CRCA Summer 2002 News

Center for Research in Computing & the Arts

Summer 2002 Cal(IT)^2 Research Fellowships in New Media Arts Announced

For the second year, the California Institute for Telecommunications and Information Technology [Cal(IT)^2] at UCSD has awarded four students summer research fellowships working in the New Media Arts for their Undergraduate Summer Research Fellowships program. In this program, a student receives funding to work over the summer with a faculty member on supervised research. Below are this year's project descriptions.
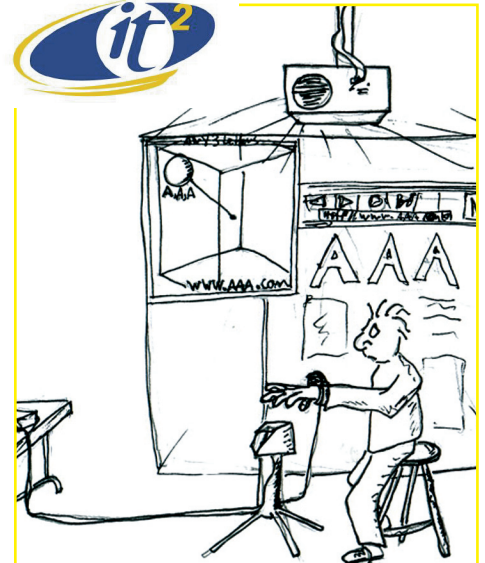
Jeremy Weir with Adriene Jenik/Visual Arts: "Wireless Network Event Templates":
Jeremy's plan for the summer is to work with Professor Adriene Jenik in implementing a pilot phase of a New Media Arts layer within the ActiveCampus project. Research conducted during the summer fellowship will be focused towards the creation of a successful and compelling launch event in the Fall of 2002 which will introduce the ActiveCampus Explorer application to the incoming Sixth College student community. The goal is to move beyond the simplistic "treasure-hunt" model of interaction into a more sophisticated and critically aware process of interaction. In addition, Jeremy will work with Professor Jenik to conceptualize additional network-wide events to take place over the Fall and program network templates to continue development of experiments in this area.
Link to the ActiveCampus project: http://activecampus.ucsd.edu/

research rendering by John Bruneau

Brian Crabtree with Peter Otto/Music: This summer, Brian will continue to work with Professor Peter Otto on a variety of spatialized sound systems. Applications range from performance to composition and sound design. They will also look at multichannel compression, and some teleconferencing and security-related applications of compressed multichannel audio. Most development will employ Max/MSP, though the recent need for cross-platform support may necessitate other environments (Professor Puckette's *Pd* or perhaps C++). They will be using the CRCA 8-channel sound system CRCA for testing.

Michael McCormick with Miller Puckette/Music: During the Cal(IT)^2 internship, Michael will be writing an external object for the visual music programming language, Pure Data (*Pd*), by Professor Miller Puckette. This object will aid in analysis/resynthesis of a real-time signal by analyzing Fourier transform data for peaks, troughs, and bandwidth heights at quarter intervals. This new analysis can be used to find the time varying behavior of format frequencies, and thus can be used to resynthesize an incoming audio signal.

Guggenheim Fellowship awarded to Lev Manovich

Dr. Lev Manovich of UCSD Visual Arts has received a John Simon Guggenheim Memorial Foundation Fellowship "to Assist Research and Artistic Creation" for the period of 2002-2003. The Guggenheim Foundation selects recipients on the basis of distinguished past achievements and exceptional promise for the future. The purpose of the Guggenheim Fellowship program is to help provide Fellows with blocks of time in which they can work with as much creative freedom as possible. Manovich is an artist and writer working in digital media.

For more on Manovich's work, see: http://www.manovich.net.
Information about the Guggenheim Foundation: http://www.gf.org.

Jolene Truong with Sheldon Brown and Adriene Jenik/Visual Arts:

Jolene will be working with Professor Adriene Jenik for the first half of her summer research work, developing an application for the ActiveCampus project that tracks the historical changes of campus architecture. This integrates into ActiveCampus Explorer as a history slider. Work on this project will also include assisting Professor Jenik in conceptualizing and designing an array of icons, graphics, and avatars as a simple form of representation for ActiveCampus students to use. The second part of Jolene's summer research will be working with Professor Sheldon Brown to create a 3-D interactive computer graphic environment that extends a game engine application he has been developing for the past year.

CRCA Summer 2002 News & Views

CRCA Researcher is Invited to the Platinum Oasis/LA

Music grad researchers Juliana Snapper has been invited to install a room and perform center-stage at this year's Platinum Oasis in Los Angeles. Curated by Ron Athey and Dr. Vaginal Davis, Oasis is an around-the-clock event featuring artists working in sound, surveillance, vaudeville and technical torture devices (Lydia Lunch, Bruce La Bruce, Osseus Labyrint and other twisted minds.)   Set in Hollywood's "historic" Coral Sands Motel, Platinum Oasis is an 18-hour durational arts fest with 40 rooms of media, interactive and salon-style installations. This year's theme is Pasolini. Snapper will perform excerpts from **Opera Puntanesca**, and with collaborator Paula Cronan will present their piece **Runny** .

Platinum Oasis will be held July 13 and 14.

http://www.outfest.org/2001/outfest_live/platinum.htm

mesh.FM

mesh.FM is a weekly broadcast of sound, music, and visual experiments based on a shifting arrangement of themes showcasing local artists as well as building interchanges and connections with other streaming institutions. The mixes consist of experimental applications as well as cutting edge research, thematic approaches to playlist selections, interviews with artists, as well as a return to informal broadcasts to catalyze multi-modal creation. The streamcasts have featured a variety of artists, including Nathaniel Clark, showcasing his resonant frequency-driven **MONOM** series, Jon Phillips and Matt Hope, extending their **IMMEDIANCE** news mixing and real-time mp3-stream editing to the internet airwaves *(see article below)*, DJ Pretext with techno-driven mixing and algorithmic loop-generation, and Tucker Dulin with generative oscillator-bank explorations of soundspace.

meshFM streamcasts every Friday evening, beginning at or around 8 pm PT
http://www.protofunk.org/projects/meshfm/.
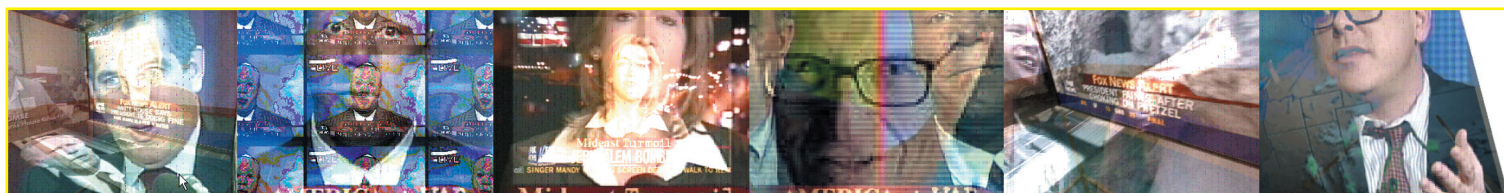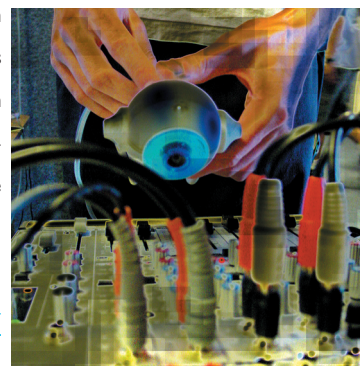
IMMEDIANCE: newsMixing to Perform @ ICA London's Cybersonica Festival, June 2002

The first major project of IMMEDIANCE, newsMixing, has been invited to perform at the dynamic Cybersonica International Festival of Music and Sound sponsored by the Institute of Contemporary Arts (ICA) London and Cybersalon.org. The three-day festival brings together "the whole community of sonic innovation, from musicians, artists, DJs and VJs, to designers, academics, software developers and record labels in a snapshot of current significant work in sonic art."

IMMEDIANCE, created by CRCA Graduate Researcher Jon(athan) Phillips and Visual Arts Graduate Student Matt(hew) Hope, audio and videomixes "real-timedata streams" with a focus on local and global news. Whereas VJ'ing, videomixing, and DJ'ing has become somewhat tabooed through specific embedded mixing tropes, IMMEDIANCE strives to experiment and tweak visual and aural news fragments into a new form of content. IMMEDIANCE is trying to empower the audience to be the performer and editor of content. The current emphasis is on IMMEDIANCE's experimentation and mapping of live contenthacking and ripping.

For more information and further dialogue: IMMEDIANCE's online wikiweb <www.immediance.org>, Cybersonica International Festival of Music and Sound <www.cybersonica.org>, Cybersalon <www.cybersalon.org>, Insitute of Contemporary Arts (ICA London) <www.ica.org.uk>, Matt Hope's website <www.matthope.net>, Jon(athan) Phillips' collaboration site <www.protofunk.org>.

CRCA Hosts Sixth College Admit Day

Sixth College, devoted to exploring the interactions of Culture, Art, and Technology, will be officially opening its doors in the fall.   Since January, sixteen faculty from nine departments have been at work laying out the core program that will be required of all 280 entering students. Each quarter will be structured differently, but classes throughout the year will include laboratory sessions in which students work with the various arts to think through and engage directly with problems posed by course materials. In addition to large lecture courses, freshmen will have the unusual choice of small seminars and midsize classes on such topics as "The Border—Bodies and Limits" (=dance, motion, and the Mexican border), "Glass, Rubber, Concrete" (materials, material culture, and cultural and social history),   "Music, the Mind, and Digital Ecology," (=digital environments, new understandings of consciousness, the philosophy and economy of the arts), and "Energy and Spirituality" (=values leading to or from issues of sustainability, here or elsewhere in the universe). The momentum of this program is to reassess the relationships of Culture, Art, and Technology and, in the process, come to a deeper appreciation for and more active engagement with the surrounding community, on campus and in the San Diego region.

See the Sixth College website, in process of being updated, at: http://sixth.ucsd.edu/

Ecosphere: A Perspective on Composition

"The earth has a complex and delicate balance of ecosystems that sustain a diversity of life forms. Human intervention is now altering this balance in unprecedented ways, most notably from rain forest eradication, and the various effects of global warming. The geographer Robert Bailey has classified terrestrial ecosystems into four domains (polar, humid temperate, dry, and humid tropical) divided into 15 regions. All of the earth's land mass fall into these 15 classifications in various percentages, from savanna (17%) to hot continental (1.4%). This is a dynamic equation that human intervention is altering quickly and dangerously.

This piece draws on Bailey's classifications as a formal model. There are sixteen sections (in one continuous movement) that take their temporal proportions from the percentages of their corresponding ecosystem, presented in the following order (with locations given as one example of where each ecosystem may be found):

> *atmosphere subarctic (Fairbanks) tundra (Reykjavik) warm continental (Tallinn) temperate steppe (Volgagrad) marine (Paris) hot continental (Nagano) Mediterranean (San Diego) tropical steppe (Khartoum) tropical desert (Djibouti) rain forest (Manaus) savanna (Madras) temperate desert (Tashkent) subtropical (Sydney) prairie (Montevideo) icecap (Byrd Station).*

Some data about each region's climate is taken into consideration in developing the material for each section, particularly the way temperature and precipitation change over the course of an average year. But other then this, the music is composed freely, with no attempt to illustrate. I do not seek to create a musical picture of these systems, but rather to use this data as a model for a journey through a varied musical terrain. I also wish to celebrate the present diversity of ecosystems, and lament the gradual erosion of this diversity and corresponding extinctions.

Ecosphere is scored for flute (with alto and piccolo), oboe (with cor anglais), 2 clarinets (with bass, contralto, and contrabass), two horns, trombone, 2 percussionists, 2 keyboards, and string quintet. The keyboards control sample players to simulate various plucked and struck instruments, with a computer deployed to dynamically retune the samples in a just relationship to the fundamental frequency of each phrase. Real-time audio signal processing is deployed on all of the other instruments for spatialization, resonance, reverberation, delay, cross synthesis, and just intonation pitch shifting.

Ecosphere was commissioned by IRCAM. I wish to express my gratitude to Eric DeVischer and Allain Jaquinot for their support, to Miller Puckette of UCSD for his software development, and to Olivier Pasquet of IRCAM for his indispensable assistance with the technical realization of this work.

On the morning of 11 September 2001 a terrible act of cruelty occurred in my place of birth, New York City. Perhaps a work of art seems trivial in light of the disastrous consequences of this act. But however insignificant it may seem, I must offer this piece in dedication to the memory of the victims of this tragedy."

by Rand Steiger, UCSD Music

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Summer News Highlights:

Cal(IT)^2 Summer Fellowship Awards Announced

Dr. Lev Manovich, UCSD Visual Arts, receives a Guggenheim Fellowship

Streaming Projects: **Immediance** and **meshFM**

CRCA researchers showcased at **Platinum Oasis** in July

Rand Steiger presents **Ecosphere**

CRCA hosts Admit Day for first crop of Sixth College students.

To receive email or print notifications of the CRCA Newsletter and public event notices, contact CRCA at 858/534-4383.

Newsletter editing and design by Carol J. Hobson.