

Basic Instinct: The Hunt for “Piñata Colobus
By Dominique Bertrand

Hunting is an important activity in the lives of chimpanzees (*Pan troglodytes*) and is crucial to their survival. Most people are surprised to learn that chimpanzees hunt and consume vertebrates (especially monkeys and a few other mammals) as a part of their diet. Usually, for this predation to be successful, multiple members of the social group must cooperate. Data from the Tai chimpanzees of West Africa, show that they collaborate 63% of the time that they hunt (Boesch, 1994). Our study compares how hunting instincts and behaviors differ between captive and wild chimpanzees. We study these behaviors by using mobile, monkey shaped piñatas in open roofed corrals that the subjects reside in, measuring instances of hunting and abnormal behaviors. The study uses 80 chimpanzees total, separated out into 8 already formed social groups. No test ends until the majority of the piñata is either destroyed or taken into their interior enclosure. Our results show the importance of hunting in a chimpanzee society and serve to assess some important differences between captive and wild chimpanzee behavior. If captive chimpanzees do hunt cooperatively and it fosters unique social behavior, this study can open up new doors as to possible enrichment devices.

Women Dou Hui Shuo Zhongwen!
Educational Video Curriculum for Beginning Students of Chinese
By Emily Brandt

Women dou hui shuo Zhongwen!, is an educational video curriculum designed for first year students of Mandarin Chinese . It combines dialogue scenes, vocabulary, “sing-along” songs and poetry to interactively engage students with the lesson material. The video is comprised of a series of 22 lessons, based on the beginning Chinese textbook “Chinese Link – First Edition,” published by Pearson Prentice Hall. The video curriculum will increase student involvement in the Chinese language program at SU, both during and following production. During production, it has provided current students the opportunity to explore Chinese outside the classroom in a creative and interdisciplinary setting, including acting, singing, traditional calligraphy, and cultural research. Following production, it will increase student’s comprehension of material by combining audio (spoken vocabulary, songs, poetry and dialogues) and visual (“sing-along” style *pinyin* Romanization and characters), a format not currently found in the classroom. It will also enhance student engagement and enjoyment of material through humor.

Women dou hui shuo Zhongwen! is a highly innovative project because it combines the challenges of producing an artistic, entertaining and useful video, and compounds them by requiring that it be done in a foreign language. With the exception of the closing credits, there is absolutely no English throughout the video. Because the video is shot entirely in Chinese, the imagery and acting have to be vivid and clear enough to engage and instruct the student audience, and keep their attention, despite the language barrier. The restriction of working within both the language limit and the inherent limits of the video medium requires heightened creativity in order to accomplish my goal of increasing student engagement and enjoyment of the lessons.

Creation of a Student-Run Southwestern University Radio Station
By Kaitlyn Dennis, Brooke Lyssy, Andrea Plybon and Katy Siciliano

The objective of this project is to create a student-run radio station that will broadcast through the Internet and will provide the basis for possibly expanding to a FM-broadcasting station in the future. The station will feature a variety of programming that would showcase a range of diverse student interests and organizations, as well as faculty achievements of Southwestern.

An Extensible Computer Game for Interactive Language Learning (and Other Areas)
By Stephen Foster, Tommy Rogers, Carl West, Nathan Lindzey,
Bobby Potter and Whitney Johnson

The programmers and artists involved in this project aren't the first people to notice the high demand for pedagogically motivated games. Many college students we know spend as much or more time playing video games as they spend doing homework. Unfortunately, many pedagogically motivated games simply aren't interesting enough to hold the attention of students who are used to fast-paced games that lie on the cutting edge of modern entertainment. Our game seeks to be both educational and also highly appealing.

We do this in two ways. Firstly, because pedagogically motivated games, as of yet, do not have social features, our game will facilitate multiplayer interaction and, thus, will allow educational experiences to occur within virtual worlds similar to blockbuster games like World of Warcraft and Everquest. Secondly, our game is both playable and editable, meaning that educators (and potentially students) will be able to adjust the game to their needs. In a sense, our game allows people to be both players and co-creators of the virtual worlds they will inhabit.

A Play in a Day: The 24-Hour Theatre Project
By Matthew Harper

The intention of this project is to produce an entire theatrical production in 24 hours. Production in this sense encompasses all aspect of a play which includes writing an original script, rehearsing said script, designing a set, costumes and lights for the production and finally performing the play at the end of the 24 hours. The purpose of this project is to distill the essence of performance by condensing a six week process into 24 hours. By rehearsing a play for six weeks a certain level of artificiality enters the production due to the repetitiveness of such a long rehearsal process. A performance is no longer a representation of reality but instead a presentation of the rehearsal process. Hopefully, at the end of these 24 hours, the performance will regain the genuineness that is lost through conventional theatre production.

Efficient, Low-Cost Solar Water Heaters
By Pelham Keahey

In an era rising energy costs, any device that can replace expensive fossil fuels should have a large potential market. Last year I received a King Creativity project to produce an inexpensive, easy to make solar water heater. I was able to achieve both of these objectives; unfortunately, my design wasn't meeting the standards I would have liked, for reasons I am still trying to determine. As part of this investigation I began to look at more conventional designs' many of which are able to easily heat water by 20 degrees Celsius or more. For this King Creativity grant I would like to look at which design features of solar water heaters yield the highest efficiencies while still keeping in mind low cost and easy construction. The performance of the newly constructed model will again be tested under different weather conditions to determine how practical such a device would be for central Texas or other similar climate zones. The design which we believe will meet these criteria that is currently being constructed will utilize a (snaked) copper pipe running along a metal plate that will hopefully absorb enough heat from the sun to substantially heat the water traveling through the copper pipe. Unlike last year's design, which utilized a parabolic reflector focused on a single metal pipe, this design will absorb the heat directly in order to heat the water which preliminary tests have shown to be more effective.

Thermal Solar Powered Refrigerator
By Melanie Loop

The project is to set up a small absorption refrigerator with alternate power sources. The refrigerator will be mainly run off solar thermal heat with backup power systems including a solar cell and a bicycle power generator. The backup systems for the refrigeration system would work to charge a battery so that the refrigerator would still operate under conditions that the thermal solar collector would not. These two forms of energy would charge deep-cycle batteries. If both of these two options were not useable for any reason, there would still be a choice to plug the refrigeration unit into a wall socket and have it run off of the conventional AC current or be operated by propane.

Building Bridges: Discussing the Realities of an Israeli-Palestinian Peace
By Andrew Mayo and Martin Stanberry

Through asserting voices of peace and reconciliation, the conference aims to expand Southwestern community awareness of the Israeli-Palestinian conflict and examine practical avenues for a peaceful resolution. When dealing with such a highly contentious issue it is necessary to respect constructive views. In February of 2008, Ibtisam Barakat as well as a host of knowledgeable speakers will encourage students to contemplate the complexities and nuances of the issue. Accordingly, this conference focuses on opportunities for realistic and sustainable peace rather than issuing blame or declaring ideological allegiance to a particular side. In the words of Naomi Shihab Nye, renowned Palestinian-American author, "I'm not interested in who suffered the most. I'm interested in people getting over it." Keeping this in mind, our speakers will not refrain from challenging both apathy towards and assumptions regarding this highly controversial debate. Searching for peace is itself, a creative endeavor. The creative act is a struggle, a process by which an individual or a group redraws the bounds of understanding and acceptance. Violence, in particular within the context of this conflict, serves no purpose towards creation, only destruction; yet even one more voice for peace carries the potential to change attitudes. Realizing our connection to a few hundred square miles on another continent creates seeds of peace whereby we can embark upon new ways of living together.

Southwestern University: Art Festival sponsored by Delta Omicron
By Natalie Moore and Mary Kierst

Southwestern University is an institution that prides itself on providing its students with a well-rounded education for students of all studies. We are in the early stages of planning and organizing an Art Festival for Southwestern University and the Georgetown community. The Art Festival is a new and creative project that will educate the students and Georgetown community and celebrate our fine arts programs. The art, theatre, and music departments are three very influential bodies at Southwestern and an art festival is an attempt to combine forces and learn about each other's passions through workshops, hands on learning, performances, and informal displays. We all dedicate so much of our time to our individual areas of study that we rarely take the time to understand and appreciate the amazing things that other students on campus are doing. The Art Festival will be held on April 5, 2008, in the Bishop's Lounge, veranda, and the academic mall. The Art Festival is to be a conglomeration of those who would like to be involved, and is not limited to art, theatre, and music; other arts are welcome as well! Our main theme is bringing community together with the arts. If you have any questions, would like more information, or would like to be involved please contact us at mooren@southwestern.edu.

"Worms, Worms Everywhere!"
By Emily Schmidt

I am currently working with Dr. Veronica Martinez attempting to understand the process of regeneration, specifically nervous system regeneration, within *Lumbriculus variegatus*, an oligochaete that lives in

swamps and shallow water throughout North America. An individual worm can have up to 250 segments, each of which can regenerate into an entirely new worm. It is believed that if we can understand the genes and proteins that are expressed in the processes of regeneration in Lumbriculus, we can understand the conditions necessary for regeneration in more complex systems.

Adapted from previous work with Planaria, we have been able to label new cell growth with a chemical called bromodeoxy-uridine (BrdU). Through work at the University of Texas at Austin, we have been able to visualize cell growth throughout the body of the worm. We have also been in contact with the Rosa-Molinar Laboratory at the University of Puerto Rico in San Juan, who has been developing innovative microscopy techniques to locate and visualize specifically, cells of the nervous system. Funding from the King Creativity Fund will be used for travel to the Rosa-Molinar Laboratory and continue our research of Lumbriculus and its regenerating nervous system. With our work at Rosa-Molinar Laboratory and future research, we hope to one day, identify and describe the pathways associated with regeneration within this worm.

Consumption and Waste: Reflections through Food **By Jaymie Teakell**

I am creating a series of artworks that seek to evoke serious questions about our relationship with food, concentrating on the ethical and social questions that food waste raise. These artworks are meant to provoke the viewer to consider their own experiences in the consumption of food. I hope to enact social change in food conservation. The series will be presented in two modes of expression. The first, a series of five large-scale paintings representing food found in the public sphere, examine the over-distribution of food in the United States. The second series encases a month's collection of my own daily food waste in thirty boxes of resin, exposing my own wasteful habits as a metaphor for a larger societal problem. Through a self-conscious and constructed idealism, I intend to reveal our collective delusions about food with knowledge of the philosophical ramifications of that choice.