Steven Schiavo, Psychology

In cases of professor-to-student sexual harassment, it was hypothesized that more attractive professors would be less punished and they, as well as professors whose behavior was less severe, would be evaluated more positively. A two-by-two design was used: attractiveness (high vs. low) and severity of behavior (more vs. less). Attractiveness was operationalized with a photograph of a male manipulated
to look more attractive for one condition than the other. Severity of behavior was operationalized by two scenarios: more severe, the professor placed his hand on the student’s thigh; less severe, he placed his hand on her shoulder. Forty-eight college females were randomly assigned to one of four conditions. More attractive professors received less punishment, but physical attractiveness did not influence perceptions of personality. Professors engaging in less severe behavior were perceived slightly more positively, and punished less.

**Multiculturalism and Diversity**

**Multiculturalism and Diversity: An American Perspective (paper session)**

**The Development of Materialism**

*Ashley Bullock '02, Psychology and History*  
*Advisor: David Pillmer, Psychology*

Past research indicates that a majority of American infants and young children sleep alone, separately from their parents or caregivers. The stress of this isolation frequently induces an attachment to special objects (e.g., blanket, teddy bear). What is the developmental impact of solitary sleep coupled with the use of an object for emotional or soothing needs? This study examines the hypothesis that early object attachment engenders a positive orientation towards material possessions in later life. With a sample of 100 Wellesley students, I investigate how emotional attachment to special objects, and the sleep location of a child in relation to her parent/guardian, relates to current attitudes toward possessions.

**Chinese Restaurants and the Construction of Authenticity**

*Julie Chang '02, Anthropology*  
*Advisor: Anastasia Karakasidou, Anthropology*

The ethnic restaurant is an important space in contemporary American society because it is a revealing site for a greater analysis of the construction of authenticity. As evidenced by restaurant guides, food critics, and perhaps even...
office. Results support the conclusion that federal intervention in river management is more likely under a democratic than a republican president.

**Mass Pollution: A Deadly Dose of Diesel**
Sarah J. Gilbert '02, Peace and Justice Studies
Advisor: Elizabeth DeSombre, Political Science

What determines the extent to which an area is exposed to diesel emissions? Analyzing sources of pollution reveals much about the distribution of air pollution in the United States. Social and economic conditions may have a big impact on the location and extent of contamination; underdevelopment has burdened poor and minority communities and placed these groups at a higher risk for pollution in their neighborhoods and workplaces. My study examines the wide use of diesel engines in transportation and industry which threatens over one million American workers annually. While relatively few studies have been successful in determining effects of exposure to diesel, the National Institute for Occupational Safety and Health considers diesel a human carcinogen, as it contains up to 100 times more toxic particles than unleaded gasoline.

**Shades of Green: Defining and Understanding Environmental Attitudes**
Sarah Treul '03, Political Science and Psychology
Advisor: Elizabeth DeSombre, Political Science

The present study was designed to explore the environmental attitudes of students at Wellesley College. Four research questions were addressed: 1) Is there a significant difference between the environments in which “highly green” participants and “nongreen” participants grew up? 2) Is there a relationship between participants’ level of greenness and their sense of environmental identity? 3) Is there a significant difference between the level of greenness of Democrats and Republicans? 4) Do people with a higher level of environmental knowledge act greener? Data were collected using questions from written measures: the Environmental Response Inventory (ERI) (Kaiser & Biel, 2000) and the General Ecological Behavior scale (GEB) (McKechnie, 1971). Results indicated a significant association between level of greenness, environmental knowledge, environmental identity and the environment in which the participants were raised.

**NGOs: What Influences their Success?**
Thea VanWagenen '02, Biology
Advisor: Elizabeth DeSombre, Political Science

Under what conditions are environmental nongovernmental organizations (NGOs) most successful? I examine three factors that may influence NGO success: type of government, degree of localness of NGO actors, and degree of localness of NGO funding. I discuss theories regarding the significance of these three factors in relation to the success of environmental protection efforts. My range of cases includes NGOs targeted at Lake Baikal in Eastern Siberia and NGOs targeted at nuclear power plants in Russia and the Ukraine. I provide an overview of the environmental problems in these regions, and a history of some of the NGOs that were formed to respond to these problems. I then discuss the significance of correlations between the three examined factors and the level of success of each group.

**American Policy Issues (paper session)**

**The Electoral College versus Direct Election: A Study of the 1960 and 2000 Elections**
Laura Simpson '02, Political Science and Russian Language and Literature
Advisor: Marion Just, Political Science

When the Electoral College federally aggregates the popular vote, it distorts it through malapportionment and the winner-take-all system, leading to an electoral vote outcome that does not proportionally reflect the popular vote. Although the Electoral College usually selects the popular vote winner, due to the close popular vote in 2000, the Electoral College’s distorting effects led it to select a president who placed second in the national vote count. In 1960, however, when the popular vote was even closer, the Electoral College did manage to select the popular vote winner. To explain this discrepancy in Electoral College outcomes, this presentation will examine how the constant two Senate votes favored Bush in 2000 and how the winner-take-all system favored Kennedy in 1960.

**The Propaganda of Anti-United Nations Groups**
Guendolyn E. Thomson '03, Political Science
Advisor: Thomas O. Cushman, Sociology

This project examines from a sociological perspective, the symbols and rhetoric of persuasion and propaganda disseminated on the Internet by American groups that promote U.S. withdrawal from the United Nations. American isolationism in this form of expression tends to appear with a constellation of other concerns including the protection of civil and democratic rights, - to bear arms, to own private property, to have privacy - and issues of governance including protection of American national sovereignty and democracy, and protection against socialism, fascism, environmentalism and any form of world government. The effectiveness of propaganda depends upon its message and its symbolic content, its authors, means of dissemination and audience. This project will examine the first three components as well as the translation of ideas into actions, such as sponsorship of U.S. Congressional Bill # H.R. 1146 – The American Sovereignty Restoration Act of 2001.

**Selective Abortions: A Modern Form of Eugenics: Deconstructing Social Justifications for Selective Abortion**
Mary Evans '02, Psychology and Bioethics
Advisor: Adrian Asch, Reproductive Issues

We live in a society that provides support and care for people living with disabilities while encouraging individuals to use prenatal testing and selective abortion to prevent the birth of future disabled people. The difference between the policies and practices towards the disabled community represent an often-ignored inconsistency. Some bioethicists believe
this inconsistency is necessary to maintain social justice while others criticize it as erosion of social justice. The latter view is supported by the historical example of the human rights atrocities of the 1930s eugenics movement. Selective abortion and eugenics, however, have fundamental differences that enable mainstream bioethicists to argue that preventing the birth of disabled people is a moral obligation to society. The social justifications for selective abortion are based on the belief that disability is a burden on society. This thesis deconstructs this view by showing that the social justification of selective abortion is misinformed and a morally unacceptable attitude.

Waiving juveniles into Criminal Court: The Complicated Evolution of a Progressive Idea
Leslie Tobin '02, Political Science
Advisor: Wilbur Rich, Political Science

The first juvenile courts, precursors of today’s family courts, were designed to insulate children from the criminal justice system by creating a new legal standing that recognized a child’s inherent right to special treatment. In a Gallup poll conducted in 1993, seventy-three percent of respondents favored waiving juveniles into criminal court. Thirty-six states have statutes requiring juveniles to be automatically transferred to criminal court based on the crime committed, the age of the juvenile, or a prior record. How does one explain the evolution of early twentieth-century public policy, which treated children as fundamentally different from adults (and worthy of special treatment), to today’s demand for “tough-on juvenile crime” legislation? Florida, New York, and Texas provide an interesting context from which to examine this question, but they are only case studies of the most recent events in an evolving cultural and legal continuum.

Science and Technology

From Paintshop Pond (panel)
Interdisciplinary Research Group
Studying Adaptation in Bacteria

Characteristics of Heavy Metal Resistant Bacteria Isolated from the Former Henry Woods Paint Factory Site in Wellesley, MA
Laura Lydigsen '02, Biological Sciences, Natalie Stein '02 Biological Sciences, Sylvia Navato '04, Ashley Palmer '04, Biological Sciences and Tina Wang '04, Economics
Advisor: Mary M. Allen, Biological Sciences

Although heavy metals are mutagenic in animals and bacteria, bacteria resistant to heavy metals are often found in heavy metal-contaminated soils. The former Henry Woods Paint Factory site in Wellesley, MA is currently being remediating by Haley & Aldrich, Inc. of Boston, MA because of high chromium (VI) and lead levels. The objective of this research was to isolate and characterize bacteria resistant to heavy metals from this environment and to study their mechanisms of resistance. Dilutions of soil samples were grown in rich medium containing one of the heavy metals. Bacteria were isolated and examined by electron and light microscopy to determine their structure and Gram reaction. Bacteria were plated on varying concentrations of heavy metals to determine how growth differed depending on heavy metal concentration. Most of the isolated bacteria grew in low heavy metal levels, while none survived in media with higher concentrations of heavy metals. [Research supported by Howard Hughes Medical Institute, National Institutes of Health, NSF AIRE (Award for the Integration of Research and Education), NSF RUI (Research at Undergraduate Institutions)]

How Do Cyanobacteria Deal with Stressful Conditions?
Catherine K. Brinkley '04, Biological Sciences, Catherine A. Bue '02, Biological Chemistry, Melissa A. Davis '05, Amanda R. Esparza '05, Leslie E. Gibson '04, Chemistry, Dana J. Huebert '03, Biological Chemistry, Jiae Kim '02, Biological Chemistry, Amy F. Negan '04, Biological Sciences, Jennifer T. Redfearn '03, Biological Sciences, Erica L. Richardson '05, Levita Y. Robinson '05, Katherine M. Shea '03, Biological Sciences and Julie A. Wright '04, Biological Sciences
Advisor: Mary M. Allen, Biological Sciences, Nancy H. Kolodny, Chemistry and Adele J. Wolfson, Chemistry

Cyanobacteria are prokaryotes that have existed on earth under a wide range of environmental conditions for 3.5 billion years. The goal of our experiments is to determine how several strains of cyanobacteria respond to a variety of environmental stresses. Among the stresses applied are nitrogen starvation, low pH shock, and light deprivation. Techniques used in these investigations include cell-plating, fluorescence microscopy, 31P and 1H-NMR spectroscopy, confocal microscopy, zymography, gel electrophoresis, column chromatography, autoradiography and visible spectroscopy. In our work this year, we have purified a protease involved in the recovery from nitrogen starvation. The rates of incorporation of two different nitrogen sources, NH4+ and NO3−, into nitrogen-starved cells have been determined. We have studied the variation in cell pigments produced under these different stress conditions. Two methods for determining cell viability are also being compared. Although cyanobacteria grow optimally at pH 8, we now know that growth can also occur in media at pHs lower than 5. [Research supported by Arnold and Mabel Beckman Foundation, Howard Hughes Medical Institute, National Institutes of Health, NSF AIRE (Award for the Integration of Research and Education), NSF RUI (Research at Undergraduate Institutions)]
The Art and Science of Multimedia 2002 Student Projects (multimedia)

Princess to the Rescue
Nandita Ahmed '04, Media Art and Sciences and Stephani Yeunjoo Cho '03, Media Arts and Sciences
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

This interactive game is programmed to attract users age 10 and above. The users play a girl who goes on a journey to save her boyfriend from the hands of kidnappers. The girl travels through the city, woods, cave, water world and the mountains to get to the final stage where she can find her boyfriend. Each stage will require talent and intuition, but will lead the user with interest and excitement throughout the game.

Mythic Missions
Maren Swanson '02, Studio Arts and Russian Area Studies and Jennifer Langer '03, Classical Civilization
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

Have you ever wanted to star in your favorite mythological story? Have you ever wished you had Narcissus' good looks, or had the ability to fly like Icarus? Through "Mythic Missions," an exciting new software program, you can transform into your favorite Greek mythological character and take part in the adventure. The program relies on simple animated clips to illustrate key events in the story and gives users the opportunity to participate in certain activities along the way. In "Mythic Missions," your task may be to create a laurel wreath for Apollo, weave a tapestry in a competition against Athena, or turn the wheel of seasons which changes Persephone from a carefree girl in the springtime sun into a grim queen of the underworld. The intended audience for this program is for older children and adults who enjoy children's stories.

SoundStage
Patricia Diaz '02, Cognitive and Linguistic Sciences and Jennifer Carlile '03, Media Arts and Sciences
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

SoundStage is a sound exploration program designed for the creative person to heighten the appreciation of sound and music in the everyday world. The program encourages people to think of sound in a different way, as a primary, rather than a secondary source of information. SoundStage is a creative program that has no right or wrong. The end goal of the program is for the user to be creative and compose rather than to reach a final destination or solve a final puzzle. There are endless possibilities for what the user can do, possibilities that extend as far as that person's imagination.

Bums'n'Tums
Cristi Collari '02, Studio Art and Selena Malta '02, Computer Science and English
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

"Bums'n'Tums" is an interactive workout CD-ROM that provides a humorous look at mainstream workout video culture. Users create their own customized workouts by choosing from the many warm-ups, stretches and cardiovascular and weight bearing exercises illustrated by animated instructors. Elements from popular exercise videos are utilized and outrageously exploited. An inspiring and entertaining way to shape up and feel good!

From Abstract to Physical: The Boston Architecture of I.M. Pei
Wileen Kao '03, Media Arts and Sciences and Poh Sim Saw '02, Studio Art and Computer Science
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

This multimedia project seeks to provide an interactive presentation of I.M. Pei's architectural achievements in Boston. Known for his use of abstract form and modern, geometric design, Pei is a renowned architect who has designed such celebrated structures as the East Building of the National Gallery of Art in Washington, D.C. and the expansion and modernization of the Louvre in Paris. Among his notable projects in Boston are the West Wing of the Museum of Fine Arts, the Christian Science Center, the John Hancock Tower and the John F. Kennedy Library.

Reality Bytes
Wen-Chi Alice Tiao '04, Computer Science, Candice Cage '02, English and Keren Rosenfeld '03, Studio Art
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

Have you ever dreamed of becoming an actress or a psychologist? What about a professional bum? If so, Reality Bytes is the perfect game for you. Through the wonders of multimedia interaction, you can choose your own path in life. But sometimes, life doesn't always turn out the way you'd expect. Come find out if you can succeed in your dream!

Case of the Midnight Murder
Kathy Roche '03, Political Science and Media Arts and Sciences and Marjorie Frankel '03, Astrophysics
ADVISOR: P. Takis Metaxas, Computer Science and Naomi Ribner, Art

In this interactive murder mystery game, the user plays the role of a detective who is invited to a party at a mansion. While at the party, a murder is committed which the user must try to solve. The user has several tools at her disposal: a camera, a map of the house, an evidence bag and a detective's logbook in which she can take note of her findings. The user investigates the crime scene, explores the house, collects clues and interviews suspects. Once the user believes she knows the identity of the killer, she enters the killer's identity, motive and weapon into the last page of her logbook. If she is correct in her suspicions, she will be prompted to call the police - which signals the ending of that game. However, if she is incorrect, she must return to the game and will now have at her disposal a hint giver.
The Virtual Chocolate Experience: A "Byte" of Heaven
Julia Shafer '02, Media Arts and Sciences and Diane Amoroso-O'Connor '02, Computer Science and Classical Civilization
Advisor: P. Takis Metaxas, Computer Science and Naomi Ribner, Art
Explore the various facets of chocolate, including its history, how it is made and its uses around the world. Then click through other chocolate-related activities, including interactive games and quizzes.

Natural Sciences: From Synapses to Stars (poster session)
Effects of Environmental Enrichment on Learning and Brain Chemistry
Jing-Yu Pan '02, Neuroscience
Advisor: Joanne Berger-Sweeney, Biological Sciences, N. A. Stearns, Biological Sciences and K. M. Frick, Biological Sciences
Numerous studies suggest that providing animals with enriching environmental stimuli, such as toys and social contact, improves learning. It is not surprising that enriching the environment of young animals would improve learning, but do the beneficial effects of enrichment extend to older animals? The current study examined whether enrichment improves spatial learning in middle-aged mice, and whether enrichment affects the activity of two chemicals in the brain: glutamic acid decarboxylase (GAD), the synaptic enzyme for gamma amino butyric acid (GABA) and levels of synaptophysin, a presynaptic marker. Lowered GABAergic activity is associated with improved memory, and enrichment is associated with synaptic sprouting, which may result from reduced GABAergic inhibition. Therefore, we hypothesized that enrichment would be associated with lowered GAD activity and increased synaptophysin levels. As hypothesized, low GAD activity was correlated significantly with several measures of good spatial learning. However, synaptophysin levels did not correlate with spatial learning. (Sponsors: National Science Foundation, Brachman-Hoffman Fellowship)

Bohr and the Bomb: Niels Bohr's Contributions to the Development of the Atomic Bomb
Chizoba Nnaemeka '04
Advisor: Glenn Stark, Physics
Niels Bohr, Danish physicist and Nobel laureate, stands as a luminary of twentieth century science, whose pioneering work on the atom and dissemination of Lise Meitner's and Otto Hahn's theories on fission were catalytic in the realization of an atomic bomb. Bohr's famous meeting (with physicist Werner Heisenberg) in Copenhagen in 1941, has been the subject of controversy and interest to academics, who ponder the enigmatic questions that may have been raised by two colleagues separated by the politics of war. Two years after their meeting, Bohr fled Nazi-occupied Denmark to join the Manhattan Project, a covert American effort of scientists and military leaders collaborating to develop a nuclear weapon. This presentation will reveal the man behind the bomb, whose prominence, influence and contacts in the world of physics have earned him enduring stature in the annals of history.

The Sediments from Hell... The Hell Creek Formation that Is....
Ruth Coffey '03, Geology
Advisor: Rebecca Mattison, Geology
In an attempt to reconstruct details of the paleoenvironment in a localized area of Hell Creek, Montana, we have collected sand samples from three hills in close proximity to each other. The samples were taken from correlated sand beds from three hills within a two square kilometer area. By studying the sorting, composition, grain size and sedimentary structures we are reconstructing a small part of the fluvial system that deposited the final sediments of the Hell Creek Formation in northeastern Montana (Late Maastrichtian, Cretaceous). In detailing the paleoenvironment in Hell Creek we are piecing together the depositional environment where the last known North American dinosaur remains are.

Adaptive Responses to Reduced Sunlight: Seasonal Affective Disorder and Lactose Tolerance
Ann Gove Zaltman '02, Cognitive Science
Advisor: Margery Lucas, Psychology
This study investigates whether lactose intolerance (LDC) is positively correlated with seasonal affective disorder (SAD). Forty-seven female undergraduate psychology students at Wellesley College participated in a pilot survey study. The self-scheduled paper and pencil questionnaire examined the incidence of LDC and SAD and evaluated the relationships between LDC, SAD and several other factors proposed to influence susceptibility to SAD. These factors are sun exposure, calcium and/or vitamin D nutritional supplementation, melatonin content, moving from southern to northern latitudes and geographic heritage. Multiple regression analysis failed to reveal any significant relationships between the predictor variables and SAD. Reasons for the lack of significant findings are discussed. These include poor reliability of the survey instruments, particularly for SAD, and problems with the participant sample.

Anatomy in Ontogeny: Does Dolphin Vertebral Structure Change with Age?
Elizabeth M. Wolkovich '02, Biological Sciences
Advisor: Emily Buchholtz, Biological Sciences
Dolphins exhibit heterogeneity in vertebral osteology associated with different habitats and swimming style. This project asks if similar heterogeneity also exists among the ontogenetic stages of a single species. The Atlantic white-sided dolphin is capable of rapid and sustained swimming in oceanic habitats and displays one of the most derived patterns of vertebral osteology. Correlating increased size with age, individuals of Lagenorhynchus acutus of a wide size range were sampled for a variety of osteological parameters. The data were analyzed by comparison of standardized curves of vertebral dimensions and by comparison of serial complexity metrics. Vertebral columns of large (adult) dolphins are not simply bigger models of small (juvenile) forms, but
differ in many anatomical details. Columns of large dolphins are more highly regionalized, show greater complexity and exhibit more osteological indicators of torso rigidity than do those of juveniles, allowing a faster and more sustained swimming style.

**The Arts**

**Synergy Jazz Recital (performance)**

**Structure and Freedom: Creating Spaces for Improvisation**

Karen Gruber '03, Cognitive Science, Dong Min Kim '05, Sarah Lee '04 and Jane H. Park '04, Music

Advisor: Paula Zeitlin, Music

Improvisation in music involves elements of both structure and freedom, and the interplay between them. The melodic, rhythmic and harmonic aspects of a piece of music make up its structural elements, which inform and shape the improviser's solo statement. At the same time, the unique musical voice of the improviser comments on that structure in an original, spontaneous and playful way. Paradoxically, the limitations imposed by the structure provide a vehicle for freedom of expression, and the soloist's freedom of expression allows her to interact with the underlying structure of the piece. The improvising string ensemble Synergy illustrates this musical interplay in a concert of jazz and contemporary music.

**Chamber Music (performance)**

**Chamber Music of Beethoven and Brahms**

Nita Vivatrat '02 (piano), Music, Cindy Kang '02 (clarinet), Art History and French, KimMi Whitehead '04 (cello), Biology and Yuko Shimokawa '03, (violin), Music and International Relations

Advisor: Isabelle Plaster, Music

Ludwig van Beethoven (1770-1827) and Johannes Brahms (1833-1897) were two of the most influential composers of Western classical music. In fact, Brahms is considered to be a successor to Beethoven in the line of great German composers. We will perform two pieces of chamber music by Beethoven and a movement from one by Brahms. Beethoven's *Piano Trio in B-flat Major, Op. 11* was composed in 1797 for piano, clarinet (or violin) and cello. We will perform it with clarinet. Next will be the Adagio from Brahms' *Sonata for Clarinet and Piano, Op. 120, No. 1 in F Minor*, (1894), a lush and expressive work that combines both classical and romantic elements to form a landmark piece in the clarinet repertoire. Finally we will play Beethoven's "Spring" *Sonata in F Major, Opus 24*, (1801), for violin and piano. This work finely exploits the voices of both instruments while maintaining a classical aesthetic.

**Lobster Lust**

(exhibition/performance)

**Lobster Porn!**

Sheree M. Schrager '02, Mathematics and Psychology, Larissa J. Ranbom '02, Cognitive Science, Sarah E. Barton '02, Greek and Latin, Elizabeth A. Murphy '03, Art History and Medieval and Renaissance Studies, Shelley M. MacAskill '03, English, Sara A. B. Sinclair '04, Computer Science and French, Francesca D'Arcangelo '03, Astrophysics, Turja P. Reichsteiner '04, Mathematics, Emily M. Carlin '03, Computer Science and Philosophy and Kristine Y. Liu '05, Cognitive and Linguistic Sciences

Advisor: Paul Reisberg, Chemistry

Once upon a forenoon weary

At the circ desk feeling dreary

Wond'ring if Diane O'Leary

Yet had fixed my housing form

Through the door there swam a shellfish

Looking lusty, looking selfish

"Mystic shellfish, what the hell, fish?"

Quoth the lobster, "Lobster Porn..."

While translation is often considered to be rote and unoriginal, it can also be a creative process. Douglas Hofstadter explored the limits of translation in Le Ton beau de Marot, translating a poem in language, time, space and culture. Raymond Queneau's 1947 work *Exercises du Style*, by Hofstadter's definition, is a collection of translations, rendering a simple story in one hundred different ways. *Lobster Porn* is, in turn, a translation of *Exercises du Style*. We have translated from the world of Paris into the world of Wellesley: we have translated from text to video: and we have translated into the styles that we find in our own lives in 2002.

**Skeletal Art (multimedia)**

**Bare Bones: An Exploration of the Human Skeleton in a Variety of Drawing Media**

Kristina Chan '04, Sophia Greenbaum '03, Architecture, Lila Hamilton '03, Abigail Henderson '03, English, Larissa Higgins '03, Hou Xuelan '04, Kattayoun Kordy '03, Vanessa Morrison '03, Studio Art and Chinese Studies, Mia Murrietta '02, Architecture, Danielle Norris '02, Studio Art, Maggie O'Grady '04, I-Won Park '05, Allyson Solorzano '02, Architecture, Emily Stokes '05, Katherine Webbink '04, Leah Wener '05 and Natasha Yetman '04

Advisor: Bunny Harvey, Art

Sixteen students observed and drew the human skeleton over a period of six weeks. The resulting work is an exhibit, which represents both the individual students' explorations and the collaborative effort of group criticism and discussion. The class also drew from the live model during the same time period and had the opportunity to examine the skeleton in comparison to the living form of the model. The emotional range of expression in these images draws the viewer into many different responses, while the pattern of juxtapositions of works in the installation invites one to ponder the human condition.
Lenin to encourage children to adopt Soviet virtues, including atheism, collectivism, patriotism and love of work. While most children's authors followed this outline, authors such as Mikhail Zoshchenko secretly included conflicting subtexts in their work that contradicted the Party's stance.

A Twice-Told Tale
Amy Chen '02, History and Chinese Language and Literature
Advisor: Sherry Mou, Chinese

To many Chinese, Eileen Chang was "the most gifted Chinese writer to emerge in the forties." Born in 1921 to a distinguished Chinese clan family, her childhood consisted of an absent mother, an opium-addicted father and a jealous stepmother. These and other life experiences are reflected in her writing. My presentation explores the superficial similarities and subtle distinctions of two works by Eileen Chang. First, "The Golden Cangue" (1943) describes the life and psychological journey of Cao Qiqiao, a young woman married to an invalid son in a prominent but declining family. Through Qiqiao's life, Chang shows the disintegration of the clan family structure at the end of the Qing dynasty (1644-1911) and the oppression women experienced under the institutions of marriage and the family. Second, "The Rouge of the North" (1967) expands the plot of "The Golden Cangue" into a novel. However, while the earlier heroine displayed a vividly fanatical personality, twenty-four years later the heroine is more compassionate.

An International Perspective on Literary Identity (paper session)

An Exploration of Turkish-German and Jewish-German Writers in Contemporary Germany
Natalie S. Ondiak '02, International Relations and German Language and Literature
Advisor: Thomas Nolden, German and Mine Eren, German

Two large minority cultures arose in Germany after the Second World War: the Jews and the Turks. Very few Jews survived the Holocaust and those who did usually chose not to stay in Germany. Those who remained faced difficulties because of the losses and sufferings experienced by them and their families. The second minority group to emerge was the Turks who arrived in Germany as guestworkers to improve the German economy after the war. Both groups remained minorities in a society trying to come to grips with its past. These minorities have found their voices and a rich literary tradition has grown out of their cultural and religious differences from Germans. Their works pose many questions such as: How do minorities express themselves in a culture often unwilling to listen? What does multiculturalism mean in Germany?

Do You Believe in Magic?: Faith and Russia in Boris Grebenshchikov's Lyrics
Christine Dunbar '02, Russian Language and Literature
Advisor: Adam Weiner, Russian

After the fall of the Soviet Union, many members of the cultural underground lost their raison d'être with the disintegration of the state and slow advent of democracy. However, Boris Grebenshchikov, one of the greatest rock musicians and most interesting creators of contemporary Russian culture, reached new highs in his artistry in the early 1990s. Reflecting on his homeland's ambiguous position in history, Grebenshchikov wrote three of his lyrically most interesting and musically most polished albums in this period, the
Multiculturalism and Diversity

Through an Hispanic Lens (paper session)

Carlos Saura, the Iconoclast

Hyunju Julie Kang '02, Spanish Language and Literature and Economics

Carlos Saura, one of Spain’s most prolific directors, is noteworthy in that his films tend to cover a broad range of time and space. “Tango” is set in the modern-day entertainment industry in metropolitan Buenos Aires. On the other hand, “Mother Turns 100 Years Old” is a story of traditional family values set in post-Franco times in the Spanish countryside. However, what his films have in common is that they are individual studies of social irony that transcends time and space. They expose us to opposing themes, the thesis and the antithesis, that are closer to one another than we perceive initially. These themes include the contrasting ideas of reality and illusion (especially with theatre and dance), dreams and life, modernity and tradition, the good and the bad, the appearance of truth and truth itself, the young and the old, free will and predestination, the past and the future, etc. Saura brings us to a synthesis in the end. We see that in the middle the differences are resolvable but also irresolvable. In doing so, he challenges what we take for granted and also never question in order to show the hypocrisy that exists in our world.

Democracy, Politics and Gender:
A Costa Rican Case Study

Jennifer M. Pisco 02, Latin American Studies

The 1948 Civil War in Costa Rica marked a profound political transformation for the small Central American nation: the foundation of an enduring democratic regime. By analyzing the political activities of women at the local and national levels, the research focuses on Costa Rican women’s struggles to legitimate their political voices and to advocate for social justice. The degree to which Costa Rican women can access their country’s political system – as voters, as professionals, as activists and as volunteers – reveals how they may or may not benefit from their citizenship in a democratic state. Under consideration are the conditions under which Costa Rican women organize politically, the efforts of the Costa Rican state to facilitate women’s political participation, and whether or not deliberate government attention to women’s needs undermines or strengthens their presence in public life. (Sponsored by the Jerome A. Schiff Fund, the Multicultural Research Fund and a Student Research Grant from the Office of the Dean of the College)

Aymara Chola?: The Construction of a Domestic Servant’s Identity in La Paz, Bolivia

Lindsey Stuart ’02, Spanish and Women’s Studies

Advisor: Kenia Halleck, Spanish

The question of migration from el campo to the city characterizes the dialectic transformation of almost all Latin American cities in the twentieth century. Upon migrating to the city of La Paz, Aymarans, or the indigenous peoples from the high plateau of Bolivia, are relegated to specific living and working spaces. In particular, Aymara women are faced with the limited choice of being a seller or a servant. Within the private sphere of the house, the ruling class (descendants of Spanish colonizers) comes into direct, intimate contact with the colonized, indigenous woman. In this context, a complicated process of cultural hybridization occurs. The shifting boundaries between social categories of race, class and gender are reconstructed within the house. As the indigenous woman gains economic power, she furthermore actively reconstructs these multiple identities in relation to her collective, social position. She must find outlets of cultural expression as an urban, Aymara woman with economic power: she auto-identifies herself as chola. This social category of “chola” as a hybrid identity will be explored further in terms of my shared living experience with an Aymaran domestic servant while abroad in La Paz, Bolivia last year.
Political Development and Conflict

The Buddhist Approach (panel)

Responding to Terrorism from a Buddhist Perspective

Sarah E. Argue '03, Political Science and Economics, Jeanne Perrin DS '04, Naomi Warren '02, Psychology and Spanish, Michelle Hollerbaek DS '03, Psychology, Laura Pen '04, Religion and Vickie Baldasarrre DS '02, International Relations
Advisor: James Kodera, Religion

Since September 11th 2001, Americans and others around the world have been mobilizing and valiantly fighting back against terrorism. There is an urgent need to make the world safe from horrendous attacks on innocent citizens. How can Buddhism, a philosophy that promulgates nonviolence, have anything to offer in these times? If we take the same resources that are being used to "fight the war on terrorism" and instead use the Four Noble Truths, the Eightfold Noble Path and other Buddhist principles to guide us, could terrorism be stopped? How would a Buddhist approach compare to the current war on terrorism? This panel takes a critical look at Buddhists responses to violence and attempts to imagine and offer how both the individual and the state could use Right Action to reach an effective and peaceful solution.

Current Perspectives on China and Korea (paper session)

The Kwangju Massacre: A Turning Point in the History of Korean Democracy

Grace D. Kim '02, History and International Relations
Advisor: Y. Tak Matusaka, History

Beginning in the 1970s, South Korea enjoyed rapid economic and industrial development under the rule of army generals. Economic stability of the recently liberated colony took priority over political reforms. Until the late 1970s, a majority of the public had swallowed their desires for greater democracy. The slow emergence of a civil society and discourse on shifting expectations and goals gradually aroused an interest in political activism. The resulting political unrest and demands for a democratic government exploded in a violent clash of citizenry and state on May 27, 1980 at Kwangju; estimates of civilians killed by the 20,000 troops ranged from 200 to over 2,000. The Kwangju Massacre marked the beginning of a political movement among labor and a growing sector of the middle class that would lead to the democratic reforms transforming South Korea today.

Population Politics and Policies in China

Marta Allyson White '02, Biological Chemistry and Chinese Studies
Advisor: William Joseph, Political Science

From stringent family planning programs to control of internal migration, the People's Republic of China has regulated its population perhaps more than any other modern nation. As political tides sweep in radical social change along with semicapitalism, how are these policies changing? Western sensationalism or misrepresentation of Chinese communism and the frequent portrayal of these policies as unwanted by the people of China further complicates this topic. With an appreciation for the vast difference in the 1.3 billion people of China, policies regarding family planning, women, minority populations, employment and internal migration will be examined in the larger political and social context of modern China.

Kim Dae Jung and Min Jung Theology

Sandy Y. Ho '02, Religion and Psychology
Advisor: James Kodera, Religion

Kim Dae Jung is the President of South Korea and the winner of the 2000 Nobel Peace Prize for his continuous effort towards the reunification of North and South Korea. A compassionate man and a determined politician, he has overcome many obstacles. His struggle has been the struggle of the Minjung (the mass of the Korean people). Min Jung Theology arose out of the Christian churches' involvement with the protests against the corruption of the Korean government during the 1970s. Min Jung Theology reflects the Christian experience in the political struggle for justice. Min Jung Theology and Kim Dae Jung have had to fight against their many opponents of their cause, and they continue to become stronger as they meet each obstacle. This paper will examine the history of Kim Dae Jung and the Min Jung Theology of Korea and their shared struggle for the liberation and equality for the people.

Science and Technology

The Welcome Warrior Within (panel)

Immunology Today

Catherine A. Bue '02, Biological Chemistry, Lin Huang '02, Biological Sciences, Rebecca Leary '02, Biological Sciences, Yamini M. Ohol '02, Biological Chemistry and Shelley Walsh '02, Biological Chemistry.
Advisor: Beverly Blazar, Biological Sciences

Immunology is constantly changing; we will present an overview of five advances in the field. Improvements in blood transfusion have led to more successful organ transplantations. The enhanced understanding of pregnancy immunology results in more successful fertility. Increases in HIV infection and drug resistance have lent new urgency to the search for an HIV vaccine. New treatments have been developed for many immunological diseases, specifically Crohn's Disease. New discoveries in the etiology of rheumatoid arthritis will lead to the development of highly specialized treatments.
citizens see the flag as well as how we as viewers of a photograph see the flag.

The Arts

The Art of Translation in Children's Literature (exhibition)

Trials of the Titmouse: Creating a Bilingual Children's Book

Maren Swanson '02, Studio Art and Russian Area Studies

Advisor: Phylis McGibbon, Art

The Russian fable, “The Titmouse,” by I. A. Krylov, recounts the story of a small bird, who boasts of her plan to burn up the sea. The god Neptune hears of the bird’s plan and fearfully imagines the scene of a burning sea. Beasts appear by the shore, grasping spoons, eager to enjoy fresh fish soup at any moment. For my independent printmaking course, I created a book of relief prints that illustrate this fable in both Russian and English. Through my illustrations, I wanted to convey two things: first, despite a literal translation, how the fable in the English language has a distinctly different tone as compared with the original Russian text; and secondly, how the fire and water elements in this fable are in conflict. For this reason, the illustrations in the English version of my book underscore the reflective and tranquil characteristics of water, and the Russian version highlights the bold and agitated attributes of fire.

Prism Jazz Recital (performance)

Musical Expression through Improvisation

Nalyn Siripong '02, Chemistry and Economics, Beverly Luther '03, Jewish Studies and Economics, Jessica Lee '04, Economics, Jennifer Gordon '04, English, Alissa Agnello '05 and Kimberly Huestis '05

Advisor: Jason Hunter, Prism Jazz Director

Prism Jazz is an improvisational music group comprised of eight students directed by a faculty member. Our focus is to learn about the African American and Latin American musical traditions and to use that knowledge to develop skills in improvisational techniques. The language of music is used by the students to express their creative ideas and develop new melodies. Through performance and practice, the group learns to communicate with each other in order to complete an arrangement successfully. During our performance, we will explain to audience members how to improvise over a simple chord progression or a blues scale. In order to explain the differences in styles and techniques associated with different musical traditions (i.e. latin, bossa, blues, ballads, etc.), Prism will perform a variety of arrangements so that the audience can gain a better understanding of the genre of music called jazz.

Modern Music (performance)

Twentieth-Century Music

Anna Noosek '03 (oon), Biology, Yoong Jung Lee '03 (flute), Music and International Relations, Clara Pau '04 (flute), Biology and Music, Brooke Bryant '03 (soprano), Music and English, Jonina Allan '04 (viola), Music and English and Jenny Tang, accompanist

Advisor: Isabelle C. Plaster, Music

Looking back on the great musical works of the last era, this presentation serves to celebrate and highlight several significant and interesting pieces produced during the twentieth century. Various students will perform the pieces of composers who have created great works of art. Through the skill of Wellesley musicians, the modern sounds of these pieces will be demonstrated, showcasing their place in the grand history of music. As performers, we hope this presentation demonstrates to the listener the unique sounds and interesting styles of twentieth-century music.
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Addendum to Ruhlman 2002 Conference Program

11:00 - 12:10

Format and Room Change:
(was poster session in Science Center Focus)

Multiculturalism and Diversity
The Artist Archetype (paper session) Science Center 277
Sara B. Edwards, "Artist Block: Fits of Passion and Fury"

1:30 - 2:40

Category Change and New Session:
(was Analysis of Literature and the Arts and all presenters were in one session)

The Arts Practicing a Literary Genre: Novel, Essay, Poem (literary readings) Davis Museum
Linda M. Schneider, "What is Real and What is Not"
Linda Andrade Rodrigues, "Fogland: A Collection of Nonfiction Essays"
Thu A. Nguyen, "Mud - A Poetry Reading"

Remembering: Exercises in Essay Writing (panel) Davis Museum
Nausheen N. Eusuf, Alexandra Dunne-Bryant, Semida Munteanu and Aimee S. Mizuno, "Writing Nostalgia: A Collection of Personal Essays"

Late Breaking Poster Session
1:30 - 2:40
Science Center Focus

Radio Telescope Observations of Ammonia and Methanol in Molecular Cloud S255
Emily C. Bowsher '04, Computer Science, Morgan P. Carberry '04, French, Bena W. Chang '04, English, Tara A. Donner '02, English and Julia S. Levine '03, English
Advisor: Richard G. French, Astronomy

Have you ever wondered what goes on deep in the heart of star-forming clouds in our Galaxy? Our Astronomy 301 "Multiwavelength Astronomy" class set out to find the answer to this question, using the Haystack Observatory 37-m radio telescope in Westford, MA. Operating the telescope remotely, we monitored the emission spectra from ammonia and methanol present in molecular cloud S255, a region of star birth located about 2.5 kiloparsecs from Earth. From our measurements of the relative intensity of two complexes of ammonia emission lines, we determined the temperature and opacity of the cloud, and found it to be a relatively warm 25K, and fairly transparent. We also searched the cloud for methanol masers, and discovered a previously undetected companion to the only maser previously known in this region. In collaboration with Haystack Observatory astronomer Preethi Pratap, we will extend our search this spring for other masers in S255.

Persuasive Communication: The Effect of Cultural Identity and Individual Differences
Jessica Chan '02, Psychology
Advisor: Robin Akert, Psychology

In the present study, Asian-American and Anglo-American college women were asked to evaluate an advertisement and answer questions about their personalities and cultural values. Subjects responded to one of two print advertisements for the same high technology product. One advertisement used collectivist cultural values (e.g., group interdependence and harmony) to sell the product, as presented in the pictures, slogan, and written copy of the ad, while the other used individualistic cultural values (e.g., independence and self-reliance). Subjects rated their impressions of the ad and responded to three personality measures. It was hypothesized that ethnicity would have some effect on subjects’ impressions, with Asian-Americans preferring the collectivist ad to a greater extent than Anglo-Americans. However, it was hypothesized that subjects’ personal orientation on individualism/collectivism, as well as their need for uniqueness, would predict their advertisement preferences to a greater extent. (Research supported by a Student Research Grant)
Trust, Learning and Contributions to a Public Good

DeeDee Chen '03, Economics, Sara Graziano '03, Economics, Frances McIntire D'02, Economics and Dawn Winkler '02, Economics
Advisor: Ananish Chaudhuri, Economics

Private provision of public goods has been the focus of much research in economics, because public goods are by nature non-excludable and therefore generate incentives for free riding. At an even more basic level, contributions to public goods raise fundamental questions about the nature of human beings – are they cooperative or selfish? We use laboratory experiments involving groups of subjects to address some of these questions. We show that contributions to public goods are based on the expectation that other members of society would contribute as well. Using a psychological trust scale, we find that there is a positive correlation between one's trust score and one's contribution. We also find that contributions are significantly higher when the feedback regarding group contributions is provided intermittently than when feedback is continuous. This project adds substantially to our understanding of the role of learning in public goods experiments and demonstrates the relation between one's level of trust of strangers and his/her predisposition to contribute to a public good.

Rapid Effects of a Beta-2-Adrenergic Blocking Agent on the Ultrastructure of the Peripheral Lung

Kathryn Claiborn '02, Biology
Advisor: Dennis M. Smith, Biology

Previous work in the laboratory has demonstrated that a continuous dose of propranolol for one to three weeks induces fibrogenesis in the peripheral lung tissue of the rat. The current study was undertaken to determine the effects of short-term b blockade on the peripheral lung, using a b-2 adrenergic blocker, ICI-118,551. Electron microscopy revealed damage to endothelial cells after two hours of continuous dose, or one hour after a bolus dose was injected. This damage was characteristic of the early stages of endothelial cell apoptosis. Type II cells in experimental tissue were found to contain more darkly stained lamellar bodies than controls, suggesting that b blockade may induce surfactant secretion. Some fibroblasts appeared active; thus b blockade may induce collagen deposition. These findings indicate that the long term effects of b blockade are the result of physiological changes to several cell types beginning rapidly after exposure to the drug.

Public and Private Selves: The Degree of Congruency Between Inner and Outer Selves

Christina Curry '02, Neuroscience
Advisor: Jonathan Cheek, Psychology

This study explores personality and self-concept correlates of the degree of congruency between individuals’ inner (private) and outer (public) selves. Individuals who score high on internal-external congruence should score high on measures of personal identity and private self-consciousness and low on measures of social identity and public self-consciousness. Individuals who score low on internal-external congruence should show the opposite pattern of scores on the self-concept measures. High internal-external congruence individuals should also score high on individuation and feminist attitudes but low on measures of self-presentation. High congruence should correspond to high scores on the Independence Personal Values Scale. Other personal values indicate how much people conform to societal values and how oriented they are toward expressing their personal needs. Low internal-external congruence should result in a pattern of high scores on the Social Skills and the Self-Control value scales.

Body Blame: The Impact of Sexual Harassment on Victim Attributions of Blame and Coping Style

Kristen Fay '02, Psychology
Advisor: Linda Carli, Psychology

Past studies of sexual harassment have addressed physical and psychological consequences, but limited research has focused on the association between sexual harassment and disordered eating in women. Literature reveals that sexual harassment has predictive power for eating and body image disturbance in women, but fails to include potential mediating factors to buffer such adverse outcomes. Studies have confirmed that using eating as a coping strategy to avoid or control negative emotions is linked to poorer overall psychological adjustment. Thus it seems likely that maladaptive coping strategies may mediate the psychological distress associated with sexual harassment and the onset of eating disorders. Moreover, the attributions made following the unwanted sexual advances have important implications for buffering adverse consequences in women. Studies have revealed that women who perceive discrimination experience harm to their psychological well being. They may cope with these negative consequences by increasing their gender group identifica-
tion and adopting more liberal (feminist) attitudes and behaviors. Based on the arguments presented thus far, I am predicting and testing a path model that sexual harassment will predict psychological distress but will be mediated by type of coping strategy, attributions of blame, and gender identification. Eating will be seen as a specific and maladaptive coping strategy that also mediates this relationship. (Research supported by a grant from the Office of the Dean of the College)

**Adult Recollections of Childhood Dreams**
*Kate Fiske '02, Psychology and Classical Civilization*
Advisor: David Pillemer, Psychology

Research indicates that adults have difficulty remembering events that occurred before age 3, but that the number of memories increases for events that occurred in later years (Waldfogel, 1948). While this general memory curve has been demonstrated for many targeted memories, it has not been demonstrated for dreams. We asked college students to describe their earliest memories of their dreams. In addition, their parents were asked to provide information about participants’ dreaming. We hypothesized that the memory curve for dreams would be similar to the curve for general memory and that dreams high in emotion, recurrent dreams, and dreams discussed with parents would be more frequent in dream reports than would dreams low in emotion, single-occurrence dreams, and dreams not discussed with parents, respectively.

**Japan's Nuclear Alley: An Economic History**
*Karen Helgeson '02, International Relations and Geology*
Advisor: Wendy Harper, Economics

Throughout the 1980s, Japan's rising need for electric power and scarce natural resources forced the government and private industry to explore energy alternatives. Nuclear power generation, requiring minimal inputs yet providing the desired amount of electric power, met the needs of Japan's growing industry and population. Japan has become wedded to this production method, investing in its development and encouraging its use through the East Asian region. The nation has become so dependent on nuclear-generated power, that the construction and operation of nuclear power plants is extensive. However, the construction of these plants is not geographically widespread. Japan chose to build their plants in clusters, a phenomenon not found in other nuclear-dependent nations. The concentration of these plants is not haphazard but does hint at the urgency with which Japan developed it's nuclear program. Given time, this style of utility organization may influence nuclear plant construction worldwide.

**A Mechanism for Hypoxia-Induced Activation of Cardiac KATP Channels in Goldfish**
*Kristin Hoffmann '02, Neuroscience*
Advisor: John S. Cameron, Biological Sciences

Previous studies have shown that ATP-sensitive potassium (KATP) channels in vertebrate cardiac muscle are activated during periods of decreased oxygen availability. The opening of this ion channel in the heart plays a protective role; however, the precise mechanism by which this occurs is unclear. I studied cardiac channel activation in a hypoxia-tolerant species, the goldfish (Carassius auratus), focusing on the potential role of nitric oxide (NO) in this process. Moderate, substrate-free hypoxia resulted in a shortening of ventricular action potential duration, a response that was blocked by the KATP channel antagonist BDM. In single-channel studies, increased KATP channel activity during hypoxia was abolished by BDM and the guanylyl cyclase inhibitor ODQ, but mimicked by a cGMP analog. These results suggest that KATP channels in goldfish heart are activated by hypoxia-induced NO release and the subsequent rise in cGMP levels. (Supported by the Office of the Dean of the College)

**Characterization of the Nutating Subreflector for the Atacama Large Millimeter Array**
*Rebecca Kramer Rosengard '03, Astronomy*
Advisor: Richard French, Astronomy and Dr. Simon Radford, National Radio Astronomy Observatory, Tucson, Arizona

The Atacama Large Millimeter Array (ALMA) is a millimeter wavelength telescope consisting of 64 12-meter antennas to be located at 16,400 feet in Llano de Chajnantor, Chile. This project, run by the National Radio Astronomy Observatory in conjunction with the European Southern Observatory, will be the largest and most sensitive instrument in the world at millimeter and submillimeter wavelengths. I was involved in the testing of the nutating subreflector, a single-axis mechanism, driven by voice coil motors that move in a push/pull manner to counterbalance the mirror motion. Through this testing, I was able to more closely define several parameters of the system, and match the resonances of the mirror and motors to further stabilize the system. (Research supported by the NSF)
Asian American Success: A Look at Subgroup Achievement Differences

Karlo Ng '02, Urban Studies
Advisor: Jeff Gulati, Political Science

This paper attempts to explain the reasons for the substantial differences among Asian American ethnic subgroups in terms of academic achievement. Using data from the National Education Longitudinal Study of 1988, I show that there are statistically significant differences not only among racial groups, but also among Asian subgroups on eighth grade standardized exams. Furthermore, I show that these differences in test scores are a result of their parents’ socioeconomic status and English language skills, parental involvement in their academic life, and individual student academic goals. Finally, I will propose necessary avenues for future research in this area and offer policy recommendations as ways to bridge the achievement gap among Asian American subgroups.

AND THE OSCAR GOES TO...

KaWing Poon, '04, Economics and Psychology, Ming J. Yan, '04, Economics and Frances Liu, '05
Advisor: Courtney Coile, Economics

Each spring, the entertainment industry is buzzing with the festivities and excitement of the Academy Awards. The most sought after Oscar of the night is the Best Picture Award. Critics and movie fans all over the world develop elaborate methods to predict the winners. What factors statistically determine the winner? Genre, length of film, number of other Oscar awards, and many other variables are taken into consideration in this analysis of a collection of motion pictures dating back to the 1960s. Multivariable regressions serve as the main tool to numerically investigate the glamorous world of the Academy Awards.

Long-term Fertilization Alters Aboveground Production and Species Composition of Alaskan Wet-Sedge Tundra

Natasha Teutsch '02, Biological Science
Advisor: Duncan Himmelman, Biological Sciences

Global warming may impact plant communities in the Arctic. One model suggests that a warming climate will stimulate microbial activity and increase nutrient availability in tundra ecosystems. We investigated how 11 years of experimental nutrient enrichment (N plus P fertilization) of wet sedge plots at the Toolik Lake LTER site on the North Slope of Alaska is influencing species composition and seasonal biomass accumulation. We estimated aboveground biomass of dominant species using regression analyses that predict species biomass from frequencies of point frame hits across the growing season. The N plus P fertilization increased aboveground biomass by a factor of 3.6 and dramatically altered species composition. N plus P additions also increased the amount of standing litter, lowered soil temperature, and reduced thaw depth. Long-term fertilization, therefore, impacts wet sedge tundra communities both directly and indirectly.

The Structure of the Chromosphere of VV Cephei

Chelsea Tiffany '04, Astrophysics
Advisor: Wendy H. Bauer, Astronomy

VV Cephei is an eclipsing binary star system with a large, cool star orbited by a smaller, hotter star that has a 20-year orbital period. We have been using Hubble Space Telescope data to observe changes in the spectrum as the hot star moves out of eclipse and its light passes through successively higher layers of the cool star atmosphere. I measured the wave-lengths of emission lines during totality and egress so that they can be subtracted from the composite spectrum for further atmospheric analysis. Other lines show an interesting doubling while they fade as the star comes out of eclipse. Measurements of this line doubling will allow us to look for velocity structure in the cool star atmosphere. (Research supported by NSF AIRE)