

AUDIO SOLUTIONS

Secret Sauce

BEHIND THE RECORDING OF JOHN LENNON'S *DOUBLE FANTASY*

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Masters of Mastering

TIPS FROM THREE OF THE INDUSTRY'S TOP MASTERING ENGINEERS

TOOLS FOR TUNES

- Getting Small with Compression CODECs
- Essential Tools for Teaching
- Myth-Busting Fundamental Acoustics

STUDIOSTORIES
JUNGLE CITY
ROOM WITH A VIEW



LEARN TO EARN

TODAY'S AUDIO EDUCATION PROGRAMS PREPARE STUDENTS FOR A WIDE RANGE OF AUDIO CAREER OPTIONS

by Christopher Walsh

FOR AN ASPIRING AUDIO PROFESSIONAL, THESE ARE TRULY THE BEST OF TIMES. TRUE, MANY COMMERCIAL RECORDING STUDIOS HAVE CLOSED IN THE LAST DECADE – VICTIMS OF A BUSINESS MODEL NO LONGER COMPATIBLE WITH REAL-WORLD CONDITIONS – BUT OPPORTUNITIES ABOUND IN BROADCAST, FILM, TELEVISION, GAMES, LIVE SOUND AND, YES, RECORDING. GENUINE, LIMITLESS POTENTIAL TO REACH A GLOBAL AUDIENCE WITH MINIMAL EQUIPMENT AND MARKETING MUSCLE IS TODAY'S REALITY. THE MEANS TO PRODUCE HIGH-RESOLUTION, PROFESSIONAL RECORDINGS; THE EASE WITH WHICH ONE CAN CREATE AND DISTRIBUTE VIDEO CONTENT; THE SATURATION OF SOCIAL NETWORKING SITES – ALL ARE READILY AVAILABLE IN A WORLD IN WHICH MUSICIAN, RECORDIST, PRODUCER, AND PROMOTER ARE OFTEN THE SAME INDIVIDUAL.

Adding to this embarrassment of riches is the proliferation of professional training. Be they dedicated recording-arts institutions or audio-technology programs within traditional post-secondary schools, a wealth of choices exist around the country, and the world, for tomorrow's professionals.

AMERICAN UNIVERSITY

The rapid growth of Washington DC-based American University's Audio Technology Program led to the opening of a new facility in January 2011. With a central live room linked to three control rooms, students in the program gain a comprehensive education served by old and new technology.

"It's a full-blown recording studio," recording studio manager/instructor Matt Boerum says of the facility. "It has three different purposes. One is a production recording lab; we call that the main studio. One is a mixing studio, but is also for overdubbing and recording. And then we have the digital lab, our post-production suite that's used for film audio and Pro Tools certification."

The program also covers business management for audio. Through the physics department — from which



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the Audio Technology Program was born and evolved — courses in acoustics and electronics are also covered.

"I'm very much into the classic style of recording," says Boerum, "which I think really explains the whole process of learning to be a recording engineer. Knowing your stuff in a big analog room means a lot when you go to any studio versus just knowing how to operate a DAW. You can spend long hours on a computer trying to use software to interpret recorded signal, but actually getting in the physical room with an audio console that's completely analog, and learning a completely analog path from microphone all the way to recorder and back, makes a big difference. So we use a lot of analog gear. Our main studio has a Wunder Audio console. We use a 32-channel API 1608 in our mixing suite.

"From there," Boerum continues, "we extend to the outboard gear. We've got the classic [Universal Audio] 1176s and LA-2s. We have the Millennia Media HV-3D 4-channel pre. We have a Focusrite Red 6. We have Genelec 8030 monitoring — surround sound in every room — and Yamaha NS-10s, of course. Everything is very analog focused."

That said, "We do record to Pro Tools," he adds. "We love the Native Instruments KOMplete

bundle for sound synthesis design. And of course [Antares] Auto-Tune, the modern stuff, we do teach that, keeping up with the times."

American University's post-production suite is based around an Avid Controll24 console. "All the studios are HD, Pro Tools 9," says Boerum. "Our list of plug-ins is extensive: iZotope RX2, Avid DINR, and Waves Restoration for noise reduction; Waves 360 Surround, Sound Design, Diamond, and Mercury bundles for everything else. And since we offer Pro Tools certification, we have Avid bundles on every computer."

DAYTONA STATE COLLEGE

At Daytona State College in Daytona Beach, FL, longtime Nashville studio owner Jake Niceley has overseen the creation and growth of the Music Production Technology program within the school's Curb College of Arts, Music and Science.

Students, he explains, "are primarily focusing on the technical aspect of music production, but we also require every student to take one semester of either Music Theory or Music Appreciation. And they have to take two semesters of Applied Music and four semesters of Music Ensemble. They have to be able to perform as well as work in the control room. They're going into entrepreneurial careers where they

are building their own facilities and starting their own music production companies. It's a pretty broad spectrum, and we've only been in operation for two years."

Daytona State's main studio features a 48-channel Solid State Logic Duality console, 48 tracks of Pro Tools|HD and Dynaudio M4 surround-sound monitoring. "I chose Duality because of its dual function," Niceley explains. "It lets us work as an analog console and a work surface, which is unique. That allows us the ability to show and give instruction in both, even though we don't focus on the work surface in terms of a lot of instruction.

"We really focus on the basics of audio," he adds. "We take students from 'what is a waveform' all the way through to the last semester, [in which] they're writing and creating soundtracks and doing sync for film and television. And everything in between: live sound, live recording techniques, music business.... We talk about copyright law, PR, and marketing.

"We keep it rooted in original technology: learning the signal path on a console and signal flow in a live-sound application; learning how to identify and know the characteristics of all the classic tube, ribbon, and dynamic mics. Everything we teach leads to working with digital audio workstations, because the way you set up a track on a console is the same way you set up a track in Pro Tools. We really focus on the fundamentals, and the fact that your computer program is likely to change. It might be Pro Tools today; it might be something that hasn't been invented yet tomorrow. If you know the fundamentals, you will be able to navigate any piece of hardware or software that comes along."

Having owned recording studios for nearly 20 years, says Niceley, "I knew what people used and what sat on the shelf most of the time." Among the ample outboard complement are 24 channels of remote-controlled Millennia Media mic pres and Yamaha SPX 2000 digital multi-effect processors. "We have fiber optic lines connected to all of our performance venues," he illustrates. "I can send level from stage to any of our control rooms, via fiber optic, using the Millennia mic pre system, and remotely control the mic pres from the control room.

"We have Sennheiser 421s, 441s, and e609s," he adds. "Shure SM58s and 57s, Beta 52s, and Beta 98; Audio-Technica 4050s, ATM 250, and ATM 2500 dual element; and AKG 414s and C480s. I've got a lot of Bock Audio microphones, and the Corby microphone systems with removable capsules — I can demonstrate all the characteristics just by popping a capsule on and off of the tube microphone."

An API 1608 console is being installed in the newer Studio B, which also features Genelec 1032 monitors. "We needed an intermediate step to get the students