ABSTRACT

The iEAR Studios house the Department of the Arts at Rensselaer Polytechnic Institute, which offers an innovative Master of Fine Arts program in Electronic Arts. The studios provide educational and professional facilities for computer music, video production and post-production, and computer imaging and animation. The combined studios present an exceptional opportunity for integration of artistic disciplines and ultimately for the exploration of new forms of artistic expression using electronic media. It is this very integration and exploration which is the basis of the Electronic Arts curriculum and activities.

THE STUDIOS

The iEAR Studios (Integrated Electronic Arts at Rensselaer) reflect the three primary emphases of the RPI Arts Department's MFA program in Electronic Arts: video, computer music, and computer imaging. Individual studios, suited for both artistic production and pedagogy, focus on each of these pursuits. In addition, an Integrated Studio which combines computer music, online video and sound editing, and digital imaging processing encourages cross-disciplinary experimentation and collaboration.

The equipment and design philosophy of the iEAR Studios were presented to this body in 1992. (Povall, R.) Naturally, some equipment has been added and updated since that time. To summarize briefly, the iEAR Studios comprise:

• Graduate computer music studio—Macintosh-based studio for hard-disk audio recording and editing, MIDI-control of samplers, synthesizers, and processors, and synchronization of music and video. A notable recent improvement is the addition of Kurzweil K2000 samplers in place of Emotion EPS 16+ samplers in the graduate studios.

• Graduate computer graphics studio—Macintosh-based studio for still image design, animation, and digital video. This system—including 120MB of RAM, magneto-optical storage, color scanner, Radius VideoVision Studio input and output, and all major graphics applications—is in addition to the existent Amiga-based graphics studio.

• Graduate video studio—Offline video editing studio for 1/4" SP, 1/4" HD, Hi8, and VHS formats, with Amiga 2000 computer and NewTek Video Toaster.

• Integrated Studio—Online video studio for 1/4" SP, 1/4" HD, Hi8, SVHS, and VHS formats, based on Grass Valley editor, switcher, and digital picture manipulator, with editor control of a Soundcraft 6000 audio mixing console. This is combined with a complete computer sound and music studio nearly identical to that described above, synchronizable to the video editor.

• iEAR Space—Black box performance/production studio adjacent to (and wired for sound and video to) the Integrated Studio.

• Undergraduate workstations for computer music and multimedia (Macintosh-based MIDI systems with multi-track audio recording), video (JVC SVHS editing systems), and graphics (Amiga-based graphics with digitizer, Video Toaster, and video output).

• Equipment room with 24-hour access to video production equipment and to music performance equipment equivalent to that found in the graduate computer music studio and the Integrated Studio.

• Faculty and staff offices, graduate student workroom, seminar room, and gallery space.

• The iEAR Integrated Studio is wired for audio to the campus FM radio station, and is wired for satellite telecast via the Rensselaer Satellite Video Program. Additional resources available on the RPI campus include a proton beam therapy, a twenty-station Macintosh multimedia laboratory, and a six-station Silicon Graphics-based Image Processing Lab.
ARTISTIC AND PEDAGOGICAL ACTIVITIES

RPI is one of the leading technological universities in the nation, and the Institute boasts other integrated cross-disciplinary departments such as Literature, Linguistics & Communication; Psychology, Philosophy & Cognitive Science; and Science & Technology Studios. Thus, the special nature of the Department of the Arts lies not only in its emphasis on electronic media but also in its emphasis on integration of the arts.

The Department of the Arts accepts graduate students from any artistic discipline and teaches them technical proficiency in all of the studios. In addition to their studio courses, the students take critical/historical/theoretical seminars in video, music, and computer arts, learn techniques of production for installation and live performance, and participate in weekly creative workshops with all of their colleagues. The goal of the department is to train a new type of artist unimpressed by technology and unfettered by traditional disciplinary boundaries, concentrating on the development of new art with new media.

This integration of the time-based art forms led to exciting audio-visual performance works by artists-in-residence such as Robert Ashley, Pauline Oliveros, and Guillermo Gómez-Peña, which have been telecast nationally via satellite, and in which the students were uniquely prepared to participate as active collaborators. This fall the students will have the opportunity to collaborate with visiting computer musicians George Lewis and Lariütta Sonami.

PEDAGOGICAL CHALLENGES

The mere juxtaposition of audio, video, and graphic equipment, and the sheer will to be "integrated" do not, however, suffice to break down traditional boundaries. The "very novelty of this MFA program implies, almost by definition, that the faculty and incoming students have been trained according to more traditional disciplinary models than those espoused by the Department itself. The fact that each member of the faculty was trained as a specialist in one particular art form means that in order to teach successfully in such a department they must be dedicated to an ongoing learning process in which they are constantly developing new artistic awarenesses, acquiring new skills, and understanding the workings and implications of new technologies.

The faculty must also constantly strive to address the issues under study in a way that can be understood and utilized by students within a great diversity of backgrounds, training, and artistic goals. This incites both faculty and students to seek the underlying concepts that will help them understand issues raised in one art form and apply those concepts in other art forms. As students discover these common concepts among art forms, they develop a versatile critical faculty that serves them well in evaluating the work of others and at the same time leads them to new insights regarding the integration of different artistic media in their own work.

The approach to Electronic Arts education at iEAR Studios—training students to gain proficiency working in a variety of media—is?evidencing good results. It is producing graduates who can manage their own complex media works—composing, producing, engineering, and performing in their own work from start to finish—or collaborate with other artists effectively because of an informed viewpoint and experience working in other media. The diverse and extensive technical proficiency acquired by the graduates also serves them well in the job market, both in the arts and entertainment industry and in academia; a high percentage of the Department’s MFA graduates have found satisfying jobs very shortly after graduation.

The interdisciplinary philosophy behind the Studios and the Department may well prove to be indicative of the future of graduate arts training. A talented and critically aware artist with advanced technical skills in audio, video, graphics, and programming is certainly likely to fare well both artistically and professionally in the modern world.

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