Sound for Picture: Teaching Music in Art School

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Abstract

The author, a composer by background, describes the program in the Sound Department of a major art school, from introductory courses, through hands-on classes in experimental instrument design, to graduate seminars and artist-in-residence programs. The curriculum and pedagogy of the art school is contrasted with his experiences in music schools and universities. Some suggestions for alternate teaching methods are made.

Introduction

While it is unusual to find a music conservatory that teaches painting, most art schools today recognize sound as a legitimate art material. The techniques and aesthetics of sound manipulation are taught in departments of film, video, multi-media, performance art, sculpture, under the ambiguous banner of "4D," and occasionally in an independent "Department of Sound." These various media, and the role of sound within them, are relatively new; sonic art in western culture historically has been dominated by "music", which carries an imposing tradition of specialized skills and knowledge that cannot be assumed to have been mastered by the typical art school student. How then does one go about teaching "sound" to those with little or no prior "musical" education?

Personal Background

I am not an educator by background nor -- until recently -- by vocation, and I am certainly not an educational theorist. I am a composer and performer of live electronic music, and a designer of sound installations. For 20 years following graduate school I survived as a free-lance musician, supplementing what I could earn directly from art or grants with a range of "day jobs" and the occasional music-related, short-term employment: organizing concerts, festivals and exhibitions, producing recordings for others, editing the Leonardo Music Journal, and serving as artistic director of the STEIM foundation in Amsterdam. In 1999, after seven years living in Europe, I relocated back to the United States to take on my first full-time academic position, in the Department of Sound at The School of the Art Institute of Chicago (www.artic.edu/saic.)

The School of the Art Institute of Chicago

The School of the Art Institute of Chicago is a well-established, highly regarded art school with a demonstrated commitment to time-based arts, digital technology, new media and interdisciplinary work. The Department of Sound is one of several departments (including Performance Art, Film/Video/New Media, and Art and Technology Studies) with facilities and curricula incorporating sound -- at SAIC sound

is treated seriously as an art material in its own right, and is not relegated to a handmaiden's role (i.e., "sound for picture" in a film program.) The Department of Sound is small: two full-time faculty, two full-time faculty shared with other departments, and two adjunct part-time professors who have each been with the school for over 15 years, as well as a half-dozen additional part-time instructors who whose work load varies according to our curricular needs. We are fortunate that Chicago has a vibrant musical scene in a wide range of genres, and we are able to draw excellent specialist instructors from the ranks of composers, improvisers, pop musicians, and sound artists living and working locally.

At the time I joined the School, the department's strengths lay in studio production for recorded electronic music, improvisation, text sound, radio art, audio Installations, and cognitive music psychology. It is not a program in "Music Technology," and most technical training is placed in the context and history of experimental art, and musical traditions outside of the European "classical" tradition, rather than being referenced to commercial music production. I was brought in to broaden the offerings (especially in the areas of live electronic performance and instrument design), increase the program's international visibility, and to help design a graduate MFA program, which admitted its first students in the fall of 2003.

Our students are divided rather equally amongst three major groups: those working with sound in conjunction with other media (i.e., for film, video, performance, web design, sculpture); Pop-oriented musicians looking to improve their skills or merely take advantage of our facilities; and those working in "pure sound" in a non-Pop music context -- the latter group might be called "composers" or "improvisers" in the context of a more traditional music program.

Our facilities offer a wide range of technologies. Each of the two studios used for our foundation classes features digital 8-track and stereo DAT and CD recorders, as well as a digital reverb and delays, but also vintage 4-track reel-to-reel, noise gates, compressors, a patchcord analog synthesizer, and a large analog mixer -- there is no computer to be found. Our two advanced studios incorporate Macintosh computers for hard-disk-based editing (primarily ProTools) and programming (Max/MSP and SuperCollider,) advanced hardware samplers, numerous modern and vintage signal processors, and analog synthesizers from the 1970s. We have two digital workstations (one for the exclusive use of our MFA students), as well as a 600 square foot multi-purpose space with a six-channel sound system that can be configured for lectures, workshops, small performances, and installations. For several years we have been building a collection of alternate MIDI controllers, electronic instruments (such as a Theremin), and circuitry for implementing new performance interfaces for computers. In addition, other departments in the building provide access to well-equipped computer labs, electronic design labs, and machine shops -- these facilities are vital for our classes in programming, instrument construction and installations.

Curriculum

We offer 8-12 classes every semester, serving approximately 100 students at an undergraduate and graduate level. The curriculum is topic-driven and, with the exception of a foundation class ("Introduction to Sound") required for about half of our

upper-level offerings, prescribes no course sequences. "Introduction to Sound", typically offered in 3-4 sections, of no more than 12 students each, per semester, familiarizes the student with basic acoustics, recording, mixing and signal processing within a mostly analog studio, and with reference to significant works in the history of experimental music and audio art (some of which are played back from recordings, whilst others are performed or recreated by the students.) Students favoring studio-based production typically follow this class with "Studio Techniques," which covers more advanced digital methods, including sampling, sequencing and computer editing; they can then proceed to advanced classes in synthesis, sampling, digital recording and editing (typically using ProTools), soundtrack editing, mixing and mastering, and CD and LP production. For the more physically oriented we have classes in "Instrument Construction" (designing and building acoustic and electronic instruments), "Sound Installations" (emphasis on creating multi-media gallery work with a strong sonic component) and "Hardware Hacking" (modifying electronic toys and constructing simple electronic circuits.)

Students interested in performance may take classes in "Improvisation" and "Live Electronic Performance." Compositional technique is covered in a "Sound Composition" course which, while not requiring any traditional musical skills, incorporates musical examples from around the world, as well as techniques garnered from cognitive psychology; in "Song," which teaches the rudiments of harmony and counterpoint in the context of songwriting; and in "Sound Projects," an open-format composition seminar. There are several classes in computer programming for music and multimedia, and topic-driven classes in text-sound, radio art and other subjects proposed by instructors. Tutorials are offered on an undergraduate and graduate level.

These pragmatic, studio-oriented classes are complemented by those with a more theoretical or historical focus offered in the departments of Art History or Liberal Arts by our faculty and others. These include courses in the history of traditional European Music, World Music, African American Music and Avant Garde Music, as well as critical seminars at the undergraduate and graduate level. Studio classes typically meet once per week for six hours, whilst Art History and Liberal Arts classes meet three hours per week. Outside of two main 14-week semesters, the school offers a winter intersession and several summer sessions, in which a semester's class is compressed into three or six weeks of intensive study.

Two vital parts of our program are not conspicuous in our course catalog: we have a very active "artist-in-residence" program, which features lecture demonstrations and workshops, ranging in duration from a few hours to a full week, by a dozen composers, musicians and audio artists each year; in addition, the diversity of musical offerings in Chicago provides an excellent "real-world" extension of our classroom activities, and instructors frequently refer to public performances in their curriculum.

In the fall of 2003 the Sound Department admitted the first three MFA candidates into its new graduate degree program. We are attracting recent university graduates and mid-career artists from a wide range of backgrounds: visual artists, composers and improvisers, and writers. In addition, graduate students from other departments throughout the school take classes in our program if they are interested in developing their skills in the medium of sound.

Some Observations on Teaching Music in an Art School

I came to teach in an art school through a circuitous route, which included short-term residencies in numerous art schools, music schools and liberal arts universities, but throughout which I thought of myself as a composer and musician, rather than a visual artist or teacher. When I arrived in Chicago I had to adapt my terminology, assumptions and expectations to a student body whose backgrounds I could not assume included traditional music training of even the most rudimentary sort. I was not completely unprepared: I had spent some time, since the mid-1970s, around British art schools, where there was a tradition of incorporating sound into a visual arts context. But this practice has not been so common in American art schools, and teaching sound and music to art students differs from teaching music students in a number of significant ways.

After four years of full-time teaching I have collected some observations and comparisons that may be peculiar to The School of the Art Institute of Chicago, but I suspect might have relevance to the teaching of sound and music not only in other art schools, but in other contexts as well.

1) Art students generally display a conspicuous lack of traditional musical background and skills. Most of my students have seldom listened to anything other than Pop music, although today's Pop music admittedly incorporates a much wider range of styles and genres than the Pop of my childhood; and the rise of MP3 file exchange has further diversified the listening habits of the typical student. Few can read music, or have played an instrument since childhood piano lessons or middle school band. There are even relatively few rock bands among them – guitars groups have been largely supplanted by soloists with turntables, sequences and laptops.

2) Their lack of traditional musical experience is offset, however, by their having fewer (or at least different) musical preconceptions than classically trained music students. Art students will try things that most music students would dismiss out of hand. They are generally more interested in experimentation, and are less worried about the possible "failure" of such an experiment. They are less snobbish and worried about the distinction between Pop and non-Pop music.

3) The paradigm of the "DJ as sound artist" presents a useful bridge between Pop and Experimental music. Issues of collage, soundscape, appropriation and transformation -- staples of the avant garde -- have entered the vocabulary of Pop, largely through Hip-Hop and its subsequent offshoots. Art students tend to be aficionados of cutting edge Pop, and are well-versed in its take on the post-modern aesthetic.

4) This enthusiasm for DJ culture and technique is paralleled by the ubiquity of "Cut and Paste" technologies in their software-driven world: control-X and control-V are employed with ease to assemble and edit words, pictures, video or sound. Students move fluidly amongst numerous means of artistic presentation -- CDs, performances, films, soundtracks, installations, texts, web sites, sculpture -- and seem unconcerned with traditional distinctions between media. With the camcorder and computer having

replaced the sketchpad, sound is a constant presence in much of their work from its inception. The prevalence of cut and paste methodology is further reinforced by the Art Institute's avowed commitment to interdisciplinary work: the walls between departments are highly permeable, with faculty shared, courses cross-listed, and similar computer tools in use in many classrooms and studios.

5) Cut and Paste technology has led to a reliance on screen-based visual tools for structuring sound. This approach has been essential to the development some genres of sound work (particularly recent dance music, with its reliance on loops,) and extremely useful in others (video soundtracks.) These tools have made it easier for beginning sound artists to conceptualize and realize rather more adventurous forms than would be possible with earlier methods (such as cutting editing or programming hardware sequencers.) At the same time, a reliance on the eye over the ear has led to the emergence what I sometimes hear as disembodied, non-physical, "visual music" –- similar in feeling to counterpoint exercises completed by mechanically following the species rules.

6) Despite their digital fluency, however, most art students still evince a primal love of the direct manipulation of physical materials. For all the ease and power of recording and editing on a computer, the reel-to-reel tape recorders, analog mixers and knob-clad signal processors of the classic sound studio offer a seductive link between the sometimes intangible medium of sound and the artist's traditional obsession with touching and reworking physical things. Stretching a tape delay across a room has an appeal that cannot be rivaled by resizing a window; the knobs on an analog synthesizer present a tactile feedback unavailable on a computer.

Ironically, given the typical student's extensive computer literacy, the analog gear in our "Introductory" studios –- originally intended to demonstrate the basic concepts of audio processing in preparation for the more "sophisticated" digital technology in the advanced studios — now represent a "post-digital" creative opportunity.

7) Art students like making things, where composers and musicians generally prefer making music. My students enjoy building contact microphones, wiring up tape heads and coils, and modifying electronic toys as much as they like using these tools to make a piece. Courses in Instrument Construction and Hardware Hacking are as popular as seminars in composition or criticism. Art students typically display better manual skills than composers (or even most musicians) -- they can saw, drill and solder, as well as make sounds.

8) Despite this long tradition of manual dexterity, and their enthusiasm for new materials and physical processes, my students nonetheless invariably find patchbays and multi-bus analog mixers very confusing. Although virtual mixers are familiar from much audio software they have used, concepts of signal routing, buses, sends and inserts remain non-intuitive and frustrating for most students even after two semesters working in our studios. I don't know if this is a peculiarity of our students alone, of art students in general, or of all "post-digital" students, but mixing, routing and patching remain seemingly trivial yet nonetheless irritating stumbling blocks in many of our classes.

9) Art students are sensitive to the complexity of possible interactions between the art object (i.e., piece of music) and the world. They actively pursue public, off-campus exposure (galleries, clubs, web sites) from early in their education. This early onset "professionalism" can be seen as mere opportunism but usually is an indication of a engagement with reality usually missing in the typical music student. [In the case of the Art Institute, Chicago's music and art scenes present a perfect "next step" for the serious student: whilst considerably more vibrant and professional than those of most US cities, they are not as daunting to the proto-artist as New York's.] Art schools such as SAIC also place an emphasis on "crits" before interdisciplinary panels, and this atmosphere of frequent "mini-salons" I believe smoothes the transition from student to artist-in-the-world.

Some suggestions

After almost five years of observing my students work with sound, and experimenting with various pedagogic techniques, I can offer a few suggestions for teaching sound and sound technology that may have relevance beyond the walls of art school.

1) Don't invest too much time in the specifics of any individual piece of technology. Technology changes too fast. Teach underlying principles instead, and point out their specific manifestations in two or more generations of technology: demonstrate the principle of "echo" with a handclap in a gym, a tape delay, a digital delay and a SuperCollider program; produce a realization of Alvin Lucier's "I am sitting in a room" with two analog tape recorders -- the "original instruments" -- and then write a Max/MSP patch to do the same job. Prepare them for future technological shifts by keeping them very aware of the transience of past technologies.

2) Accordingly, don't be too hasty in disposing of "obsolete technology" in your studios. The interval between obsolete (old and in the way) and retro-cool is shrinking. Cultivate a sensitivity to the idiosyncrasies and musical implications of technology: while a four-year old computer may not be up to the job of running the latest software, quirky signal processors and synthesizers retain their value, and two analog tape recorders will always find a use. Students themselves tend to invest in the newest technology, but often come to our studios in pursuit of the oldest.

3) It's too easy for students working in digital media to lose contact with the physicality of sound and its social functions. Teach acoustics alongside electronics. Listen to sounds in real physical space, not just over headphones or monitors in dead studios. Bring in musicians to play, and let students handle the instruments and watch players working together.

4) Don't confront beginning students with a fully equipped studio. Instead ask them to construct a studio in an empty room, one piece of gear at a time, adding machines as they master them. Have students build their own simple tools, such contact microphones and coil pickups. Give them a greater sense of control over their working environment.

5) In introductory courses ask students to share studio time in pairs. Two wrongs sometimes do make a right, and often one bumbler can see the solution to a fellow bumbler's problem.

6) Bring in as many visiting artists as you can afford. Even a brief presentation by an outsider can help bridge the gap between the classroom and the real world, between the professor and the working artist. Instructors can be good at putting current ideas into historical context, but artists often do a more convincing job of pointing out their implications for the future.

Conclusion

We're living in a world in which "music" not longer enjoys the privileged isolation it established in the golden age of the LP record. MTV has blurred the distinction between foreground and background roles for sound and picture. The computer has become a multi-media palette. To teach sound and music without reference to other media is anachronistic in the age of the computer and Web. My experience at The School of The Art Institute of Chicago has taught me as much about the repositioning of sound in the 21st Century as I hope my students have learned about its place in the 20th.