

USC UNDERGRADUATE SYMPOSIUM FOR SCHOLARLY AND CREATIVE WORK

April 21, 1999

The Undergraduate Symposium provides USC undergraduates with the unique opportunity to exhibit and share examples of their significant research, scholarly and creative work with the university community. Although the Symposium is modeled on a professional conference poster session, students may exhibit their work in a variety of ways, such as through posters, art exhibits, and electronic media. All undergraduates are encouraged to participate. An award ceremony recognizing the most outstanding works will take place at the end of the symposium and include First Prize awards of \$500 and Second Prize awards of \$250 in each of seven categories. Over \$5,000 in prize money will be awarded. Students are presenting their work in one of the following seven categories:

- Arts & Humanities
- Social Sciences & Economics
- Physical Sciences & Engineering
- Natural Sciences & Mathematics
- Health Sciences
- Professional & Applied Disciplines
- Interdisciplinary

Arts and Humanities

Name: Gul Cagin

Academic Unit: Fine Arts

Department: Fine Arts

Title: *Removed Dimensions*

Format: Artistic Visual Entry

Location: Exhibit #1

Description: The work is made of several small ceramic figures and a fur blanket. The figures are formed based on how their actions are perceived psychologically. The fur that the figures are placed on refers to animals. There is a mental juxtaposition of the figures and where they would be living.



Name: Sine E. Bayer and Kevin Reynard

Academic Unit: LAS

Department: Philosophy

Faculty Sponsor: Richard Fliegel

Title: *Please Put That Out Sir*

Format: Poster

Location: Exhibit #2

Description: This project is a combination of photography and performance political theory. The aim of this piece of work is to call attention to victimless crimes through images of cross-dressing, prostitution and drug abuse. "Please Put That Out Sir" implies that smoking cigarettes are the true crime in this scenario as the other actions only effect the person who performs them. Smoking, on the other hand, has global pollution effects in conjunction with the maladies imposed upon others through second-hand smoke.



Name: Alex S. Bodner
Academic Unit: Fine Arts
Department: Fine Arts
Title: *Figure Studies and Still Life*
Format: Creative Work: Art
Location: Exhibit #3
Description: These works were rendered in marker, conte' crayon, and acrylic paint (1999). This is my first semester at USC.



Name: Maria P. Chute
Academic Unit: Fine Arts
Department: Fine Arts
Title: *Defilade*
Format: Creative Work: Art (Oil Painting)
Location: Exhibit #4
Description: My work deals with the female experience, America and the military. Gaze and ego are significant issues in my work. I want my work to be expressive and to affect the viewer.



Name: Heather R. Cooney
Academic Unit: LAS
Department: English
Faculty Sponsor: Imre Meszaros
Title: *Psychological Pedestrian*
Format: Poster
Location: Exhibit #5
Description: Psychological Pedestrian is the title of a work of fiction that is a sort of surreal portrayal of a parody on the struggle of reaching the American Dream. Throughout the story various characters experience transitions of identity in terms of age, gender, philosophy, and even mode of transportation. The story also addresses issues of substance abuse, dementia, insensitivity, heartache, and failure. Psychological Pedestrian is, in a sense, a tribute to the punk culture that offers a select group of today's youth a refuge from social conventions. On the other hand, it serves as an example of how today's youth can rapidly reach old age and feel collectively that they are failures as a result of society's

tendency to celebrate and respect only those achievements with potential for large monetary gains. The story is able to achieve such a contradictory resolution through its use of three separate voices which offer three separate points of view. The reader is presented with shifting identities and viewpoints of characters who move through an eery, dreamlike world which allows him or her to become a sort of psychological pedestrian who can choose to closely examine that which he or she might run away from under normal circumstances. Finally, Psychological Pedestrian asserts that the pursuit of the American Dream is a constant struggle for false visions that inevitably leads to self-deception.



Name: Katharine C. FitzSimons
Academic Unit: Thematic Option
Department: Broadcast Journalism
Title: *The Future of Spanish-Language Television in Los Angeles*
Format: Visual Artistic Entry
Location: Exhibit # 56, VKC Room 102
Description: Los Angeles ranks as the top Hispanic television market in the United States. The future of Spanish-language television in Los Angeles will include a rivalry between the leading local affiliate, Univision, and its underdog competitor, Telemundo. The wealthy Sony Pictures Television now has stock in Telemundo. How will powerful Sony influence story coverage and content? Some viewers notice that Spanish-language television presents females in a more provocative way. Does the Latina anchor's femininity compromise her professionalism? With the phasing out of bilingual education in California, will there be a need for Spanish-language programming in the future? Will all local broadcasts be in "Spanglish," or have English versions only offered in closed-captioning? Native English-speakers are and will be turning towards Spanish-language news due to its higher quality coverage; how does this trend

transform Los Angelinos into a new type of viewing audience?



Name: Kenneth D. Froelich
Academic Unit: MUS
Department: Music Composition
Faculty Sponsor: Donald Crockett
Title: *Electric Sheep*
Format: Creative Work: Performance
Location: Exhibit #57, VKC Room 102
Description: Electric Sheep is a short orchestral work written during the fall of 1998 under the supervision of Dr. Donald Crockett. The piece explores many of the orchestral colors that have become available in 20th century orchestral music. Combining these colors with contemporary rhythmic patterns, the resulting music is a work that is both musically provocative and entertaining. The title Electric Sheep is inspired by the novel "Do Androids Dream of Electric Sheep?", written by Phillip K. Dick. It is this novel that also inspired the 1982 film *Blade Runner*.



Name: Diana C. Huang
Academic Unit: Fine Arts
Department: Fine Arts
Title: *An Angel Found*
Format: Creative Work: Art
Location: Exhibit #6
Description: The setting is a dark trashy alley. Huddled into a ball is a human figure. The way the body is positioned makes it difficult to figure out what gender it is. An intense bluish light is cast down onto the figure and the hand of God descends blessing and giving her a pair of wings. Being nude symbolizes a physical and spiritual rebirth that occurs to everyone when they experience trauma and pain and manage to rise above all the suffering in their lives.



Name: Amy B. LaChance
Academic Unit: LAS
Department: Philosophy
Faculty Sponsor: Yaffa Weisman
Title: *Toward the Deconstruction of Religious Concepts of Other*
Format: Poster
Location: Exhibit #7
Description: Judeo-Christian traditions uphold the idea of other in the fundamental belief shared by the two religions. In His first commandment as delivered by Moses, God informs believers that they must have no other god but Him. "Thou shalt have no other gods before Me (Exodus 20:3)" may be translated to "my God is better than yours." History since the rise of Christianity has shown an evolution toward a rational approach to this ideology. "My God is better than yours" became "my race is better than yours". Nazi Germany decided that its race was so superior to the supposedly antagonistic Jewish "race" that the Jews had to be eliminated. The Holocaust remains as one of the most atrocious acts against humanity, but what has changed in our thinking because of it? The basic ideologies underlying acts of genocide must be questioned and changed in order to escape the continual cycle of cultural destruction.



Name: Jesse E. MacDonald
Academic Unit: Fine Arts
Department: Fine Arts
Faculty Sponsor: Ruth Weisberg
Title: *After the Rain*
Format: Artistic Visual Entry
Location: Exhibit #8
Description: Intuition: (1.) direct perception of truth, fact, etc., independent of any reasoning process. (2.) a keen and quick insight.
"Intuition is the discriminative faculty that enables you to decide which of the two lines of reason is right. Perfect intuition makes you a master of all knowledge. Your will and intuition should go hand in hand... Do not make unimportant things important, nor concentrate on trifles at the expence of vital

matters, or you will hamper your progress. Impulsive actions that are not in keeping with one's real duties are undesirable."
(Paramahansa Yogananda in *Para-Grams*)

The painting is merely a projection of intuition and interpretation. I have been studying atmospheric painting, and will further my understanding of space. The main goal and attempt to stay focused and carry out the feelings I had at that moment. University of Southern California School of Fine Arts has helped me develop the courage to continue my growth as an artist. This piece gives room for the viewer to breath, and visually opens up truths about space and how it effects us.



Name: Kenneth Mora
Academic Unit: Fine Arts
Department: Fine Arts
Faculty Sponsor: Ron Rizk
Title: *Reconstruction: Symbolism in Figure and Constructed Object*
Format: Poster
Location: Exhibit #9
Description: My work explores, through visual symbolism, the ways in which post-industrialized people construct themselves psychologically in an attempt to conform to contemporary archetypes. My paintings are diptychs (two paneled artworks) which juxtapose a figurative element with a seemingly haphazard construction. With these artworks I seek to dramatize the shortfalls realized by individuals who attempt to conform to ill-conceived ideals, or who are obsessed by unfounded contemporary fears.



Name: Kevin G. Obsatz
Academic Unit: CNTV
Department: Production
Faculty Sponsor: Carol Hodge
Title: *Parity*
Format: Creative Work: Film
Location: Exhibit #58, VKC Room 102
Description: An experimental narrative film exploring the relationship between two people. Each exists in a separate frame, alone in his or her own conceptual world. They were together once, these two, but they have parted ways. There is a barrier between them that cannot be bridged — the dark space in between two individual images projected on different screens. The only thing left to connect them is intangible; it exists in their minds and hearts, and in the eye of the viewer who observes both their worlds simultaneously. (This film was shot and exhibited in super-8 format with two separate projectors running side by side, and then transferred onto video.)



Name: Momoko Okada
Academic Unit: Fine Arts
Department: Fine Arts
Title: *The Garden of Eden*
Format: Creative Work: Art
Location: Exhibit #10
Description: The Garden of Eden: My sculpture is made by metals (silver, copper, and brass), and describing the Garden of Eden. There is an apple inside an organic shape cage with vines. On the top of the cage, there is a layered sphere representing the wholeness of earth. I hope that people feel the happiness from this work.



Name: Dawn H. Pellerin
Academic Unit: Fine Arts
Department: Fine Arts
Title: *Untitled*
Format: Visual Artistic Entry
Location: Exhibit #11



Name: Nancy Ruvalcaba
Academic Unit: Annenberg
Department: Journalism
Faculty Sponsor:
Title: *Untitled*
Format: Creative Work: Art
Location: Exhibit #12



Name: Matthew L. Schwartz
Academic Unit: THTR
Department: Theater
Faculty Sponsor: Brent Blair
Title: *2.3*
Format: Monologue
Location: Exhibit #59, VKC Room 102
Description: My monologue is part of a larger one man show which I have been writing about many of my life experiences. "2.3" is a poignant and sincere look at the frustrations of dating in a young person's life.



Name: Matthew P. Smith and Ben Karson
Academic Unit: CNTV
Department: Cinema-Television Production
Faculty Sponsor:
Title: *Don Gately*
Format: Creative Work: Film
Location: Exhibit #60, VKC Room 102
Description: "Don Gately" is a short video about a fictional 250-lb male ballerina who was orphaned at a young age. He took up ballet in part to capture the spirit of his mother, herself a successful ballerina. This video is a brief overview of his career and his search for his mother.



Name: Allen L. Wong
Academic Unit: Fine Arts
Department: Fine Arts
Faculty Sponsor: Ruth Weisberg
Title: *Cambrian Myth – Welcome to the Fish Residence*
Format: Artistic Visual Entry
Location: Exhibit #61, VKC Room 102
Description: ... will become a myth of its own. The Fish Residence is representing a 'family' dynamics which co-exists with the Cambrian Myth.

Primitive Myth is a cultural phenomenon that lives in collective consciousness. So where is its origin? Or is there one? Cambrian Myth functions as a form of desire in representation resulting from the attempt at interpreting the social milieu. I postulate its coexisting component as the narrative dynamics. Within the Fish Residence dynamics, there is an androgynous character who is in search for an abstract item, yet not until s/he's granted the 'external input' from the Symbolic figure (a social symbol) – Queen/Phallic Mother. The search concludes with the formation of self in reflection – the silver sequin. While the other character represents the possibilities both opposing and complementary to the dynamics. Thus this dynamics is a paradigm of the formation of desire of oneself. Desire inhabits the registers of self and social milieu. It is the realization that a sense of self arrives externally. As in Mirror stage, the self is finding itself through reflections in the Other. The Fish Residence dynamics represents a shifting reality. One that is the antithesis to the Lacanian and Freudian psyche; one in which culture bases on neither biology nor linguistics, but rather a complementary of both and the self is not in search for the lost plenitude, but rather the desire of romantic fulfillment. The aquarium set and the shiny reflective surfaces of the mermaid body continue to contextualize the desirability of this dynamics to the viewers. The 'tank' frames the things in it as some kind of marvels and contains "remarks they (it) make(s) about desire". While the reflective materials also become the mirror of our mores – "it promise everything, but it

delivers no more than a reflected image of what the viewer thinks “everything” might be”. They function as reflections of viewers’ desires. Hence represents the entering of this myth into their minds, into the social externals. Cambrian Myth performance will become a ...



Health Sciences

Name: Harla B. Bjerke
Academic Unit: Independent Health Professions
Department: Nursing
Faculty Sponsor: Sarah Ingersoll
Title: *Labor Induction Outcomes*
Format: Poster
Location: Exhibit #13
Description: Data was collected on 1002 births over a three month period at a local community hospital. 278 cesarean sections were performed and 322 inductions were performed during the three month period. The focus of the study was the induction rate, add-on induction rate, and the outcomes of these inductions. 40% of all inductions ended in cesarean section. Overall birth experience satisfaction was decreased with those women having induced labor. Overall labor time was increased 50% for inductions vs. spontaneous labor. It was found that inducing labor costs the hospital more money in equipment, labor, and room availability. Inductions are more difficult for the mother and baby. The nursing staff has increased responsibility and workload.



Name: Edward R. Cainglit
Academic Unit: Dentistry
Department: Dental Hygiene
Faculty Sponsor: Peggy Tsutsui
Title: *Toothbrush Disinfection: A Practical Approach*
Format: Poster
Location: Exhibit #14
Description: The purpose of this study is to determine a practical method of disinfecting the toothbrush. Literature shows a correlation between contaminated brushes and oral disease. It also suggests that brushing with a contaminated brush introduces new microorganisms while simultaneously reducing existing normal flora. The necessity of disinfecting the toothbrush within the recommended three-month time frame is

therefore imperative. Three disinfecting approaches formed the framework of the study: 10% bleach solution soak for one minute, hot tap water wash for one minute and a household dishwasher cycle. Four toothbrushes of "clinically healthy" subjects (no caries, no mucosal abnormalities, and no gingival or periodontal inflammation) were randomly assigned to one of the three methods with one individual randomly assigned as the control. Subjects brushed on a regular basis and treated their toothbrush with their method of disinfection after bedtime for one month. Microbiological sampling of the toothbrushes determined which treatment was most significant in reducing bacteria. The results of the study had no bacterial growth in all four categories. Therefore, the most practical approach is to allow the toothbrush to dry upright overnight.



Name: Anna Chan and Jenny Kim
Academic Unit: Dental School
Department: Dental Hygiene
Title: *Noise-Induced Hearing Loss: The Role of Ultrasonic Scalers*
Format: Poster
Location: Exhibit #15
Description: The purpose of this table clinic is to investigate how noise caused by ultrasonic scalers induces hearing loss in dental hygienists. Present literature states that occupational noise-induced hearing loss (NIHL) occurs slowly over a long period of time due to exposure to continuous or intermittent loud noise. The recent acceptance of ultrasonic scalers on the California Dental Hygiene State Boards, warrants special attention to this matter. Noise-induced hearing loss occurs at 4,000 Hz with increasing loss in higher frequencies. The noise level of ultrasonic scalers registers at 25,000-30,000 Hz.² With daily exposure at this level, irreversible otoreceptor damage

could occur. More research is needed to examine the extent of the damage. Evidence also shows that NIHL may affect the fetus of the pregnant clinician, causing high frequency hearing loss.³ NIHL is prevented by wearing ear muffs or ear plugs.



Name: Michael D. Levine
Academic Unit: Neuroscience
Department: Gerontology
Faculty Sponsor: William O. McClure
Title: *Dermal Pili Abnormalities in a Rat Model for Schizophrenia*
Format: Poster
Location: Exhibit #16

Description: A great deal of evidence suggests that at least some fraction of schizophrenia is caused by errors in fetal development, probably originating in the sixth month of pregnancy and possibly involving stress to the mother. Because ectoderm differentiates to form both the nervous system and the integumentary system, researchers began to look into a possible ectodermal manifestation of schizophrenia. Many studies have concluded that human schizophrenics have minor physical anomalies in the face as well as abnormal ridges in fingerprints.

Pregnant rats were stressed at a critical stage of development, and the pups of these stressed rats can be used as an animal model for schizophrenia. Pregnant Wistar rats were immobilized once a day for thirty seconds at 10:00 am on days e11-e14 inclusive of gestation. Other mothers were left unhandled as a control. Litters were culled to eight animals of mixed sex within 48 hours of birth. The pups were weaned at day p20 and housed for the duration of the experiment in pairs of the same sex and same treatment group, and when possible, same litter. Various behavioral studies were conducted on the rats. Around day p90, the animals were sacrificed. The rats were used for both neuroanatomical evaluation as well as for dermal pili analysis.

The four paws were removed from each rat and stored in a fixative. Distances were

measured between the various dermal pili using a standard imaging analysis program. The stressed rats yielded a significantly greater distance between dermal pili in several regions on the front paw. One should note that in the front paw, virtually all regions were larger in the stressed rat than in the unhandled rat, even though only two regions reached statistical significance. There was no significance observed in the rear paw. When the experiment was repeated using different animals and different levels of stress, similar results were observed. Thus, this experiment demonstrates that there may be ectodermal manifestations of schizophrenia. It also lends support to the fetal development hypothesis for schizophrenia. Special acknowledgement to Dr. William O. McClure for his support and guidance.



Name: Sheila L. Llanderal, Keesha Bell, Gertrude Faulkner, Daniela Grga, Lorena Hermogeno, Aimie Pak, and Edgar San Luis
Academic Unit: Independent Health Professions
Department: Nursing
Faculty Sponsor: Adele Pitteri
Title: *Community Assessment in Thailand*
Format: Poster
Location: Exhibit #17

Description: As part of our practicum in public health nursing, seven USC nursing students and our clinical instructor traveled to Northern Thailand to learn about the culture and health care needs of the Karen people, a hill tribe minority ethnic group in the mountainous region near the Myanmar border. While staying at the Hill Tribes Development Center in Bhan Mai Phatana, the health of the community was assessed. Potential problems were identified and nursing diagnosis formulated. A plan was developed with recommendations for intervention and suggestions for evaluation. The following dimensions of the community were assessed: Human Biology (biophysical), psychosocial, physical, social, behavioral,

and health system. The priority nursing diagnosis identified was "Risk for communicable diseases and infections related to bites from infected insects as manifested by large numbers of insects in the area and corresponding illnesses. Strategies for reducing this risk were identified.



Name: Allison M Martinez and Serena Sagray
Academic Unit: Nursing
Department: Nursing
Faculty Sponsor: Elizabeth Johnston-Taylor
Title: *The Spiritual Needs of Oncology Patients and Caregivers*

Format: Poster

Location: Exhibit #18

Description: The purpose of this study is to identify the spiritual needs of oncology patients and their primary family caregivers. This will be done from the perspective of oncology patients and primary family caregiver to identify spiritual needs, determine what are their expectations of nurses with regard to having these spiritual needs addressed, measure the frequency of these perceived spiritual needs, and identify demographic and illness-related factors associated with type and frequency of perceived spiritual needs and expectations. This study utilizes qualitative, semi-structured interviews at inpatient units and outpatient clinics of a university and county hospital. It is hoped that findings will inform oncology nurses about what cancer care recipients perceive as their spiritual needs and what they want nurses to do about these needs. In addition to measuring the frequency of spiritual needs and expectations, this data will also begin to profile what care Recipients are at risk for spritual need and what care recipients will desire overt spiritual care from oncology nurses.



Name: Eric M. Rubia
Academic Unit: Health Sciences
Department: Nursing
Faculty Sponsor: Merriman
Title: *Nursing in Navajo Nation: A Transcultural Experience*

Format: Poster

Location: Exhibit #19

Description: Six student nurses from the University of Southern California's School of Nursing had the opportunity to experience transcultural nursing first hand in Utah's Navajo Nation. During their Alternative Spring Break, these student nurses were able to make new friends, learn about the Navajo culture, and gain personal satisfaction as well as life long experiences. The main purpose of the student nurses was to provide health screenings to the local elementary and high schools, extend their medical skills to the community and local clinic, and learn about the Navajo way of life. By understanding the way the Navajo Indian live, these nurses have have gained a valuable experience that is vital to nursing. The nursing students have learned to adapt to a different environment to provide culturally sensitive health care and have created a bridge with the Navajo Indians that will continue to blossom for next year's nursing students.



Name: Ali M. Soltani
Academic Unit: LAS
Department: Biological Sciences
Faculty Sponsor: Dean Stathakis
Title: *The Effect of Polymorphic Variants on BRCA1*

Format: Poster

Location: Exhibit #20

Description: BRCA1 is a gene that is suspected of causing breast cancer that is located on chromosome 17. Two types of variations that occur in genes: High Penetrance / Low Frequency, they occur rarely (frequency) but are aggressive (penetrance) and destroy cell function altogether. 90 % get breast cancer; 100 % get breast cancer However only 1% of all breast cancers are due to a defective BRCA1 gene.

Low Penetrance / High Frequency, occur more often (frequency) but only affect the cells slightly (penetrance). These variants that modify cell function and cause cancer by two ways: weaken the cell so that it is more susceptible to the environment or many variants in combination can cause cancer. This is the type of variation that I studied in BRCA1

We obtained human genomic DNA from 41 unaffected anonymous individuals. Amplified exon 15 & 16 of BRCA1. Using the Polymerase Chain Reaction that Increases the DNA template exponentially. Purified the PCR products using spin columns. Verified the DNA template with a diagnostic agarose gel. Those templates that worked, we sequenced. Sequenced reaction with the BigDye di-deoxy terminator. Ran a polyacrylamide gel on the DNA in the ABI Prism sequencer. Analyzed the sequence tracings



Name: Daniel M. Tee
Academic Unit: ENGR
Department: Biomedical Engineering
Title: *Mathematical Modeling for Response to Drugs*
Format: Visual: Computer Entry
Location: Exhibit #21
Description:



Interdisciplinary

Name: Cassie E. Brown

Academic Unit: LAS

Department: Undecided

Title: *Deaf Queers: Otherness within the Deaf Community*

Format: Poster

Location: Exhibit #22

Description: "Telling people I am bi has been one of the most difficult challenges of my life. Almost as tough as being a... deaf woman." – Natasha, New York

Two groups in America share a history of oppression and invisibility: they are the deaf and the queer communities. Each have had their own battles for recognition, equality, and independence. What is life like for someone who simultaneously belongs to these two culturally isolated groups? How do these identities, gay and deaf, function as different or coordinated aspects of the same person? Within which group do deaf queers feel (or desire) a greater sense of acceptance? Many issues come together here to reveal how both the deaf and queer communities work, and how people struggle to find their place in the age of identity politics.



Name: Steven B. Goldberg

Academic Unit: ENGR

Department: Computer Science

Faculty Sponsor: Bekey

Title: *DIGIMUSE: A Telerobotic System for Remote Viewing of 3D Art*

Format: Poster

Location: Exhibit #23

Description: As part of a joint project with the Fisher Art Gallery at USC, we have constructed a tele-operated robotic Web site that allows for remote positioning and binocular viewing of statues and other non-planar art objects. This system has been designed to provide interactive remote access to three-dimensional art objects in real time, so that anyone with a Web connection and a

head mounted display (HMD) can view and study binocular images of art objects anywhere in the world. A pair of video cameras, carried by a robot arm, are aimed at the statue which rests on a rotary table. The combination of table rotation and robotic camera positioning make it possible to observe the work of art from any desired position and orientation. The opening exhibit of the USC Digital Museum (DIGIMUSE) features a life size marble statue called the "Drinking Maiden", by the German sculptor Ernst Gustav Alexander Wenck.

We use a 6 degree of freedom robot arm and a linked vergence head to position two CCD cameras. The statue is placed on a rotating platform that can be commanded to one of 12 positions. The robot is controlled via a graphical, user friendly interface written in Java, which allows the user to position the cameras anywhere in the allowed workspace of the robot. Once the positions of the cameras are established, the system takes two pictures of the statue and returns them to the user, while simultaneously composing a stereo image suitable for viewing with an HMD. The paper describes the hardware and software architecture of the system and its major features



Name: Amanda Wroblewski and Bekki Sinber

Academic Unit: LAS

Department: Religion

Faculty Sponsor: Bruce Zuckerman

Title: *New Discoveries in Ancient Archives*

Format: Poster

Location: Exhibit #24

Description: The goal of our project was to catalog a recent edition to the USC Archaeological Research Collection and to determine provenience, purpose, and date of 588 clay seal impressions used in ancient archival practices. The secondary goal was to

photograph these items using techniques developed specifically for small ancient objects.



ADDENDUM:

Name: David Merson-Hess and Katherine FitzSimons

Academic Unit: Thematic Option

Title: *Scarabs*

Format: Visual Artistic Entry

Location: Exhibit #24-A

Description: Our project is original research on Near Eastern scarabs from both USC's Archlab collection and that of LACMA. It involves deciphering and interpreting the hieroglyphs and symbols on six scarabs and presenting our findings, along with general introductory information, in the format of a web page. Scanned photographic images will be used to demonstrate the unique digital process needed for documentation (members of our group will assist our Faculty Sponsor with photographing some of the scarabs). Upon completion, our website will be published in conjunction with other findings presented in the West Semetic Research Project (located at <http://www.usc.edu/dept/LAS/wsrp>).

Natural Sciences and Mathematics

Name: Arthur S. Berg
Academic Unit: LAS
Department: Mathematics
Faculty Sponsor: Wayne Raskind
Title: *Coding Techniques on a Theme of Mozart*
Format: Poster
Location: Exhibit #25

Description: Conveying information in an efficient and reliable way is an important task in any field. While mathematical concepts are typically presented as formulas or graphs, I present my work here using sound. I show how a given sequence of pitches and harmonies can be coded in various ways so as to be effectively transmitted on a "noisy" channel. Through the builtin function `Play`, *Mathematica*, a mathematics software tool, takes a periodic function as an argument and returns a corresponding sound wave as output. The sequence of sounds used in my coding techniques was taken from the theme of Mozart's *Ah, vous dirai-je Maman* or more commonly known as *Twinkle Twinkle Little Star*. To each pitch and harmony, I associated a binary code word that was enhanced with extra bits of information in order to maximize the effective reproduction of the original song that was sent. Once the code words were reassigned to their corresponding pitches or harmonies, I compared the retrieved song to the original by listening to the resulting sequence of frequencies. Methods of coding implementation include mapping several copies of each code word through the channel, linear coding, and cyclic BCH coding. A discussion of the mathematical probabilities among the various implementations is included. All programming procedures were performed using *Mathematica*.



Name: Richard A. Clark and Todd Wagner
Academic Unit: LAS
Department: Physics
Faculty Sponsor: Gerd Bergmann
Title: *Linear Chain Model of Phonons*
Format: Poster
Location: Exhibit #26

Description: To model crystal vibrations (phonons) in one dimension, we built a linear chain model that simulates its behavior and allows us to calculate the resonance states. We built this model with a collection of spherical metal balls, suspended as pendulums, and connected them using identical springs. The linear chain was excited using a signal generator and transducer. The vibrations were then measured using a computer-linked photodiode, which measured the intensity of a light source partially occluded by a shield attached to one sphere. Measuring the frequency transform of the vibrations allowed the determination of the resonance states, and confirmed that the spheres would only vibrate at the resonance frequencies (when the system was not driven). These resonance states correspond to the quantization of phonons in a crystal lattice and validate our model as being useful in examining this phenomenon on a simplified level.



Name: Eliav Dan
Academic Unit: LAS, Program in Neurobiology
Department: Psychobiology
Faculty Sponsor: Chien-Ping Ko
Title: *Does CGRP Inhibit Peri-Synaptic Schwann Cell Sprouting?*
Format: Poster
Location: Exhibit #27

Description: Previous research has indicated that Calcitonin gene-related peptide (CGRP), a neuropeptide that exists in motor nerve terminals, may act as an inhibitor of nerve-terminal sprouting. We have examined the effect of CGRP on perisynaptic Schwann Cell (PSC) sprouting that has been shown to occur after denervation of the rat sciatic nerve. Investigation of rat PSC sprouting 7 days after denervation indicated no significant difference between control and experimental groups. This suggests that CGRP did not have a significant effect on inhibiting PSC sprouting. However, several variable factors (including drug dosage, method of drug delivery, and the technique utilized to induce PSC sprouting) may have contributed to these results.



Name: Julie K. Deimler
Academic Unit: LAS
Department: Biology
Faculty Sponsor: Suzanne Edmands
Title: *Outbreeding Depression in Tigriopus Californicus*
Format: Poster
Location: Exhibit #28

Description: This project is aimed at understanding the mechanisms of outbreeding depression (the incidence of reduced fitness in interpopulation hybrids) in the intertidal copepod *Tigriopus californicus*. Previous work suggests that outbreeding depression in *T. californicus* may result from intrinsic coadaptation (Burton 1987). However, other experiments indicate that outbreeding depression may be due to local adaptation to environmental variables, specifically temperature and salinity (Edmands et al. in prep.). This research

focused on replicating these experiments and analyzing environmental variables to which the populations may be locally adapted. Fitness was assessed in first- and second-generation hybrids for five interpopulation crosses in order to determine the degree of outbreeding depression in each. Three components of fitness were measured: 1) the hatching number – the number of live nauplii (larvae) on the day of hatching, 2) the survivorship number – the number of live nauplii + copepodites (metamorphosed individuals) on day 14, and 3) the metamorphosis number – the number of copepodites on day 14. The values for each cross under each condition have allowed for the determination of the relative importance of local adaptation to outbreeding depression.



Name: Douglas C. Garrett
Academic Unit: LAS
Department: Physics
Faculty Sponsor: Gerd Bergman
Title: *Weak Localization in Thin Cs Films*
Format: Poster
Location: Exhibit #29

Description: Thin, quench condensed films of Cs change their resistance and Hall effect dramatically when covered with surface impurities. In this paper we investigate the quantum interference corrections to the resistance (weak localization) and determine the inelastic dephasing rate of the conduction electrons. The dephasing rate is proportional to the temperature dependent resistance. For pure Cs films the magneto-resistance curves show a rather poor agreement with the theory, which is rather exceptional for quench condensed metal films. In particular, at 4.5K a linear magneto-resistance is observed at large magnetic fields which defies explanation. Sandwiches of AgCs yield a much better agreement between the experimental results and the theory. However, the dephasing rate of Cs in Ag/Cs and Au/Cs sandwiches has only half the value as in pure Cs films that have the same thickness and mean free path.



Name: Susan T. Garrett
Academic Unit: LAS
Department: PSBI/PHIL
Faculty Sponsor: William McClure
Title: *Characterization of 5-HT Induced Edema Formation in Rats*
Format: Poster
Location: Exhibit #30

Description: Previous studies have shown that 5-HT in the periphery is a potent proinflammatory agent. However, although this has been known for 30 years, the receptors mediating the inflammation have not been characterized. This study looked at the involvement of 5-HT receptor subtypes in edema formation in rats. Various 5-HT antagonists were evaluated by their ability to prevent or lessen the extent of the edema response. Only methysergide and one other compound, RS-130662-190, were shown to be effective in attenuating this response despite the inclusion of other compounds which bind to the same receptors as the previous. These results suggest the possible involvement of a novel 5-HT receptor in edema formation.



Name: Paul Heroux
Academic Unit: LAS
Department: Psychology
Faculty Sponsor: Dennis Mitchell
Title: *Acculturation Mediated by Temperament*
Format: Poster
Location: Exhibit #31

Description: Assessing the individual differences that subjects different individuals of the same culture to varying levels of acculturative success.



Name: Liskin, Jacob and W. Mathiyakom
Academic Unit: LAS
Department: Exercise Science
Faculty Sponsor: Jill L. McNitt-Gray
Title: *Invariant Multijoint Control Achieved with Different Muscle*

Format: Poster
Location: Exhibit #32

Description: Competitive 10-m platform divers need to consistently perform dives from four families. During take-off, divers use a jumping motion to generate the linear and angular impulse necessary to successfully perform each dive. This study tested the hypothesis that divers use the same lower extremity multi-joint coordination during the take-off phase of the back and reverse dives. One national team diver performed a series of platform dive takeoffs from a force plate onto a foam landing pit as typically performed during dry land training. Sagittal plane kinematics (60 fps), muscle activation (1600 Hz), and reaction force data (600 Hz) were recorded simultaneously. Electrical activity (EMG) of the gluteus maximus (GM), semitendinosus (SM), biceps femoris (BF), rectus femoris (RF), vastus lateralis (VL), tibialis anterior (TA), gastrocnemius (GAS) and soleus (SOL) were monitored using surface electrodes. The EMG signals were processed as specified by the International Society of Electrokinesiology (ISEK, 1985). Examination of lower extremity kinematics indicated this diver used similar multi-joint coordination during the back and reverse takeoffs. Muscle activation patterns, however, were significantly different between dives. The greatest differences in muscle activation patterns were observed prior to the time of minimum knee angle. The differences in muscle activation between dives were attributed to the need to more vertically orient the total body center of mass relative to the ankle during the reverse dive as compared to the back dive. Similar lower extremity multi-joint coordination observed between dives suggests divers may reduce task degrees of freedom by using common coordination patterns at the joint level.

This work was funded in part by the USC Undergraduate Research Program



Name: Phi Sigma Honor Society in Biological Sciences: Members Devin Mitchell, Areio Soltani, Alan Liu, Sonali Iyer, Kristen Bozzelli, Shana Noble, and Andrew Phillip

Academic Unit: LAS

Department: Biological Sciences

Faculty Sponsor: John A. Petruska

Title: *Contrasting Gene Arrangements in Human and Bacterial DNAs*

Format: Poster

Location: Exhibit #33

Description: The tiny infectious bacterium, *Mycoplasma genitalium*, has a small (580 kilobase) circular DNA that encodes about 470 proteins needed for growth and reproduction, using nutrients in the human genital tract. The genes that encode proteins are closely packed and arranged in an orderly way to maximize efficiency. By contrast, in the large human genome (3,000,000 kilobases), the genes lie much farther apart and usually are divided into segments that need to be spliced together properly in order to make active proteins. A striking example shown here is the 685-kilobase region of human DNA that encodes the T-Cell \exists receptor needed for protection against bacterial invaders such as *Mycoplasma*.



Name: Areio V. Soltani

Academic Unit: LAS

Department: Computer Science and Biology

Faculty Sponsor: Len Adleman

Title: *A Ribozyme Chain Reaction*

Format: Poster

Location: Exhibit #34

Description: Within the past decade, a tool has emerged from biochemistry that has radically altered the landscape of genetic research. Now, a single drop of blood may hold the key to determining who its owner was. This was made possible largely by a procedure known as the Polymerase Chain Reaction (PCR). Now, a tiny amount of a person's genetic material (DNA) can be magnified

exponentially. But DNA is not the only form of genetic material in the human body. There exists another form, called RNA, which is essentially for life. But standard PCR does not work with RNA; it is rigorous a procedure. Through laboratory research in the School of Engineering's Laboratory of Molecular Science, I am attempting to establish an RNA chain reaction that will yield many copies of the original. In order to achieve this, a special type of RNA is used, called the ribozyme. The ribozyme is a form of catalytic RNA that speeds up certain reactions. For many years it was believed by conjecture that the genetic material (DNA and RNA) could not modify itself. Now, we have dozens of different ribozymes fully articulated in the literature with several properties, including joining two segments of RNA together or cutting a strand of RNA at a particular site. It has even been shown that these ribozymes can act on DNA too. Thus, I intend to use these various ribozymes to start a Ribozyme Chain Reaction that can magnify a very small quantity of RNA much like PCR can do for DNA.



Name: David C. Stockton and K.Costa

Academic Unit: LAS

Department: Exercise Science

Faculty Sponsor: Jill McNitt-Gray

Title: *Untitled*

Format: Poster

Location: Exhibit #35

Description: Identification of common features of adjacent joint coordination and joint control provides insight into mechanisms humans use to generate mechanical power during multi-joint movements involving impact. The purpose of this investigation was to test the hypothesis that an elite, combined-event athlete maintains a chosen coordination strategy during the power generation phase of three practiced tasks with different mechanical objectives.

A member of the USA Women's Heptathlon Team performed a series of low hurdle takeoffs (LH) on a track, initiated the

shot-put using the glide technique (SHP), and long jump takeoffs (LJ) into a sand pit under the direction of her coach. Sagittal plane kinematics were videotaped (60fps) and body landmark coordinates were digitized and filtered using a fourth order Butterworth Filter. A within-subject comparison was used to determine kinematic differences in multi-joint coordination between the three tasks during the push phase (minimum knee angle to departure).

The results indicate similar knee-hip and knee-ankle adjacent joint coordination was used during the LH and SH tasks. Motion occurred at relatively low joint angular velocities (<58 deg/s) during the SHP task while motion occurred at relatively high joint angular velocities during the LH and LJ tasks. Similar lower extremity range of motions was also observed during the SH and LH task despite differences in initial joint positions between tasks. These results suggest training programs, designed to enhance mechanical power generation by combined-event athletes, need to consider task specific differences in muscle tendon-unit length and velocity.

This work was funded in part by the USC Undergraduate Research Program

For the two chemical procedures, no significant change was observed. However, the electroporation procedure shows a significant increase in competency as temperature decreases.



Name: Genevieve B. Wortzman

Academic Unit: LAS

Department: Biological Sciences

Faculty Sponsor: Steven Goodman

Title: *Temperature Dependence on E.coli Competence Induction*

Format: Poster

Location: Exhibit #36

Description: This study demonstrates the affect of reducing the growth temperature of the E.coli strain, DH5, on competence formation, the ability of a cell to acquire naked DNA from its environment. The correlation between the temperature at which E.coli is grown and artificial induction of competency was explored at four temperatures: 37°C, 30°C, 25°C, 20°C. An electroporation procedure and two chemical procedures were selected in order to determine the universality of the temperature variable on competency.

Physical Sciences and Engineering

Name: Glen E. Landreth and Tricia Wall

Academic Unit: LAS

Department: Engineering

Faculty Sponsor: Fred Browand

Title: *Drag Reduction of Heavy Ground Vehicles*

Format: Poster

Location: Exhibit #37

Description: Reducing the drag of a heavy ground vehicle is complicated by the costly disadvantages of implementing these reduction methods. This experiment seeks to optimize the existing configuration of a tractor-trailer by varying the gap between the cab and trailer, where the prevailing standard is a five foot gap. Using a 1/14th-scale model, the drag force is measured for gaps from 0 to 15 scale feet with both increasing and decreasing gap. The drag behavior appears to be highly dependent upon the gap, with minimum drag at no gap. Closing the gap from 5 to 0 feet can result in a 10% savings in drag.



Name: Joseph M. Mabry

Academic Unit: LAS

Department: Chemistry

Faculty Sponsor: William Weber

Title: *Ruthenium Catalyzed Hydrosilation Copolymerization*

Format: Poster

Location: Exhibit #38

Description: Dihydridocarbonyltris (triphenylphosphine) ruthenium (Ru) was used to catalyze the hydrosilation copolymerization of aromatic alpha,omega-diketones with alpha,omega-dihydro-oligodimethylsiloxanes. The polymers produced were characterized by GPC, DSC, TGA, IR, and UV, as well as proton, carbon, and silicon NMR. High molecular weights were obtained, along with no equilibration of the oligodimethylsiloxane units. The advantages of the Ru catalyst and the effect

of the number of dimethylsiloxane units on glass transition temperature are discussed. The effect of chiral centers on the proton NMR is also considered.



Name: Jeremy M. Perotti

Academic Unit: LAS

Department: Chemistry

Faculty Sponsor: T.C. Flood

Title: *Oxidation of "Hard" Ligated Iridium (I) Bisolefin Complexes*

Format: Poster

Location: Exhibit #39

Description: The chemistry of (Cn)Ir and Cn*Ir bisolefin complexes with various oxidants has been studied [Cn= 1,4,7-triazacyclononane; Cn*=1,4,7-trimethyl-Cn]. In contrast to the chemistry of [Cn*Rh(COD)]⁺ reported by Gal, et al. (Angew. Chem. Int. Ed. Engl, 1997, 36, 2064), iridaoxetane (B) is isolated from the reaction of [Cn*Ir(COD)]⁺ (A) with aqueous hydrogen peroxide. Heating of (B) results in formation of another chiral species assigned structure (C). [CnIr(COD)]⁺, on the other hand, proceeded directly to the Cn analogue of (C) at room temperature. Characterization and mechanistic considerations are discussed.



Name: Paul D. Swanson and Michael Reeves

Academic Unit: ENGR

Department: Mechanical Engineering

Faculty Sponsor: G. Shiflett

Title: *The Adventures of Neverland*

Format: Creative Work: Story Book

Location: Exhibit #40

Description: A theme park design that follows the format of the Peter Pan Story. It's illustrated through the use of a storybook format, telling the tale of how the park came about. The major idea behind the park is

water, which helps explain this fun and creative world. Within the park you will find all the different parts that makeup Neverland. We have the Mermaid Lagoon, Cannibal Cove, Dancing Trees, and etc. With the combination of all these ideas the park is conveyed to both the young and old.



Professional and Applied Disciplines

Name: Josie Morris, Elisabeth Adams, Danielle Ballew, Joanna Blakely, Charyl Dalapit, Elizabeth Lawrence, Dawn Schafer, Jamie Schindler, Allison Speicher and Jennifer Wheeler

Academic Unit: Education

Department: Learning and Instruction

Faculty Sponsor: Sandra N. Kaplan

Title: *An Interdisciplinary Unit of Study for the Elementary Grades*

Format: Poster

Location: Exhibit #41

Description: The major purpose of this interdisciplinary unit of study is to encourage students to exemplify, clarify or prove generalizations. They do this by relating over-arching universal ideas or concepts and applying the basic core curriculum or standards. Included within this curriculum design are the dimensions of DEPTH AND COMPLEXITY or prompts to stimulate higher levels of understanding. Each of the rungs in the curriculum design contribute to the contemporary understanding of the needs and interests of students, organize curriculum around universal concepts such as power and change, encourage students to think deductively, recognize the ways by which the disciplines provide meaning to the same generalization, allow students to make relationships across the disciplines and comprehend topics of study in DEPTH AND COMPLEXITY.



Name: William G. Pawlowski

Academic Unit: Architecture

Department: Architecture

Faculty Sponsor: Edwin Woll

Title: *Housing Design for the Developmentally Disabled*

Format: Poster

Location: Exhibit #42

Description: Young adults who are mildly to moderately developmentally disabled should be

allowed to make their contribution to society. By this, I mean that these individuals should be able to gain employment doing something they enjoy or are gifted at rather than ending up sweeping the floors of a fast food restaurant. This also benefits them in the way that it provides the means financially for such individuals to live independently. In the thesis paper I present, research is presented which talks about the move from institutionalization to integration. Some historical background of developmental disability and special education law is provided with the bulk of the paper focusing on the case studies I did of different residential alternatives. One was an institution, another was a residence located in a neighborhood that was remodeled to be a group home, and the last study was of a three bedroom townhouse where the residents live almost autonomously. Drawings, floor plans, and photos of study models show how these studies have influenced my design of a mixed use facility that would occupy a site on the south side of Venice Boulevard in Culver City. This facility would house workshops and classrooms for young adults from all over the city to come for continued training in both job skills and independent living skills. A housing component is incorporated and it is comprised of six townhouses that would hold six developmentally disabled young adults and a live-in caretaker. Thus, the intent is to show that design for these young adults is almost exactly like design for "normal" people and to explore the possibility of such a building and its effectiveness in such an urban environment.



Social Sciences and Economics

Name: Kathy H. Park
Academic Unit: LAS
Department: International Relations
Faculty Sponsor: Steven Lamy
Title: *The Concert of European Security*
Format: Poster
Location: Exhibit #43

Description: European security is no longer defined as it once was during the Cold War. In a quickly globalizing society, absolute military gain no longer insures the survival of the state, and does not dominate the security realm. Rather, security is now composed of concerted social/political and economic policies. With the increasing role and expanding membership of supra-national European institutions, such as the European Union and NATO, it is clear that cooperation among weak and strong European states is essential for a collective European security. In the case of Europe, one state's insecurity is another state's insecurity as well, as seen in the current crisis in Kosovo. Through the case-studies of two different small European states, it is evident that each component of security — social, economic, and political — can individually challenge the state, and is collectively essential for both state and European security at large.



Name: Benjamin T. Berkowitz
Academic Unit: Annenberg
Department: Communication
Faculty Sponsor: Ken Sereno
Title: *The effects of style bias on perceptions of credibility*
Format: Poster
Location: Exhibit #44

Description: This project attempts to show that where an audience is exposed to a weak message from a speaker (characterized by low power of language style), that audience will then be biased against the speaker. Subsequently, they will rate a strong message

(characterized by high power of language style) from the same speaker lower than they otherwise would. In Experiment 1, control subjects heard a strong message on a subject previously found to be ego-involving to the audience; experimental subjects heard the same message, preceded by a weak message. The results of this experiment ran opposite to the hypothesized outcome. In Experiment 2, in order to control for certain factors, the control subjects heard the previously strong message, with the powerless forms added; the experimental group heard that message, preceded by the previously weak message, with powerless forms removed. The results showed the scores of the first experiment were a function of message content and not power forms. They also showed that audiences are biased against speakers who are supposedly expert but display nonfluent speech patterns.



Name: Aaron A. Bertalmio
Academic Unit: LAS
Department: Psychology
Faculty Sponsor: M. Earleywine
Title: *Caffeine and State Dependent Learning*
Format: Poster
Location: Exhibit #45

Description: This study attempted to demonstrate state-dependent memory using caffeine. State dependent learning is the theory of memory that assumes that something learned in a certain state is better recalled in that same state. We used espresso containing approximately 300mg of caffeine to induce an aroused "state" in the subjects. A battery of memory measures was then used to determine if the aroused state induced by the caffeine had any effect on the subjects' ability to recall words or tasks learned on the previous day. The subjects were randomly placed into three groups: caffeine on both days, caffeine on the first day and not on the

second, or no caffeine on either day. Subjects who had caffeine on day one and not on day two showed the lowest scores of all groups whereas scores for subjects who learned and recalled in the same state were significantly higher. These results are unique in that they give support for the state dependent learning paradigm with a drug never before studied independently – caffeine



Name: Laurie L. Giammaria
Academic Unit: LAS
Department: Psychology
Faculty Sponsor: M. Earleywine and JoAnn Farver
Title: *Experiential Role Playing*
Format: Poster
Location: Exhibit #46

Description: The purpose of this study was to examine the efficacy of experiential role playing in changing attitudes and beliefs about perceived vulnerability to HIV and AIDS. It additionally sought to change attitudes towards seeking HIV testing and altering safe sex practices through changes in the student's concepts about AIDS, HIV, and HIV testing. The results strongly suggest that roleplaying significantly alters perceptions of vulnerability as well as attitudes towards testing and sexual behavior.

The significance of the results is that a viable and effective tool has been developed for the education of college students. With modest modifications, this tool could be adapted to fit both younger and older populations.



Name: Pamela J. Hershey
Academic Unit: International Relations
Department: International Relations
Faculty Sponsor: Dave Andrus
Title: *Zimbabwean Women in Rural Development Programs*

Format: Poster
Location: Exhibit #47

Description: The semester I spent in Zimbabwe presented me with a unique opportunity to learn the essentials of fieldwork, but more importantly, enabled me to independently pursue it. My interest in developmental organizations led me to examine the spectrum of participants throughout Zimbabwe. One such organization, The Campfire Association (Communal Areas Management Program for Indigenous Resources) is well known throughout Zimbabwe for its success in bringing awareness to rural communities regarding sustainable utilization of resources in a way that benefits the community.

The focus of my field research was to ascertain the impact of Campfire's rural development programs on existing community dynamics and to identify ways in which the advent of such programs affects the cultural norms of a community. My research question was broken into three parts: Participation: what are the roles of both women and men in the Campfire community projects? Is there an equal distribution of women and men in leadership positions? Benefits: does the entire community benefit from project implementation? Change: are livelihoods and sources of income changing? Are cultural norms, such as the expectations based on gender roles being revised?

The majority of my interviews were conducted in Patalika village, Tsholotsho, Zimbabwe. During my stay there I interviewed a wide variety of people hoping to capture the essence not only of their involvement with the Campfire Association and the greater community, but of their attitudes also. I was confronted with many subtleties, each with many possible explanations. My experience there could not have been more positive.



Name: Jennifer O. James
Academic Unit: LAS
Department: International Relations
Faculty Sponsor: Lamy
Title: *Making Enlargement Work: Microcredit*
Format: Poster
Location: Exhibit #48
Description: "Making Enlargement Work: Micro-Credit," is a case study providing insight into the American government's changed attitude towards foreign aid since the end of the Cold War. The process by which the United States Agency for International Development selects recipients for foreign aid has become increasingly complex and controversial. The major disruption of who decides how to allot foreign aid and who receives it becomes evident in this case study, where the conflicting interests and restrained desires of various domestic actors come to play.

The research conducted for "Making Enlargement Work: Microcredit," required interviewing Congressmen, agents within USAID, actors within international organizations such as the World Bank, the Foundation for International Community Assistance, Rotary International, RESULTS, and the Inter-American Development Bank. Further research involved traveling to Mexico to interview directors of micro-credit programs. And of course, reading, lots of reading....



Name: Raelynn Napper, Annette Boulgourjian, Kenneth Nguyen, Sharon Prestridge, Stacie Radtke, and Xochitl Ruiz
Academic Unit: LAS
Department: Anthropology
Faculty Sponsor: Deirdre Evans-Pritchard
Title: *White-Out*
Format: Poster
Location: Exhibit #49
Description: WHITE-OUT: The color white has symbolic associations with peace, purity,

cleanliness, goodness and hope. These associations and categories have been extended to define people and their place in North American society - via reference to class, race, status and superiority. While such culturally-constructed uses of "white" do not reflect natural reality, they are commonly-held perceptions that dramatically impact us all. This poster display examines created meanings of whiteness and some of the ways in which they affect our lives.



Name: Sonia K. Narang
Academic Unit: LAS
Department: Psychology
Faculty Sponsor: JoAnn Farver
Title: *East Meets West: A Study of East Indian Immigrant Families*
Format: Poster
Location: Exhibit #51

Description: This study investigated relationships among acculturation, ethnic identity, family conflict and adolescent anxiety with East Indian immigrant families. The participants were American born adolescents (14-19 years old) and their parents. Adolescents completed the Multigroup Ethnic Identity Scale, Spielberger State-Trait Anxiety Inventory for children, the Issues Checklist and an acculturation questionnaire. The results showed significant relationships among adolescents' report of anxiety, family conflict, ethnic identity and acculturation. The findings support studies conducted with other immigrant groups which have shown how ethnic identity and acculturation may be important influences on psychosocial outcomes for adolescents and family functioning.



Name: Arghavan Rahimpour and Tim Mechlinski
Academic Unit: LAS
Department: Sociology
Faculty Sponsor: Ed Ransford & Celina Gorre
Title: *Use of USC Health Center's Anonymous HIV Testing program*

Format: Poster

Location: Exhibit #52

Description: "SECS!" also known as the Sexuality Education and Counseling Services program, is part of the Health Promotions and Prevention Services at USC Student Health Center. During February, the program sponsors "Free in February" and offers free anonymous HIV testing to USC students, faculty, and employees. This paper seeks to identify the current population (gender and sexual orientation) that is using this service. The research also looks at factors that motivate or impede students' decision to get an anonymous HIV test. These findings can be used to better understand the dynamics that affect college students in their decision to get tested for HIV. Certainly, these results are crucial in developing future campaigns for encouraging regular HIV testing. This is particularly important among the college student population because many students use these years to form life-long habits.



Name: Irina A. Shklovski
Academic Unit: LAS
Department: Psychology
Faculty Sponsor: Stephen Reed
Title: *Friendships – Virtual or Real?*
Format: Poster
Location: Exhibit #53

Description: Rapid development of the Internet has introduced new modes of communication into everyday human interactions. E-mail and other Internet tools have become almost as essential as a fax or a phone. However, computer-mediated modes of communication filter conventional social cues when presenting an entirely text-based interaction.

This research paper focuses on relational topography of real-time text-based Virtual

environments known as MUDs (Multi User Dungeons) - network-accessible, multi-participant adventure game-concepts based on the role playing ideas of Dungeons & Dragons. Current users of MUDs were contacted via Internet and randomly assigned to complete a web-based survey either on MUD (Virtual proximity) relationships or on Real-Life (physical proximity) relationships. It was hypothesized that on-line relationships would appear just as important as their off-line counterparts, but much less burdensome and easier to manage.

Over 131 subjects completed the survey. While working on the questionnaire, 77 participants were asked to think of a Real-Life friend and 54 of a MUD friend. The results showed that although Real-Life (RL) friendships appeared more developed overall, the difference between physical (RL) and virtual (MUD) proximity relationships was not significantly different. However, participants who spent more time (on average more than 20 hours/week) on a MUD (participating in the game and interactions) reported to have significantly less difficulty in maintaining their relationship.

It was concluded that a MUD-virtual environment provides an inherently social environment with a powerful context that facilitates formation of meaningful personal relationships.



Name: Lori K. Stone
Academic Unit: LAS
Department: Psychology
Faculty Sponsor: Gatz
Title: *Telephone Helpline Usage for Older Adult Memory Problems*
Format: Poster
Location: Exhibit #54
Description: This study examines the utilization of a telephone helpline for older adult memory problems. Data was collected and analyzed from a sample of helpline forms routinely filled out by helpline volunteers at the Alzheimer's Association Los Angeles Chapter. The most frequent callers are caregivers, specifically, female, Caucasian, adult children of the individual of concern. Most requests were for general dementia information, diagnostic referrals, respite care and caregiver support groups. The results indicate that the helpline is a useful method of disseminating information about resources available to caregivers and their elders with cognitive impairment.



Name: Ryan E. Walther
Academic Unit: LAS
Department: Anthropology
Faculty Sponsor: Craig Stanford
Title: *Interspecific Associations Between Primate Populations*
Format: Poster
Location: Exhibit #55
Description: The Udzungwa Mountains of South-Eastern Tanzania contain an amazing amount of biodiversity. The area is listed as one of the 10 "hotspots" of biodiversity in the world by the World Wildlife Federation (WWF). This diversity is reflected not only in the vegetation, but the animals as well. Two primates exist in the forests of these mountains that do not exist anywhere else in the world. One of these is the Uhehe Red Colobus.

At the southern base of the mountain range lies Kalunga Forest, a 2 kilometer square, severely threatened forest. In it exist five monkey species, including the Uhehe

Red Colobus. The Uhehe interact with some of these other five species on a regular basis, and it was reported that this subspecies (Uhehe) of Red Colobus interacts with the other monkeys much more than anywhere else in the world.

For one month I studied the feeding habits of the Red Colobus monkeys and their interactions with the other primates in the forest. Some of my findings support the evidence previously collected on this little-studied species, but other information that I gathered contradicts data previously gathered.

