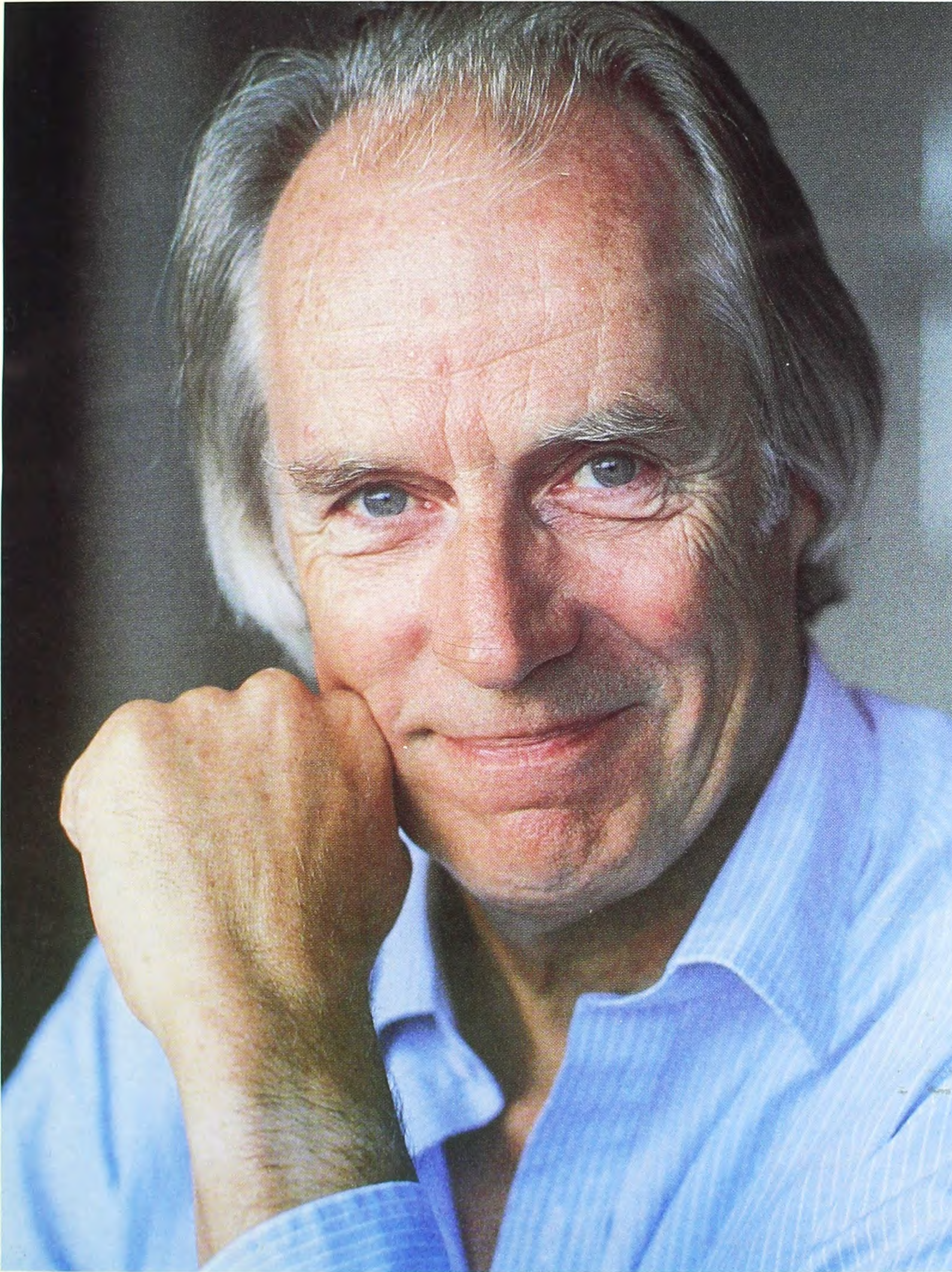


Premier Issue, Summer 1989

Berklee *today*

A Forum for Contemporary Music and Musicians



12 **George Martin on Music, Memories,
and Modern Technology**

24 **Alumni News: Where Are They Now?**



WHY THE LEGENDS PLAY THE LEGEND.

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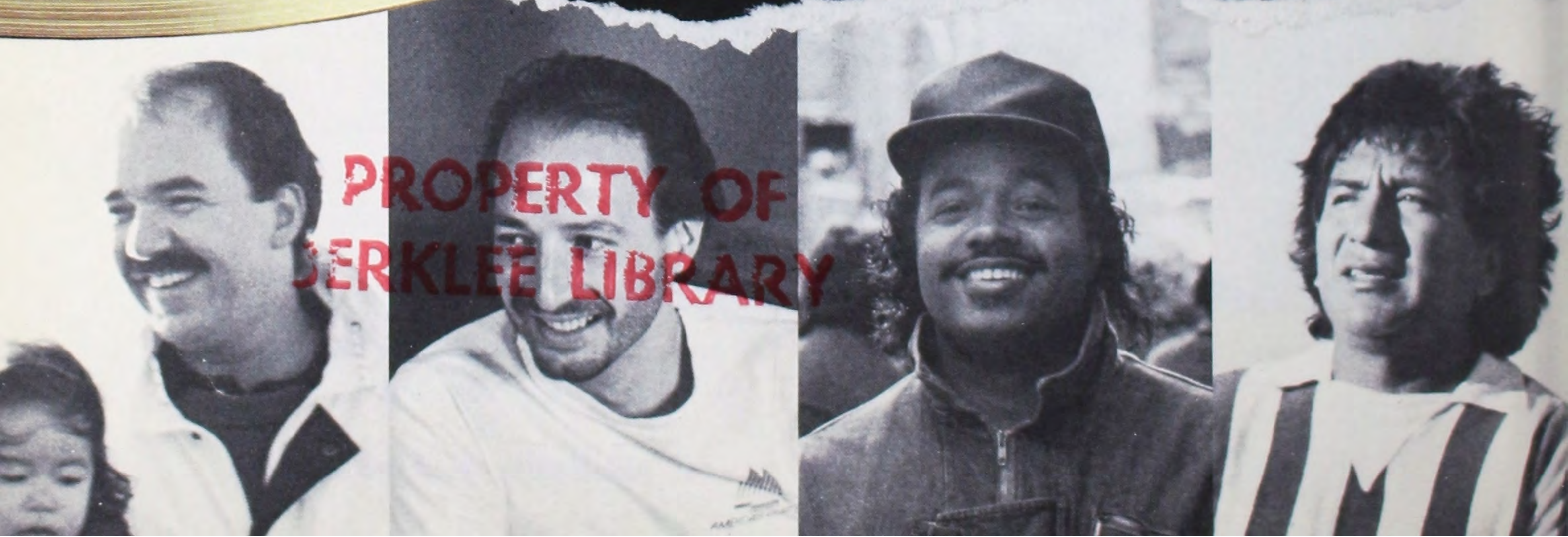
Tony Williams, Steve Gadd, Peter Erskine, Vinnie Colaiuta, Dave Weckl, Steve Smith, Alex Acuna, and Dennis Chambers, among others.

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Berklee *b e a t*

*News of note
from about
town and
around the
world*

Honorary doctor of music degree recipients George Martin and Dizzy Gillespie smile for the camera at the commencement ceremony.

BERKLEE HONORS 455 IN CLASS OF '89

An audience of almost 2400 attended Berklee's 1989 commencement ceremony at Hynes Convention Center in Boston on May 13. Parents, faculty, alumni, and friends were on hand as 455 students received diplomas from President Lee Eliot Berk.

"We live in a rapidly changing musical landscape," President Berk told the graduates. "One of our goals as a college has been to equip you with the ability to respond effectively to these ever-changing demands and opportunities."

The graduates represented an extraordinary diversity of geographical backgrounds. The group

included 129 international students from 34 countries. American graduates represented 35 states.

On hand to congratulate the students and offer words of encouragement were honorary doctor of music degree recipients George Martin and Dizzy Gillespie. In his address, Mr. Martin cautioned graduates to avoid the lure of "junk music," which, like junk

food, might fill the stomach but cannot feed the mind (see interview, p. 12).

Jazz master Dizzy Gillespie also accepted an honorary doctor of music degree and offered a smile and a handshake to each graduating senior. He told the audience that during a recent tour of Nigeria he was named a chief. "So now," he said, "you can address me as Dr. Chief."

VISUALIZING DIGITAL

It's never easy for students to grasp the concepts and realities of digital audio technology. Terms like aliasing, dither, quantization bit, and sampling rate may be easy to scrawl in a notebook, but they are often baffling to visualize in the mind.

That's where Berklee's one-of-a-kind Digital Audio Demonstrator comes into play. Designed by digital wizard Barry Blesser and MP&E Assistant Chairman Andy Edelstein, the Digital Audio Demonstrator converts signals from analog to digital and back again, allowing instructors and students to view and hear the process at any point, and to vary the parameters of the transference.

Using a simple tone generator, professors can now show and play a sine wave and its digital counterpart in multiple-bit resolutions and at multiple sampling rates. At each step the student can hear the sampled sound and see the waveform on a split-screen oscilloscope.

The system makes it easy to demonstrate why sampling rates must be at least twice the highest frequency recorded, why dither is beneficial, and how multiple-bit digital "words" actually work. While there are no current plans to manufacture more Digital Audio Demonstrators, Edelstein does hope to offer clinics at conferences and conventions outside the college.



PHOTO BY BILL WASSERMAN

BERKLEE ON CD

This year marked the beginning of a new chapter in Berklee's recording and performance history, the Berklee Studio Album. Containing a selection of outstanding student music projects recorded in the college's own professional facilities, the Berklee Studio Album was released May 1 on compact disc and cassette. All selections were written, arranged, performed, recorded, and produced by Berklee students.

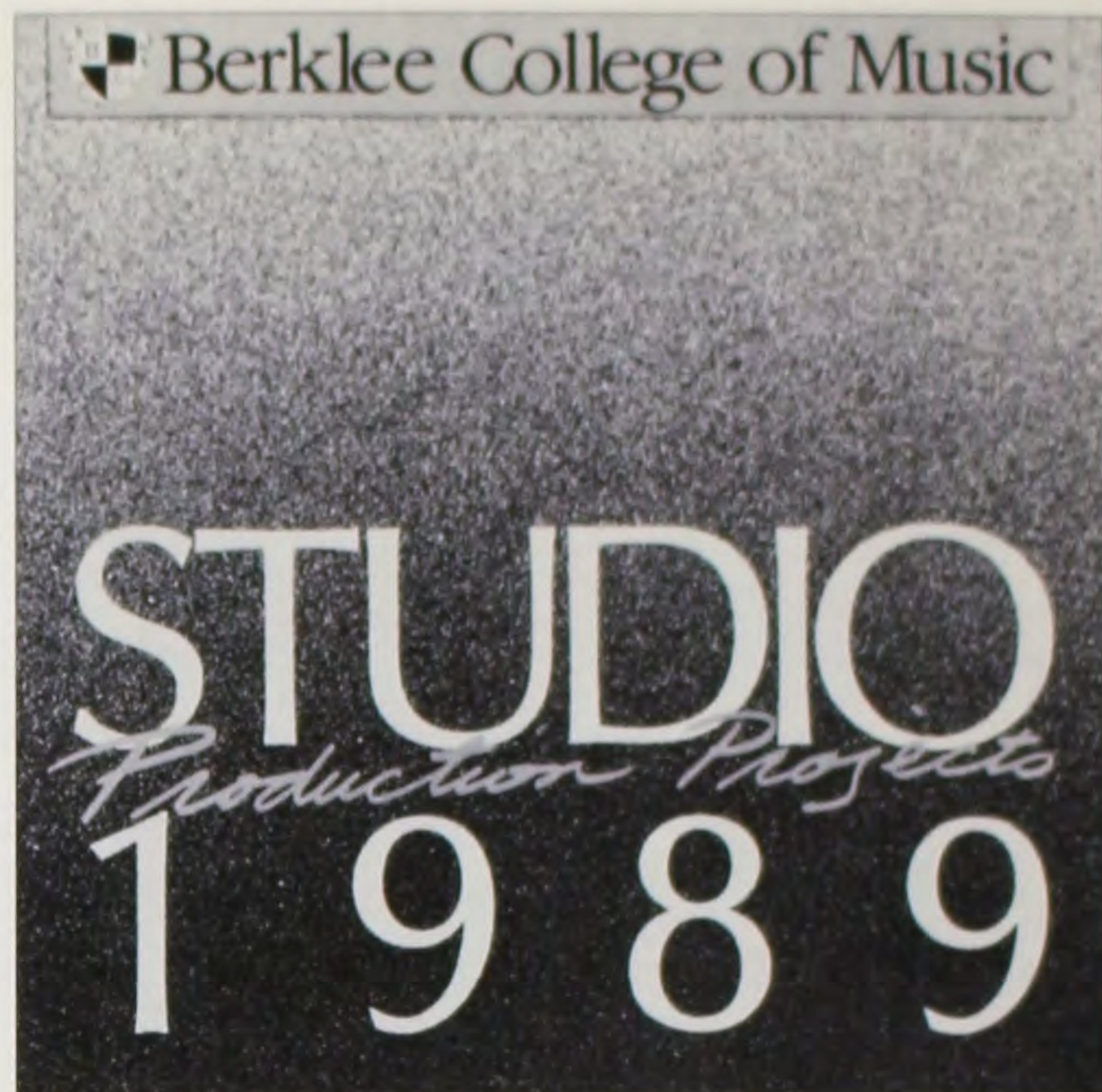
This year's collection presents a wide range of popular music from power pop to ballad to rap to gospel, featuring outstanding performances by Berklee vocalists, instrumentalists, producers, and engineers.

All told, more than one hundred students were involved in the performance and production of this year's Berklee Studio Al-

bum. Many of Berklee's faculty and staff provided invaluable guidance and support throughout the process.

Songs were chosen from among the outstanding student production projects of the previous year. Final selections were made by a college-wide committee, with the coordination of executive producers Don Puluse (chairman of the Music Technology Division) and David Van Slyke (associate professor in MP&E). While this Berklee Studio Album showcased various pop and rock styles, next year's project in this annual series will emphasize the even wider variety of musical styles performed at Berklee.

The 1989 Berklee Studio Album is available for purchase at The Campus Shop at Berklee, 146 Massachusetts Avenue, at a price of \$6 for compact disc, \$4 for



cassette. Alumni and friends may order by calling (617) 266-1400 ext. 402. Please have MasterCard, Visa, or American Express ready when calling. Or send a check or money order, specifying desired format and quantity, made payable

to The Campus Shop at Berklee, 146 Massachusetts Ave., Boston, MA 02115.

Mail or phone orders should add \$2 postage and handling fees for the first unit plus 50¢ for each additional unit. Allow three to four weeks for delivery.

A SUMMER WITH SEGUE MUSIC

Berklee Film Scoring seniors Gernot Wolfgang of Innsbruck, Austria, and Thomas Lavin of Glen Rock, New Jersey, have been selected to be the first participants in a new summer internship program at Segue Music, a noted film music editing house located in Burbank, California.

The program is designed to give talented film music editing students the opportunity for practical career training. Lavin and Wolfgang will spend several weeks at Segue Music's editing facility in Burbank, where they will apprentice with established music editors working on motion picture soundtracks and television programs for the 1989 fall season. They will be responsible for preparing cue sheets, building music tracks, and assisting in recording studios and soundstages in the Los Angeles area.

Segue Music often works with film music projects of such internationally renowned film composers as John Williams, Jerry Goldsmith, and Berklee alumnus Alan Silvestri '72 (*Back to the Future*, *Roger Rabbit*). Associated with the professional staff of Segue Music are Berklee alumni Christopher Brooks '80 and Curtis Roush '80.

The summer internship program, a collaboration between Segue Music and Berklee's Film Scoring Department, is designed to enrich the educational experience of individual Berklee students as well as the college itself. Applications from

senior music editing students were examined by a panel which included Segue Music President Dan Carlin, Jr., Berklee Film Scoring Department Chairman Donald Wilkins, Assistant Department Chairman Michael Rendish, and Lab Manager Eric Reasoner. All applicants were invited for a personal interview with the panel, where they were asked about their long-term goals in the film music industry.

The two students selected for this unique summer program will keep a detailed record of their experience at Segue Music, and will return to Berklee in the fall to continue their studies and to share their professional experience with the college's Film Scoring Department students and faculty.

—Alma Berk
Chief Public Affairs Officer



COLLINS NAMED DIRECTOR OF DEVELOPMENT

John Collins has hit the ground running as the new director of development. Although he has only been on board a few months, Collins has met with Berklee alumni in Nashville, Boston, Philadelphia, Toronto, Orlando, and San Francisco. On campus he has met with trustees and college officials in Admissions and Career Resources, along with faculty deans, chairs, and numerous instructors.

Why has he been meeting with so many people? Says Collins, "To listen, really. If I am to help the college realize its enormous potential, I need to hear from its graduates and learn what it is to be a member of the Berklee family."

Collins comes to Berklee from Emerson College where he was the director of alumni relations. Earlier, he was the associate director of alumni relations at Tufts University, where he had previously served as the managing director of the Arena Theatre. For two years, Collins toured professionally as the artistic director of the Boston Mime Theatre.

"Although I graduated from Emerson," he says, "I feel that I can identify closely with Berklee alumni as a performer as well as a professional development officer."

"Therefore, my office will be more concerned this year with friend raising; fund raising will follow. Right now we hope to expand alumni involvement in career education and networking programs. And I



PHOTO BY LORRAINE KARCZ

think that our new magazine, *Berklee today*, will greatly aid us in getting the word out about our programs and events."

Collins will continue to travel in order to find ways to involve alumni and friends.


"My recent crash training course at Berklee has proven to me that alumni deserve more than a drink and a handshake. Therefore, we want to find the best way to develop clubs, an alumni association, and other substantive programming. We also hope to determine the best methods to bring alumni back to the Berklee campus for programs such as our Alumni College and possibly an Alumni Weekend.


"Later, as alumni see our need for more scholarships and equipment, I'm sure contributions will follow. After all, as we improve the quality of a Berklee education, we also improve the value of our alumni degrees."


Collins says he's looking forward to meeting more alumni who are interested in working on developing alumni clubs throughout the United States. Any alumni interested in working on a club should contact John in the Development Office (see address and phone number on page 2).


BERKLEE ON THE ROAD

With several intense music seminars and faculty exchanges around the world, the Berklee educational experience is no longer confined to the college's downtown Boston facility. The college has presented one- and two-week performance programs in Santa Fe, Italy, Argentina, Spain, and Japan, and is considering more sites for the future.

 Berklee in Santa Fe begins its second annual session this August on the campus of St. John's College. Intended primarily for high school and college age music students as well as young emerging music professionals, the Santa Fe program focuses on jazz-oriented performance. This year, faculty members such as Gary Burton, April Arabian, Robert Stoloff, David Mash, Larry Monroe, and Christian Jacob will be teaching performance, ensemble, and music theory skills to a class of approximately 200 students.

 The Berklee in Italy program celebrates its fourth annual session this July. Berklee in Italy is a two-week seminar, offering in-depth classes in contemporary music. Working through interpreters, who are also alumni, Berklee faculty describe, demonstrate, and perform a variety of contemporary music styles while developing the performance abilities of the students. This year's faculty includes Jeff Stout, Richard Odgren, Orville Wright, Laurence Baione, and David Clark.

 Berklee in Japan has enjoyed an increasing popularity over its first two annual sessions. This year, classes are being offered in two one-week seminars—the first in mid-July, the second in August. Based in Hamamatsu, the fulcrum of Japan's music industry, Berklee in Japan offers exceptional education in advanced music synthesis equipment through the donations and support of Hamamatsu's many musical equipment manufacturing facilities. Faculty members Ed Uribe, Ken Cervenka, Lennie Peterson, Bill Pierce, Mike Ihde, and others will offer more than 500 enthusiastic Japanese musicians an intensive course in modern music styles and techniques, including instruction in synthesis.

 Berklee in Argentina is a special program this year involving one seminar each month from April through December. Each month, a faculty member will fly to Buenos Aires to give a one-week session on his or her area of expertise. David Mash taught the first installment in April.

"The language barrier is not really a problem," says Associate Professor of Percussion Steven Wilkes, an instructor in this year's Berklee in Japan. "The interpreters are amazing. But even when the students aren't getting it, the instructor can always sit at the instrument and play. Then you get the smiles and the nods and you know they understand."

NETWORKING OF NOTE

Macworld—At the 1986 International Computer Music Conference in the Hague, microcomputers finally outnumbered mainframes—and the micro of choice was the Macintosh. The overall impression one got from the conference was that truly powerful music LANs (local area networks) are still a ways off, but students at Berklee College of Music might disagree.

David Mash, chairman of the Music Synthesis program at Berklee, has set up a music LAN that goes beyond many of those speculated on at the conference. The current 3Com

Ether-Mac network includes 14 digital music workstations, an Apple LaserWriter, 2 ImageWriters, and a 3Server3 70MB hard drive (which automatically backs itself up to tape every night at 2 a.m.). Each digital music workstation includes a Mac Plus, a Kurzweil MIDI board and fully loaded Kurzweil Expander, a Yamaha TX-816 rack, an Oberheim Expander, a Yamaha RX-11 Drum Machine, an Opcode Studio Plus MIDI adapter, a Kamlet Matrix MIDI switch box, a Yamaha SPX-90 Digital Effects Processor, a Yamaha D-1500 Digital Delay, a Hill Multi-mix 16-channel mixer, and a TEAC four-track cassette deck. An

analog lab contains 14 additional workstations, but only 3 are linked to the Macintosh network. The whole system will be expanded to 36 workstations by next September.

To use a workstation, the student inserts a boot-up disk into the workstation's Macintosh, which automatically logs the workstation on to the network and provides the user with two volumes: a 3MB applications volume and a larger public volume. The applications volumes each contain a copy of Mark of the Unicorn's Professional Composer and Performer, various patch editors and librarians from Opcode Systems, and all the Macintosh/Kurzweil programs.

Digidesign's Sound Designer and Softsynth are being added as well. Because each workstation has its own associated 3MB applications volume, Berklee purchased separate copies of each package. Students who submit assignments on line use a different boot-up disk to access their teacher's volume, which is reserved for collecting homework.

Besides being linked to the 3Com network, all the workstations' MIDI devices are networked together, so one workstation can control several others if necessary. Even though the workstations are mainly headphone-based, teachers or lab monitors can route audio output from any number of workstations to loudspeakers.

Each teacher's workstation has a large-screen Limelight monitor wired into the Mac's newly added NTSC ports. Finally, one of Berklee's 24-track recording studios also contains a digital music workstation; students create music sequence files and patches in the networked laboratory and then bring these files on Macintosh 800K disks to the recording studio to make professional-quality multi-track analog tapes.

Perhaps the most important detail here is that at all stages, the students work with state-of-the-art hardware and software, identical to that used in the real world, and the department makes every effort to keep the entire system upgraded and updated.

—Christopher Yavelow

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RECITAL SPACES GET A FACE-LIFT



PHOTO BY CYMIE PAYNE, © 1989

The renovated 1W recital hall in Berklee's 1140 Boylston Street building.

Although Berklee's two renovated recital halls only opened this past winter, their schedules are already jam packed. Recital hall 1W in the 1140 Boylston Street building holds classes and concerts during the day and more concerts during the night. The 98-seat facility holds a Yamaha grand piano and a full sound system for concerts, lectures, and class demonstrations. The hall also offers a direct closed-circuit television link to the large-screen television in the nearby student lounge.

The college's newest recital hall at 22

The Fenway presents an eclectic collection of old and new. The decorative ceiling arches over cool blue seating and carpeting. The classic, stained woodwork and marbled fireplace balance the high-tech gadgetry just backstage.

Here lies Berklee's new MIDI performance facility, complete with a combination of the synthesizer and sound processing software found in Berklee's three synthesizer labs. The 81-seat Fenway hall is also used for daily classes and clinics and is becoming a popular recital space as well.

Dr. Boulanger Goes to Poland

Andrew Taylor

The people who are doing art with computers today are trying to discover a new means of expression," says Dr. Richard Boulanger, associate professor in Berklee's Music Synthesis Department. "It's not about replacing musicians, it never has been for me. We're trying to extend the voice of the virtuoso through technology, and express the human spirit in new and more vital ways."

As an active composer and performer of instrumental, electro-acoustic, and computer-generated music, Dr. Boulanger has been quite successful in his mission. His compositions have been performed and broadcast in Europe, Australia, Canada, and throughout the U.S. In 1986, his composition for computer and electronic violin, *Three Chapters from the Book of Dreams*, was awarded first prize in the NEWCOMP International Computer Music Competition. In 1989 his performance of *Shadows*, a piece written for a MIDI conducting device, was featured in a program on "The Science of Music" which was broadcast across the U.S. as part of the PBS NOVA series and throughout Europe on the BBC science show, "Horizons."

In January through June of next year, Boulanger will be carrying his music and his message to the Academy of Music in Krakow, Poland, as a Senior Fulbright Lecturer in electronic and computer music. Boulanger received the grant through a rigorous screening process by the Council for the International Exchange of Scholars, affiliated with the American Council of Learned Societies. Prerequisites for the honor were a Doctorate, several years of teaching experience, and a clear vision for the teaching of the specific discipline. For those who don't connect

Krakow with music technology, Boulanger is quick to voice his enthusiasm for the location.

"There is quite a bit going on there," he explains, pointing to recent articles by Krakow faculty in the competitive *Computer Music Journal* and recent awards to Krakow composers. "I'm going to have to do my homework."

Dr. Boulanger holds a Ph.D. in Computer Music from the University of California, San Diego. His bachelor's and master's degrees, both in composition, are from the New England Conservatory of Music and Virginia Commonwealth University, respectively. His focus at Berklee, since



Boulanger with student: "We're trying to extend the voice of the virtuoso through technology."

PHOTO BY LORRAINE KARCZ



PHOTO BY LORRAINE KARCZ

"I try to bring to my students a more serious view of the artistic implication of what they're doing."

he joined the faculty in 1985, has been to encourage students to explore the artistic potential of technology.

"Music technology does have practical use," he says. "It is a time-saving device. It is many things that professional musicians can use to enhance their exposure, their publication, and their image. But I also try to bring to my students a more serious view of the artistic implication of what they're doing. I encourage them to explore other possibilities, to expand the norm in musical ways—not in cheap trick novelty ways, but in ways that expand the possibilities of popular art."

Boulanger, himself, has been exploring the expressive boundaries of electronic and computer music throughout his career. In particular, he has been experimenting with unique human/computer interfaces and instruments that strive to breathe a humanity into electronic music that has been lacking in the past. One especially productive device has been the Daton (part drum, part conductor's baton) that allows a performer to conduct, modify, and create a performance with the motions of his hands. Different musical parameters such as time, tone, timbre, instrumental balance, pitch, may be mapped onto the surface of the Daton, allow-

ing motion to dictate the music.

Designed by Max Mathews at Bell Labs, the Daton originally required physical contact in order to function. More recent designs make use of FM signals sent from the performer's hands. This frees the performer to move in a three-dimensional space above the Daton, and opens the performance to new levels of expression.

"Ultimately, you'll be able to create a field in front of any conductor on a music stand, and he'll be able to conduct," Boulanger explains. "All the cues will be there. And the synthesizers as well as the orchestra musicians will follow."

Other interests for Boulanger include the merging of music and visuals, specifically with a new Macintosh program called "Ovaltune" from Intelligent Music. This program allows computer mouse movements along with user-assignable keyboard commands to modify and control MIDI data sent to an outboard synthesizer. As the performer moves and alters images on the computer screen, the music is altered as well, in tempo, timbre, pitch, or a number of other parameters.

"We are entering an age where interactive multi-media is the way to learn, to present, and to create," he

says. To help the learning process along, he is currently working on a book with Berklee Music Synthesis Department Chairman David Mash titled *Hypercard for the Educator*.

Ultimately, it has been these many levels of interaction between man and machine that have fascinated Boulanger, and continue to challenge him today. In his many compositions, the unifying theme has been the search for balance between human expression and modern machines—between spirit and science.

"I believe that coming to terms with technology is the key issue of our age," he explains. "In fact, I see finding that balance as the only challenge for the composer of this day. I'm not telling sax players to put down their instruments. To say that this technology is as refined and expressive as an acoustic instrument would be a lie. But at the same time, if you're not addressing the issue of making expressive music with technology, or dealing with its many possibilities, you're not writing music in this century. This really is the new challenge."

Boulanger begins his lectureship at the Academy of Music, Krakow, this January. He plans to tour and perform throughout Europe after he completes his term in June. ■

Film Scoring Facilities: A Walking Tour

Andrew Taylor

We were really at a maximum," sighs Film Scoring Department Chairman Don Wilkins. "We had had a big increase in majors last summer and fall. It seemed we were just about to go under water... then the life raft came along."

That life raft was the Film Scoring Department's new classroom, lab, and recording facilities in Berklee's main classroom building at 150 Massachusetts Avenue. As Don Wilkins emphasizes, it couldn't have come at a better time. Before the move, resource space was crammed to the limit, student recording time options were severely limited, and lab time was becoming a problem. The popularity of the Film Scoring major and the success of its alumni had increased demands on space and facilities. The new space provides new flexibility, new tranquility, and exciting new possibilities.

"We've become much more able to handle the kind of schedule that's required," Wilkins says. "Probably the best thing is the fact that everything's so close together. Whereas before we were running up and down the hallways a lot, now we're always just a step or two away."

Walking Tour

When you walk through the new facilities, you're surprised at how much is going on in those few steps. From the hallway, you can see classes analyzing videotapes, faculty and staff

shuttling from room to room, students working on large Moviolas, and you can hear strange strains of rewinding magnetic film from rooms yet unseen. At the same time, you're struck by the calm amidst all this activity. Even with all the labs at full capacity, there's room to move, to think, and, most importantly, to create.

As you pass through the glass door that divides the facility from the rest of the main classroom building, you enter a hallway with brown carpet, off-white walls, and low, calm lighting. Through the door on your immediate



Wilkins (right) demonstrates a 16mm Moviola editing console in the new facility's classroom/lab. "We're much more able to handle the required schedule," he says.

PHOTO BY JOJI SAWA

right is the faculty office space. Here, faculty and staff carry out administrative chores or prepare for classes in the resource area's computer workspace, video viewing station, and audio/videotape library.

Continuing down the hall, immediately to your left is the Classroom/Editing Lab. This room holds small classes during the day and houses both 16mm and 35mm Moviola editing consoles for classroom demonstrations or individual student use.

The next door on the left is the 35mm editing lab containing a 35mm Moviola as well as a fully equipped editing bench with sound readers and synchronizers. Here students can track film cues with library music, take timing sheets, and learn how to build click loops and music reels for television and feature film situations.

A few steps further to your right is the Video Screening Lab where students view videotapes of assignments or projects and explore musical ideas on an acoustic piano. Here, also, faculty and individual students view and critique student projects.

The next door down is the Student Resource Lab, a multi-purpose facility containing three separate workstations: a Macintosh/Synthesizer station for sequence preparation or use of film scoring computer applications; a video viewing station for analysis of feature film excerpts; and an audio tape dubbing station which gives students access to the department's sound effect, film soundtrack, and audio tape libraries. These workstations are designed for simultaneous use with each student using headphones, and can be used throughout the day and evening hours.

Straight ahead of you at the end of the hallway is the largest room in the complex, the Classroom/Scoring Stage. This space serves a dual purpose as classroom by day and studio space by night. The room's large-screen projection TV provides classes with audio/visual examples of lecture topics. At night, students direct their



Film Scoring Department Lab Manager Eric Reasoner helps a student in the 35mm Editing Lab.

PHOTO BY JOJI SAWA

own ensembles by conducting to click-tracks, to the studio stopclock, or to the video image while the result is interlocked and recorded in the adjoining Control Room.

The Control Room itself allows for several types of recording and dubbing operations, including direct-to-two-track mixes of student projects, four- and eight-track recording, and computer sequencing sessions. After recording, projects are synced to the 3/4" video of the student's chosen film cue and mixed to 1/2" hi-fi video. Because of its sound insulation, the Control Room can be used for various mix-down and dubbing tasks during the day while classes take place in the studio space.

The two other spaces that branch off the main hallway are the 16mm Editing Lab and the Video Scoring/Sequencing Lab. The Editing Lab contains an additional six-plate flatbed 16mm Moviola editing console. Here film music editing students cut and synchronize previously recorded music to picture and construct original film soundtracks by senior directed-study students.

The Video Scoring/Sequencing Lab utilizes the latest in computer and synthesizer equipment from Macintosh, Kurzweil, Yamaha, Opcode, and others to sequence music to video. Here, students learn about MIDI and SMPTE interfaces and the uses of modern-day computer software—including Professional Com-

poser, Performer, and Cue—in film scoring applications. This lab may serve as a separate sequencing-to-video station or can operate in sync with live musicians in the Scoring Stage via the Control Room.

"What's really wonderful is how efficient this space is," says Wilkins. "If there's a recording session going on in the evening, there can also be two Moviola labs, a Macintosh/MIDI session happening, a video screening, and maybe two or three people in the resource area. A lab monitor could conceivably cover

five areas at one time. It's a big improvement. When people need help, it's never very far away."

Big Bad Boom

From looking at the calm, efficient space, you might find it difficult to imagine the challenge and frenzy of completing it in only one summer. From the instant the space was selected, faculty, staff, and administrators began discussing how best to fit the facilities in the space, and how each room could function most efficiently. There were seven poles that served as superstructures for the building. None could be moved or removed; each provided layout problems of its own. The primary challenge, as it turned out, was building a state-of-the-art studio and recording space in a 75-year-old building. The space's location on an outside wall of a downtown building, the structural capacity of the old-style floors, and the 12 drum practice rooms on the floor directly above all provided interesting challenges.

"The only thing that could have been worse would have been to have put the facility under a dance studio," jokes Michael Howard of the Mathes Group, an architectural consulting firm brought in to analyze the problems. "It was one of the most difficult conversions we had to do."

"I didn't have too many problems with the acoustics of the room itself," says Berklee MP&E professor Wayne

Wadhams who was assigned the design of the studio. "Even though the studio space is a rectangular solid, the dimensions are so wildly different that the acoustics aren't bad at all. But we did have trouble with the potential of that percussion noise coming through."

The Mathes Group and Wadhams' consulting firm, Film Associates, recommended several approaches to isolate the studio from building and street noise—including window treatment, complex isolation systems, careful machine placement, and structural modifications. Triple-glaze windows shut out most of the outside noise. Acoustic insulation helped as well. The drums upstairs were a bit more of a problem.

The college was already using Wenger booths to stifle the practicing percussionists. But even these space-age phone booths weren't quite good enough to silence the pounding and vibrations of 12 drummers drumming. This magnitude of problem usually calls for an isolated flooring system, floating above the current floor. But structural limitations eliminated that option.

"The only thing I could think of was to elevate the units off the floor somehow and build a sand box—an old studio trick," says Wadhams. "Sand is a pretty good sound absorber because the grains slide over each other and because there are so many little air pockets."

All that sand, however, would also tax the flooring system to its limits. So Wadhams had to find another solution. He needed a material that was light, sound absorbant, and sturdy enough to hold the booths without compacting and becoming useless. The answer came in a cardboard box.

"Styrofoam packing chips," Wadhams says, "those little peanut things that come in the box whenever you get something from Brookstones or the like." With that thought, he went over to the MP&E maintenance room where shipments are received.

There he squeezed, stomped, and squashed every type of packing chip he could find, looking for the brand that was least subject to compression.

"I advised the contractor to build a sand box with two-inch layers of this stuff and some wire mesh to keep it from settling down and solidifying. So we took three layers of that, plopped the Wenger units on top, and waited to see if that stopped the sound from coming through." He smiles. "Lo and behold, it did."

Problem #2

With the drum problem solved, however, a more ominous dilemma appeared. Initial sound checks showed a rather severe hum in the equipment. Something was interfering with either the microphones, the cables, the mixing board, the tape decks, or with everything all at once.

"What we didn't know," explains Wadhams, "was that directly below the studio floor were the main power feeds for the entire block. What's worse, those feeds were put in at a time when this was a hotel and the Performance Center was a theater. There wasn't any need to provide any degree of radio frequency or electrical isolation. So we discovered an industrial strength electrical field coming up through the floor." From there it got worse.

"Now, in the studio there's a metal pole, one of the superstructure poles, that picked up and channeled that huge magnetic field right into the

studio. It was as if you had a huge magnet downstairs and you stuck a huge rod on top of it. The magnetic field would radiate throughout the whole rod."

The field and pole were the obvious source of the phantom hum. Wadhams and his crew installed a small meter on the pole to gauge the high and low cycles of the field while they pondered what to do about it.

As it turned out, much of the problem was solved simply by knowing its source. Some rerouting of the electrical load from the main switch boxes to alternate locations eased the hum considerably. With the field intensity diminished, careful microphone and cable placement now render the interference practically unnoticeable.

A Happy Ending

Ultimately, the benefits of the new facility made the struggle more than worthwhile. The space is airy, modern, and efficient. The life raft is sparking new life into what was already a booming department. Students, faculty, and staff have nothing but praise for their new home.

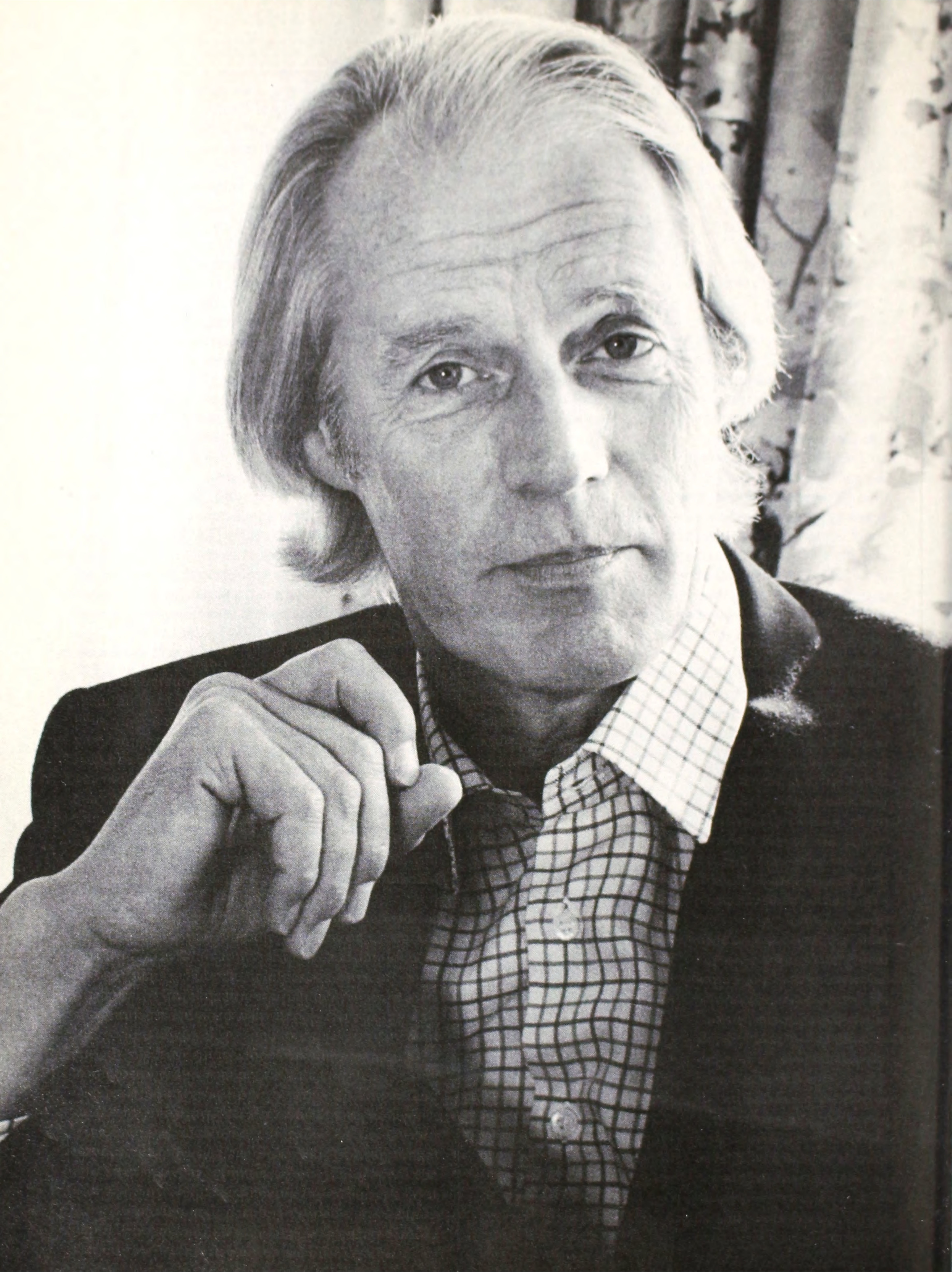
"I reflect back at where we were 14 years ago when I started here," Don Wilkins says. "I was it. I had a rewind bench, a movie scope, a synchronizer, a projector, an old Roberts tape recorder, one basic lab room, and a classroom to work from. Since that beginning in the Fall of '75, it seems like there is a big jump every few years. Each time there is a lot of support from the administration. They say, 'Okay, you're growing and your program is working, now what do you need, and where do you want to go from here?'"

"I marvel at how much enthusiasm there is for the program and how we have grown over the past 14 years," he continues. "Everybody's life is maybe not easier, but better—better organized. We can all work more efficiently at what we do best." For a busy, rapidly growing department, that may be the highest praise there is. ■



Student Shin Ikesue '89 conducts a film scoring project in the facility's Scoring Stage/Classroom.

PHOTO BY JUII SAWA



George Martin: Beyond the Beatles

Thoughts on the past, present, and future of music from a man who helped define them

by Andrew
Taylor

Everyone has heard the legend: a frustrated but resolute band manager, a record label chief with an open mind, and a young group of four Liverpool boys that no other label would touch.

"The recording, to put it kindly, was by no means a knockout," George Martin later reflected on the demo in his book *All You Need Is Ears* (St. Martin's Press). "I could well understand that people had turned it down. But there was an unusual quality of sound, a certain roughness that I hadn't encountered before. . . . I thought as I listened: Well, there just might be something here." To put it mildly, he was right.

Although signing, producing, and advising the Beatles may be George Martin's most quotable claims to fame, he's made a lifetime of sound judgments, unusual choices, and unusually wonderful music. This May he was awarded an honorary degree, doctor of music, at Berklee's commencement ceremonies. Last year he was named a Commander of the British Empire for his contributions to the world of music. His career has spanned the music business as a record producer, composer, arranger, performer, film composer, record label chief, and chairman of a remarkably successful production company. But even that doesn't quite cover it.

George Martin was born in 1926 in London and was drawn to music at an early age. His family obtained their first piano when he was just six years old, and the instrument became an instant source of fascination to him.

He played and composed from his early years through his service with the Royal Air Force during World War II. After the war, Martin attended the Guildhall School of Music studying composition, piano, and oboe. That was followed by a short stint as a freelance oboe player and an even shorter stint as a clerk at the BBC music library.

In September of 1950, George Martin was offered a position as assistant to Oscar Preuss, head of a small label in the EMI group, Parlophone. Martin took the job—helping Mr. Preuss with administrative chores, assisting the label's artists, and supervising studio sessions. He was a fast learner. When Oscar Preuss retired in 1955, Martin was offered the position of head of Parlophone. He was only 29 years old.

Martin immediately began searching for an untapped market where Parlophone could make its mark. He found that market in comedy records. His recordings of Peter Sellers, Spike Milligan, Flanders & Swann, and Beyond the Fringe (a young troupe including such talents

as Dudley Moore, Peter Cook, and Jonathan Miller) set new precedents in the industry, and are considered classics today. From there, Martin expanded Parlophone's classical and jazz presence and, by 1962, began looking for an opening in the pop market. Enter the Beatles.

With the immense success of the Fab Four, Martin branched out to other pop soloists and groups. Gerry and the Pacemakers, Billy J. Kramer and the Dakotas, Cilla Black, and David and Jonathan all made appearances on Parlophone. But it was the Beatles that took most of his time. Each album grew more complex and creative; each demanded more of him and the band. *Help!*, in 1965, contained Martin's first arrangements for instrumentalists other than the band—the string ensemble on “Yesterday”—and each following recording contained more and more orchestration, studio experimentation, and sound manipulation. As George Martin and the Beatles grew and experimented, the role of the producer also grew. The collaboration reached one of its highest points in 1967 with the release of *Sgt. Pepper's Lonely Hearts Club Band*. With one release, the vinyl LP was transformed from a medium into an art form.

By 1965, Martin had become disenchanted with EMI. Although he had built Parlophone into a successful label and produced one of the most popular bands of all time, he was still being paid a relative pittance. Martin and a group of colleagues left Parlophone to form a collaborative production company, Associated Independent Recording (AIR), where he continues to explore and produce today.

His production credits since then include albums with Paul McCartney, America, Jeff Beck, Sea Train, Paul Winter Consort, John McLaughlin, Jimmy Webb, Neil Sedaka, the Bee Gees, Cheap Trick, and Ultravox. He also has written scores for many films including the Beatles' *A Hard Day's Night* and *Yellow Submarine*, *Pulp* starring Michael Caine, and *Live and Let Die*, for which he received a Grammy. His most recent projects include a new recording of Dylan Thomas' *Under Milk Wood* with Anthony Hopkins, and this year's Prince's Trust concert with Phil Collins, Mark Knopfler, and a full symphony orchestra.

George Martin's career has thrived on his versatility, his vision, his openness, and his tactful manner with artists. It was about all of these things that he spoke to us from his offices at AIR Studios, Ltd., in London.

You've been involved with a wide range of different aspects of the music industry. Do you think today's record producers can have that same sort of flexibility?

I've been very lucky in that respect. I guess I've had such a varied background because I've been associated with recorded music in one form or another over a long period of time. When I first started earning money from music, technology was very primitive. Tape was in its infancy. When I went to EMI studios in 1950, they were still making records on wax, because tape had a very bad signal-to-noise ratio. Stereo was not unheard of but it was unused. And long-playing records hadn't been invented.

“Synthesizer” was a word you'd never heard of. It was a different style of life altogether.

But nowadays, of course, it's so different. It's very difficult for young people to have that kind of varied background. A producer has to be well versed in computers as well as music. He has to have at his fingertips a grasp of technology of today that wasn't demanded 40 years ago.

Is it important for a producer to understand a wide range of music as well?

I think the first essentials for any producer are a curious nature and a catholic taste. If his tastes are channeled too much in one direction, then he becomes less of a successful producer because it gives him less

tolerance of music. If you get a rock fanatic or a jazz fanatic or a classical fanatic, to a certain extent they'll be wearing blinders; they won't see too much on either side of them. That makes them less versatile, it makes them less tolerant, and, to be honest, I think it makes them less musicianly.

Would you say that a producer who specializes in one area is necessarily less effective?

I don't know about that. I just think a budding record producer should keep an open mind always, examine every kind of music, and appraise the good in everything, rather than channel himself too much in one direction.

Having said all that, it's worked for me, being versatile, and being able to put my hand at different things. It may not work for other people. If you get someone who is a synthesizer expert, he may be able to produce records of a particular sort much better than someone like myself. And also, obviously, it depends upon the aptitude of the individual. It's no good my lecturing people saying what they *should* be. They're going to be what they *are*.



George Martin in the control room: “The first essentials for any producer are a curious nature and a catholic taste.”

You've said that tact is the sine qua non of a record producer. Does that mean the artist is always right?

No, it doesn't mean that by any means. It *does* mean that you've got to convince the artist that what you want is what *he* wants.

I've never been one for confrontation. I've always been one for infiltration. I get my way by trying to convince the artists that it's *his* way. It's a question of tact and diplomacy. You've got to know your artists. You've got to know where his strengths and weaknesses are. And you must always try and keep him in a state where he's going to give you his very best.

At the same time, I think a producer should never be so arrogant as to believe that he knows it all. I've learned a hell of a lot from people I've worked with.

Have you ever felt that advancing technology actually got in the way of a good recording?

Yes, sometimes. I've listened to works where people have become so in love with the mechanics and the technology of what they were doing that they forgot the music. You can get a thing overloaded. In today's technology, where a lot of recordings are done on a layer cake principle—where you start off with something and you keep adding to it—one of the problems is that a lot of people don't know when to stop adding. That is a terrible danger. Knowing when to stop is almost as important as knowing where to start.

Have you ever found yourself in that trap?

Not really. I've always regarded technology as a tool. When I first started using automation and computers, I insisted that they should still be tools, and that the synthesizer should be an instrument. I've always liked the combination of synthesized sound with natural sound. That happens to be my taste. A purely synthetic sound tends to be a little bit too sterile for me.

I *have* used purely synthesized sounds on material I've written myself, but not for human consumption. I've only done it in order to convince people that it would sound better if I used musicians who cost a lot more money.

There also seems to be a temptation to make tracks and recordings perfect. Do you see that as a problem?

It's not a problem, really. It's merely a question of taste again. I like to have a bit of humanity in my music. These days you can sample and reproduce everything in digital format. But a clinically accurate tempo makes me uneasy—as though I'm listening to a quartz-controlled watch. I like ebb and flow and I like dynamics. I like a bit of randomness in my music—which is what a human being is, after all. A heartbeat isn't quartz controlled; it varies with our emotions. I think music should reflect that.

And it may be that a human mistake on a track could turn out better than you could have imagined or planned.

Exactly. Sometimes people do things that you don't expect. And sometimes they are literally mistakes. I'm not saying *always*, because quite often they can be pretty

awful. I have known occasions where mistakes have been absolutely super and I want them—even the question of intonation. I've heard Sinatra sing out of tune and sound good. I've heard other people sing *in* tune and sound bad.

Can it sometimes be the constraints of technology that lead to greater creativity—as with Sgt. Pepper's Lonely Hearts Club Band, recorded on a four-track?

To be honest, I don't think *Sgt. Pepper* would have changed very much if we'd had present day technology. If I'd had 32-track digital available to me in 1967 it's quite likely that the album would have sounded not very far off from what it sounds like today. I don't think it would have sounded any better. And I doubt very much whether it would have sounded much worse.

It was a *hassle* doing it on four track, because you had to think in advance. You had to think where you were going to go, how much extra tape you had to put it on, and what you were going to lose in the process. It was a kind of crossword puzzle you were doing mentally. But I don't think that really made it any better. I think it just *was*. It might have turned out slightly different, but who's to say?

Another possible constraint on music is business. Do you think the two are necessarily at odds with each other?

Sometimes they're in conflict. Sometimes you wish that you didn't have to finish something within a limited time. Or that you have to reduce the size of your orchestra because of the money constraints. Sometimes that can be frustrating. And sometimes you have to do things because business requires it. That is also frustrating.

I think you have to compartmentalize yourself. I've always done that. When I'm a businessman, I put my business hat on; I even literally put on my business clothes. I put my armor on and I go out to war. As opposed to being an artist where I sort of supplely lie around and dream and try to translate those dreams onto a piece of score paper or in a studio. So I've become two different people. And it's necessary to do that, because you have to be cool headed as a businessman. When you're making decisions that involve not only money but also people's livelihoods you've got to be serious about it.

But I've been very lucky, those frustrations have been a very small percentage of my life. One of the things I had at EMI as a result of the Beatles was not a great deal of money, because I didn't earn much, but a tremendous freedom. I was able to do pretty well what I wanted. That freedom was something that I valued enormously.

Where do you think the music business is going from here, technologically and musically?

Certainly over the past 10 years or so, music has become subjugated to vision—much more than it ever was in the early days—because “the box,” the fish tank in the corner of our room, dominates everybody's life to the exclusion of almost everything else. In the world as we know it, the average man is influenced more by television or video than by any other medium. And because of that, music itself has changed. Popular music has become less

profound, become much more ephemeral and much more linked to visual images. Without that link we wouldn't have Michael Jackson. Without it we wouldn't have records which are sold as videos rather than as sound.

People tend to listen with their eyes more. They don't listen to much with their ears. Because of that, I don't think music has advanced as much as I would have liked it to, which I find a matter of some regret. Whether it's going to improve or not is up to people's tastes, I think. Whether they will realize that their aural sense has got to be developed a bit more than their visual one, I don't know. But there's no hope for that at the moment. So I'm a bit depressed about where music is going right now.

Do you think these trends will continue?

There's no reason to think they won't. Certainly young people tend to think of music in connection with visual

images, much more so than they used to. Very few people just listen to a new song or performance without seeing something—or without imagining they see something.

At the same time, I'm not so conceited as to think my views are those which should be perpetuated. It's quite likely that these are the ramblings of an old man. The young people may take a quite different view and say 'Okay, so music is more visual, who cares? We're getting a great kick out of it. So why don't you shut up.' That's perfectly valid.

I think the choice that is offered to young people today in music is so wide, the colors on the palette are so varied now that it's difficult to know where to go. It is a very exciting future for music. The opportunities are enormous. There is sure to be opportunity for great talent to develop in the future which will make me and the Beatles seem very old fashioned. ■

GEORGE MARTIN SPEAKS TO THE CLASS OF '89

Excerpts from his 1989 commencement address.

I am honored and delighted to be with you today. I am particularly thrilled to share this moment with someone who has always been a hero of mine—Dizzy Gillespie.

In touring your college yesterday, I was impressed. I think that no school anywhere in the world has such vast and impressive facilities as Berklee.

But technology hasn't always been to our advantage. In Europe there is a sinister growing dependence on visual entertainment. TV and video have become the opiate of the masses, with prerecorded and programmed sound satisfying their eternal hunger. The staple diet of millions of people is junk music. Like junk food, it may fill their bellies, but it doesn't improve their style. They are hearing with their eyes, and listening to nothing.

I think we have to do our darndest to counter this trend, and get people to realize that mimed performances are not as good as the real thing.

For music to improve it has to be created live. This may seem a paradox coming from someone who has spent his life in a recording studio. But I believe in the spontaneity of performance, and the ability to move the soul of the listeners with music that happens at the time.

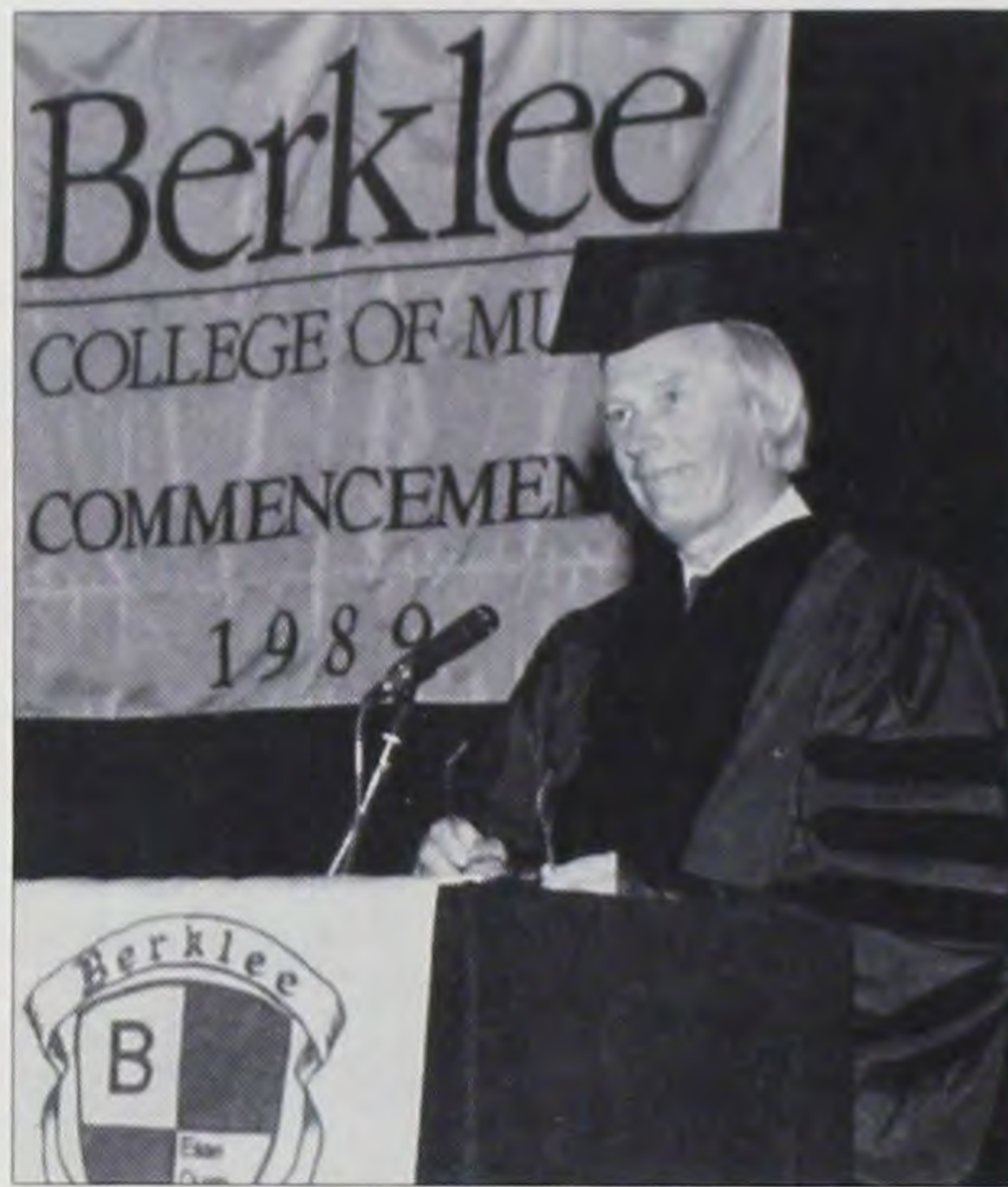


PHOTO BY BILL WASSERMAN

I love technical wizardry, and I am enormously excited at the potential that is available today. But we have to remember that technology is just a tool—nothing more. True art, true music comes from the heart and soul of the human being.

Pete Townshend said to me the other day, "George," he said, "tell the young ones how to cope with success." I knew what he meant.

Success and its hand-in-glove partner, failure, are equally difficult to handle, and everyone has to deal with both in different quantities in their lifetimes. The despair of rejection, or failure, is easy to imagine. The perils of success are less evident. For one thing, it is a mirage—you never really ever get to it. There is always more to do, more to learn, and always someone bet-

ter than you are. Mind you, there's always someone worse, as well!

But public approval is a heady wine, and too much can be not only intoxicating, but downright harmful. Keep a sensible opinion of your own worth, without the honeyed words of your admirers. They can eat you alive if you are not careful, and drop you like a hot brick if you dare to go out of fashion.

Lord knows that it is hard to get to the top; but it is a darned sight harder staying there. The music business is littered with shooting stars that have burned out. So pace yourselves; it is not a sprint that you are running—it is more like a marathon. And remember you have to keep running.

Obviously, talent is required. Equally obvious is the need for plain hard work. Every first-class musician that I have known works hard at his talent. Someone like my friend Mark Knopfler seems to enjoy talent that requires no effort. But I promise you, he practices everyday to keep his technique up to scratch.

I said you were running a race—a marathon. Well, on second thought that marathon is a relay race, and I am close to passing on the baton. A lot of you are going to take up the baton passed to you by those ahead of you. Music of the future is in your hands. Cherish it; it is a vital part of humanity.

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Stagefright and Relaxation

Tips for the nervous, the flustered, or the just plain scared

One time or another, it's happened to all performers. You arrive for a gig, get up on the stage, and then freeze. Your nerves take over where your brain leaves off. You came to play; but all you can manage is a nervous smile, an awkward stance, and a whole lot of sweat. You have stagefright; but it feels like it has you.

by Hal Galper

Most problems with stagefright are due to inappropriate attitudes about the performing experience. Some of these include misconceptions about how energy is used, a hyperactive approach to tempo, and confusion about the different attitudes concerning preparation (practice) and performance. The behaviorist theory, "attitude precedes action," suggests that all actions are expressions of attitudes. To change our behavior we must, therefore, first change our attitude.

The appropriate use of energy has a direct, causal relationship with the degree of relaxation achievable. Consequently, the amount of technique and control lost is equal to the amount

Pianist Hal Galper '59 has performed with such jazz greats as Slide Hampton, Cannonball Adderley, and Dizzy Gillespie, and recently completed a tour with the Phil Woods Quintet.

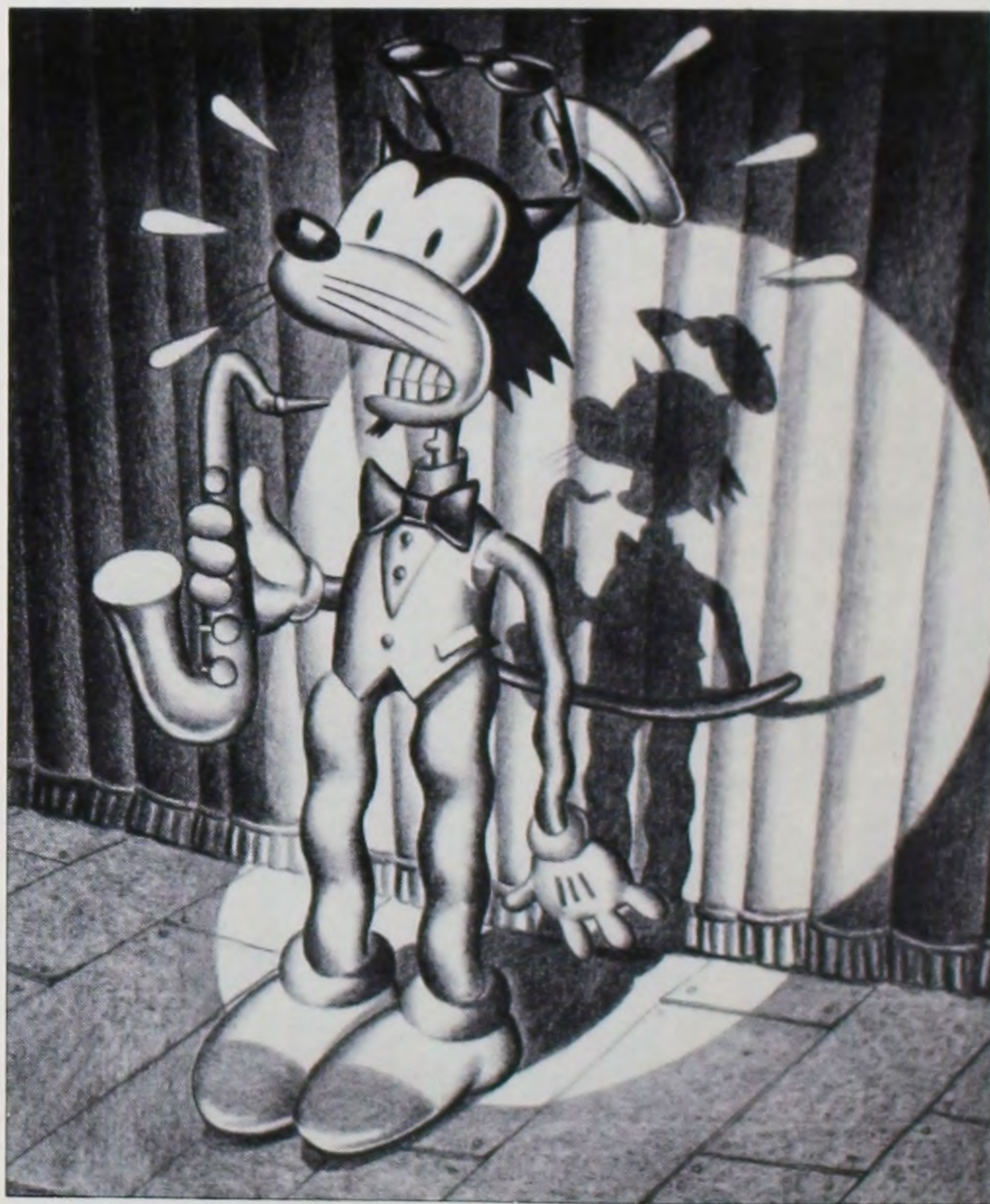


ILLUSTRATION BY MARK ANDRESEN

All fear comes from our investing the performing experience with too much meaning, or from taking it too seriously.

of excess energy applied. Excess energy and tension will have a debilitating effect on instrumental technique and physical and emotional control. This makes the use of vocal effects (glissandi, variations in volume, attack, and articulation) most difficult.

The source of this energy is the ad-

renal glands which produce the hormone adrenalin. These glands are stimulated by a response to stress that is often called the "fight or flight response" which is triggered when we perceive a threat to our physical or emotional being. The performer experiences physical, mental, and emotional discomfort resulting in a diminished capacity to perform. A certain amount of adrenalin is necessary for performance, however. So this response should not be totally eliminated. By inhibiting the amount of adrenalin produced, stagefright can be successfully controlled.

Serious Stuff

It may seem perverse that the thing we love to do the most would fill us with fear and trigger the fight or flight response. Yet the response is easily explainable. All fear comes from our investing the performing experience with too much meaning, or from taking it too seriously.

Society conditions us to take our endeavors seriously and teaches us to work hard to achieve our goals. This linear, "left brain" attitude is definitely appropriate to the study of music and one's instrument, but it is inappropriate to creative performance. Performance requires an off-handed, carefree, and playful "right brain" state of mind. Goal orientation will create the possibility that one's goals may not be achieved. This possibility is enough to strike fear in the heart of the performer, creating the threat that sets off the stagefright cycle.

Approaching performance with expectations of rewards (such as physical or emotional excitement and audience approval) is another barrier to creativity. The performer can become overly concerned with how well he or she is performing. But because of the self involvement of the player in the experience, self analysis while playing is virtually impossible and is nonproductive and self-destructive. The performer then risks a labored and overstudied performance.

The excess energy expended in trying to swing can also lead to overexcitement. Swinging has never been exactly defined, but an acceptable definition might be that the performer's playing has an emotional

quality. That emotional quality is a gift you are born with; it cannot be acquired but only developed. If you have determined that you can swing, you should stop trying and begin to develop and control this quality, not letting it control you.

It is also important to understand the nature of the work a musician does while performing. Concentration, not physical labor, is the greatest part of the work. Although it may appear passive at times, concentration can be a powerful force.

LIVING IN HALF-TIME

The problem of excess excitement may be solved by reconditioning the player's attitude and conception of playing tempo. *The key to playing up-tempos is to play in half-time.*

Events in four-four time occur too rapidly to conceive eighth-note ideas. Four-four also has a dynamic, propulsive quality that tends to get the performer overexcited and leads to forced, compulsive, or uncontrolled eighth-note playing.

The half-time approach can be applied to most tempos (except ballads) and, as the subjective half-time tempo is half as fast as the four-four tempo, the player has twice as much time to conceive ideas. He or she is therefore twice as relaxed during performance. The player is, in effect, conceiving every tune as a ballad.

The benefits of this technique may be observed by repeating an ascending and descending scale passage of eighth notes in four-four, tapping your foot on every quarter note. Then, without stopping, switch to tapping your foot on "one" and "three" of the bar, thinking of the eighth notes as sixteenth notes. It will be useful to think over two bar phrases, counting every two beats as a quarter note in a ballad tempo (see figure).

Eighth notes played with a four-four impetus have a forced, separated, and overarticulated quality. The same eighth-notes played with a sixteenth-note, half-time impetus have a smooth, legato, phrase-like quality. From time to time, you may switch back to four-four playing for the sake of rhythmic variety or to add extra propulsiveness to a line.

There are two potential hazards to playing in half-time. First, you must be able to hear the passage of chord changes as they progress through a tune in four-four while conceiving in half-time without doubling the length of the chords. Second, you must avoid the tendency to play behind the beat—a common problem when learning the technique.

After you get a feel for life in half-time, review your repertoire and replay all the tunes with the half-time concept. As a means of altering your conception of time, also try playing a ballad, improvising double-time lines and then, without breaking the tempo, switch to a blues in four-four while holding onto the half-time feeling.

All practicing should be done in half-time and all eighth-note lines should now be considered sixteenth-note lines in half-time.



To avoid keeping all that energy on the stage, risking overexciting yourself and your fellow players, understand that energy can be directed simply by conceiving of its direction as flowing out toward the listeners. It can be helpful to pick a person in the audience to play towards.

Psych-outs

Any attitude that increases the tendency to make performance "important" should be considered non-productive. There is a technique called "psyching oneself" that many have found effective for divesting a performance of over-importance. These psych-outs are non-logical, "as if" attitudes that work best within the three hours preceding performance.

The first approach could be called the "I don't care" psych-out. Start by convincing yourself that you don't care how you sound and that you don't care what other musicians in the band think of your playing. Extend the thought to the audience and the

promoter. Recognize the fact that you wouldn't be there in the first place if people didn't like your playing and use that thought as the basis of your self confidence. After practicing this attitude, you'll begin to approach the stage in a calmer state of mind.

Other psych-outs that I have found successful are "the cosmic insignificance of it all" and the "I'm totally bored with playing" psych-outs. The individual can create or modify any approach to fit his or her personality.

The establishment of a creatively conducive physical, emotional, social, and musical environment should be considered a major goal of an artist. Daily activities should be decided solely on the basis of whether they are going to enhance the ability to perform. Physical activity before and during performance should be minimized to avoid stress and fatigue. Mental activity should be kept light and unstudied (a sense of humor is always helpful). Emotional activity should be low key.

The first thought of the day concerning the upcoming performance sets the stagefright cycle in motion. This cycle is a slow-rising, day-long curve that peaks near or during performance. This curve descends rapidly after performance and accounts for the "crashing" that most performers experience. It is often helpful to take a nap before performing, interrupting the stagefright curve.

The development of a calm, dispassionate, and playful approach toward one's instrument and performance will help in achieving a high degree of creativity. The idea is to be exciting, not excited.

Improvising should be fun and easy. We only make it difficult for ourselves. When you have been used to working very hard, it may be difficult getting used to playing being easy. Students often complain when first learning to relax and play in half-time that they don't feel like they're doing anything. That, I tell them, is the way it's supposed to feel. ■

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Future Class

Digital music workstations as creative classroom tools

by **David S. Mash**

Since the introduction of MIDI in 1983, there has been an incredible explosion in the availability of high powered, low cost music synthesis systems. These systems allow musicians to control the final product of their musical creativity to a degree never before known in the history of music. Live performance, composition, production, and all applications of these fields have changed rapidly as new technologies affect the way in which musicians think and work to make music.

The typical scenario is now all too familiar: A single musician working at a computer connected to an array of MIDI-controlled synthesizers composes, arranges, performs, and records complete musical productions ranging from pop tunes to complete scores for film and television. The effect this is having on the professional music scene is obvious, and raises many questions about the future of the music profession. It cannot be denied, however, that the technology is here to stay, that people are

David S. Mash '76 is chairman of Berklee's Music Synthesis Department as well as an active composer and a professional consultant for developers of advanced music products.

David Mash (left): As new technologies change how people make music, educators must reevaluate what and how they teach.

using it to their advantage, and that it will change the future of music and music education.

As new technologies change how people make music, educators must reevaluate what they teach, and more importantly *how* they teach. Students must be prepared to meet the technical and musical challenges of making music in this new age of high-tech production. Today, a single musician is able to create full artistic productions. Therefore, each musician re-



PHOTO BY JOHN NORDELL

quires a complete knowledge of composition, arranging, orchestration, performance, and production techniques. These new technologies do not simplify the music-making process; they simply give the musician more control and power over the process than ever before.

In order to meet the new demands introduced by high technology, students must learn more about music both in scope and depth. This calls for developing ways to accelerate learning, shortening the time necessary to master certain skills. For educators, finding new and creative methods for increasing the effectiveness of teaching is always the greatest challenge. Fortunately, the very technology that produces the need for accelerated learning, also provides the tools to teach more effectively.

Much of what slows the music learning process is the time lag between theory and application. An interactive teaching/learning environment which allows teachers to demonstrate techniques in real time solves this problem. Such an environment, created electronically, is now possible through MIDI, computers, and synthesizers. These systems are changing the direction of the music industry, but they must be applied correctly to ensure that traditional musical values are not lost to the technological seduction of music students.

Background

Most music teachers are familiar with the use of classroom teaching aids. Few well-equipped classrooms do not have a piano, some form of music playback system (stereo), and

some form of writing/display system (chalkboard, slide or overhead projector). These tools have become second nature to most teachers, and a long list of materials and methodologies have been developed for these types of teaching environments.

The positive aspects of the use of these systems have long been obvious. So, too, have the negatives. The piano is a wonderful interactive tool for teaching because the teacher can simply sit down and perform examples at will for students. However, the piano sound is not suitable for all necessary applications.

For example, a teacher can demonstrate a specific voicing technique for big band by playing a specific chord with a variety of voicing styles. Through this process, however, all the student receives is a generalized impression of the chordal characteristics. The sound of the chord voicing is very different when played by the intended instrumentation. This is one example of the delay time between learning and actual practical experience. The student must experiment with writing the voicings then wait to hear them performed by the correct instrumentation to complete the desired learning cycle.

The playback system is often employed in the above teaching example to allow students the opportunity to hear recorded examples of each technique. The problem is that this type of system is not interactive. The teacher must search ahead of time for appropriate examples, and the students must listen attentively to discern the exact location of the specific voicing. Many teachers use projected scores to address this problem, pointing to the specific example as it is played. But still, the process can be cumbersome.

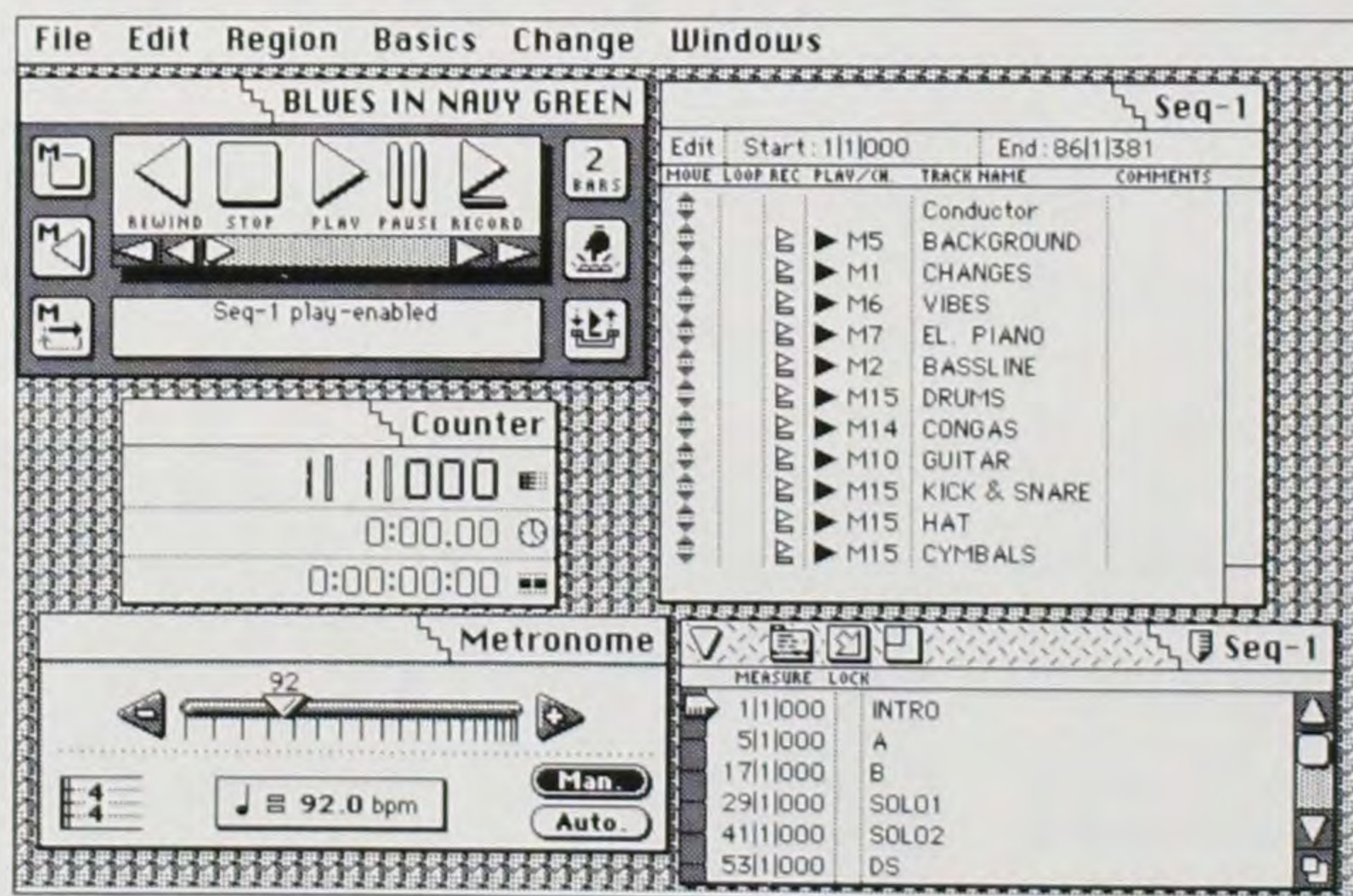
IN THE CLASSROOM

The digital music workstation has dozens of application in the classroom environment. With the described workstation running Performer software, an instructor can demonstrate a number of subjects ranging from composition, arranging, and orchestration to performance and ear training. A typical session might go as follows:

The teacher enters a short musical motif into the sequencer using the Kurzweil Grand Piano sound. By changing keyboard setups in real time as the sequence (motif) is playing back, the class can audition a number of possible orchestrations. Comparisons between the piano sound and other orchestral timbres can be made, and musical decisions reached. This, alone, is a powerful ear training and orchestration tool.

Once students select the desired

timbre, the instructor can demonstrate various forms of motivic development. Inversion, augmentation, diminution, and transposition are just a few of the techniques that can be demonstrated and performed instantly.



A typical screen from the Performer sequencing program.

Through the simple Macintosh conventions of copying and pasting, the motif also may be repeated for ostinati or canon, or for more complex formal organization. Each time a technique is introduced, the student can hear the result. Aural feedback in this interactive environment is the key to significant student progress.

previous systems while solving some of the inherent problems.

A teaching station comprising a computer, synthesizer, and projector can serve educators in multiple ways—as an interactive teaching station for class work, a self-paced learning environment for individual study, and a desktop publishing center for preparation of teaching materials. Available hardware and software are quite extensive. An effective choice requires some careful planning to maximize efficiency and minimize incompatibilities. In any situation, the teacher (or school administrator) must first define the specific goals and needs of the curriculum, and then evaluate the proper hardware and software.

The Berklee Approach

Our goals at Berklee were to create a station that could effectively serve all the functions mentioned above. We also felt that the workstation should be simple to operate, allowing faculty and students to spend the bulk of their time working on music, not learning how to use the station.

In selecting the computer, we considered ease of use, graphics capabilities, MIDI compatibility, and software availability. The Macintosh Plus computer offered the most intuitive user interface and a welcome consistency of style between the many software applications. We then modified the computer slightly to allow for the connection of a large-screen projection device.

For the synthesizer portion of the station, we selected the Kurzweil 250 Digital Sampling Synthesizer for its overall sound quality, the availability of large numbers of instrumental sounds stored in permanent, non-erasable memory, and the ability to instantly change between those sounds. We also added a full range of sound reinforcement devices, considering such factors as room size and required volume level.

A wide range of software is available for the Macintosh—from desktop publishing packages (for materials preparation) to music productivity software. For Berklee's specific needs, software for MIDI sequencing (storing musical performance data),

IN THE STUDENT LAB

Digital music workstations are also invaluable tools for individual study.

For example, using Performer, an instructor can record an entire rhythm section for a piece of music. Students can then use the station as an interactive "music minus one" environment for studying improvisation. If the changes are too difficult at first, the student can slow the tempo. (Because the sequence is a MIDI data record of the instructor's performance, and not sound itself, slowing the performance has no effect on pitch.) Once comfortable at a slow tempo, the student can then increase the tempo at will to achieve higher degrees of competency. When the

piece is mastered in the given key, the transpose command instantly changes the key of the exercise.

In this way, the student can work at his or her own speed to learn performance skills. Moreover, when a student has mastered a piece, he or she may print out the performance through the Professional Composer file transfer, allowing for more in-depth evaluation of each performance.

Finally, the student may select different parts to perform, moving easily between the solo, bass line, changes, or even the drum part. The choice is made on the spot by the student. The station provides the learning environment to support the exploration.

music notation, word processing, and graphics were selected. Mark of the Unicorn's Performer sequencer and Professional Composer notation package offered the functionality, intuitive interfaces, and file format compatibility we required. We also selected MacWrite and MacDraw for word processing and graphics. Living Videotext's MORE desktop presentation software provided the necessary materials preparation.

Benefits

The benefits of the digital music workstation are vast and various. In the classroom environment, instructors can instantly demonstrate visually and musically each desired concept. In the student lab, students can progress at their own speeds, and explore the different aspects of music much more easily. Before classes begin, instructors can create high-quality instructional material and workbooks using the system's desktop publishing capabilities. In each function, the computer's intuitive controls and understandable interface allow for a surprisingly short learning curve.

Most importantly, no part of the workstation I've described is custom-made. The entire system is built from off-the-shelf materials that anyone can

purchase in most music stores and computer shops. Furthermore, software already exists to meet all of the needs addressed—none have to be developed by the educator.

The cost of a station of the type described here is roughly the same as the cost of a small grand piano. Maintenance costs are substantially less than those for a quality piano and the reliability is high.

Of course, hardware and software are only half of the story. Effective use of digital music workstations requires rigorous faculty development programs, self-motivated faculty members, supportive administrators, and a strong desire and commitment to the improvement of educational delivery systems.

At Berklee, we are lucky enough to have a dedicated faculty, staff, and administration that meet all these requirements. If the desire, commitment, and resources are present in other institutions, these new technologies are sure to become the stimulating, interactive classroom tools of the future. ■

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Alum notes

Compiled by
Chika Okamoto

Randall Ramage '80 served as music supervisor for the six-hour mini-series *Around the World in 80 Days*, starring Pierce Brosnan, which aired last March on NBC.

Welcome to the first edition of "Alum notes." Our thanks to everyone who sent in their Alumni Survey or general news of their whereabouts. Information that arrived too late for our premier should appear in future issues. If you missed the survey the first time around, or if there's something new you'd like to share, please fill out and send in the form on page 29. Your classmates, friends, and peers would love to know what you're doing.



Wayne Andre '50 is president of Wayne Music Corp. His trombone playing can be heard on Frank Sinatra's *L.A. Is My Lady* (produced by Quincy Jones '51), on the new recording by Stephanie Nakasian with Phil Woods, and in a recent AT&T commercial entitled "Getting Sentimental."

Bob Cary '61 is a trumpet player/bandleader/composer/arranger around the Toronto area and has worked as a movie extra in several Toronto-based films.

Martin Gilman '68 is chairman of the Oxford High School music department in Oxford, MA, and leads the Marty Gilman Band.

Elliot "Lee" Childs '70, who now lives in Dennis, MA, leads the Bourbon Street Paraders. Childs also performed with the Old Jazz Band of Boston in concerts and lectures throughout New England.

Harvie Swartz '70 released his fourth album with his group, the Urban Earth, in 1988 (*It's About Time*, GAIA). The bassist's fifth release is slated for this fall.

Jodi Glass '72 manages and sings with the Rhode Island Feminist Chorus which performs in and around the Providence area.

Tony Lada '72, an associate professor at Berklee, recently released an album entitled *The Very Thought*

of You (Sterling Bell Records) which was nominated for outstanding jazz album at the 1989 Boston Music Awards.

Michael Sansonia '73 owns and operates Sansonia Music, an industrial music production house in New York City. He also served as a musical director for the National Lampoon, coordinating revues, videos, and television specials.

Keith W. Warren '73 is an arranger for Music Company Orchestra in New York, and is a guitarist with several bands, including "The Aegean Sounds." Warren lives in Schenectady, NY.

Rob Mounsey '74 is president of a music production company, Flying Monkey Inc., and composes, produces, and performs in the New York area. He scored the music for the film *Working Girl*, co-produced Eddie Daniels' *Blackwood* for GRP, and co-produced Bill Gable's *There Were Signs* for Private Music.

Victor Salvo '74 lives in Paphos, Cyprus, and is an instructor of piano and synthesizer at the Greek Conservatory. Salvo is also an active touring musician, recently performing at the Jazzhaus in Freiburg, West Germany.

Kim Allan Cissec '75 is an active studio trombonist/composer. She played on

the song "You Can Call Me Al" from Paul Simon's *Graceland* album as well as on television and radio ads for many major companies (Toyota, Burger King, etc.). Cissec also composed a score for an R.J. Reynolds Nabisco industrial film. She lives in Hoboken, NJ.

Mary M. Morgan '75 is a professional pianist/vocalist and has worked with the Joan Rivers show. She currently performs in and around the Boston area where a few of her original songs have been broadcast on WBCN.

Tiger Okoshi '75 recently released *Face to Face*, his third CD for the JVC label in Japan (distributed by GRP in the U.S.). He is touring Japan in June, July, and November of this year. He lives in Needham, MA.

Joel M. Shaw '75 is president of JMS, Inc., a leather products company which manufactures a line of leather gig bags for wind, brass, and percussion instruments. Shaw lives in Brookline, MA.

Scott Cleveland '76 is a teacher/composer in Beverly, MA. He has released two albums (*Waiting for Reality* in 1984 and *High Windows* in 1987) on his own label, QBF Records. Cleveland is currently working on his third release.

James Earl '76 was recognized as an "Unknown Great" by bassist Stanley Clarke in the March 1989 issue of *Guitar Player*. Earl, an outstanding six-string bass player, has worked with Clarke, as well as with the Crusaders, Angela Bofill, and Gato Barbieri.

Richard Garvin '76 is a music teacher in the Springfield, MA, public schools and directs the Springfield junior high school marching band.

ALUMNI NEWS



Howard (right) with President Berk

Jim Howard Receives Distinguished Alumnus Award

During the 1989 MusicFest Canada celebrations, President Lee Eliot Berk presented the Distinguished Alumnus Award to Jim Howard '73, executive director of MusicFest Canada and national coordinator of MusicFest U.S.A.

Howard graduated from Berklee with a Professional Diploma in Arranging and Composition in 1973. Following graduation, he stayed on at the college as an administrative assistant, supervisor of the Instrumental Performance Materials Library, and later as a teacher of harmony, improvisation, ear training, and ensemble. After leaving Berklee, Howard further distinguished himself as an inspired educator, author, performer, assistant producer of television, and coordinator of student stage band events throughout Canada and the United States, most notably the MusicFest celebrations.

MusicFest Canada—and its companion MusicFest U.S.A.—annually draws together thousands of participating music students and band directors in performances, adjudications, and clinics, designed to promote, recognize, and nurture the art of jazz. Howard devoted countless hours of travel, discussion, phone work, and support-raising to transform the MusicFest dream into a successful reality.

"I am overwhelmed," said Howard about the presentation. "This award represents a relationship that I have cherished from the moment I stepped through the doors on Boylston Street, heard Mike Rendish's first Harmony 101 lecture, and said to myself, 'Finally, a school that teaches useful music.'"

Here, There, and Everywhere

Alumni all over North America have been coming together at Berklee-sponsored reunions at major music industry conventions. In February, alumni gathered in Nashville at the NSAI Songwriters Conference. In March, New England area alumni met at the Music Educators National Conference. In April, the gathering was in Philadelphia at MusicFest U.S.A., and in May, alumni gathered in Toronto at MusicFest Canada.

In all locations, Berklee faculty and staff were on hand to greet alumni, bring them up-to-date on campus activities, and learn just how well our alumni are doing in their professional careers. Most importantly, alumni met each other—renewing contact with old friends, making new ones, and discovering ways they could work with and help each other.

The Office of Development hopes to host more receptions and begin forming alumni clubs in major cities. In order to be included, all alumni should make sure that their addresses are current so that they will be invited to future events in their area.

Chuck Butler Keys in to Keyboard

The phone conversation between Chuck Butler '87 and *Keyboard* magazine sounded a bit like a bizarre comedy routine:

Keyboard: You're the Fourth Annual Reader Soundpage winner.

Butler: No, I'm not.

Keyboard: Yes, you are. This is Jim Aikin from *Keyboard*.

Butler: No, you're not.

When the disbelief cleared, Chuck Butler was, indeed, the winner of *Keyboard's* competitive Fourth Annual Reader Soundpage Contest. The spoils of the contest were a four-page article in the March 1989 issue and a *Keyboard* soundpage—a playable floppy vinyl "record"—containing "Quatro," Butler's entry.

Butler is currently director of music production at Baker Sound Studios in Philadelphia. He also writes and records jingles for radio and television advertisements.

MING YING ZHU '89

UPI—Being famous wasn't enough for Ming Ying Zhu '89, so China's premier pop singer put her flourishing career on hold in 1985 and flew to the United States to study Western popular music.

For Zhu, as well known to Chinese listeners as Madonna is to Americans, the timing could not have been better.

After she graduated in May from Berklee, Zhu returned to Beijing for a command performance, to a China that has opened its ears to influence of Taiwan and Hong Kong pop and American rock music.

"Now, China is big and open. Popular music is the most interesting for the Chinese people, they are crazy for it," Zhu says. "I am the first to study it here. In China, I was a famous singer, but I didn't have a basic music education. Just being famous was no use to me. I wanted a real knowledge."

Zhu, a pretty, slender woman with a lively gleam in her eyes, looks no older than her mid-20s. She is 39, the mother of a 15-year-old son,



PHOTO BY MARK SMALL

and she has been performing oriental song and dance for 26 years.

Many Chinese households own Zhu's eight music tapes, which have sold more than 5 million copies and earned her government more than \$20 million. The government, in turn, provided her with a home, furnishings, and stipend. It is a celebrity world far different than the megabucks lifestyles of Western pop stars.

"In China, if you are famous, the people respect you," Zhu says. "But there is not a lot of money in it. You cannot be rich. In China, the govern-

ment supports. In China, you just perform."

Zhu returned to Beijing to give a June 4 solo televised concert in the capital's 10,000-seat great hall. She is also planning a world concert tour and a new recording.

"I really want to bring jazz to China," Zhu says. "The young people love the jazz they hear on American records. But China has no jazz."

Zhu dreams of taking one more thing home with her, but so far she has been unable to win her government's permission. It is an American band.

"I don't trust the Chinese musicians to back me up. Their technique is very good because they have classical training," Zhu says, snapping her fingers with a swing beat, "but not the feeling."

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Andrea Louise Jackson '76 lives in Guanajuato, Mexico, where she is assistant principal bassist with the Orquesta Sinfonica de la Universidad to Guanajuato. Jackson also hosts a jazz radio program for the state government station six nights each week.

Ray E. Rettig '76 is vice president and chief engineer of Cotton Hill Studio, Inc. He recently completed a music video for Jay and the Americans, recorded pianist Jerry Zimmerman, and produced music radio and television spots for local stations and advertising agencies. Rettig lives in West Berne, NY.

N. Arnold Worsley III '76 lives in Tarboro, NC, and is general manager of Moorecraft Wood Production.



Andrea Louise Jackson '76

Michael Carnes '77 is a software engineer for Lexicon and a composer for Tricinium. He has written scores for three films and has been commissioned for or has performed with the Pro Arte Orchestra, Alea III, Newcomp, First Night, Composers in Red Sneak-

ers, and Pro Musicis. Carnes lives in Arlington, MA.

Russ Hewett '77 opened Concept 1 Recording Studio in January 1989. He lives in Milo, Maine.

Robert Cento '78 is a piano teacher who lives in Walpole, MA.

Thomas K. Doughan '78 is teaching instrumental music in the Boston public schools. Doughan lives in Brookline, MA.

Lynne Ivaldi '78 is a manufacturer's representative for Encore MKG. She also performs with a small band around Barrington, RI.

Jonathan R. Lax '79 plays trumpet in the Dave Whitney Orchestra and in his own brass quintet, the Summit Brass.

Ralph Reinckens '79 performs as a drummer, writes

for various bands, and also teaches in public schools and privately in and around Patchogue, NY.

Leonard Crockett '80 is an active producer/writer/arranger for Triad Productions. Crockett produced the twelve-inch dance single "No More Games" by Joe L. and worked as a producer/arranger for L.A. songwriter Steve Lowe. He lives in Kensington, CT.

Tom Maglione '80 works in the MIT Electronic Music Studio as a research assistant. He is currently developing hardware and software for an A.E.S.-standard digital audio interface used with real-time audio processor and Macintosh computer.

Stephen M. Raymond '80 lives in Lincoln, RI, and is a

distribution manager for the Rockport Co. Raymond currently performs with the Chaunev Swing Band.

Gary Wittner '80 is a guitar instructor and lecturer of Jazz and Contemporary Music Studies at the University of Maine, Augusta. He received his M.A. in Music from Washington State University in 1986.

J.R. Ankney '81 is a choral director and chairman of the fine arts department of St. Edwards School in Vero Beach, FL. He also plays keyboards with the top-40 band Flashback, and writes and records with vocal quintet A Cappella Gold.

Charles Cocchiaro '81 performs in the Boston area with his twin brother Carl in their own band, Cocchiaro. They have been accepted as ASCAP Music Publishers under "Cocchiaro Music" since 1988. Charles lives in North Chelmsford, MA.

Thomas N. Connors '81 is a music teacher in Peru Central Jr.-Sr. High School where he is acting director of bands. Connors lives in Plattsburgh, NY.

Jamie G. Parker '81 is president of Savior Sound Productions, an audio/video production company, and Cornerstone Video. He plans to open a full 16-track analog and MIDI studio in the Pottsville, PA, area.

David Thierry '81 is a production manager of his own company, K-Vox, and also is a composer and producer. He is currently producing a catalog of background music which will be distributed in France, Canada, England, Japan, USA, Germany, and other countries. Thierry lives in Nevilly, France.

Joe Turley '81 is president of Turley Music Inc. and has toured with Dolly

RECORD WATCH

Berklee alumni are everywhere you turn in your local record store. **Bruce Cockburn '65** recently released his second solo effort for Gold Castle records, *Big Circumstance* (all of Cockburn's back catalog is now also available on compact disc). **Jane Ira Bloom '72** continues her work with Columbia on *Slalom*, her second solo release.

Gary Burton '61 released *Times Like These* on GRP this year and recently completed work on his next album, slated for release early next year. Also on GRP is **Kevin Eubanks '79** and saxophonist **Eric Marienthal '79**. Eubanks' latest, *The Searcher*, premiered in March. Marienthal's solo debut, *Round Trip*, hit the stores in April.

Drummer **Terri Lyne Carrington '83** has been receiving critic approval for her solo effort on Verve, *Real Life Story*. Fellow drummer **Will Calhoun '86** has also been gaining attention as part of Living Colour. The band's first release, *Vivid*, has stirred a lot of interest on rock radio. Bassist/vocalist **Aimee Mann '80** and her group, 'til Tuesday, also enjoyed air-play for their latest release for Epic, *Everything's Different Now*.

Jazz pianist **Garry Dial '74** recorded a duo album with saxophonist Dick Oatts entitled *Dial and Oatts*, released on DMP. **Laszlo Gardony '87** led his own group on *Secrets*, released on Island's Antilles label. Saxophonist **Greg Osby '83** also led a band for JMT records on *Mindgames*. Guitarist **John Scofield '73** offered several live recordings of his



Eric Marienthal '79 debuts on GRP

better-known material on *Pick Hits Live* for Gramavision. Guitarist **Melissa Etheridge '80** offered a strong debut with her self-titled solo release on Island.

Full Circle's latest, *Myth America* (Columbia), is a veritable who's who in Berklee alumni and faculty. Group members include **Karl Lundeberg '85**, **Russ Gold '77**, **Terje Gewelt '87**, **Anders Bostrom '89**, and vocalist **Philip Hamilton '83**. The album was produced in Boston by Professor of Music Production & Engineering Wayne Wadhams and digitally mastered by Associate Professor of MP&E Robin Coxe-Yeldham.

If you've released, recorded, produced, or performed on an album, please drop us a note or publicity packet at *Berklee today*, Berklee College of Music, 1140 Boylston Street, Boston, MA 02215.



Full Circle (from left): Gold, Hamilton, Lundeberg, Bostrom, Gewelt.

Parton, Leon Russell, Dr. Hook's Ray Sawyer, Shelly West, and others. His songs have been recorded by the Osborne Bros. and others. Turley lives in Nashville.

Kathy Heywood '82 is a music teacher in Massachusetts and New Hampshire

and a trombonist with the Merrimac Valley Philharmonic Symphony Orchestra. Heywood performed in the TV movie "The Fitzgeralds and the Kennedys" and starred in the world premier of *Anything but an Ordinary Evening* in

Amesbury, MA. She lives in Newburyport, MA.

Gary S. Miller '82 leads the Gary Miller Trio and directs the music department of Miss Hall's School. He lives in Pittsfield, MA.

Jeff Harrington '83 is an active musician and chairs

the Jazz/Rock Department of South Shore Conservatory. Harrington lives in Somerville, MA, and performs and lectures throughout New England.

Rick Kuethe '83 owns Air Sound/Plum Productions and is an active composer/performer. Kuethe will be releasing his first solo piano recording, *Nebraska Suite*, this July. He lives in Dorchester, MA.

Pete Prown '83 is a contributing editor for *Guitar for the Practicing Musician* and a frequent contributor to *Guitar Player* and *Relix* magazines. Prown lives in Media, PA.

Lee Satterfield '83 is a staff writer for Picalic/EMI in Nashville. She recorded vocals for Lacy J. Dalton's *Survivor* and Karen Staley's self-titled album. Satterfield also co-wrote "Cheater's Moon" which was the number one song in Canada in January 1988.

Anthony Carlone '84 is a computer drafter for Texas Instruments. He plays with the band Young Thunder, whose album was produced by Ozzy Osborne. Carlone currently lives in Bristol, RI.

Jeff Horney '84 is a music teacher in Wilmington public schools and lives in Shirley, MA.

Ken Fix '84 recently completed the film score for his first feature film, *Suds*, from Montecito Movies. Fix lives in North Hollywood, CA.

Dan Mockensturm '84 was recently hired as a full-time instructor at Full Sail Center for the Recording Arts in Alta Monte Springs, FL. An instructor in tapeless studio techniques, he will also provide regional training for New England Digital's Synclavier and Direct-to-Disk systems.

David Bondelevitch '85 served as a music editor for

BAR REPORT

"You went to Berklee? I've read a lot about the college. What's it like?"

As an alumnus of Berklee, how many times have you found yourself in this conversation. Many student musicians all over the world are eager to learn more about Berklee's career-oriented curriculum, professional faculty, and state-of-the-art facilities. However, it's not always possible for everyone to visit us here in Boston. Consequently the Office of Admissions established an international network of Berklee Alumni Representatives known as BAR. Now in its seventh year, the BAR program has established itself as a unified group of Berklee alumni dedicated to helping music students learn more about Berklee and careers in music.

These active alumni visit local high schools in their area to meet with music students, music instructors, and guidance counselors. They also represent the college at a variety of college fairs and music festivals. They assist Berklee admissions staff members at some of the largest international professional music conferences including the NAMM show, AES, NARM, NAJE, as well as MusicFest U.S.A. and MusicFest Canada.

The presence of Alumni Representatives at these events provides high school students an opportunity to meet with someone who knows first hand what it's like to attend Berklee. Interested music students learn about the college from the perspective of a fellow musician. Alumni in the BAR program come from a vast range of music professions, from private instructors to staff songwriters, from professional audio engineers to freelance musicians. The distinctive qualities each member brings to his or her involvement are what make the

BAR program so special. Each BAR member can relate his or her own professional music experience to each presentation or discussion. Through their high school visits, BAR members are able to hear the concerns of students who are seriously considering a career in contemporary music. By informing the Office of Admissions of these student needs, Alumni Representatives are a vital part of the Berklee community. Many representatives find their BAR activities very rewarding, complementing their own local music involvement.

During a typical academic year, BAR members schedule visits at more than 1000 high schools and participate in more than 90 special events. The upshot of all this activity: more than 8000 student musicians have *per-*



sonally met with someone who has learned from Berklee's curriculum, played in Berklee's ensembles, and absorbed Berklee's creative musical atmosphere. All alumni selected to participate in the program are invited to visit Berklee, as our guest, for an informal orientation session in order to discuss recent developments at the college and goals and procedures of BAR.

In future, "BAR Report" will offer up-dates on BAR events and accomplishments as well as close-ups of some of the exceptional individuals now in the BAR program. If you are interested in learning more about the BAR program, please fill out the information form on page 29 and check the BAR information box. Or you could speak to me directly. Feel free to use the toll-free admissions number (1-800-421-0084) if available from your calling area.

—Rich Adams

Alumni Admissions Coordinator

the feature film *Hollywood to Deadwood* to be released in August '89 by Island Pictures. He was also music scoring mixer for *Monday Morning*—release date and distributor to be determined. Bondevitch lives in Los Angeles, CA.

John W. Donahoe Jr. '85 is president of Rhyme and Reason, a commercial composition and recording company. Donahoe also plays saxophone with Boston-based R&B and rock band the Front Row.

Yusuf M. Mardin (a.k.a. Joe) '85 is president of Essential Productions. As a producer/arranger/programmer he has worked with Vanessa Williams, Julia Fordham, Tommy Page, Aretha Franklin ("Think" on *Through the Storm*), Disney, and Ofra Haza on her upcoming album.

Lewis "Skip" Norcott chairs the music department for the Governor Mifflin Public Schools in Pennsyl-



Kathy Heywood '82

vania. He has also written music for the Jacksonville Symphony Orchestra in Florida, and for several commercial jingles.

Barry Rocklin '85 lives in Revere, MA, and is a musical director at theaters in New England and Canada. This summer he will be hiring Dean Ricard '87, David Sass '87, and Chris Higgins '89 to perform in the orchestra for *Phantom of the Opera* in Montreal, Canada. Rocklin also teaches voice at Trinity Repertory Theater in Providence, RI.

Jerry Smith, Jr. '85 is a songwriter and a producer for Innersounds Productions. He lives in South Weymouth, MA.

Alex Dina '86 is an operations engineer/master control operator for WTWS, channel 26, in Connecticut. Dina also engineered live recordings of Stan Getz, Gerald Wilson, George Russell, and Kurt Masur conducting NEC Symphony for New England Conservatory.

Mark Corradetti '87, who lives in Summit, NJ, is an account executive/producer for the Creative Music Factory. Corradetti writes jingles, produces recording sessions, and plays bass in the New York/New Jersey area.

Robert M. Tella '87 lives in Medford, MA, where he sings professionally and teaches music. Last May, he appeared in a production of Arthur Miller's *All My Sons*.

Brian Calabro '88 and Double-Up, his Boston-based band, recently signed a record deal with Giant Records in NY.

James Fallena '88 is a music teacher at the Advent School in Boston, MA. He recently edited, scored, and recorded original music for a video project which will be on display at Boston's Museum of Science and the Woods Hole Oceanographic Institute.

Vincent Puccio '88 is a general assistant for Right Track Recording Studios in New York City. Puccio lives in East Brunswick, NJ.

Todd Sucherman '88 is a professional musician/percussion instructor at Niles West High School in Illinois. Recently, he performed with current Berklee student Louis Ulrich in Las Vegas.

Akio Ueda '88 is a mastering engineer for I.A.N. Communications Group, Inc. in Wilmington, MA.

ALUM NOTES INFORMATION FORM

Full Name _____

Address _____

City _____ State _____ ZIP _____ Home Phone # _____

This is a new address

Last year you attended Berklee _____ Did you receive a Degree Diploma?

Professional Address _____

City _____ State _____ ZIP _____ Work Phone # _____

Your title/role _____

Please list any professional activities, performances, recordings, notable music projects, awards, recognitions, or other events you'd like us to know about (please print or type):

I am interested in learning more about the Berklee Alumni Representative program (see "BAR Report," page 28).

Please send this form, along with any publicity, clippings, photos, or items of interest to:
Berklee today, Berklee College of Music, 1140 Boylston Street, Boston, MA 02215. We look forward to hearing from you!

Shop talk

*Notes from
music industry
conferences,
conventions,
and confabs*

Each year, Berklee faculty and staff attend a multitude of music industry and educational conventions, symposiums, conferences, and seminars. "Shop talk" is a forum for their overviews and impressions of these major industry events.



**National Association
of Music Merchants
International Music Market**
*January 20-22, 1989
Anaheim, CA*

January's NAMM convention in the Anaheim Convention Center featured approximately 550 exhibitors, an increase of almost 100 from last year. According to Berklee attendees, the presence of synthesis equipment manufacturers was about the same as last year, while the pro audio companies seemed more widespread. Overall, there were fewer introductions of new technology than at past NAMM conventions. In general, Berklee attendees felt that technology exhibitors were attempting to strengthen, consolidate, and enhance their market positions, rather than advance through new offerings.

The increasing presence of Apple Computer was

notable news. The company demonstrated a new MIDI management software package that turns the Macintosh into a true MIDI multi-tasking system. Apple was making the software available at no cost. Behind the scenes, Apple representatives were going around the clock signing up music stores as Apple dealers, making clear their commitment to the music industry market as a vehicle

for broader sales and systems development.

Another computer-related item of interest was an IBM-PC-based software/hardware package by Personal Composer for optical scanning of music manuscripts and subsequent conversion to MIDI data. The demonstration purported that the product could scan a handwritten score, reading clefs, key and time signatures, and so on.

**National Association
of Jazz Educators**
*January 11-15, 1989
San Diego, CA*



This year's NAJE conference featured two presentations by Berklee faculty members. Assistant Professor of Voice Jan Shapiro read her research paper on the history and historical impact of the Boswell Sisters. Associate Professor of Harmony Hal Crook and Ensemble Instructor James Odgren presented a clinic/demonstration on improvisational techniques. Crook and Odgren demonstrated form, space, improvisational dialogue, and other concepts from their approach to teaching improvisation.

The NAJE technology center proved to be a popular feature of the conference this year. The center featured demonstrations of MIDI, desktop publishing, music-oriented hardware and software, and music workstations.

Most noteworthy at this conference, however, were the concerts. The Count Basie Band under the direction of Frank Foster performed a spirited set of big band arrangements. The Bill Watrous Quartet and the Charles MacPherson Quartet offered evenings of small combo jazz. Finally, Take Six performed their a cappella jazz/gospel to an enthusiastic crowd of NAJE attendees.

In the audio realm, the emphasis at NAMM was on semi-pro, low-cost hardware. Especially noteworthy was the proliferation of compact 16-track recorders (some in rack-mount units). The units, along with products from other manufacturers, make possible relatively inexpensive, compact audio workstations for multi-track recording and production.

Among the clinics offered at January's NAMM convention was a presentation on "The Classroom of the Future" by Music Synthesis Department Chairman David Mash (see "Future Class" on page 21). The clinic was well attended and received.



Nashville Songwriters Association International Symposium

February 17-19, 1989
Nashville, TN

The NSAI symposium featured a mix of performances and discussions focusing on the techniques, markets, and potentials of the Nashville music scene. Such artists as Waylon Jennings, Steve Wariner, Skip Ewing, Beth Neilson-Chapman, and Randy VanWarmer performed during the Songwriter's Showcase concert. Beth Neilson-Chapman performed a song written by Associate Professor Pat Pattison, "Years," which will appear on her upcoming album on Warner Bros. Also performing was Berklee alumna/songwriter Lee Satterfield '83.

Summer 1989

Music Educators National Conference (Eastern Division)

March 2-5, 1989
Boston, MA

As with past MENC conferences, the March meeting of the Eastern Division focused on public school education techniques, ideas, and performances. A highlight of the conference was a clinic on effective mainstreaming strategies for special needs children. Betty Atterbury, Ph.D., from the University of Southern Maine stressed that teachers should have some knowledge of the special child's language ability, gross motor skills, abstracting skills, and attention span *before* classes begin. She also suggested the use of small cooperative groups, peer tutoring, and special friends.

Associate Professor of Music Synthesis Richard Boulanger gave a presentation on the future of computer music in the classroom. Assistant Chairman of Film Scoring Michael

Rendish discussed the use of computers and synthesizers in film scoring. Both clinics generated much interest.

In conjunction with the Black Music Caucus, Berklee hosted a concert led by jazz trumpeter Wynton Marsalis in the Berklee Performance Center. Urban high school music students recommended by teacher nominations recreated the Duke Ellington Orchestra, rehearsing with Marsalis before the show.

MUSIC EDUCATORS NATIONAL CONFERENCE

Music Educators National Conference (Southern Division)

March 16-18, 1989
Nashville, TN

The Southern Division MENC conference focused on the current roles and future potential of technology in music education. Fred Hofstetter of the University of Delaware demonstrated the many uses of desktop microcomputers, compact discs, and videodiscs in the classroom.

Other speakers stressed the importance of understanding music technology and exploring ways to use it to enhance current curricula.

The nonperformance segments of the symposium were divided into panels (Songwriters, Research, and Publisher panels), song critique sessions, and an awards presentation. A symposium highlight for Berklee faculty and staff was the Berklee Alumni Reunion held during the conference.

Audio Engineering Society

March 7-10, 1989
Hamburg, Germany

Highlights of the AES conference in Germany included several papers on the Digital Audio Tape (DAT) format and various discussions on recording technology and techniques.

The DAT papers reinforced the medium's effectiveness for consumer and

professional use, but called into question its benefits as an archival medium. The research data presented showed that DAT tapes begin exhibiting greatly increased dropouts after



about 100 plays. While dropouts can be restored through error correction, all tapes tested also caused at least one mute per play shortly thereafter (muting means that a short section of the recorded material is permanently lost).

Another development discussed at the conference was the new sound-absorb-

ing techniques for controlling small room acoustics. The paper by J. Voetmann of the Danish Acoustical Institute suggested the use of a Soft Layer Absorptive Membrane (SLAM) for optimum results at minimum cost and inconvenience. The SLAM system employs 3 mm thick vinyl stretched and sandwiched between two frames, in unit cells at least 60 cm on a side.

Information for "Shoptalk" provided by Kenneth Brass, Charles Cassara, Hal Crook, John Hagon, Mike Ihde, Deanna Kidd, Barbara London, David Mash, Lawrence McClellan, David Moulton, Pat Pattison, Ted Pease, Jack Perricone, Jan Shapiro, Lawrence Suvak, Wayne Wadhams, and Wayne Ward.

Ill Wind?

Matthew Marvuglio

Some woodwind players get excited when they first hear or play a MIDI wind controller. Some laugh and roll their eyes. The analogies run the gamut from bad ("It's like the difference between playing a game of baseball and a video game") to great ("It's like having a whole orchestra at your fingertips"). Part of the frustration may come from the fact that a MIDI wind controller is more than a monetary investment. It also requires some time to learn. In theory, the adjustment should be small. Every MIDI wind controller derives its fingering system from the same standard. In practice, however, wind controllers can be a whole different ball game.

A MIDI wind controller is a wind player's link to electronic music hardware. It converts performance parameters (fingerings, breath speed, etc.) into standard Music Instrument Digital Interface data, which then can drive a synthesizer, sequencer, or other device. Playing a wind controller gives me a glimpse of what it must have been like to be a flutist in the last century when Theobald Boehm introduced his new flute. It was a stressful time for flutists because the new instrument required a new fingering system. Imagine being a professional in the business for a number of years and then having to learn all new fingerings. The extra effort paid off, however. With the new fingerings also came vast new tonal and musical possibilities.

Wind controllers seem to pose the same kinds of challenges to the woodwind performer today. The manufacturers have adopted the Boehm system, so you don't have to learn a new fingering system. But there are some additions that lead to difficulties. The left thumb octave keys, for example, are among the most difficult aspects of playing any MIDI wind controller.

Matthew Marvuglio '74 is chairman of Berklee's Woodwind Department and is an active composer and performer in the Boston area.

The various brands have ranges from five to seven octaves, with octave keys located in the traditional left thumb position. It can take quite a bit of practice to overcome the breaks on the instrument. A term I learned quickly was "glitch," the sound you hear when your fingers or thumb do not execute a fingering accurately.

Another problem is the absence of anchoring keys. Woodwind players often rest fingers on keys not in use to facilitate difficult passages or to ensure a firm grip on the instrument. A flutist will usually have a finger on the E-flat key for balance while a saxophonist will often keep a finger on the G-sharp key. These practices do not work with a MIDI wind controller. Press a key and a note is on; release a key and the note is off.

Manufacturers claim this fact as an advantage because of the alternate fingerings the system provides. With a MIDI controller, keys don't have to be adjacent to raise and lower pitch by step as they do on acoustic wind instruments. For example, using the saxophone or flute fingering E with the E-flat key pressed is an alternate fingering for F on most wind controllers. On the down side, alternate fingerings can be very confusing at first.

One big advantage to doubling on wind controller is that articulation possibilities are almost limitless. You can adjust the lip pressure or wind resistance; set up the instrument to play like your clarinet, saxophone, or recorder; and use multiple tonguing techniques. All mouthpieces are based upon the single reed concept, without the vibrating reed. Flute players comfortable with a recorder embouchure should not have any problems.

MIDI wind controllers can offer astounding versatility and new opportunities. But it's not an easy walk to freedom. With a little time, effort, patience, and a short trip back to basics, you can gain control over wind controllers. . . before they start controlling you. ■



PHOTO BY LORRAINE KARCZ



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