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THE RECORDING INDUSTRY MAGAZINE

Mix

Ronnie Lane on ARMS

**NAMM Show
Special Issue**

**Listings:
Independent Engineers
and Producers
Keyboard Artists Forum
New Stage Equipment
Allan Holdsworth
Music Video Trends
Russell Mulcahy**

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Cover: Yamaha's R&D Recording Studio A in Glendale, CA
 Photo by: Jim Hagopian

Just under three years old, Yamaha's R&D Recording Studio is used both commercially, primarily for overdubs and by Yamaha's product development experts to test everything from mixers to synthesizers. Studio A is fully equipped with a wide range of Yamaha instruments and the latest outboard gear. Its large main room features variable wall structures that give it maximum flexibility, two sound chimneys to provide isolation for guitar amps, and independent heating hardwood floors.
 Corner photo by: Richard McGaffrey



The spotlight shines on *keyboardists* this issue, as George Petersen interviews Jeff Lorber, Berlin's David Diamond, Utopia's special player Roger Powell, synth specialist Michael Boddicker and others to find out how different players are incorporating new technology into their music.
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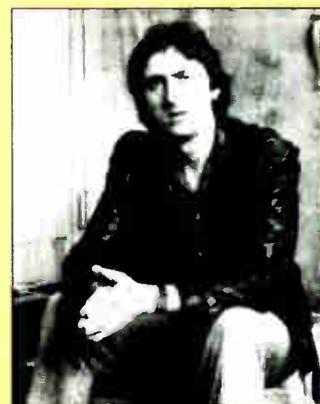
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by Roseanne Soifer

If you don't know *Russell Mulcahy's* name, you certainly know his music videos—he's directed some of the most acclaimed pieces in the still young art form, including works for Billy Joel, Duran Duran, Kim Carnes and many more. Iain Blair talks to this seldom interviewed video visionary.
 Page 138.



It is rare when a truly original instrumental stylist comes along; when he's as talented as progressive guitarist *Allan Holdsworth* is, it's no wonder people are buzzing. In a far-ranging interview, Josef Woodard finds out what makes this innovator tick.
 Page 98.

Our special listings section this issue features scores of *independent engineers and producers*, starting on *page 34*. Preceding that is *Producer's Desk*, with comments from top producers such as Norbert Putnam, Spencer Proffer and Henry Lewy on recent trends. That begins on *page 26*.



KEVIN CRONIN ON MAKING IT: ON AN OTARI.

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Dear Mix:

As always, Mix is essential and informative reading. While browsing through your November issue, I was delighted to learn that Michael Day of Creative Audio Studios lusts after a Solid State Logic console. However, it is distressing that Mr. Day is under the impression that it will cost him a "half-million" to satisfy that lust.

Perhaps because SSL is so frequently referred to as the "Rolls-Royce" of consoles, the popular image persists that our systems are outrageously expensive. Personally, I never liked that "Rolls-Royce" label. Solid State Logic's success and popularity are the result of practical innovation and an amazingly true sound quality, *not* jet-set fashion or hype.

Mr. Day and all others who secretly lust after an SSL are invited to call us anytime they feel sorely tempted. For about \$180,000, they can get a 28 channel 4000 E Series Master Studio System complete with Total Recall. As all SSL Computer options are designed for field retrofit, the initial investment for a 28 channel SSL could be as low as \$135,000.

Solid State Logic designs products which give studios and their clients an advantage. If those products were unaffordable, there would be no advantage, and their would be no SSL. It's nice to be known for our small role in producing million-selling records, but please let your readers know that this does not imply half-million dollar prices.

Sincerely,
Doug Dickey
Vice-President
Solid State Logic, Inc.
Washington, D.C.

Dear Mix,

Please accept my congratulations on what must be your thickest issue yet—October 1983! I was pleased to see Tom Lubin's article on tape machine alignment, as this is a critical subject and cannot be brought up

enough. To this effect, I would like to make a few observations on the procedures Mr. Lubin outlined.

I must take exception to the order which was recommended for certain adjustments. Mr. Lubin put the setting of head azimuth, both play and record, *after* the high frequency equalization, bias, and level adjustments. My common sense finds this quite disagreeable. The azimuth adjustment plays a critical role in the high frequency response of the machine—affecting the signal *coming from the tape*. For this reason, azimuth should be set *before* any electrical adjustments—which only affect the signal before or after the heads. If the azimuth is off, any EQ and bias settings done previously will be incorrect because the electronics were not seeing the true signal from the tape. This reasoning is akin to why we do the playback alignment before the record alignment. I might recommend following the order of tones on the calibration tape. These are often arranged in a sensible fashion.

Additionally, the azimuth adjustment (like the bias) uses a *relative* measurement. The "absolute" or actual reading of the meter or scope is not important, only the relationships of the readings to one another (peaks, nulls, etc.). It is this virtue that allows us to have a "starting point" for our calibration, and keeps us from going continuously in circles.

The *method* of setting azimuth could be debated quite a bit, but I feel that the method Mr. Lubin suggests, using the console meters and faders, leaves *too many variables* in the chain that might be wrong. If one fader or meter is slightly off, the combined signals will not show the true null or peak. I personally prefer methods which leave as many adjustable controls *out* of the system as possible. A relative adjustment cannot be made with other adjustable factors in the chain.

—page 72, FEEDBACK

CURRENT

NAMM Convention Biggest in History

The National Association of Music Merchants' Winter Market, January 20-22, 1984 at the Anaheim Convention Center (Anaheim, CA) is the biggest show in NAMM's history with over 155,000 square feet of exhibits. Pre-registration so far is over 40% above last year, indicating the event will probably exceed last year's record attendance of 16,260 persons.

The 1984 winter show focuses on education, offering a series of informative programs, demonstrations, and seminars dealing with a variety of topics to suit all attendees. Three special high-technology sessions include a presentation by TEAC's Mark Schover on the production of music video tapes, showing how inexpensive multitrack recording gear can be used with lower-cost home video equipment; one by Frank Serafine (whose credits include *Tron*, *Star Trek*, *The Fog* and *The Day After*) on "Creative Use of Electronic Musical Instruments in Motion Picture Sound Production"; and a session covering recent developments of the Musical Instrument Digital Interface (MIDI) standard, with both hands-on and interactive discussion segments.

Specialized sales training sessions are also slated, with presentations on the creative marketing of digital keyboards, guitar loudspeakers, harmonicas, sound reinforcement gear, guitar loudspeakers, pianos and band instruments.

Of course, some of the not-to-be-missed highlights of the show are the ever-popular concerts and entertainment programs which are held during the event. Performers slated at press time include Bones West (a 30-piece trombone choir), jazz trumpeter Bobby Shew, the Roy Burns Express, Allan Holdsworth, and The Blasters.

The equipment exhibition is probably the most important attraction at any NAMM show, where 348 manufacturers this year unveil the latest in instruments and musical technology.

NAMM Launches Friends & Music

Friends & Music U.S.A., a non-profit organization dedicated to encouraging young people's interest in music making, has recently been launched by NAMM. The group is open to anyone aged 14 through 24, and is sponsored in most areas by music retailers with the assistance of volunteers from Exploring, a national non-profit organization that helps young people develop hobby interest and gain career experience.

Friends & Music, U.S.A. activities include performing in concerts, recitals and music festivals; music workshops and clinics; and field trips relating to special musical interests.

For more information on membership or sponsorship, contact

Elizabeth Scott c/o NAMM, 500 N. Michigan Ave., Suite 2010, Chicago, IL 60611.

AES Plans Spring Meets

The Audio Engineering Society is planning an active spring season with their 75th convention scheduled for March 27-30 in Paris and the 2nd AES International Conference set for May 11-14 at the Disneyland Hotel in Anaheim, California. The Paris event will be held at the new Palais des Congres, where 3000 are expected to attend the largest and most varied European AES get together.

The May conference will consist of a four day program of 10 sessions exploring the historical perspective, the practical applications and the future direction of audio recording. Planned topics include: Classical and Popular Recording Techniques, Sound Recording for Motion Pictures, State of the Art in Digital and Analog Recording, Signal Processing, Economic and Educational Aspects, and Psychoacoustic Factors. A technical product exhibit will be available, and products displayed will be concerned only with the conference theme.

For more information, contact AES at 60 E. 42nd St., New York City, 212/661-8528.

NOTES

Paul W. Klipsch, president and founder of *Klipsch and Associates, Inc.*, has been named to the Audio Hall of Fame. . . . *Gary Land* has been appointed Vice President of Operations for the Irvine-based *Convergence Corporation*. . . . *Richard Foster* has joined *Parasound Communications, Inc.* of San Francisco, as Chief Executive Officer. . . . *Al Parker*, head of the Radio Department at *Columbia College Chicago* since 1976 and a faculty member of the broadcasting department for more than 30 years, has been named Acting Chairperson of the Broadcast Communications Depart-

ment. . . . *Image Video* has opened a branch office in Palo Alto, CA, headed by Western Regional Manager *Gary Youngs*. . . . *Klark-Teknik Electronics Inc.* has appointed *Centurion Marketing Associates* of Ballwin, MO, to represent their lines in Missouri, Kansas, Iowa and Nebraska. . . . *Patricia Griecci* is the new Advertising and Marketing Director for *the Group Four companies* in Boston, representing *Professional Video Systems, Professional Recording and Sound, Video Technology Resources* and *The Service Group*. . . . *Audiotechniques, Inc.* has been appointed dealers for the

entire product line of *Trident Consoles* and *Optimix Computerized Console Automation*. . . . *Larry Kingen* has been named President of *Vidtronics, Inc.*, a division of *Compact Video*. . . . *Barbara Ann Adler* has been promoted to Regional Distribution Manager for the Dallas Region Distribution Center of *Agfa-Gevaert, Inc.*. . . . *Richard Trump*, General Manager of *Triad Productions*, has appointed *Marci Meyocks* to the position of sales representative for the company's midwest region. . . .



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We've harnessed computer science to make major advances in the design of JBL transducers and UREI audio electronics. And microprocessor-directed mechanical arms are flat-winding voice coils for even greater material density and efficiency.

Our quality control network remains the most comprehensive, most demanding in the industry. Every single part, component, and system is put through a rigorous, uncompromising battery of tests and inspections. At the end of each production phase, every product is graphed and compared against

its exacting design goals. Finally, products move to Quality Assurance where they are life-cycle tested to insure pro-rugged dependability.

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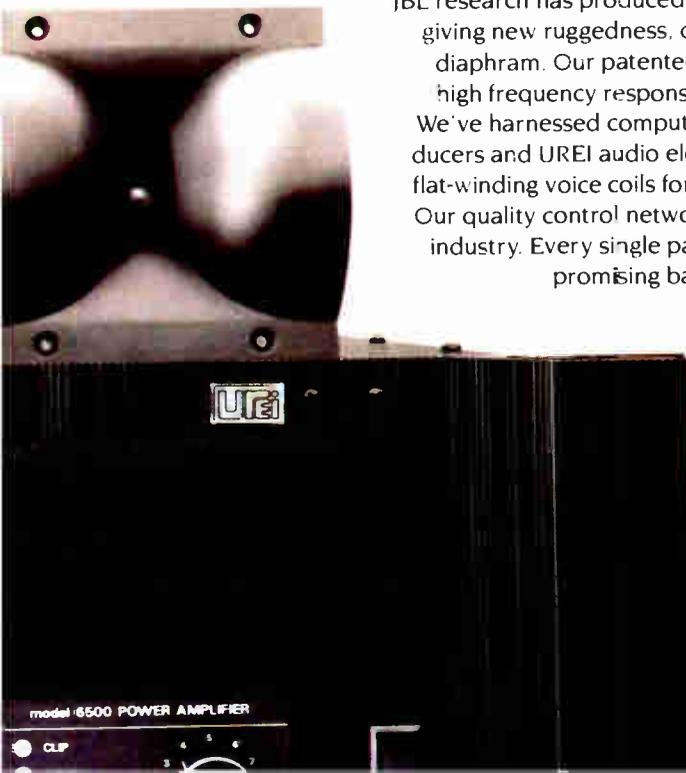
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NORTHEAST

At *Nimbus Nine Recording* in NYC, songwriting ace *Randy Goodrum* (who penned "You Needed Me" and other hits) is producing a single for *Hank Martin*; and former *Rascals* *Dino Danelli* and *Gene Cornish* are working there separately on EP projects with *Barbara Yeager* and *Julie Barker*, and together on an EP by *Jean Beauvoir* formerly of *The Plasmatics*, now with *Miami Steve Van Zandt*. . . . At the *Brewery Studio* in Bayside, NY, house producer *Frank Carillo* and owner/operator *Paul Orolino* have been doing recording and development work for a number of local groups, including *Tangent*, *Crystal Eyes*, *The Dangerous Toys*, *Sire* and *Tribes*. . . . *Jeff Lorber* recorded his new album at *Normandy Sound* in Warren, RI with producer *Maurice Starr*, engineer *Phil Greene*, and assistant *Joe Moody*. . . . *Sigma Sound Studios* in NYC did the remix sessions for *Hall & Oates* new record. *John "Jellybean" Benitez* produced the sessions, with *John Potoker* engineering, *Melanie West* assisting. And the English duo *Blancmange*, whose *Happy Families* made quite a dent in the American audio and video markets, recently finished recording the follow-up to that LP at Sigma with *John Luongo* producing. The album is due this month. Also in at Sigma was *Talking Head Jerry Harrison*, working on his latest solo LP for Sire with

engineers *Jay Mark* and *John Convertino*, assisted by *Elisa Gura*. . . . At the *Songshop* in Manhattan, *Denise Mercedes*, former leader of the now-defunct NY band *The Stimulators*, produced an album with veteran team rocker *Harley Falangan* that's due this month. *Frankie Quinn* engineered. . . . *Jamaldeen Tacuma*, the critically acclaimed jazz player, is working on his next Polygram LP at *Studio 4* in Philadelphia with *Phil Nicolo* at the controls. . . . Cyclops Records artist *Valerie Oliver* is cutting tracks at *39th Street Music* in NYC with *Jimmy Bralower* producing and *Richard Kaye* engineering. . . . At *Green Street Recording*, also in the Big Apple, *Arif Mardin* and *John Robie* produced a 12" for *Chaka Khan* with *Rod Hui* engineering and *Joe Arnold* assisting. *Robie* and *Arthur Baker* are producing *Afrika Bamabaata & the Soul Sonic Force* there, too. . . . Folks working at *Fishtraks* in Portsmouth, NH include *John Perreault*, at work on his third LP, *Country Cookin'*, finishing their third, and *Sally Conway* working on a demo. . . . Recent mastering projects at the *Cutting Edge* in Ferndale, NY: *Bristol Mountain Bluegrass*, *Larry Chance & the Earls*, *Brotherhood*, *The Centurians*, and others. . . . *Randy Brecker* is recording material at *Secret Sound* in NYC with engineer *Scott Noll* and assistant *Warren Bruleigh*. Also in Secret Sound are techno pioneers *Kraftwerk*, with *Francois Kavorkian* producing, *Howard Massey* engineering, *Tom Gartland* assisting. . . . The critically acclaimed *db's* are recording their first

LP for *Bearsville* at that company's upstate NY studio. *Chris Butler* of *The Waitresses* is producing with the band, and *Mike Frondelli* engineering. . . . At *Evergreen Recording* in NYC, *Meatloaf* completed a single for CBS International with *Tom Edmonds* engineering; and *Material* cut tracks for *Yellowman's* next disk, *Rob Stevens* engineering. . . . *Highland Studios* in Delmont, PA has had Pittsburgh sax man *Lee Robinson* working on an album with producers *Mark Valenti* and *Lee Robinson*, and engineer *Gary Popotnik*. . . . Recent activity at *The Nineteen Recording Studio* in So. Glastonbury, CT include the *Greater Works Ministry* cutting their debut album with producer/arranger *R. Preston Harris* and engineer *Ron Scalise*. . . . And at Norwalk, CT's *Scovil Productions Studio*, guitar master *Larry Coryell* finished his new album, *Just Like Being Born*, with producer *Tom MacKnight* and engineer *Gary Scovil*. . . .

SOUTHEAST

Twin Oaks Studios in Rocky Point, NC are excited about the recent release of two albums recorded there: *Joe Derise's Blues Are Out of Town* on the Audiophile label (produced by *George Buck*, engineered by *Charles Foster*); and jazz pianist *Rudy Tyson's* LP *Every Night*, produced by *Jack Olsen*, engineered by *Randy Drew*. . . . Plenty of action at *Woodland Sound Studios* in Nashville: RCA artist *Sylvia* is laying down tracks with producer *Tom Collins*, engineer *Les Ladd* and assistant *Tim Farmer*; the same trio is working on *Barbara Mandrell's* upcoming MCA album; and *James & Michael Younger* are working on their next MCA release with producer *Ron Chancey*, engineer Ladd and assistant *Ken Cribles*. . . . Coming off a successful coast-to-coast tour, the *Bellamy Brothers* are back at work on their new album at *Criteria Recording Studios* in Miami. Co-producing the Warner Bros. LP are *David* and *Howard Bellamy* and *Steve Klein*. Klein and *Dennis Hetzendorfer* are engineering, *Jim Sessody* assisting. Hetzendorfer and Sessody are also working on *George Clinton's* self-produced funk album. . . . At *Eddy Offord Studio* in Atlanta, English progressives *Pallas* recorded a new album for EMI with Offord producing and engineering; and *Blackfoot* is currently working with Eddy on their next Atco LP. Offord also handled the remote recording of *The Police's* concerts at Atlanta's Omni for an upcoming Showtime special. . . . *Roy Clark* and his band were in at Nashville's *Sound Emporium Studios* tracking for Tulsa-based Churchill Records. Clark produced with *Jim Williamson* acting as engineer. Also working there was *Don Williams*, in Studio A with producer *Garth Fundis* and

At Sigma Studios, producer John Luongo and Blancmange—Stephen Luscombe and Neil Arthur.



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At Memphis' Ardent Recordings, the Staple Singers work on a new LP (L-R, top). William Brinin, drummer James Robertson, Henry Bush. (Bottom) Roebuck, Mavis, Purvis and Yvonne Staples.

engineer **Gary Laney** . . . The legendary **Barkays** are working on their eighth album for Mercury at Ardent Recordings in Memphis with producer **Allen Jones** and engineers **Henry Bush** and **William Brown**. Also at Ardent are **Bobby Blue Bland**, cutting vocals for a new ICA album with producers **Al Bell** and **Monk Higgins**, and engineers **Robert Jackson**; and the **Staple Singers**, who are being produced by **Purvis Staples** with **Henry Bush** and **William Brown** acting as engineers and co-producers. . . . At **Sound Shop Recording Studios** in Nashville, **Billy Sherrill** produced more tracks for **Ray Charles** next LP. **Ernie Winfrey** engineered. And **Winfrey** and **George Richey** are recording **Billy Jo Spears**. . . . Atlanta's **Cheshire Sound Studios** has **Larry Blackmon** and **Cameo** finishing their next for Polygram; **Blackmon** is producing, **Tom Race** engineering. . . . Recent activity at **Morrisound Recording Studios** in Tampa, FL includes: **Mike Pinera**, formerly with **Iron Butterfly**, **Blues Image**, **Cactus** and now playing with **Alice Cooper**, has begun an album project, with **Jim Morris** engineering. Also, **Captain & the Kid** from Panama City, FL were in mixing their live album. The live basic tracks were recorded with Morrisound's Mobile Truck. **Tom Morris** and **Rick Miller** were at the controls.

NORTH CENTRAL

The reunited **Buckingham**s made a new demo at **Streeterville Studios** in Chicago. The five tunes were produced by **Tom Taylor**, and recorded and mixed by **Justin Niebank**. . . . **Studio A** in Dearborn, MI has **Ed Harrison** laying down tracks for his first single release with producer

Ardis Maddox and the new State of Michigan ad campaign "Positively Michigan" was recently completed there for The Road Company. . . . The soft rock group **Nucleus** completed work on their new single "Maybe Tomorrow" at **Multi-Trac Recording** in Redford, MI. **Nick Canzano** produced as well as engineered for the band. . . . At **Goldwing Studio** in east Detroit, sessions include: **Fresh**, produced and arranged by **Frank Lovejoy** for Teamwork L.T.D., and **Rodney Gibson** producing the group **Blue Monday**. Both sessions were engineered by **Edward Prowell**. . .

NORTHWEST

Patchwork Studios in San Rafael, CA has changed its name to **Patchbay Studios**, though it will continue to be a joint operation of Patchwork Productions and **Bay Remote Recording**. Drum monster **Tony Williams** has been in Studio A there recently "testing the outer limits of his new Simmons electronic kit," according to studio manager **Ted Bloyd**. . . . The **John Monazi Band**, who hail from the Coos Bay, OR area, have been recording tracks for an LP at **Tioga Studios** in Aleganny, OR. **Jim Flanagan** is the group's principal engineer. . . . At the **Automatt** in S.F., the **Jefferson Starship** are cutting tracks with producer **Ron Nevison** and assistant **Maureen Droney**. And this must be some kind of modern record: **Mickey Rooney**, in S.F. with **Sugar Babies**, cut all the vocals for a nostalgia LP at the Automatt in just six hours. **Mike Corda** produced. . . . At **Dangerous Rhythm** in Oakland, Yo, featuring ex-**B-Team** member **Greg Baker**, and former **X-Mas Eve** leader **Bruce Rayburn**, is working on a ten-song EP.

Other bands at work at the studio include **Fade to Black**, **Bad Attitude** and **Monkey Rhythm**. . .

Starlight Sound in Richmond, CA has percussionists **Pete Escovedo III** and **Scott Roberts** recording an album, engineered by **Stacy Baird**.

SOUTHWEST

Dove & Note Recording Company, Houston, TX has been retained by KLEF-FM to provide recording engineering services for broadcast of the Houston Symphony Orchestra, Houston Pops Orchestra, Houston Chamber Orchestra, Houston Grand Opera, and the Houston Friends of Music concert series. . . . Recent projects at **Crystal Clear Sound** in Dallas include the **Longhorn Ballroom's** 25th anniversary album, and a 45 by local rockers **Slammin' Romance**. Both projects were engineered by **Keith Rust**. . . . At **Lone Star Studios** in Austin, TX **James Cotton** and **Hubert Sumlin** (Howlin' Wolf's life-long guitar player) are laying down tracks engineered by **Joe Gracey** and produced by **Gary Heil**. . . . **Omega Audio** in Dallas has been keeping their 24/48 track remote recording truck busy lately with a variety of projects, including a live album for **Big John Hall** for independent release in the gospel field. Producing was **Don Smith**, with engineering by **Randy Adams**, **Paul Christensen** and **John Carey**. In addition, the Omega rig was hired by R.J. Productions in Houston to handle the remote audio recording for a new 13 week syndicated television series titled **Jimmy Dean's Country Beat**. . . . Recent activity at **Sierra Recording** in Fort Worth, TX includes another album project for **John Hall** with **Dan Smith** producing and **Randy Adams** engineering. . . . At **Luv Sound Recording Studio** in Dallas, **David Stallings** is sweetening tracks cut live at Turkey, Texas by **Bob Wills' Original Texas Playboys** under the direction of **Leon McAuliffe**. Also **Laura Lee**, the only female to sing regularly with Wills) cut tracks for her new album with the Playboys to be released in the spring. . . . Epic recording artist **Aldo Nova** recut vocals and guitar at the newly opened **Dallas Sound Lab** recently. He also remixed audio for a 45-minute RKO concert radio broadcast that aired in December. **Rusty Smith** engineered. . . .

SOUTHERN CALIFORNIA

Jack Mack & the Heart Attack, the red-hot L.A.-based R&B band, has been working in the **Village Recorder** in West L.A. (Studio A) with producer **John Hug**, engineer **Gary Ladinski** and assistant **Jim Faraci** on a film project; and over in Studio D at the same facility, producer **Kenny Vance** and engineer **Robin Laine** have been working on vocal overdubs for the soundtrack of the forthcoming **Walter Hill** feature **Streets of Fire**. . . . At **Golden Goose** recording studio in Costa Mesa, Q-16 is recording their

—page 76, **SESSIONS**

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AUDIO APPLICATIONS

CONNECTIONS

by Ken Pohlman

Back in the old days, guitars were guitars and pianos were pianos and musicians were musicians, and that was that. Then electricity got involved, first as analog and then digital, and things were never the same. Now guitars come in two pieces—the handheld control surface and the output (either amplifier and speaker, or direct-in), pianos are called keyboards and have microprocessors and pretty much play themselves, and musicians have to know more about electronics than Thomas A. Edison.

Today, one of the biggest problems facing musicians, now that performance skill is no longer required thanks to musical instrument technology, is how to connect all of their electronic gizmos together. Once I attended a public demonstration of a \$50,000 synthesizer which sounded awful because there was a bad connection on the output cable. The real problem however, is that that's not a very shocking occurrence—there are only a few kinds of different connections used in professional audio, but seemingly there's always a problem in making a *good* connection. Sometimes it's relatively simple—the type is wrong, or the sex is reversed, etc. But other times the art of interconnection can quickly become a black art. My favorite connection problem occurs when the signal sounds great, but if you happen to touch the connector's metal case with your finger there's a loud buzz. The point is that interconnection involves a lot more than a female-male situation; rather, there's the whole question of matching one electrical system to another. And with things like balanced, unbalanced, differential, high impedance, low impedance, earths and grounds floating or otherwise, that can sometimes lead to real problems. Let's try to shield ourselves against frustration and disaster, with a little understanding.

The question of impedance is

probably a good place to start our discussion, especially because so many things can go wrong here. A device's impedance can have almost any value, but in audio we usually refer to either high or low impedance; impedance being a resistance applied across a signal and reducing its amplitude. For proper transfer of signal, an output impedance must be matched to the input (and vice versa). In general, low impedance is anything less than 600 ohms, and high impedance is greater than 10 kilohms. Also, because of its better ability to drive long lines, with less high frequency attenuation in the audio bandwidth, low impedance (usually around 200

ohms) has become the unofficial professional microphone standard. Given different impedances, it is vital that they be matched; one common device used to match impedances, specifically to convert from high to low impedance, is a direct box, which essentially is nothing more than a transformer.

A device can have an unbalanced or balanced line on its input or output. An unbalanced line is about the simplest way to get an electrical signal from one place to another (see figure 1). An AC signal exists at a potential in relation to a reference; that varying difference constitutes the output signal. When this output is con-

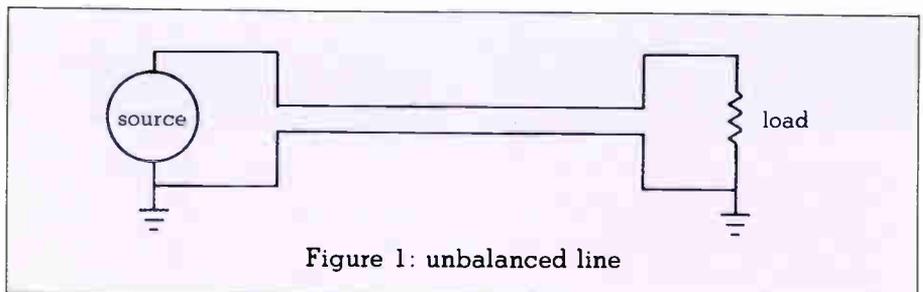


Figure 1: unbalanced line

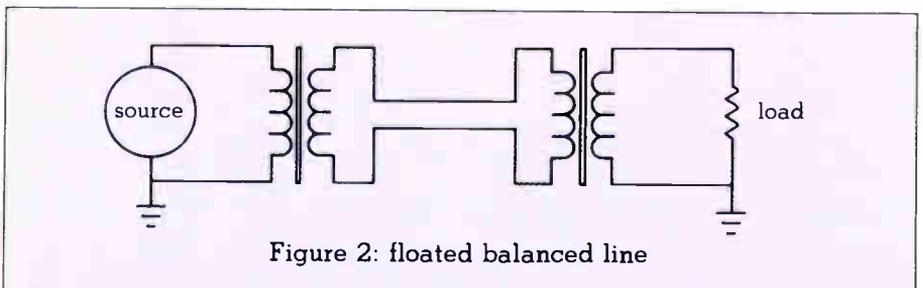


Figure 2: floated balanced line

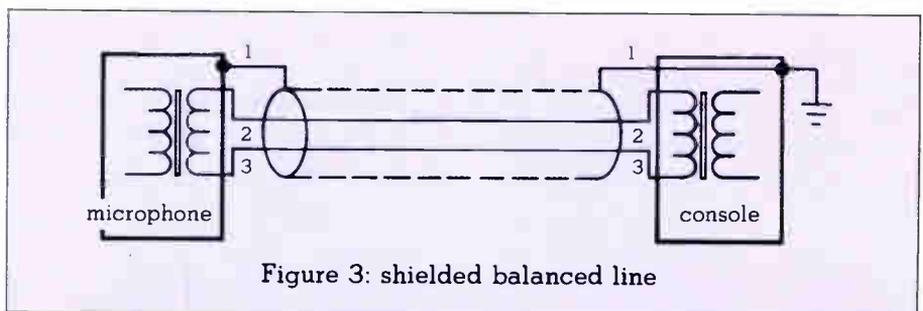


Figure 3: shielded balanced line

ected to some other circuit's input, it measures that potential relative to its own ground. But those two grounds aren't necessarily equal and in fact because of wire resistance, probably never are exactly equal. Whether great or small, that difference is added to the analog signal. A great enough difference will probably manifest itself as an induced hum current. That's what happens when unequal grounds are used; the result is a ground loop. There's another problem with unbalanced lines—any signal induced in the line will appear at the output end to be amplified along with the rest of the signal. In the case of microphones where the signal level isn't much greater than the possible interference, unbalanced lines are rendered practically useless if they run more than a few feet.

Balanced lines are generally superior; in the classic example of a floated balanced line (figure 2) a transformer is placed at both ends to convert from unbalanced to balanced, then back again such that equal, out of phase signals are placed on the two lines. This guards against induced interference because the input will only amplify the incoming out of phase signals—and any interference will be common to both wires, and thus will be in phase, and rejected at the transformer (this is pretty nifty). Figure 3 shows a microphone to console connection with a shield around the two conductors. This further improves noise immunity by carrying induced noise to ground. However caution must be taken to connect only one end of the shield to the same ground, otherwise a ground loop could be created. Also, a capacitive coupling exists between the conductors and the shield and unless the shield is properly grounded, the resulting voltage drop will permit current flow, and since capacitive coupling impedance is inversely related to frequency, high frequency crosstalk appears in the system (this is not nifty). One trick to take care of these problems is to connect all shields to a good ground only at all equipment outputs; for example, connect the shield to pin 1 in all female plugs. Whatever trick you choose, watch out for ground loops—the single greatest hum culprit.

Because of size and cost, transformers have given ground (so to speak) to electronic counterparts, usually manifested as op amps. This transformerless balancing (or more properly called—differential) arrangement (figure 4) leads to better specifications, perhaps at the cost of isolation. An unbalanced line can be connected to either the positive or negative op amp input and becomes referenced to the op amp's ground. However, in a better arrangement, an op amp should be fed

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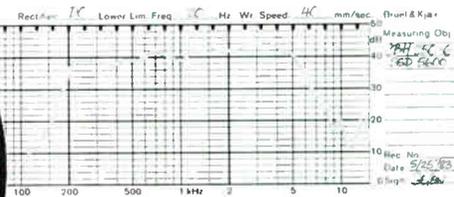
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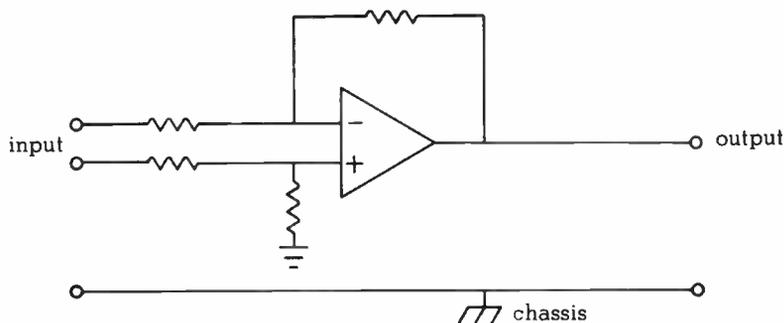


Figure 4: unity gain op amp

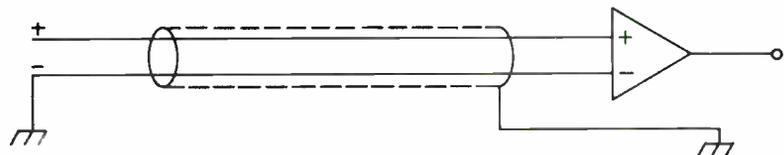


Figure 5: unbalanced to differential input

from a transformer to obtain a floating input with good line noise immunity due to the op amp's common mode rejection. Of course, transformerless outputs could alternatively be used, but they must use the amp's ground as a reference. Microphone manufacturers in particular are testing the waters in terms of transformerless outputs.

A problem that occurs most commonly in the studio when effects boxes are being plugged in, is the interfacing of unbalanced outputs to a balanced system input. Figure 5 shows the correct way to accomplish this; since the line is not connected to the input system's ground, the input op amp will reject any potential difference between the two systems because it can only appear on the low side of the incoming as a common mode signal. The trick is to float the unbalanced output and make sure the input system is securely grounded.

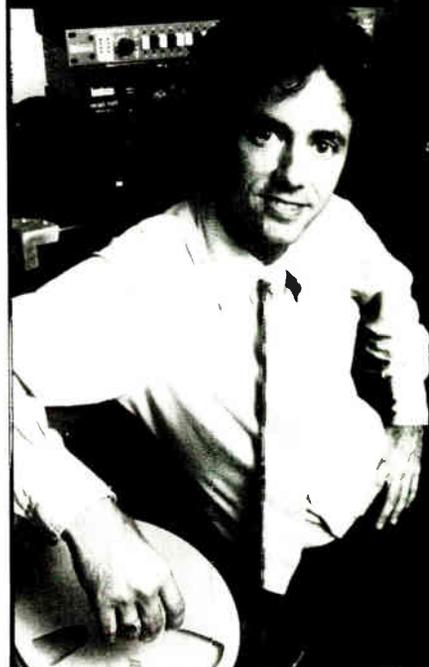
Speaking of studio interfacing problems, keyboards and guitars sometimes present stubborn opposition. First, any hum could very well indicate a ground loop; check your audio cables for redundant grounds, then look to the AC lines and float if necessary or use a transformer to isolate the two grounds. Some keyboard problems begin to involve design flaws and a remedy often isn't easy, however you might look at the preamp and use aluminum tape to shield that external noise-vulnerable circuit; be sure to ground it to the output jack. Similarly, check grounding of all metal parts such as face plates, switches, etc. Guitars involve the same conscientiousness, with the added consideration of the pick-ups, which are unfortunately devices made to respond to

external magnetic field fluctuations. Fortunately newer coils have hum-bucking coils to reduce sensitivity to interference. Incidentally, it never hurts to check for ripple in the power supply in guitar amplifiers—instant hum.

A direct box is used to convert an unbalanced, high impedance output to balanced, low impedance; an appropriately connected transformer with a high impedance primary (10 kilohms) and a low impedance secondary (600 ohms) accomplished this easily. Alternatively, electronics can be used at the output to achieve the same result, however that good transformer isolation is lost. A direct box usually has a pick-up/amplifier switch which simply chooses the appropriate gain structure. A ground lift switch will isolate input and output to help find lowest hum. A high cut filter is nice; a direct-in guitar to the console will have a lot more high end than that 15-inch guitar speaker led you to believe.

In conclusion, the interconnection of analog devices isn't easy; when you consider the problem of sending minute variations in voltage, perhaps a few microvolts, down a copper wire a hundred feet long, past AC mains, alongside air conditioners, Coke machines, fluorescent lights, and SCR dimmers, through radio waves, sunspots, and cosmic rays, it's a miracle that anything remotely resembling the input appears at the output. But that miracle is commonplace. Just know exactly what is being connected, keep your feet on the ground, and don't let a problem get you unbalanced. Finally, if you really get stuck and just don't know the words, you can always hum along. ■

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Circle #008 on Reader Service Card

By George Petersen

A frequent complaint voiced by recording artists today concerns the amount of support they receive from their record label. On the financial side of things, expenses from touring, record promotions and video production can quickly eat into a group's slice of the pie unless the label helps out with cash or services. Other problems stem from the impersonal way in which some record companies deal with their clients: artists are treated as "properties" to be traded and sold like baseball cards, and music is always referred to merely as "product". Of course newly-signed artists suffer the most, as they lack the clout of established acts in terms of getting the help they need. While all of these conditions exist to some extent in most record companies, it is refreshing to note the emergence of labels such as Rocshire Records, which have made a total commitment to artist support.



Rocshire's Lester Claypool

Rocshire Records: Doing Things Differently

Rocshire began as an 8-track studio three years ago and has since grown into a progressive record label with a staff of 65 employees, seventeen buildings and complete facilities for 24-track audio recording (with mobile and land based studios), a video sound-stage/rehearsal hall, a three camera video truck, 16mm film production capability, and a lighting, staging and sound reinforcement division. Currently, Rocshire's releases are distributed through MCA Records in the U.S. and Canada, and the label is now negotiating for international rights.

Lester Claypool, Rocshire Vice-President and studio manager, explained the company's philosophy: "Rocshire's logo is 'Home of the Artist'. We're very concerned about the artist and try to give them more of a graceful deal in the point structure side of things. Unlike most labels, we help with tour support. We do some in-house management, but the main things we do is create the image for the band through the record aspects and creative chops, and the visual aspect through video. We support them by having all the right tools for them to work with so, for example, they don't have the headaches

of having to buy all their own equipment for a tour. If they don't have management, we pull them under our wing and get them going until they can get good representation and management. In a lot of ways we're large, and in a lot of ways we're small. The idea is to be a 'family' company."

Another of Rocshire's aims includes a commitment to discovering unknown acts. "We like to create and develop new artists. That's why we haven't signed big name acts," Claypool continued, "It's not that we haven't been approached by them—but they're not what our philosophy is. The only name acts we have are Chad & Jeremy, who have gotten back together after thirteen years, and Lenny Williams, who was the lead vocalist for the original Tower of Power. His first single has been out a week now and has done 100,000 in sales. It's one of our biggest sellers yet. The album by Aicatraz, our heavy metal act, has also been doing very well, selling 50,000 it's first week of release.

"We don't go for payola radio. We don't pay anyone off. I refuse to do any of that at all. We'll gladly do time

buys, contests—anything of that nature, but I'm not going to make any program director rich. The problem is, your record gets added, and you might hear it on the radio, but it's all paper ads. Later you find out you have a record that's charting Top-20, but has only sold 40,000 records. And since it takes you 200,000 records to break even, you're in a hell of a mess."

Even the physical layout of the Rocshire complex, with its buildings widely spread out over a large industrial area, has definite advantages for the artists, Claypool explained. "A lot of record companies have everything in one building and having a studio across from the offices can create big problems. The studio is about one-quarter mile from the company offices here, so we don't have twelve guys running into the studio and trying to act cool because so and so is recording. We try to hinder that sort of thing, so the artist is comfortable using an in-house studio. Most artists on major labels don't use the company's studios, and a lot of it is because they're always being interrupted. You can't work under those conditions."

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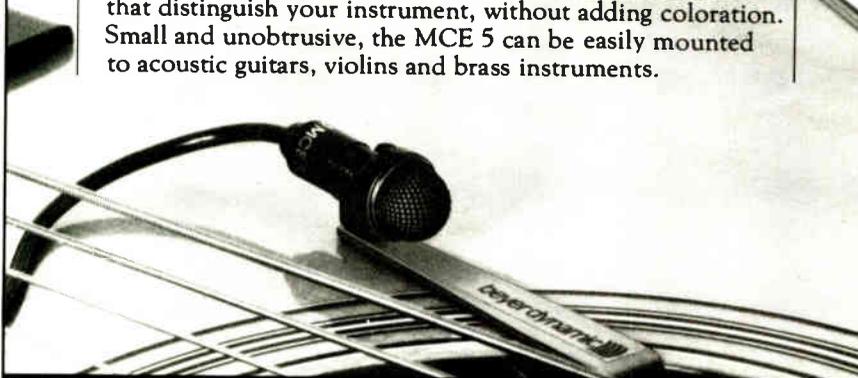
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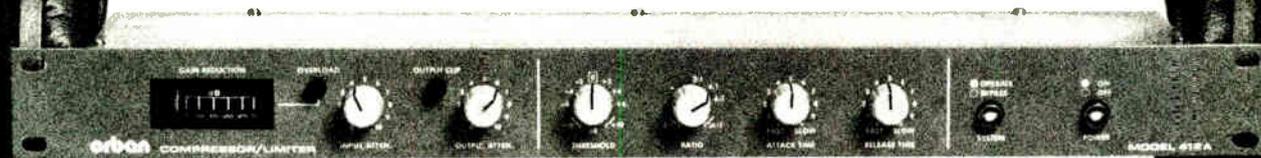
the artist is manifested by the large selection of instruments and equipment on-hand in their studio, which is also available to outside clients as well. "Another way we cater to the artist," says Claypool, "is our 25 varieties of keyboards; guitars; custom guitars; and outboard equipment, all of which are included in the rate. I don't like selling a stripped out studio, hoping to make it all back in rentals. It disrupts the creative flow if you're in the middle of something and you have to wait for the damn thing to come over from the rental firm. Plus, if what you rent isn't exactly what you want, you're stuck with a rental charge. It isn't necessary in this day and age.

"We try to be different and I'm very active in staying up with today's technology in musical instruments. We work with a lot of companies, getting the first units out or testing prototypes. I have three full-time maintenance people: two are always on the bench making specialized black box gear for me, like synthesizer trigger systems, modifications to Rockmans, or whatever. We have a device which attaches to acoustic drums and uses contact mike sensors to trigger up to four drum machines. Nobody I knew had this kind of system, so we had to build it ourselves."

Rocshire Records has also made major investments in film and video. Conceptual pieces are usually shot in 16mm, using an Aaton Super-16 system, and are later bumped to one-inch video via a Rank Cintel. The label's three camera mobile video truck is used mainly for live switched shoots of their artists, although Rocshire has been producing *America in Concert*, a one hour syndicated show featuring unknown, unsigned acts. "We're trying to create a show for people who want to see some of the little acts, rather than just major acts," Claypool explained, "so we'll go into a major city and find five or six acts and shoot an hour show, which also includes jazz and country segments."

Claypool concluded by talking about the company's eventual goal. "Our main goal is to be a major record company, but with a difference. There's a myth that all record companies are trying to take your pants down and rip your drawers. On our side of the table, it's usually the other way around. Rocky Davis, the president of the company, usually takes the side of the artists during album negotiations and attacks me and Gary [Davis, Rocshire VP] and the attorneys of the company. It's a strange situation, but he just doesn't want to see artists get ripped off, and in his own way, he's trying to change all that. We're trying to make a statement that you don't have to get ripped off." ■

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DIGITAL DISCUSSIONS

Phase 2

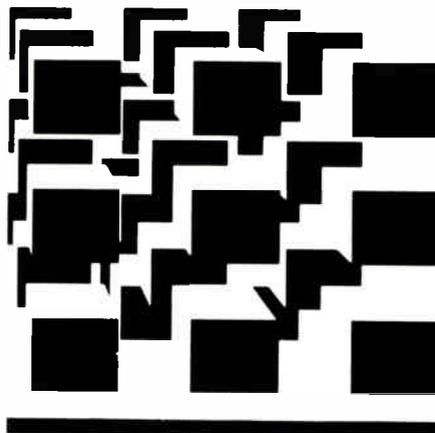
by Leo Kulka

In what now seems to have been all too many years ago, when 4-track recording superseded 3-track, the engineering and producing community welcomed the advancing technology, which made it possible to make a recording and end up with a choice of final mixes. It made it possible for us, who were in the business of recording and producing records, to proceed with a session, even if the lead vocalist was "indisposed" at the time. And while the technology improved tape machines to hold ever more tracks, multitrack recording became more and more of a crutch for inept musicians, indecisive producers, experimental arrangements, and unsure recording engineers who once were rightfully and justifiably called "sound mixers" because they could actually mix a session directly to its final form: stereo, or that legendary format, where all of the sound came out of only *one* speaker.

In due fairness, I must acknowledge those few of our industry who have taken advantage of the multi-channel technique for constructive creativity and have done some absolutely extraordinary work of great musical complexity and clarity aiming for special and effective use of the medium. I must make this point, lest some of my readers might get the mistaken impression that I am opposed to innovation. Nothing could be further from the truth. I have experimented, examined, used and pioneered many a technique, and maintain a most open and analytical mind to any new development. Why? Because basically I will never be satisfied with the status quo. Somewhere there must be a better way of doing things and if there is, let me at it! Tell me about it! Let me try it!

Now, for the first time in 35 years, since the introduction and commercial development of analog magnetic tape recording (a sound storage

THE MYSTIQUE OF DIGITAL RECORDING



medium), we have an entirely new storage medium for both recording and playback!

Now for the first time in 104 years, since the invention of the record groove on a cylinder (Edison) or disk (Berliner) for the mass distribution of recorded material to the general public (with acknowledgement of the tape cassette, which falls into the first category mentioned in the previous paragraph) we have an entirely new storage medium for playback! This is truly a most exciting time in our lives, and the changes taking place now are heralding a new era of sound enjoyment and sound experience. The digital sound

era is upon us... and a pleasure it is... or is it?

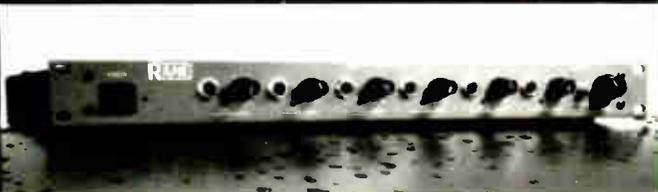
When multi-track recording became possible, there were those who fervently believed that the mere use of a multi-track recording session would guarantee not only better sound, but also sure-fire hits. I am certain that many of my professional colleagues had the same experiences I had as a studio owner, arguing with some intense "artist" who insisted that recording a solo piano, or guitar and voice on 16 channels would sound infinitely better than it would directly recorded on 2 or 4 tracks! Sometimes we were able to convince the artist, many other times he went to some other multi-channel studio which was delighted to charge for all of the time and tape wasted on the 16- or 24-track recording, the man hours dubbing down to 2-track, where the inexperienced or improper use of another "invention," the pan-pot combined with the improper use of multiple microphones, produced a near monaural final mix. So, mirroring Grandma's old logic that "if one is good, more is better," much too much has been recorded on multi-channel, leading to the continuation of the multi-channel-myth.

When stereophonic recording finally caught on, many record companies went through their catalog of masters and re-issued them after some fancy equalization and possible phasing as "New and Improved Stereo." Truth in advertising and labeling finally insisted that these phony stereo records be marked that the original masters were not in fact recorded and/or mixed in stereo. The result was phrases such as "Electronically enhanced for stereo" or "Electronically synthesized stereophonic record." There is no question that technically obfuscating buzzwords sell everything—and records are no exception.

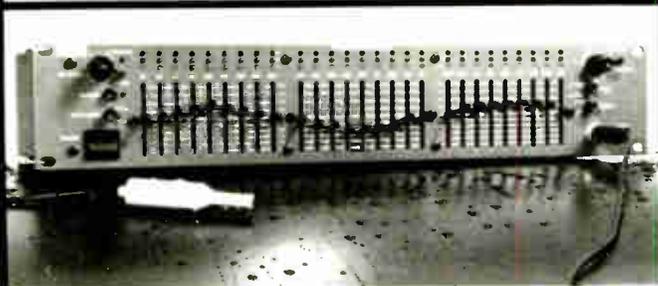
And now we have new buzzwords: "Digital" and "Compact Disc" and those may now be entered into the

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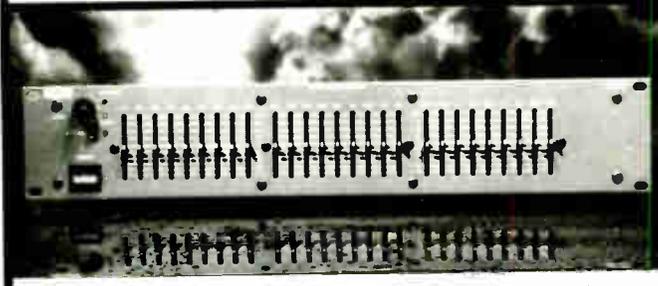
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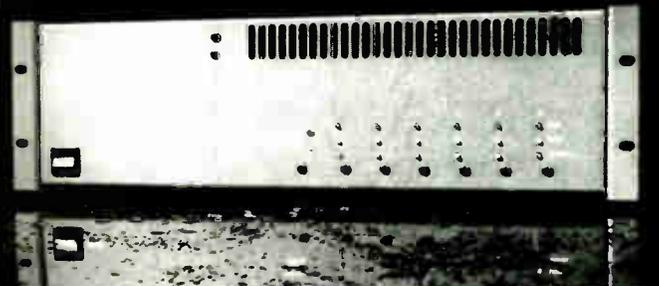
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same "myth" category as the ones mentioned above.

I think that digital is not only good, I think that it is *outstanding* and I am personally tickled pink by it! If there is anything that is wrong with it, it would be that it is *too good*. But digital is the new buzzword that sells records, and as a consequence I see catalogs of new compact digital disks with some recordings that were made shortly after the 78 rpm record hit the dust! I just came across a standard LP which proclaimed most prominently: "A digitally processed analog recording" of some Big Band that did not record after 1950! Come on, give us a break! All that was done was that this company took some old tapes, copied them to a

digital format, and then cut a disk, most likely from the analog tape! I very strongly urge that we insist that analog or compact digital discs be allowed to use the word "Digital" only if the entire storage process of recording from mike to master disk was digital!

There is no question that an analog disk is difficult to make well—without warpage, clicks and scratches as well as sound aberrations through improper mastering, compounded by bad vinyl. It is annoying to have the tranquility of a soft, tender musical passage destroyed by a semi-explosion caused by a minute speck of dust which static attracted like a magnet to the disk. Who does not have a favorite out-of-print record which got

warped, scratched or damaged by neglect or accident? Who does not have a cherished record which is marred by record scratch and pops and clicks, which some careless record company sold to the public? We all do, and I certainly wouldn't mind having these recordings of historically sentimental value on the CD, where I can play it in less than perfect, but consistent fidelity. That's fine, but please don't pass these old analog recordings off to the public as the latest technical breakthrough in digital recording!

There are great problems in transferring the digital tape to the Master LP disk. When one goes from ordinary tape to disk, the tape is sampled about one second prior to the playback head which feeds the cutter. This preview system feeds the computer in the lathe and nests the grooves as close together as possible without overcutting in order to preserve the land area, thus allowing maximum utilization of level and time on one side of the disk. It does a few other very important things which are not pertinent in this particular discussion. In mastering from the digital format it is not possible to "preview" the tape, since there is only one head. Consequently the mastering engineer now has a choice to either make all of the adjustments normally made by the computer, by hand, or use a delay circuit (usually a digital delay device) to delay the program signal—and send the pure, unaltered sound to the computer.

Since I started disk cutting well before computer assists and learned to speed memorize performances, levels, learned to anticipate the music before it happens, I just naturally adopted the first option—also because I happen to believe that sound should go through as much straight wire as possible, and as little as possible through electronic devices; i.e. any device not needed should be bypassed. Thus the purity of the recording is preserved.

Within 45 days from the day I am writing this, I should have tests of a couple of my digitally recorded masters in the CD format to compare directly with my carefully mastered and pressed LPs. I'll reserve my final judgement of this process under present manufacturing technology until then. In the meanwhile I shall do what I have done before—do the best I can and keep a positive attitude towards life, myself and others.

How do YOU like the CDs you bought? There are some really good ones and then there are some not so good, and some are outright lousy... just like the run of the mill LPs. Oh, but when the digital recording is good, it is great! And what does that prove? A good recording is a good recording, is a good recording. ■

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NEW DIRECTIONS

by Blair Jackson
and George Petersen

This business changes rapidly on many fronts. Last year's music trend is this year's "oldie." Outboard gear that was used on seemingly everything a couple of years ago may be passe today. And no one has to keep track of the shifts in music and technology as much as producers and engineers, whose very success often depends on their sensitivity to the currents in the music industry.

Recently we chose a few names from our listings of independent producers and engineers (which begins on page 34) and asked them each a couple of questions about how they're coping with current trends.

John Ryan

John Ryan, best known for his work with Styx, has also produced the Allman Brothers, Santana, and Patrick Simmons, among many others. Some of his current projects include albums for Billy Rankin, Broken Edge, and Chan-

nel (a "new" band comprised of top-flight rock sidemen).

Mix: What has the industry learned from the record slump?

"I didn't actually experience much of a slump. I know there weren't as many records selling 10 million copies, but during a time of economic down-swing, people just don't have as much money to spend. I don't think the record business was as affected as real estate and other areas, where people's careers were literally destroyed because they couldn't sell houses or cars.

"The power of music and great new bands is really very much the story of the future of the business. One of the reasons we went into a slump, if we did at all, was that we failed to recognize that fact. Just because you have a few bands on your label that are selling five million records doesn't excuse you from hustling to find the young, imaginative and artistic bands who may not sell a lot of records on their first album, but over

a period of time will become the big acts of the future.

"It's like professional sports—a guy's got to play college football, and then work his way into the big leagues, or play Triple-A ball before pitching for the Yankees. We continually have got to find new bands. If we don't, there won't be any future for the record business.

"But I think people learned that lesson over the past few years, and it's a good one to learn, because it makes the business more exciting."

Spencer Proffer

Proffer produced the best selling debut album of 1983, Quiet Riot's *Metal Health*, and will be doing their follow-up, due in May and titled *Condition Critical*, as well. He has also pro-

PHOTO STU SIMONE



Spencer Proffer

duced Billy Thorpe, Tina Turner, and Paul Anka. He's currently working with Vanilla Fudge and on the soundtrack of a film, *Up the Creek*, with music (all produced by him) by Cheap Trick, Heart, the Beach Boys, Ian Hunter and others.

Mix: What are your observations about where music and recording are headed right now?

"I think we're seeing a return to basics in song structures, as exemplified



John Ryan

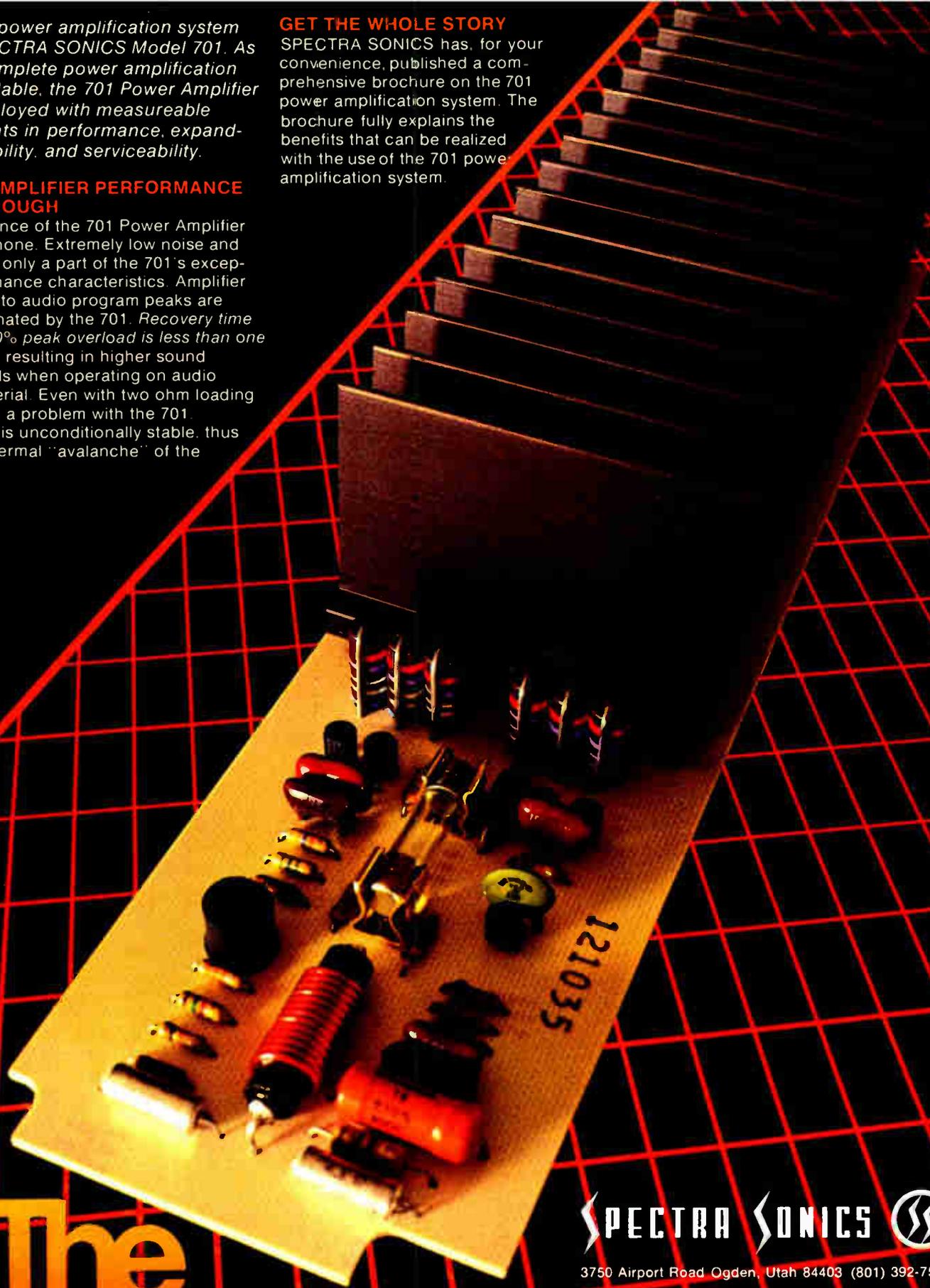
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by Quiet Riot, a heavy rock act that is actually singing songs with hooks and melodies. I think it's real healthy for the business that people are getting back to melody and lyrics in the rock and roll arena, as opposed to random riffs. I think the standard of production and musicality is much higher than it was a few years ago, and records are much more textural, as exemplified by The Fixx, the new Bowie record, and hopefully some records I have coming out, like this new Vanilla Fudge record that turned out fabulously. It's like a mini-movie—every song is like a textured short story, and we hope to video a lot of the songs and have them tie in to each other in the context of a video for home consumer use."

Mix: Did you have much input in Quiet Riot's video?

"Yeah, I'm really interested in video. I was very involved with the story boarding and the editing. I think it's mandatory for a producer to be able to see the vision of the song come to life as he's recording it. From my point of view—and I can only speak for myself—thinking about the video has become an integral part of the whole recording process, because I try to make very visual records. I think it stems back to the days when I was working with Billy Thorpe on his various conceptual things. I got a visual consciousness from that."

Henry Lewy

Lewy is best known for his engineering and co-production work on Joni Mitchell's albums. Other artists he's worked with include Van Morrison, Leonard Cohen, Joan Armatrading, Joan Baez and Minnie Riperton.

Mix: What do you see as the dominant trends in recording the past couple of years?

"Primarily the use of all the sophisticated effects that keep coming out. It used to be that effects were used primarily just to enhance material, where now records are coming out—like Yes' 'Owner of a Lonely Heart'—where the effects seem to be as important as the material and the performance. When you hear it, your head starts swimming because of the tonal and technical effects used in making the record."

Mix: Is that good or bad?

"I like it. There are more tools a producer can use today; the trick is

knowing when and how to use them. I think it will always still come down to how good a song is that determines a record's worth. If people try to use effects at the expense of music, you'll be able to tell. You can't dress up something that is nothing."

Mix: Are you finding that most acts want to use digital equipment?

"Some do; most because they think it's the fashionable thing to do, not because of any worthwhile technical reason. A lot of people seem to think it's a cure-all, but it's not. In television, it's wonderful. Joni [Mitchell] is doing editing on a television special right now [she cut 25 songs in a four-camera shoot of her current band] and the digital equipment has been fantastic for that, because video digital has been perfected pretty much. But audio digital is still subject to breakdowns and it's still very expensive."

Mix: How do you determine which projects you'll record digitally?

"By the budget I get, for the most part. I feel that the sound I can get at 30 i.p.s. is quite adequate, especially now when you mix down to half-inch, rather than quarter-inch tape. I did that recently on a Japanese project and everyone was amazed at the results."

Jeffrey Weber

Though not as well known as many other producers, Weber has worked with an impressive array of artists, frequently recording live, direct to 2-track. His recent work includes disks for such fusion notables as Freddie Hubbard (*Ride Like the Wind*), Tom Scott (*Target, Desire*), Maynard Ferguson (*Storm*), Echoes of Era (which featured Stanley Clarke, Chick Corea, Nancy Wilson, Lenny White and other notables) and Maria Muldaur. Most recently he's been recording sessions by the Ventura County, CA-based rock band Puppets of Mankind.

Mix: As a producer, what do you feel is the major issue in changing studio technology?

"My impression as far as technology is concerned, is that the battle is still raging over the acceptance or rejection of digital. The trends that I'm seeing from the digital companies, is that they're much more willing to accept deals that facilitate the use of their machinery—either at reduced rates or for demonstration purposes. I've even found it easy to get ahold of certain

pieces of digital equipment for demo projects. It's become very difficult for a studio to 1) keep up with all the new advances, and 2) to afford them, so I see rental companies blossoming in the next couple of years. Certain studios will have time-honored outboard gear to do general jobs, like a Harmonizer, flanger, a Kepex, things like that. But then there are things like the AMS, which is a great machine, but very expensive. So on my projects I rent some of what I need."

Mix: Have you found that the cost of making a quality demo has gotten prohibitive?

"Personally, I'm trying to get away from making demos. Record companies now want to hear more and more on a demo tape. They need to be satisfied with a project in its entirety and they're not going on a project if they only hear one hit on it. I submitted a demo project not long ago and the label said, 'Gee, we think these two songs are hits but the other two we don't know about so we're not going to sign this.' The labels are so cautious, now."

Mix: What criteria do you use to determine whether or not you'll work a project?

"Well, since I'm primarily an audiophile producer, people have to have a certain attitude and confidence. They have to not be afraid of their own ability as an artist. And that's a real problem because people are scared. People don't believe that if you have three guitar parts you need only three guitar players. Why spend a lot of time overdubbing in the studio when you can create a live event and come away with a finished product that you can support onstage?"

Mix: It must be exciting making records that way.

"It's the best. There's something that happens that you just can't explain. Most people who do it really enjoy it and they get excited, but you have to really know what you're doing. Someone like Tom Scott, who's just great, even was a little nervous about it at first, because he worried, 'What if I don't play my solos right the first time?' But he got so excited he played fantastically."

"You also spend a lot less time and money making a record that way. We can do a whole album live to two-track for less than \$10,000, which is unheard of. We cut *Ride Like the Wind*, the Freddie Hubbard record, in

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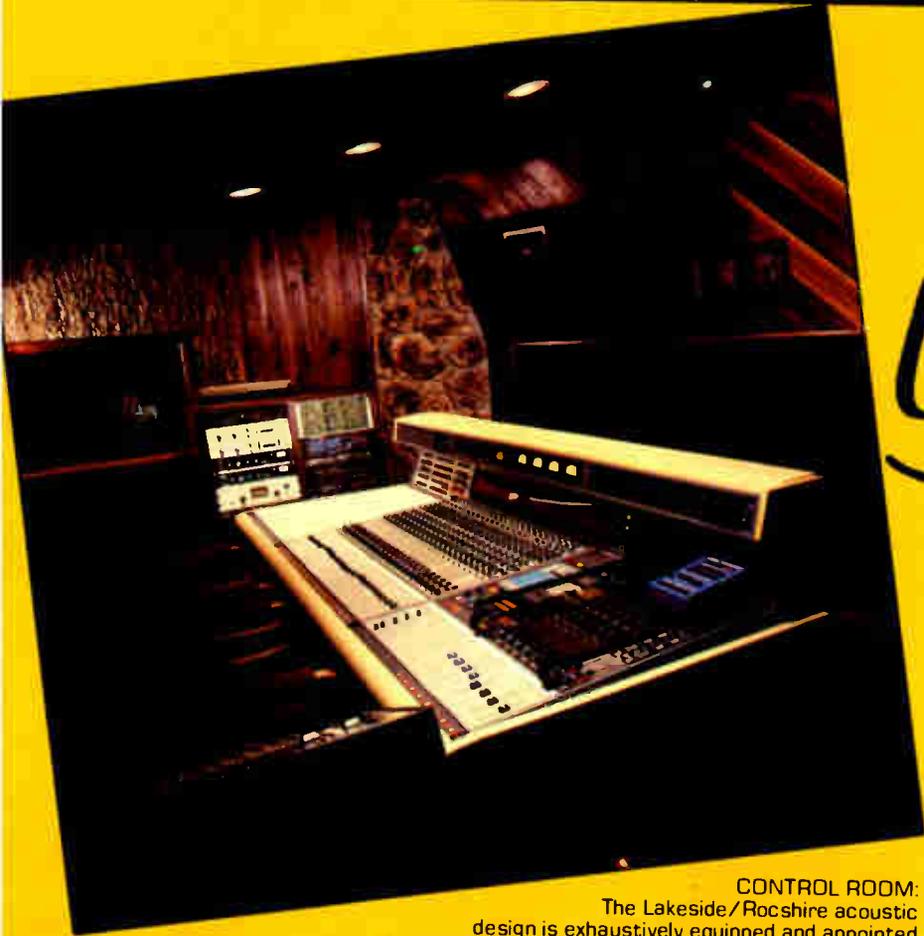
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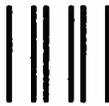
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11 hours and I think it turned out great."

Mix: Do you find that with all the emphasis on video today that *you* have to think about it, as well as the artist?

"I do think about it, because now when I'm working on a tune I have to make sure that if this may be a single, that the tune is visual and that it can be a non-performance video. I just try to make the artist aware that if he writes a song to be somewhat conscious of it. What I look for is extreme emotions, emotions that aren't center-of-the-line 'Well, I'll think about it' type things. Most of the artists I know are open to that, because from an ego standpoint, they want their songs to come to life in a video. I don't pressure them to write visually, but I do make them aware that to pop a single from an album at this point, you do need to make a video."

Norbert Putnam

One of the most renowned figures in Southeast recording, Norbert Putnam has produced numerous successful albums for artists like Dan Fogelberg, Jimmy Buffett, Joan Baez, Kris Kristofferson and many others. His most recent project is a religious album by Michael Card, Putnam's first in that area.

Mix: Do you find that more and more of your clients are interested in the new digital technology?

"It seems like just about everyone is mixing down to digital now. It's becoming more and more affordable, and at the same time, people are willing to pay a little extra to get the quality—it's incredible; there's no deterioration in the sound. For a long time there was a question mark of whether it really was any better, but now I think it's been proven that any of the digital systems will beat any of the analog systems—the longevity, the ability to make multiple masters and safetys. We've done a lot of multi-track digital here in the last six months that will eventually be out on CD, and I'm excited about that."

Mix: What's your impression of the CD?

"I definitely prefer it over the analog disk. It's cleaner, it has no noise problems, better frequency response and the disk is good for as long as you take care of it. I've already got about 50 titles in my collection and I'm really impressed with almost all of them. Once pop product starts being mastered to

CD, and I'm talking about the producer overseeing the mastering process, then there'll be no question about which form is better."

Mix: Some people have noted that albums recorded on digital machines sound much better on CD than analog recordings.

"Digital recordings only sound slightly better on the CD, I think. The transient response of the digital multitrack stuff is the first thing you notice. The analog tape will get a little soft as it's stored, and the digital will retain its transient qualities. People sometimes say the digital has less noise, but I've never thought that was a significant problem—that's on the disk, not the tape."

"I expect that by the end of next year, all of the top studios will have digital multitrack machines. We've had a couple of 3M 32-track units here at Bennett House Studios and we encourage clients to try it, and *every* client that has tried digital has refused to go back to analog. Not one has said, 'No, I prefer analog.'"

Mix: How do you see the record producer interacting with the video boom?

"I think producers should be encouraging writers to write for video, because it's here, it's a reality."

Mix: But does it affect how you actually produce a track?

"No, the time to think about it is before you choose the material or before you're having it written. Then you can look for things that have strong scenarios that will lend themselves to visualization. But once you start recording a song I don't think video considerations should enter into it particularly."

"I think we're going to see a trend in the next few years of video artists. I think a video artist will be the next Elvis Presley. Someone will come up with a way of communicating audibly and visually that's so astounding, so different, so unusual that none of us ever dreamed it would go that way."

Mix: Is there much video activity in Nashville?

"It's picking up fast. I think that people have been waiting for more outlets for their videos—like MTV and all those shows that play rock videos. But there are three or four companies in Nashville that are gearing up for it in a big way. And Michael Nesmith just opened an office right here in Franklin [Tennessee]. You can feel the excitement."

Jim Boyer

Jim Boyer is both a successful engineer and producer, having produced for Rupert Holmes, Peter, Paul, & Mary, and Peter Cetera. His engineering credits include all of Billy Joel's albums since *The Stranger*, Burt Bacharach, Phoebe Snow, and movie soundtracks for *Arthur*, *A Star Is Born*, *Silkwood* and *Yentl*.

Mix: What are some of your feelings about digital recording?

"I like digital, but we're at a changeover point in the middle of it now, like when we went from 8- to 16-track, 16- to 24-track, and everybody had to have both. I just finished mixing *Yentl*, the Barbra Streisand project, and we were working with four different formats of tape—Mitsubishi 32-track, Sony 24-track and regular analog—it was incredible. We're at a stage now where projects have both and we're stuck in that middle transition which makes it hard. It's good from the standpoint of clarity and quality, but we're stuck with the two formats because not everybody can afford digital at this time. It's like buying a new car when you still have the old one."

Mix: What overall changes in the business has the record slump brought?

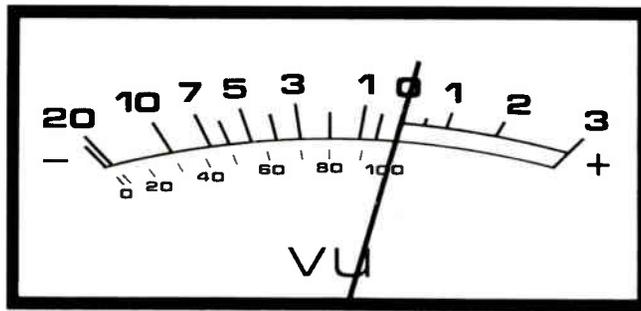
"I think record companies are going to be more discriminating, which is good in one way and bad in another. They'll be less likely to hire on trends. Record companies need a foundation of artists who are prolific songwriters and good performers, as opposed to trendy people and one-record artists who can't sustain and will become a write-off eventually. That's part of why they were suffering. They're aware of that now, whereas they weren't before."

Mix: What are some of your criteria for working with an artist?

"I like to work with people who are the complement of what I can contribute to the record as a producer with a background as an engineer and musician. I like working with artists who are competent writers and musicians. People like Billy Joel and Rupert Holmes have a very good idea of how they want songs done and for me that works out best as a producer."

"Picking songs is a whole other ballgame. It's very hard to do, and probably one of the most difficult things to do is to pick material for someone, because everybody has different ideas about what they like."

INDEPENDENT



ENGINEERS & PRODUCERS

RICHARD ADLER

Engineer

RICHARD ADLER ENGINEERING SERVICES

P.O. Box 21272, Nashville, TN 37221
(615) 646-4900

Credits: Dolly Parton, Neil Young, John Hartford, Ricky Skaggs, New Grass Revival, Bill Anderson, Tracy Nelson, Ray Griffin, Natalie Cole, The Whites, Louise Mandrell.

Services Offered: Freelance recording, on-air & mixer, consultant in studio design and system design. Haves ears, will travel.

PETER N. ARCHER

Engineer & Producer

ARCHER PRODUCTIONS

P.O. Box 1118, Pompano Beach, FL 33061
(305) 946-2777

Credits: Archer Productions is South Florida's most innovative production company. Great artists: Zodiac in virtual journey through the constellations and beyond; Zodiac with Helel; Archer weekly television programs. Extensive digital video music group. CAH Computer Aided Recording real time audio visual production. In-house feature interactive processing of sound and image.

Services Offered: Computer art design, animation and graphics, digital video music recording and production, computer software design featuring interactive audio/visual programming, various productions, synthesized electronic music, multimedia environments. Total recording services available location and studio sessions, all recording formats. We're Not in electronic art design, and we know how to increase your productivity in a virtual technological environment. As design and production consultants we offer the finest state of the art services to you. To arrange a meeting to discuss the details of your particular project needs, please contact us today. For information visit SASE.

FRANK ARN

Engineer

BANTAM SOUND SERVICES

14928 1/2 Moor Park, Sherman Oaks, CA 91403
(213) 907-5181

Credits: Stage management since 1944 in various arenas such as Bare Earth, Banquet, Parliament Funkadelic, Tommy Bolin, Ron Carrigane and George Benson. Gold record: In Flight with George Benson. Platinum record: Night Moves with Bob Seger. In recording studios AA, AF, FF.

CLIFF AYERS

Producer

CLIFF AYERS PRODUCTIONS

62 Music Sq. W., P.O. Box 17126, Nashville, TN 37203
(615) 327-4538, 361-7902

Credits: Several productions for his own label, Emerald Records in New York in 1951. Through the years he has had 11 productions released on Decca, Columbia, MGM, Discoway, MCA and many other labels. Presently owns American Sound Records and produces some 20 artists.

Services Offered: Recording and production services for American Sound Records and Emerald Records is owned by Ayers. Music Town Distributor. At present he is contracted to independent labels and The Music City Entertainment News-quarterlies. 13th year of publication. It promotes artists and has its own record charts titled Hitops. Cliff Ayers Productions also serves masters for its Emerald Records label.

Following is a list of independent producers and engineers who responded to our recent survey. The information was supplied by those listed, and thus Mix is not responsible for its accuracy. We urged other independent producers and engineers to get in touch with us in order to be included on our next update.

RUE BARCLAY

Engineer & Producer

BARCLAY ENTERPRISES

7436 Genesta Ave., Van Nuys, CA 91406
(213) 342-2636

Credits: BA major Marketing Research. Licenses films, records, commercials, advertising, promotion, radio, TV and all news media. Master Entertainment LAW covers limited partnerships, Corporate structures, Union contracts, copyrights, Engineer, and maintenance, sound reinforcement, 2 years Chief engineer, Southwest, 1 year Stereo masters, 4 years Hit Boy, 2 years Grammytone.

Services Offered: We are a full-line entertainment complex. Offering you a complete service from start to finish beginning to marketing and distribution. We're recordists, also films, feature films, record distribution, tour exporters, and a cable network for films. Also a full in-house facility for the mastering, pressing, and duplication of your company product. For more information, call or write Rue Barclay Enterprises, 7436 Genesta Ave., Van Nuys, CA 91406. (213) 342-2636.

GLENN E. BERKOVITZ

Engineer

2234 1/2 Cahuenga Blvd., Los Angeles, CA 90069

(213) 874-5155, 843-4762

Credits: At BEX Systems Burbank, CA Television includes: A Letter to Miami, Is Anyone Home On the Beach?, Insane! This is the Hit, NBC promos, All unsingles, Michael Sembello, Marilyn Jeanne, Chris Williamson, The Fire Engine, Wild Horse, The Larry Hurt Story, And water games even Dragons in the Space Age.

Services Offered: Engineering expertise in all audio realms. Credits in film television, production and post production for the last six years from L.A. to Boston enable me to assess any project's needs and potential. I also offer complete session for the sound of any project from concept to distribution stages. Musically, I have a trained and experienced ear, and the resources of a fully equipped facility (including synthesizer equipped multitrack room) at my disposal. Regarding the session of sound for album, film, television, or even live, I give excellent results.

JOHN BERRY

Producer

JOHN BERRY COMPOSER/ARRANGER/PRODUCER

4540 S. Rural Rd. (F-8), Tempe, AZ 85282
(602) 839-5898

Credits: Composer and/or arranger of over 50 nationally published works for jazz ensemble, orchestrator of musicals, producer or coproducer of 4 albums for jazz ensemble, many small group rock & pop projects, inroads, hundreds of arrangements for vocalists & bands.

Services Offered: Custom jingles, song demos, HX for any recording or live (pre-session organization, evaluate demos, tighten up loose ends, rehearse, perfect, write whatever is necessary, go to the studio and cook! Specialty is arranging sweetening to basic tracks.) Strongest assets are musical knowledge and ears to get it down good and bring it back better.

MICHAEL BISHOP

Engineer & Producer

BRIANNA RAE PRODUCTIONS

13678 Butternut Rd., Burton, OH 44021
(216) 834-1350

Credits: Engineering (Records): Fleetwood Mac, Live, Pere Ubu, Michael Stanley, James Gang, Bob Seger, Cleveland Orchestra & Chorus, O'Jays, Devo, Wink Cherry, Amy Woolley, Tom Letuna, Alex Bevan, Ingles, United Van Lines, Seaworld, Republic Steel, Milwaukee Brewers, Cypress Gardens, Proctor and Bizarro, Wendy Warren, Paul Skyland, Unit 5, Tom Letuna.

Services Offered: Audio engineering in all phases of studio recording, analog and digital, including audio for video, film, A/V records, disk, mastering, record production, and even photography and graphic arts of LP jacket production and live taping. I can take care of all details from the beginning of your project to its completion and have over 15 years' experience doing so.

MICHAEL BITTERMAN

Engineer & Producer

2211 Pine Lane, Saugerties, NY 12477

(914) 246-4761

Credits: Produced Woodstock Moments & Moments, Prism Records featuring 40 Woodstock musicians including Robbie DuPree and Marc Black, Five After Eight, O.C. Records, Off Broadway musical, Fringedoor, John Hall, Orleans, Priscilla Hermandes, Seasons of Change, album on Flying Fish, also Tom Facheon, John Sebastian, Arto Trauman, etc.

Services Offered: I own a 16 track studio, fully stocked and have access to the great musicians and arrangers living in the Woodstock area. I can produce and engineer any kind of session ranging from rock n' roll to folk, jazz and theatrical musicals. Being a composer and arranger myself, I can help you in every creative aspect of your material. Other studios I've worked in as producer or musician include A&R #14, Unimac, Century Sound, Atlanta. My own studio, Midnight Modulation, it was my current projects are taking place.

RON BLACKWOOD

Producer

BLACKWOOD PROD./CASINO RECORDS

Box 17272, Memphis, TN 38187-0272
(901) 767-2220

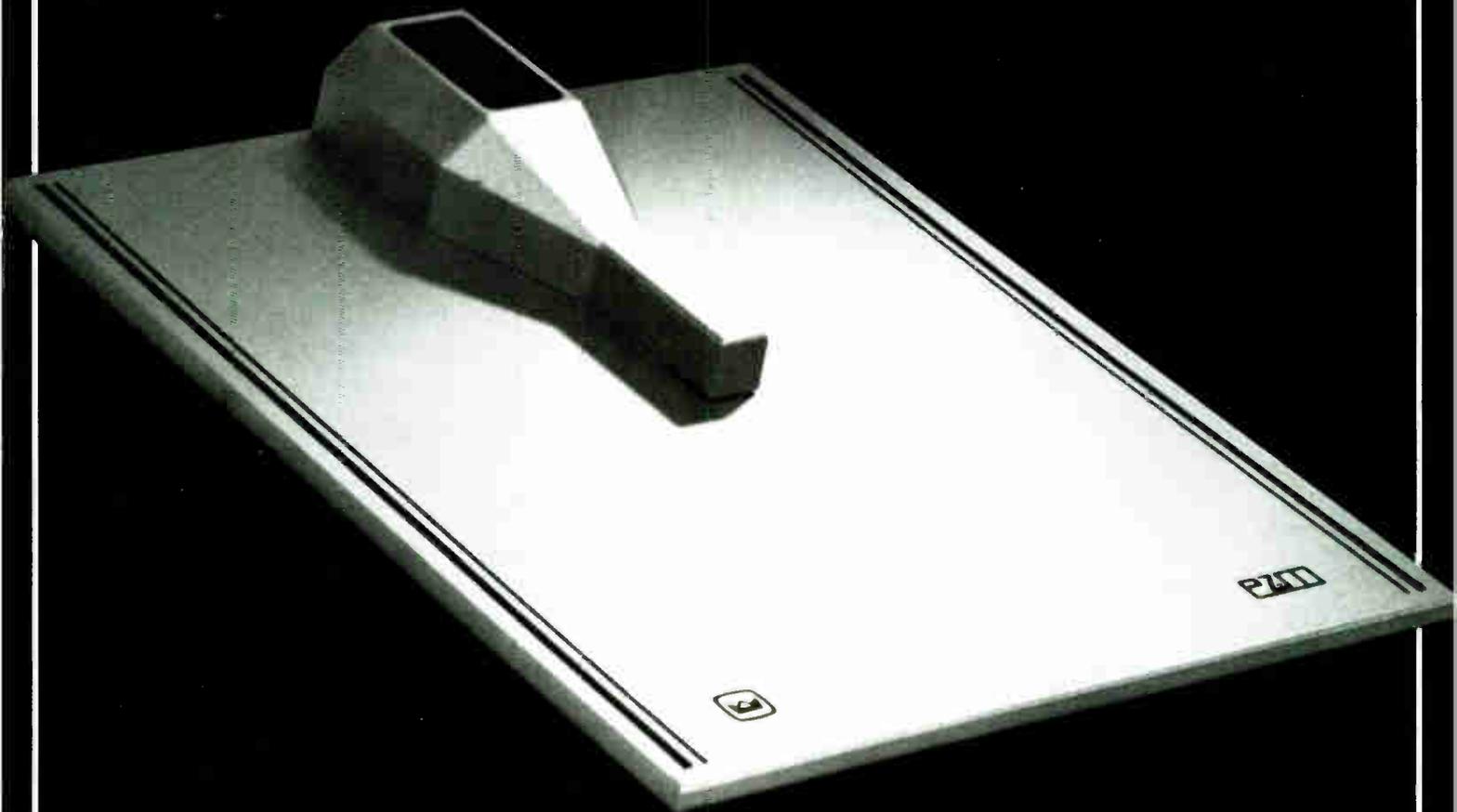
Credits: Producer: Willie Nelson, Jerry Walla, Blackwood Singers, R.W. Blackwood, Wink Martindale, Billy Walker, Twyla.

Services Offered: Recording, production, publishing, booking and management.

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Our introduction to the Pressure Zone Microphone® broke our previous record for skepticism. But the hardware converted us. Like Orville Wright's gas powered kite, it outperformed its appearance. The rest, as they say, is history. In the 3 years since we began production, sales

have mushroomed and the best recording studios use PZM®. So do a whole lot of other people on a whole lot of stages, church podiums, and conference room tables. Success has changed us. One of these days we'll probably start telling you we knew it would work all along.



CROWN

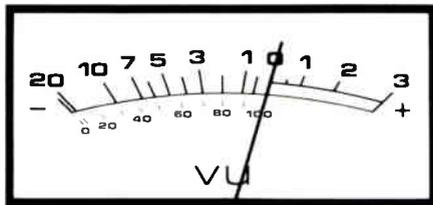
1718 W. Mishawaka Road, Elkhart, IN 46517
219 294-5571

Call or write for details

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TERRY R. BOWER*Engineer & Producer***MOMBOW PRODUCTIONS** (Div. of San Andreas Sound)
Studio 4, 1810 Cliff Dr., Santa Barbara, CA 93109
(805) 962-8621**Credits:** Janni Littlepage, Norman Allan, Backtalk Peters, Iron Curtain ICR 3 ICR 6 Hitbound-101 JK-Energy Don Lange Ambush Hollywood Fat Blues Band, Famous People, Paul Helt, Neal Helt, Molly Day, The Have Fourplay The Shades, Giant Eden Switch and others**Services Offered:** Ears, eyes, nose, throat & brains. The experience of years combined with the mad genius of youth. The ability to translate all types of music into vinyl reality. An up and coming engineer/producer in close touch with today's musicians while maintaining a solid foundation in the past.**ANTHONY D. BOYD***Engineer & Producer***BOYD SOUND STUDIO**
P.O. Box 682, Wylie, TX 75098
(214) 442-1620**Credits:** Apexx, Cliff Reynolds with The Pearces, The One Take Charley Band, Reigning Roses and The Tornis, Summer, Jim Butler**Services Offered:** Demos, albums, soundtracks**JIM BOYER***Engineer & Producer***JAMES BOYER COMPANY**
P.O. Box 303, South Salem, NY 10590
(914) 764-4474**Credits:** Producer Peter Cetera, CBS/multi-artists, Rupert Holmes, Peter, Paul & Mary, Whittren & Cartwright Engineering, Burt Bacharach, Karen Carpenter, Chicago, Heatwave, Billy Joel, Kenny Loggins, Linda Ronstadt, Paul Simon, Phoebe Snow, Roland Vazquez Feature Films "Arthur", "A Star Is Born", "Easy Money", "Svengali", "Yentl" Have also recorded and engineered music for multiple television and video shows**RICH IVAN BRADBURN***Engineer & Producer***3001 STUDIOS**
3001 Indiana Ave., Columbus, OH 43227
(614) 262-3001**Credits:** 15 years practicing musician/singer/songwriter, 2 years engineer, 5 years producing. A lot of local jingles & artist development**Services Offered:** Pre to post total music production service. I have a 16 track studio w/2 adjoining rehearsal/recording rooms for obtaining professional results at minimal cost. "The perfect demo facility."**JAMIE BRIDGES***Engineer***240 Mariposa, Brisbane (S.F. area), CA 94005**
(415) 468-1622**Credits:** Country Joe McDonald, Wm Howard III, Rhythm Riot, LeJuene, Back Alive Jimmy McCrackin, Edwin Hawkins, Midway Inner City Assisted Journey, Huey Lewis and the News, Tom Coster, Marty Balin, Sammy Hagar, Sonny Rollins, Steve Douglas, Pete Escovedo, S.V.T., Mutants, Tony Rice, Kate Wolf, Roy Thomas Baker, Andy Johns and Dr. Richie Moore**Services Offered:** I can engineer and help you produce without getting in the way of your music or work with your producer. Also, I work at most of the San Francisco Bay Area studios, so give me a call and I can help you pick the studio or studios best suited for your music and budget.**LES BROCKMANN***Engineer***13009 Riverside Drive #2, Sherman Oaks, CA 91423**
(213) 990-7221**Credits:** Robben Ford "Love's a Heartache", Japanese Polydor, Smokey Robinson/Hi Energy "Blame It On Love", Motown, Profano Records, Los Bukis and other artists, Enrique Elizondo, producer, Arturo Salas, arranger/producer, Bill Cuomo, keyboardist/producer, H.B. Barnum Production, McAnn-Ericonson Ad Agency, Skool Boyz, Hi-Rise Records, Pat Carey, Care-Les Production**Services Offered:** Multi-track recording and remixing and production assistance. I specialize in Jazz, Latin, Rock, and Black music. The fact that I am also a skilled musician helps me work productively with creative musicians. I have access to state-of-the-art studios at favorable rates—give me a call!**PAUL BROUCEK***Engineer & Producer***THE PLANT STUDIOS**
2200 Bridgeway, Sausalito, CA 94965
(415) 332-6100**Credits:** Pegband "Women in Politics" EP, Montana live LP "Wake Me", Border Patrol LP in progress, Robin & the Rocks' single (with Bonnie Hayes) "Next Thing You Know" Film scores "Hollywood Halloween", "Voice in Exile" and "The Tree"**Services Offered:** I am a producer/engineer with an extensive musical background (composing/arranging). I specialize in modern rock music as well as music and sound design for short films and rock videos.

INDEPENDENTS

**PHIL BROWN***Engineer***548 N. Michigan Ave. #2, Pasadena, CA 91106**
(213) 440-0553**Credits:** I have engineered for such people as Hiroshima, Al McKay, Ernie Watts, The Motor City Clew, Pete Robinson, Harvey Mason, various commercials and TV specials, and dozens of unknown stars**Services Offered:** I offer all services needed in recording and mixing records and commercials. I will work with everything from 8 to 48 tracks, and I'm familiar with electronic editing for digital mixes. I'm also familiar with analog and some digital synthesizer programming. My rates are reasonable, so give me a call.**ROBERT H. BRUCE***Engineer & Producer***UAR PRODUCTIONS**
One Studio Center, 8535 Fairhaven,
San Antonio, TX 78229
(512) 690-8888**Credits:** 18 Clo awards for music scoring and vocal jingle production. 2 New York "One Show" awards for Audio Production, 6 national ADDY awards for excellence in Advertising Production and Music Production, Executive Producer for KISS-FM Radio HomeGrown Album, 1982, Producer/Composer of theme for Breakthrough, nationally syndicated TV show**Services Offered:** Producer & production coordination, session contracting, sideman contracting, charts and background vocalists, co-located with 24 track world class recording studio with complete video/audio recording, re-recording & post production editing suites. Music television production, album production, spot-length production, Color film production in studio and on-location, 16/35 mm, graphic design and layout for posters and LP jackets, designers on staff. Staff arrangers for any instrumentation, chart copying, and orchestration credits and references from 1973 to present on request.**RANDY D. BRYANT***Engineer & Producer***BRANDY/SWANN PRODUCTION**
1901 Edwards, Apt. #20, Denton, TX 76201
(817) 387-9279**Credits:** Six years of music training at college level, three of those years at North Texas State University. Graduate of Phil York's Multi-Track Studio Recording course. Recently finished 24 track project with Dallas based band Brittany.**Services Offered:** Willing to work with solo and groups all the way through to the final product. Willing to talk and answer any questions pertaining to any type or style of project. Can get price breaks in certain areas of recording project. Can travel. Own small 4 track studio for small projects such as demos and music or voice editing. Can put together estimate package of total recording costs.**RICHARD CANNATA, CLAY HUTCHINSON***Engineer & Producer***CANNATA/HUTCHINSON PRODUCTION INC.**
10 West Ave., Sea Cliff, NY 11579
(516) 759-9640; (212) 762-2295**Credits:** Cannata: arranging sax and keyboard performances on the following Billy Joel albums, "Turnstiles," "The Stranger," "Glasshouses," "52nd Street," "Songs in the Attic." Hutchinson engineer of the following albums: Aldo Nova "Subject," Blue Oyster Cult "Fire of Unknown Origin," Spys "Behind Enemy Lines," Eddie Jobson "The Green Album," Zebra "Zebra"**Services Offered:** This engineering and production team offers both musically and technically a creative hand to the artist in the recording studio situation. Richie Cannata has the experience of 7 years with the Billy Joel Band as sax and keyboardist. His musical ability to arrange and perform augmented the creative process during these successful years. Clay Hutchinson has been owner and chief engineer of Kingdom Sound Studios for the past 7 years. His technical ability and experience in the studio adds the balancing factor necessary to the success of this production team.**LOU CARTO***Engineer & Producer***R.M.S. (RELATED MUSIC SERVICES) INC.**
4620 W. Blue Diamond Rd., Las Vegas, NV 89118
(702) 361-1559**Credits:** We like to thank all of our clients.**Services Offered:** Studio A, complete 24 track, 3M-machines,

Trent console, 16' ceiling, drum & vocal booths, Studio B, 16 track, 3M-machines, custom console

BILL CASHMAN*Engineer & Producer***ART ATTACK RECORDS, INC.**
P.O. Box 31475, Fort Lowell Station,
Tucson, AZ 85751
(602) 881-1212**Credits:** I have produced and engineered over 30 albums including Street Pajama's second album "No Gold in Jersey" on Art Attack Records. The Saddle City Band LP "Bareback" released in 1983 on Carte Blanche Records. Compilation albums of Arizona groups for radio stations KWFM in 1980 and KLPX in 1982. Produced the single "Screwed Again" by Street Pajama as well as their first album "I Get Peculiar"**Services Offered:** We offer complete production services from product conception to the retail marketplace. Services include musical arrangements, studio scheduling, finding and controlling the right studio musicians for each particular project, budget control, creative engineering, record pressing and cassette duplication, and record promotion. We operate our own in-house publishing company and have good relations with several other publishers to provide the artist with material if needed. We also have our own independently distributed record label to distribute finished product and will consider joint ventures with the artist in marketing product through our distribution network.**FRED CATERO***Engineer & Producer***FRED CATERO PRODUCTIONS**
1301 Chestnut St., San Carlos, CA 94070
(415) 592-2072**Credits:** Hundreds of records produced or engineered for Columbia, Warner Bros., etc. Recorded for Janice Joplin, Santana, Barbara Streisand, Phoebe Snow, Blood, Sweat & Tears, Simon & Garfunkle, Herbie Hancock, Laura Nyro, Sly Stone, Bob Dylan, Dave Brubeck, etc. President of Catero Records**Services Offered:** Engineering & producing**LEON FORREST CAULKINS***Engineer & Producer***HARBINGER NORTH WEST/LITTLE BIRD PRODUCTIONS**
4416 S.E. Hwy. 101, Lincoln City, OR 97367
(503) 996-2575**Credits:** Albums produced: Roger Kinion ("Inn"), Gospel Troubadors, Neskown Valley School Singers, "Peter Danno", James Thornbury, David O'Brian ("Fantasy"), Ron Rhodes ("Down the Road"), Mini-albums: "Leon Forrest," "Wages of Fun," "Beat Club," David O'Brian "Island Girl," plus various commercial jingles**Services Offered:** Will do full production for songwriters, from rhythm section to horns & strings. Complete synthesis from a full complement of synthesizers, or will simply engineer with an intuitive ear. Plus, can offer limited accommodations on beautiful Oregon coast. I am also a fulltime, independent vocalist, keyboardist, bassist with "full on" equipment.**CENTRAL FLORIDA MUSIC ASSOC.***Engineer & Producer***C.F.M.A.**
P.O. Box 5102, Winter Park, FL 32793
(305) 896-5601**Credits:** 2 TV specials in syndication, own & distribute LCS label Releases on EMI, Earth & Sky, Silver Pelican and other record labels**Services Offered:** 8 & 16 track recording, records, film & video scoring, complete capacity for providing musicians and arranger-composers. Affiliated with Earth & Sky Music Publishing Inc (BMI) and Kenvad Music (ASCAP). Jingle & industrial production**JOE CHICCARRELLI***Engineer & Producer***1565 Selma Drive, Hollywood, CA**
(213) 654-2064**Credits:** Frank Zappa, Poco, Oingo Boingo, Juice Newton, Red Rider, Rita Coolidge, George Thorogood, Peter Allen, Del Shannon, Toronto, Ray Manzarek, Bone Symphony & Chilliwak**PAUL CHITEN***Producer***1220 14th Ave., Suite 205, San Francisco, CA 94122**
(415) 661-2227; LA (213) 656-3775**Credits:** Paul Chiten and HotSpoons Productions was featured in a five page national news story (by KPIX, Channel 5, S.F.) on the record making process. We get amazing results on limited budgets, whether it be demos, 45's, albums, or sets. Each project gets our full attention and professional results. Recent work includes projects for: PC 2000, MTV, General Electric, Laser Disc, Westcom, Oakland A's, Arista, Motown. We specialize in 80's rock, pop and dance music.**Services Offered:** We are a start to finish production company. Our services include producing, arranging, song consulting, band selection, studio selection, mastering, pressing and artwork.

MICHAEL COLLINS
Engineer & Producer
DMC SOUND & RECORDING
12504 Killian Lane, Bowie, MD 20715
(301) 262-3295

Credits: Majestic's "Mystical Teaser" EP; Mission's "The Last Detail" mini-album; Mission's cassette EP, demo tapes for "The New Standard", "Southbound Express", "Cerebus", "1066", "Majestic", "Divinity", "Hawkins & Holstien", "Fat Fingers", & "The Defectors".

Services Offered: Freelance engineering & producing, live sound reinforcement engineering, four-track demo recording studio and remote. Freelance studio drumming. Sound reinforcement consultation and equipment rental. Radio and off-camera TV production engineering. Demo tape available upon request.

CHRIS CRAIG/HENRY BILBAO
Engineer & Producer
AVID PRODUCTIONS
235 E. 3rd Ave., San Mateo, CA 94401
(415) 593-3919

Credits: KSJO Best of the Bay album, Mill Rock to Riches, Life on Mars, Head On, Gary D and the Breakers, Melisa Kary, ADDA Corp., Lawrence Livermore National Labs, Grass Valley Group, GE, Raychem, Southern Pacific Communications

Services Offered: We offer a producer's studio with brand new equipment and a creative environment. Our speciality is putting together audio & video—whether it's scoring an industrial with music, sound effects, and dialog, or pre-producing a music video clip. Our ideas are fresh and our prices competitive. Please call for demos and quotes.

JOHN CUNIBERTI
Engineer & Producer
SPONTANEOUS PRODUCTIONS
6220 Fairlane Dr., Oakland, CA 94611
(415) 547-5749

Credits: Rock: Chrome, Doug Clifford, Dead Kennedys, Flipper, Klaus, June Millington, The O'J's, Red 7, Squares, SVT, Two Tones. Reggae: Blue Rydem, Tony Chin, Max Edwards, IsaWah, I World, Jack Miller, Soul Syndicate, Titans, Earl Zero. Live Sound: Crystal Gayle, Greg Kihn, Eddy Money, John Stewart, Squares and Steve Wonder.

Services Offered: Multitrack studio or location recording, live sound engineering; available to instruct small classes in studio engineering or live sound technique; am willing to produce record projects if the feelings are right; able to design and install sound systems for night clubs and home studios.

DAVID DACHINGER
Engineer
RECORDING & SOUND SERVICES
200 W. 15th St., New York, NY 10011
(212) 807-7946

Credits: ABC/Arts Cable TV, Canon Cameras, The Clash, Billy Cobham, Sarah Dash, Dizzy Gillespie, Diane Keaton, Arnold Schwarzenegger Workout, The Standing Waves, Time Magazine, WPLJ-FM.

Services Offered: Recording, mixing and editing at several preferred studios, or at studio/location of client's choice. Experienced in jazz, rock/pop, R&B recording. Also filmscore, jingles, video sweetening and multi-media presentations. Synthesizer and drum machine programming. Please call for additional information and rates.

MAL DAVIS
Engineer & Producer
MAL DAVIS INDEPENDENT AUDIO ENGINEER
730 So. Harvey, Oak Park, IL 60304
(312) 386-7355

Credits: Engineered over 40 albums, soundtracks for radio and television, sales and industrial presentation "The Master & Musician" Phil Keaggy, "Chicago Jazz" Roger Pemberton, "Mourning To Dancing" James Ward, "Brass Impact #2" Warren Kime, "Full circle" Nedra Ross, Northern Illinois University Jazz Band, John Wilson Singers, Resurrection Band.

Services Offered: Over 16 years of sound recording, music mixing, and professional recording studio experience. 1) Complete engineering services offered all the way through to your manufactured product. 2) Production assistance available—administration of musicians, writers, arrangers and studio facilities. 3) Instruction, tutoring, training and apprenticeship available for students interested in the art of sound recording & reinforcement. 4) Sound reinforcement for musical & theatrical presentation, conferences, etc. 5) Consultation services: equipment purchases, studio construction, equipment interfacing.

OLIVER DICICCO
Engineer & Producer
MOBIUS MUSIC RECORDING
1583 Sanchez, San Francisco, CA 94131
(415) 285-7888

Credits: Ron Thompson, Cornelius Bumpus, Andy Narell, Henry Kaiser, Fred Frith, Dead Kennedys, The Finders, Brian Eno, Rova, Alex Di Grassi, Will Ackerman, Billy Jaye, Jules Broussard, Dave Liebman, Esmerelda, Parasound, Indoor Life, True West, Larry Vuckovich.

Services Offered: Producing, engineering, arranging, audio con-

sultation & musician contracting. I work with the client to bring out the best in their music.

WARD DILMORE
Producer
The Kensington Rd., Hampton Falls, NH 03844
(603) 926-3343; (212) 245-7760

Credits: Emmy, Cine, American Film Festival, AMI award-winning filmscores, commercials for Kodak, Polaroid, Digital, Sheraton, Gilette, Passkey, Atlantic Film Company (Coaster: The Adventures of the John F. Leavitt), PBS (The Werewolf, Face the Music, Farewell Millville, Apollo, The Election, The Tutor, It's a Long Story, The Songbook).

Services Offered: Original music composed, produced and conducted for films, television, and commercial clients with the Atlantic Symphony. Represented by Michael Mace Associates. 315 W. 57th St., Suite 18E, New York, NY 10012.

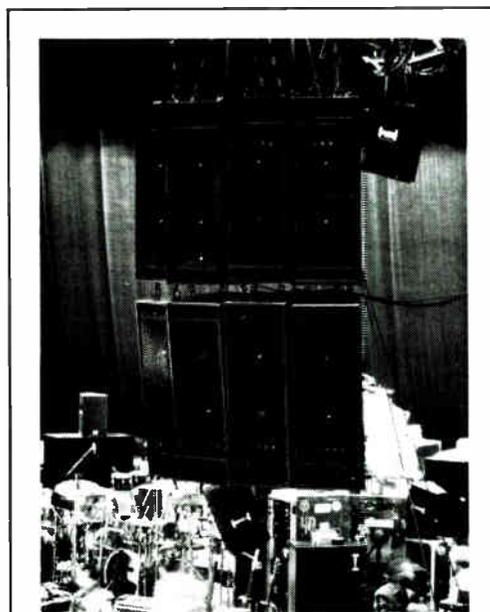
RICHARD DONALDSON
Engineer & Producer
SOUNDOME
17422 Murphy Ave., Irvine, CA 92714
(714) 474-2015

Credits: Major Artist Experience. Ability to take your project per-

sonally from recording to mastering. Very attractive rate packages with one of the world's finest studios. Extensive contacts for projects shopping. Serious inquiries only.

STEVE DYER
Producer
ROCKY MOUNTAIN HEARTLAND PRODUCTIONS
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(303) 690-6904

Credits: Rocky Mountain Heartland Productions is a full service production company. Executive producer and studio producer is Steve Dyer. Studio Production. Access to some of the finest studios in the Rocky Mountain empire, Midwest, Nashville, and L.A. Music arranged and originally scored for studio orchestra, big band, synthesizer, or other combinations. LP Albums and Cassettes. Master tracks are produced, mastered and pressed. Complete jacket art and photography creatively produced in fresh and stimulating ways. Advertising. Scripts, lyrics, and compositions for radio, TV and print media. Film and Slide Presentation. Production for business promotion projects and presentations for seminars, sales meetings, etc. Financing. Artist sponsorship, promotion, and project financing is possible upon approval of qualified artists and groups.



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Berkeley, California 94702
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PHIL EDWARDS*Engineer***PHIL EDWARDS RECORDING**

1186 Tegen Dr., Hayward, CA 94544

(415) 538-0469

Credits: Concord Jazz, Walter Hawkins, Edwin Hawkins, Dave Brubeck, Cal Tjader, Louis Bellson, Carmen McCrae

Services Offered: Live and studio work, film mixing, spot production, will arrange studio booking, remote booking**MIKE FAY***Engineer & Producer***MICHAEL FAY PRODUCTIONS**

4377 Lerida Dr., San Diego, CA 92115

(619) 582-6948

Credits: 28 years in music, 13 years in engineering and production. Over 35 custom radio and television promotion packages including WPIX New York, WJBK Detroit, KCHA Sacramento WPGH Pittsburgh, KFMB San Diego. Over 100 jingles and soundtracks including Aapri cosmetics, Orange County Registrar PSA, Sea World. Dozens of groups and solo artists covering Rock, jazz, R&B, Big Band, gospel, country, and classical.

Services Offered: Engineering, production, composition, studio design, artist development, record pressing, DX-7 programming, cassette duplication, consultation in all areas pertaining to studio recording and production. And golf partner! I plan to build a world class studio to accommodate film and video scoring, commercial jingles, albums and development of new artists. With the rapid expansion in communications and entertainment I'm confident there will be a demand for quality facilities in the San Diego market. References on request.**CHRIS FICHERA/BILL GOODWIN***Engineer & Producer***HEMI SEMI DEMI**

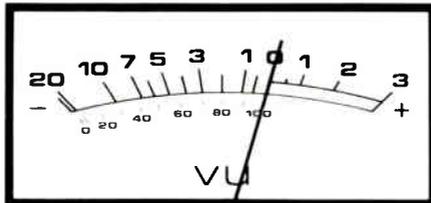
East Stroudsburg, PA 18301

(717) 421-5150

Credits: 1984 Grammy Award winning jazz album "Phil Woods Quartet - More Live" on Adelphi Records, Grammy nomination "The Dave Frishberg Songbook Vol. 1" - New albums on the radio "Network"/Solar Energy, "Where One Relaxes" Hill, Dobbins & Red Mitchell, "The Dave Frishberg Songbook Vol. No. 2" all on Omnisound Records. At The Vanguard Phil Woods Quartet on Antilles Records.

Services Offered: We offer complete production and engineering services including remotes. We make records! Finding the

INDEPENDENTS



right studio for each project is our specialty. Meeting specific needs with highest technical quality. Flexible. Personable. Experienced. Available.

JAMES E FOX*Engineer***LION & FOX RECORDING, INC.**

1905 Fairview Ave., N.E., Washington, D.C. 20002

(202) 832-7883

Credits: Produced & recorded Blacksheep's "Gathering" & "Homeland" LPs, Celtic Folk's third LP and Ao An's eight and ninth LPs. Recorded Reggae Sunsplash 1982, four day outdoor concert, recorded vocals & mixed The Melodians' latest LP on RAS Records.

Services Offered: Complete 24 track recording studio with 32 channel computer automation mixing.**JERRY FULLER***Producer***MOONCHILD PRODUCTIONS INC.**

13216 Bloomfield St., Sherman Oaks, CA 91423

(213) 872-1854

Credits: Fourteen gold records. Artists past and present: Mac Davis, Glen Campbell, Gary Puckett and the Union Gap, Johnny Mathis, Arny Williams, O.C. Smith, Rick Nelson, Al Wilson, Mark Lindsay, Toby Beau, Knickerbockers.

Services Offered: Production, international publishing house, in house 24 track recording facility.**JAMES GALLAGHER***Engineer & Producer*

6740 Hazeltine Ave., Van Nuys, CA 91405

(213) 984-1161

Credits: 10 years experience, RIAA gold and platinum LPs and singles. Worked with Michael Sembello, Phil Ramone, Stevie Wonder, Gamble & Huff, Thom Bell, Baker/Harris/Young, Dexter Wansel, George Thorogood, McFadden & Whitehead, The O'Jays, The Spinners, Dionne Warwick, Lou Rawls, Michael Henderson, Teddy Pendergrass, Jerry Butler, Johnny Mathis, plus many others.

Services Offered: Successful and diversified experience in audio producing and engineering with state-of-the-art production methods & recording techniques; knowledge of TV/Film direction and studio functions, responsible for program development & implementation, customer/client relations and performer/producer relations, Association w/major Los Angeles, Philadelphia and New York studios, capable of training and instruction, planning, coordination and problem solving, with flexibility and versatility; creative & innovative, member of NARAS.**CECIL GASPAR***Engineer & Producer***BREAKING RECORDS**

Box 40162, Santa Barbara, CA 93103

(805) 969-4589

Credits: Bel-Air Bandits, Horace Tapscott, Mick Love (Beach Boys) Pranks, SPYS, Canned Heat, Peters, Bobby Goldsboro, Paul Revere & the Raiders, White Hot, Delia Reese, Mary Magreor.

Services Offered: Complete production services including musician procurement, rehearsing, tracking, over-dubbing, mixing, disk mastering. Travel to anywhere in the world for any format of analog or digital recording.**TERRY GARTHWAITE***Producer*

Box 14, San Geronimo, CA 94963

(415) 488-4778

Credits: Producing Canadian artist Ferron for Lucy Records. Also co-producing my own album with Leslie Jones. Recorded 12 albums as lead vocalist (including the Joy of Cooking, and solo records under guidance of David Rubinson and Orrin Keepnews). Produced Garthwaite/Hawkins/Sorrels for Flying Fish, Robin Flower for Flying Fish, and Nicholas, Glover, and Wray for NGW Records.

Services Offered: Record production and vocal guidance.**CHRISTOPHER D. GATELY***Engineer***CHRIS GATELY AUDIO SERVICES**

P.O. Box 526, Bryn Mawr, PA 19010

(215) JBL 3605

Credits: The Police, Hall & Oates, Pat Metheny, Peter Tosh, Go-Go's, Joan Jett, Blondie, Passport, Pat Smith, Robert Hazard, Duke Ellington Orchestra, Art Ensemble of Chicago, Chaka Kahn, BH King, Victor Borge, Barrett Sisters, Jerry Butler, Herald Melvin, Carson Kieyman, Philadelphia Folk Festival 1983.

Services Offered: The highest quality in remote, studio and live reinforcement mixing is what I have to offer. My 10 years experience in the industry as mixer, technician, troubleshooter, installer, etc. will make your project sound its best. Rock, jazz, classical, avant garde or whatever, give me a call and hear what I can do. Syn Aud-Con graduate. I also have the best in audio equipment to rent. Remote recording my specialty.**YVES GAUTSCHI***Engineer & Producer*

517 Dolores, San Francisco, CA 94110

(415) 921-5227

Credits: Tommy Tutone, Bill Summers, Voice Farm, The Punks, Pony Poindexter, Michael White, Eddie Henderson, Chris Hayes, Flipper, Freddie Stone, Ed Bogas, Harvey Scales, Pee-wee Ellis, James Levy, Jessica Williams, Dick Bright, Ed Kelly, Central Heat, Alain Chamfort, Jim Carroll Band, Chris Solberg, R.G. Spectrum, Robert Winters (Buddha), Nicky Hopkins, etc.

Services Offered: Internationally experienced engineer/producer who listens.**PAUL GERRY***Engineer & Producer***THE CUTTING EDGE CUSTOM DISC MASTERING**

Box 217, Ferndale, NY 12734

(914) 292-5965

Credits: Producer and engineer for Revonah Records, Tel-E Vue Productions Records, Quickway and Studio 17 Records, production engineer and disc mastering on numerous independent artists LP's, EP's and 45's.

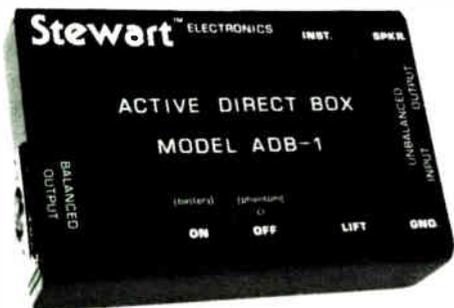
Services Offered: Disc mastering, plating, pressing, engineering, jacket design, lay-out, photography, artist development and management, studio clips, demo records, tapes and videos, record production for LP's, EP's and 45's.**NO MIKING**

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Producer
HOT LIX PRODUCTIONS
21405 Colina Dr., Topanga, CA 90290

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JACK A. GOGA

Producer
JACK GOGA PRODUCTIONS
8258 Fenwick St., Sunland, CA 91040
(213) 352-9772

Credits: Diana Ross, Four Tops, Marvin Gaye, Fantastic 4, Martha Reeves & Vandellas, Jackson 5, Edwin Starr, Chuck Jackson, Kiki Dee, Jimmy Ruffin, Smokey Robinson, R.J. Kean Band, Adie Gray, Traction, Oceans TV & motion picture credits: national commercials

Services Offered: Production, arrangements, synthesizer programming & performance, film & video scoring

GREG GOODWIN

Engineer & Producer
OASIS PRODUCTIONS
395 Sussex St., San Francisco, CA 94131
(415) 587-3564

Credits: As owner of Oasis Recording Studio for the past five years (a musician and part of the industry for over 15 years), I have been involved in producing and/or engineering numerous album, single and demo projects of all shapes and sizes, types and untypes

Services Offered: Producing/engineering, artist-oriented, maximizing time, energy and dollars. And hopefully adding some inspiration to any project

RUSS GORSLINE, TOM GOH, GARY PERMAN, PHIL MEURER, DAVID POULSHOCK, DON ERCEG

Producer
SUNNY DAY PRODUCTIONS
1931 S.E. Morrison, Portland, OR 97214
(503)238-4525 or 1-800-547-5715

Credits: Jean Machine, Jantzen Inc., Blitz Weinhard, Pace International Research, Tektronix A/V ESCO, Boise-Cascade, Lamb-Weston, Metro-Goldwyn Mayer, Tube Foreign of America Music, Tom Grant, Craig Carothers, Gary Ogan, Midnight Sons, The Staples Brothers, J.J. Jones

Services Offered: Communication Services including music production, jingles (creative and production) Radio and Television production, audio/visual production and programming, film and video sound, print media. We also offer the hardware and facility design as part of the solutions to communication problems

THOMAS J. HALL

Engineer & Producer
TRIAD STUDIOS
4572-150th Ave. N.E., Redmond, WA 98052
(206) 881-9322

Credits: "Queensryche", "Serviceman", The Young Professionals, Pizza Haven, Chuck Conlon, Dan Foster, Brenda Kutz, Mark Lindsay, "Sato", Kenny Matell, Dan Dean, Danny Deardorff, Neil Rush, Griff Stevens, "Uncle Bonsai", "Archer", Rick Stone, Paul Spear, USLUVI Productions, U of I Jazz Band, Chris Lobdell, Lanny Messenger, Rick Vale and many others!

Services Offered: All facets of demo and record production including pre production, engineering, producing, watchdog supervision of record mastering and pressing. I am sensitive to the artists' creative needs and strive for the best recorded performance possible in a comfortable, low pressure atmosphere

MALCOLM H. HARPER, JR.

Engineer
REELSOUND RECORDING CO.
P.O. Box 280, Manchaca, TX 78652
(512) 282-0713; 472-3325

Credits: Live concert recording engineer: Robert Plant, Billy Squire, Journey, Ted Nugent, Red Rockers, Michael Bolton, Judas Priest, Willie Nelson, George Jones, John Anderson, Dolte West, DeGarmo & Key, Zebra, Christopher Cross, Charlie Daniel, Todd Rundgren, Gap Band, Frankie Beverly & Maze, Bill Gaither Trio

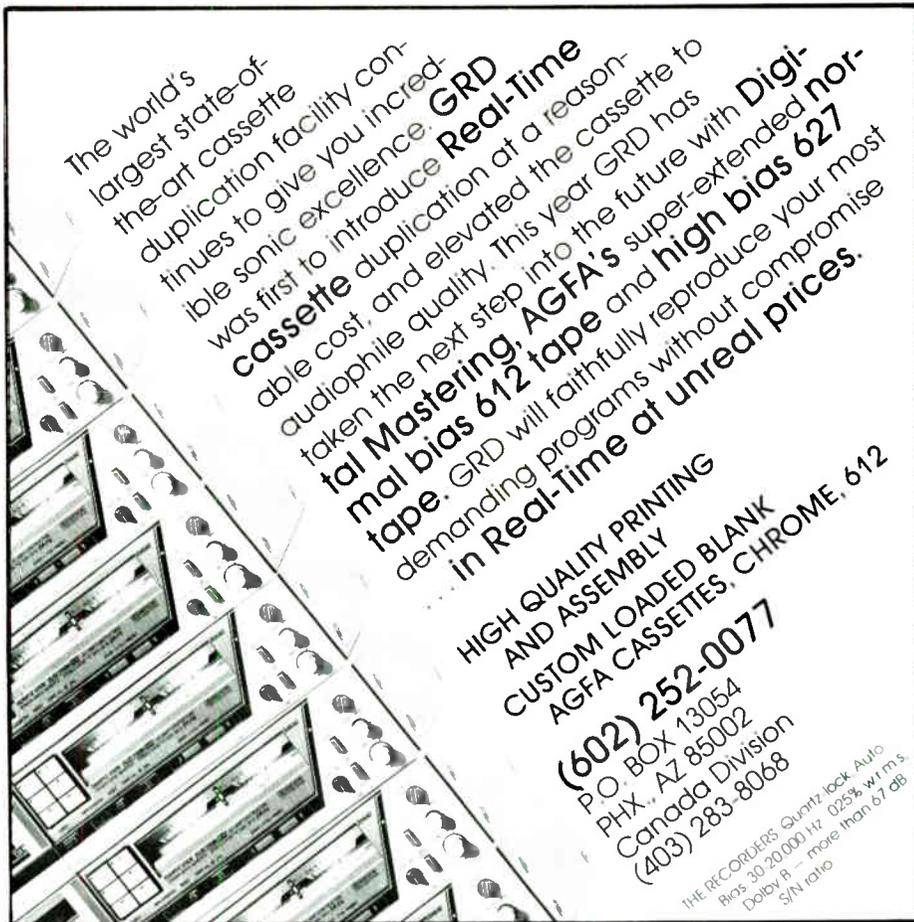
Services Offered: Remote 46 track recording, mixing, overdub work.

STEPHEN HART

Engineer & Producer
S-HART PRODUCTIONS/CORASOUND RECORDING
122 Paul Dr., San Rafael, CA 94903
(415) 472-3745

Credits: Tim Gorman (The Who), Matthew Kelly (Kingfish), Tommy Tutone, Bob Weir, Hoovers, Visitors, Bud Cox/krell (Pablo Cruise), Defectors, Human Being Men, The Sons, Fische Ray Marin, All Stars, Holly Stanton, Blake Quake, Tommy Johnston, Daily Planet, Corporate, Bechtel, Pacific Telephone, Victoria Station, Clorox, Tama Drums, Films Koko, Death in Venice, U.S.A.

Services Offered: Engineer/Producer with 10 years of multi-track recording. I have a very wide range of experience as a recording



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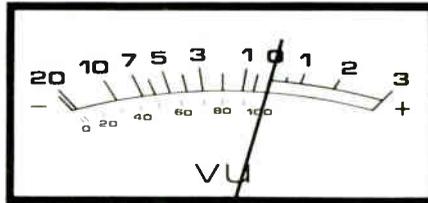
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engineer, from location film sound to 24 track productions. As a producer, I focus mainly on pop music. I co-produce many of the projects I engineer. Travel is no problem, call me to get together for a listen.

MARK HEARD
Engineer & Producer
FINGERPRINT RECORDERS
P.O. Box 834, Montrose, CA 91020
(213) 249-6509

Credits: Numerous albums and other projects produced and/or engineered including Handy Stonehill, Pat Terry, Tom Howard, Mark Heard, and Marchetti in Switzerland for Polygram. Engineering work for NBC TV, Doug Henning special.
Services Offered: Complete production and engineering services, large musician pool. Complete 24 track studio, Fingerprint Recorders with full production and complete mobile capability including Transformerless MCI JH630 console with 28 inputs, VCA subgrouping, Vari-Q 6 series Ampex MM1200 24 track and ATR 102 2 track recorders, JBL 4312 and Yamaha NS 10M monitors, Hafler, BGW amps, Lexicon 200 Digital reverbulator, Ursa Major Space Station, Lexicon PCM 41 Digital delay, UREI 1176LN LA-4 limiters, NSP Quad transformerless gates, Neumann AKG Sennheiser Audio Technica Shure microphones, RCA closed circuit video link system. Large selection of remote recording locations in the LA area, or will come to artist.

ROLF HENNEMANN
Engineer & Producer
ROOSTER PRODUCTIONS LTD.
1234 W. 6th Ave., Vancouver, B.C., Canada V6H 1A5
(604) 734-1217, 687-5205

Credits: Heart, Chilliwack, Randy Meisner, Al Stewart, Nantucket, Jocks, Doucette, Prism, Toronto.
Services Offered: Engineering and/or producing for established as well as new artists, anywhere in the world. Have connections to major record labels in U.S. and Canada. Have worked in major studios throughout North America.

DAN M. HINRICHS
Engineer
HINRICHS SOUND & LIGHT
7800 Debar Rd. Sp #485, Anchorage, AK 99504
(907) 333-1057

Credits: Live sound engineer for 2 popular R/P/O local club bands. Experience w/ITC Sound & Light as assistant engineer to Terry Curran encompassing all aspects in concert sound from design work up to house monitor mixing. Send for resume.
Services Offered: Full service house monitor engineer for live performance. With the exception of polishing typos, I do all I can to see that a show goes off and sounds its best. Ability to help as a consultant in designing a complete personal PA System for various applications well suited to the club scene.

JAMIE HOOVER
Engineer & Producer
OVO PRODUCTIONS, LTD.
410 Greystone Rd., Charlotte, NC 28209
(704) 523-1117

Credits: Albums by The Spongers, Sugar Creek, The Killer Whales, Robert M. Lure, The Nickel Band and more, all produced by Jamie Hoover and engineered by Mark Williams for OVO Productions Ltd. Plus freelance engineering at Reflection Sound Studios, Arthur Smith (HMC) Studios, Limon Studios, etc.
Services Offered: Freelance engineering for concert singles, soundtracks, demos, live productions, and TV. Experienced as engineer on MCI Trident Soundworkshop, Tancient, and other line boards, and as a session player on guitar, bass, vocals, and just about anything else that makes a noise.

PAUL HORNSBY
Engineer & Producer
MUSCADINE STUDIOS
3078 Vineville Ave., Macon, GA 31204
(912) 745-2401
Credits: Produced albums for Marshall Tucker Band, Charlie Daniels Band, Wet Willie, Kitty Wells. Engineered also for Clarence Carter.

Services Offered: Complete record production 16 & 8 track facilities, lots of outboard gear. Instruments: Yamaha grand piano, Hammond B-3 Rhodes piano, Wuritzer electric piano, clavinet, synthesizers, LinnDrums, Drum kit, Fender bass, guitar & amps.

DAVID HUMRICK
Engineer & Producer
AUDIOGRAPHIC PRODUCTIONS
3018 Rockett Dr., Fremont, CA 94538
(415) 667-8716

Credits: Ageless, Jim Anderson (Loretta Lynn Band), Peter Anastoff (Paul Butterfield Band), Edward Albert, Bill Costa (Rock Justice). Hereafter: The Kids Network, Prisoner Rox, Sly Stone, Henry Vestine (Canned Heat), many others. Member N.A.R.A.S.

Services Offered: Production. I specialize in unsigned Bay Area bands and offer a full range of low cost services. Engineering, Album or demo projects. I believe in a personalized rather than an assembly line approach to my sessions.

RANDE ISABELLA
Producer
ARTASIA MUSIC PRODUCTIONS
P.O. Box 14005, Coral Gables, FL 33114-5005
(305) 665-4780

Credits: Tapes, credits and resume available on request.
Services Offered: Record Production (Master of Music in Studio Writing and Production, University of Miami), composition (includes TV and film scoring), arranging, conducting, engineering (24 track), Music Publishing (includes staff of songwriters), Computer Programming (basic), Digital/Analog synthesis programming, trumpet/flugelhorn (Bachelor of Music in performance-jazz emphasis, Youngstown State University), bass guitar, keyboards, songwriting, music sound industry related consultation. Fluent in new music, rock, dance, funk, jazz and salsa musics. Most active in New York, Miami, Cleveland and St. Louis. Please, feel free to call or write me and let me know what you have in mind.

DON JAMES
Engineer
1263 West 72nd Terrace, Kansas City, MO 64114
(816) 333-9115

Credits: Beta Mu Phi, Mu Alpha Theta, Sintonia, Butler Manufacturing, Central Methodist College, Hooper Ferris, Hallmark Cards, Jamie Page and A Band Called Jerusalem, Names Don't Matter, Pan handle, Eastern Pipeline, Southwestern Bell, Yield.
Services Offered: Multi track engineering, 2 to 24 tracks for albums, demos, or remotes. Live sound engineering—house or monitors, engineering and editing—commercials and industrial soundtracks. Extensive music background, versatile in all styles. Local or tree to travel. 4 track studio facility available for demos or production projects.

ALEXANDER (ALECK) JANOLIS
Producer
ALEXANDER JANOLIS PRODUCTIONS
P.O. Box 13584, Atlanta, GA 30324
(404) 872-6000, 872-4000

Credits: Dot Records (singles), ABC-Dot (singles), Mercury (singles), Dance-A-Thon, Recordis (albums & singles), Hottrax Records (albums & singles), Cable Television (2 hour specials on independent productions & alternative artists), member National Academy of Recording Arts & Sciences.
Services Offered: Record production consulting services; analyses of demo tapes for commercial potential; specialist in obtaining the 60's type sound for new music; producer or collector albums.

ALEJANDRO JAUREGUI/GREG VINCI
Engineer & Producer
GOLDEN PEN PRODUCTIONS
395 Windwood Way, Pacifica, CA 94044
(415) 355-6472

Services Offered: Recording production and arranging for jazz, Latin, soul fusion, and new wave, country, rock and classical music. Mark's handled Master tapes, demo tapes, radio and TV commercials, TV shows, theatre, music televis and films. Can work in many formats: Large or heaters, elaborate electronic works, or simple acoustic production. Session conducting, synthesizing and musical construction also available. Production for trios of the Old International Music Festival, Music for Jews and TV advertising.

ROBIN JENNEY
Engineer & Producer
5554 Altos Ct., Columbus, OH 43229
(614) 895-7976

Credits: Clients include: Bootsy Collins, George Clinton, Sly Stone, Roger Zapp, Heatwave, Dayton, Ohio Players, Midnight Star, The Decks, Dick Smith, New Horizons, Spatin Image, The Secrets, Wheelis, Alex Karall, Charles Glover, Danzer Brothers.
Services Offered: Engineering & production for major label album projects, engineering singles for independent music as Procter & Gamble, Coca-Cola, WGN TV, Kroger, Fisher Price Toys and Weideman beer. Live radio and TV audio mixing. Clients include:

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"There are no hard rules or scientific formulas. No single mic is best for every sound. So I try to make a point to stay in touch with current microphone technology, and I'm impressed by the Fostex Printed Ribbon mics — for a number of reasons.

"First, they have a very open, clean sound, plus they can absorb the hard drive that rock 'n' roll demands. I know this is a subjective opinion, but I've used the M88RP, for example, on strings, guitars and vocals with fine results.

"Secondly, the workmanship and quality show the care taken by Fostex in making these finely-crafted tools.

"Finally, I think the Printed Ribbon technology is just as impressive in Fostex headphones. Musicians simply like to work with them. One of the best moments in the studio was when we tried the T-Series headphones and the musicians said how great it was to be able to play and really hear themselves.

"In fact, it was the Fostex T-Series headphones that prompted me to try their RP microphones.

"Now we're both glad, because I bought them, not vice-versa."

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JEFF JONES

Engineer & Producer
CINE-TONE PRODUCTIONS
218 E. 82nd St. Suite 4FW, New York, NY 10028
(212) 570-2765

Credits: Recorded for: Vanilla, Tommy Boy, Steeple, CBS, Warner Bros., Capitol, Elektra. Produced with: Planet Patrol, Dan Hartman, Larry Coryell, Frank Zappa, Grand Funk Railroad, The Masters, New Edition, Miroslav Vitas, Viki Sue Roush, Angela Clemmons, Fonda, Roy Parham, John Hammond, Sr., Leo MacVey, Don Elliot, Arthur Baker, Leo Carrer.

Services Offered: Complete 24 track and 1/2 track digital recording and production services. All in stereo. EP & CD master production. A professional recording studio for recording masters and production. A mixing and mastering studio and more.

LESLIE ANN JONES

Engineer & Producer
3844 Whittle Ave. Oakland, CA 94602
(415) 530-1402

Credits: Produced: Holy Near, Mute Adam, Engineer: MAZE, Narci, Michael Werten, Andrea Bond, Barry M. Fretten, The Whispers, Med Christian, Stacy Lattisaw, Herbie Hancock, Joan Baez and many others.

KAREN KANE

Engineer & Producer
25 Irving St., Watertown, MA 02172
(617) 923-9366

Credits: To date I have produced and/or recorded 30 albums and have had many local, national and demo hits on the radio. Have been in the biz for 13 years.

Services Offered: I was one of the first successful female engineering engineers in New England. I offer unbiased advice about recording in Boston and a no charge pre-production meeting. Recording and mixing especially of music is a music music. I am extremely efficient, dedicated and easy to work with. I readily listen to my clients and give them what they want to hear.

DAVID L. KEALEY

Engineer & Producer
INERGI PRODUCTIONS
15825 Memorial Dr., Houston, TX 77079
(713) 493-1533

Credits: All music for: Lone Star Bar & Grill, Showtime, Late Beer, Miller, Lillard String Quartet, Lone River Band, Jimmy Bono, Mary K. Miller, ZHOCKS, Johnny Nash, Gary Smith, Dean Scott, Iricktop, Nancy Ames, Joey Sweet, Alan Hayes, The Nerve, KRIS, Rino, KLOL Radio, KUHH TV, Connie Mims.

Services Offered: Full Production, 24 track recording with Dolby noise reduction, MCI Automated console and recorders, 1/2 inch 2 track mastering, Lexicon digital reverb and EMT 240, Aphex Aural Exciter, S amp rack, parametric EQ, ADP, UREI, V cal Stressors, UHF and mix consoles, Full line of microphones, Digital recording by request, video services also available. I am a professional producer by name.

PETER R. KELSEY

Engineer & Producer
2038 Holt Ave. #10, Los Angeles, CA 90034
(213) 837-7939

Credits: 12 years experience including 6 years at Trident Studios. London with producers: Ken Scott, Roy Thomas Baker, Rupert Hine, Peter Asher, Dennis Mackay, Robert Mutt Lange, and artists: Elton John, Jean-Luc Ponty, Graham Parker, The Fixx, Camel, Cafe Trance, Weird Al, Yankovic, Handy Vanwarmer, City Boy, Lita Ford, Hirstadt, Charlie Marshall, Stanley Burd.

Services Offered: Engineering and mixing for any project, production with artist and/or producer, full production with or without engineering. I will take your project back the studio, book the musicians, assist in arranging and reconstruct your material if needed, work with you at rehearsal, everything it takes to make your music the best it can be. Call me and let's discuss your next project. Resumes on request.

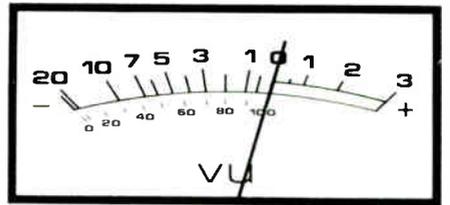
NORMAN KERNER

Engineer & Producer
BRILLIANT PRODUCTIONS
61750-13th St., Richmond, CA 94804
(415) 236-2281

Credits: Terry Halliday, FCC, Line, Frank, Jonathan, Norman & Modern, Levers, Mad Dogs, Husk, the Wave, Frodo, The Masters, Variations, Paralax, Kutter, Mike, Prod., Norman, Greenbaum, Split Image, Control and Tempo, many more.

Services Offered: As a staff engineer at a top 24 track studio I've been involved with record projects from punk to funk to classical. As a studio engineer and vocalist I've helped with some arrangements as well as performance. Please call to discuss any particular project.

INDEPENDENTS



HARRY KING

Engineer & Producer
SKY'S THE LIMIT PRODUCTIONS
Reading, MA 01867
(617) 944-0423

Credits: Joe Perry on MCA, Rebecca Hall on 21 Records/Polygram, Afternoon Delights, Jonathan Edwards, Ann Kenneally, Bill Chinnock.

Services Offered: Independent production, owner King Tattoo Production.

PITT KINSOLVING

Engineer & Producer
820 North Raymond Ave. #44, Pasadena, CA 91103
(818) 792-3531

Credits: Records on Green Linnet, Kickin' Mule, Windham Hill, Folkways and other labels as well as demos, radio broadcasts etc. Artists include Alex DeGrassi, Chris Proctor, Larry Coryell, Dave Pritchard, John Torcello, Patrick Sky, Peter Bellamy, Scottish Fiddlers of Los Angeles, Debbie McClatchy, Roger Sprung, John Mehegan and many, many more.

Services Offered: In addition to folk, jazz and classical music I have re-recorded nearly everything from radio to rock, from Ireland to Indonesia, including mariachi, gospel, Gamelan and Indian tribal dances. I'm quite good in most areas but have a special knack for acoustic instruments. I can record, mix and edit tapes for records, broadcast or "demos" and can handle producer's chores, especially on folk, bluegrass and country projects. Extensive experience with both classical "punch" techniques and multi-track and multi-track give me a unique flexibility to bring out the best in your sound. I'm free to travel and reasonably priced.

BERNIE KIRSH

Engineer & Producer
c/o Mad Hatter Studios
2635 Griffith Park Blvd., Los Angeles, CA 90039
(213) 664-5766

Credits: Chuck Corea, Stanley Clarke, Herbie Hancock, Chaka Kahn, Janis Ian, John Klemmer, Patti Smith, Gary Burton, Lenny White, FreeFlight, Robin Williamson, John Cale, Return To Forever.

Services Offered: Pre-production and production consultation, production, engineering.

DON KOLDON

Engineer & Producer
P.O. Box 145, Reseda, CA 91335
(213) 506-8313

Credits: Former staff engineer at A&M Records. Work for most major labels. Specializing in rock, R&B, pop and jazz.

Services Offered: Recording, mixing and editing, custom made recording equipment available, mike pre-amps, direct boxes, modified equalizers, etc. Exceptionally musical engineering (graduation of Berklee College of Music, Boston, MA). Expert production and co-production, excellent studio access at all budget levels.

MARTIN SCOT KOSINS

Producer
OPEN SKY RECORDS/MUSIC PUBLISHERS
10735 Vernon, Huntington Woods, MI 48070
(313) 546-7558

Credits: Award winning record producer. Composer for: Loretta Swit, Keith Carradine, Bud Shank, Laurindo Almeida, John Carradine, Hank Jones, Al Hibbler, Buddy Tate, Neville Martin, Detroit Symphony Orchestra, The Ink Spots, and leading soloists and Chamber Ensembles throughout the United States, Canada and Europe. Chief Executive Officer of Open Sky Records.

Services Offered: Producer available for selected prestigious album projects, consultancy and review of tapes & potential product, musical arrangements and compositions for film, TV, concerts. Music consultant for recordings and related projects, production and coordination of re-issue projects; consultant to new labels and/or independent artist projects. Lectures and seminars on Recording jazz, classical, nostalgia, adult product, Music publishing, the producer's role and relationship with the engineer and the artist.

NICK KOUMOUTSEAS*Engineer & Producer*1737 Desales St. N.W., Washington, D.C. 20036
(202) 347-8864Credits: Tiny Desk Unit Egoslavia Keith Killgo Anny Pratt Milkwood (pre-Cars Ocacek & Orr), Richard and The Rabbits, Fabulous Friends, numerous gospel albums including Myrna Summers, Insect Surfers, Bob Boilen & Impossible Theater
Services Offered: Production engineering "Have studio—will not travel" Synclavier II, LinnDrum, Prophet 5, Memory Moog, Lexicon, Time & Price aligned**LARRY KRONEN***Engineer & Producer***SULASOUND**

1912 Grove St., San Francisco, CA 94117

(415) 387-1363

Services Offered: Have 8-24 track studio available

DON KRUSE*Engineer***AVATAR SOUND RECORDING**

244 So. A St., Santa Rosa, CA 95401

(707) 576-0586

Credits: Engineered projects for Toby Beau, Merle Saunders Max Gail (of Barney Miller fame), guitarist Steve Komock, Ghosts, various live recordings including Mikhail Baryshnikov and Judy Collins at Madison Square Garden. Also, live sound mixing for large or small projects

Services Offered: Newly built fully equipped 2" 16 track recording studio, digital mastering, complete video services, large selection of microphones, in house or location work, over 10 years technical experience in studio maintenance, acoustical design and studio installation, used equipment bought and sold

ROBERT KRUSEN*Engineer & Producer***KRUSEN '88**

1214-17th Ave. So., Nashville, TN 37212

(615) 320-7982

Credits: Have produced or recorded the following Nashville acts: Neon Bushmen, Joe Lotts & the Pinks, Dave Olney, The Chad Watson Band, Austin Roberts, Hopper, Adonis, Bill Ferreira and others

RON S. LAGERLOF*Engineer & Producer***DBA RECORDING SYSTEMS LTD. /****ONE AND ONE PRODUCTIONS**

5803 Velasco Blvd., Dallas, TX 75206

(214) 826-5418

Credits: Recording and/or mixing Randy Meisner (Eagles), Chuck Rainey, Wayne Newton, Roy Orbison, Hank Williams Jr., John Prine, Mac McAnally, Recoil, Pierce Bros Band, Studio Installations, Dallas Sound Lab (2 studios & film theater), TM Productions (2 rooms), Omega Audio, FirstCom Broadcasting (4 track production), Fair/West Studios (8-4 track production), Sonrise Studio, Sierra Recording (All 24 track except where noted)

Services Offered: Producer for One and One Productions with co-producer, bassist Chuck Rainey. Complete production coordination including Concept & material, studio booking & engineering, contracting musicians & singers and legal consultation, as well as video production assistance. Digital recording with Sony PCM-10 (2 channel). Studio installation and accessories: LP-140 echo plate, Recording Systems headphone/cue boxes, direct boxes, mic panels. Affiliations: NARAS, PAAH of D/FW, Dallas Communications Council. Direction: Involved in promoting interest in the Texas music community, particularly bringing national attention to the Dallas/Ft. Worth area for recording and production. Dedicated to achievement of excellence in audio reproduction and aural perception.

PERRY LA MARCA*Producer***NOATZ PRODUCTIONS**

4048 Via Solano, Palos Verdes Estates, CA 90274

(213) 473-3348

Credits: I have personally produced and/or acted as composer/arranger/conductor on over 500 recordings. Included in these are records for "Westwind" demo productions for Perren-Vibes Music Company, Cable TV and film scores, radio commercials and I.D.'s and custom format music for several "Beautiful Music" radio stations across the country.

Services Offered: Complete services available including composing, arranging, conducting, recording, session supervision, contracting, mastering etc. Please call for answers to your specific questions.

LALLERSTEDT & BUGG*Engineer & Producer***TWELVE OAKS STUDIO**

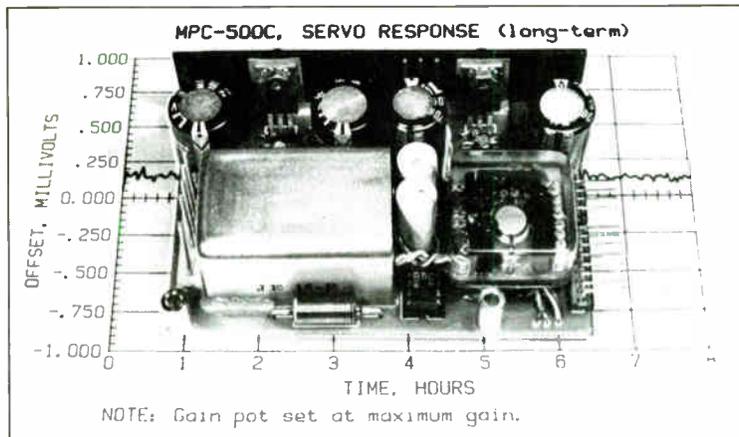
Atlanta, GA 30080

(404) 435-2220

Credits: Pat Terry Group, Teddy Hulflam, Glen Garrett, Mike and Von Rogers, Al Holley, Frank Boggs, His Ambassadors, Mike

**ATTENTION MCI 500C/D OWNERS:
Your mic-inputs will sound much better with
the MPC-500C/MPC-500D mic-preamp cards!**

- **990 OP-AMP** offers higher slew rate and output current, lower noise and distortion, and better sound than stock 5534.
- **JE-16B MIC-INPUT TRANSFORMER** provides one-third the distortion, 15 dB higher input levels and better sound than stock JE-115-KE.
- **SERVO/DC COUPLING** eliminates coupling and gain-pot capacitors resulting in much better sound without DC offset problems.
- **ON-CARD REGULATION** eliminates the need for the MCI "swinging transistors." Reduces crosstalk and improves sound quality. And more!

**THE HARDY CO. BOX AA631 EVANSTON, IL 60204 (312) 864-8060**

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**"Recording game show theme songs
or music for a "Norman Lear" T.V. series
demands my very best...
and a very good
Recording Console."**

HAL HIDEY/HAL HIDEY STUDIOS

THE "SPECKMIX" RECORDING CONSOLE

A complete 16 input-8 output recording console with 16 track monitoring, full function input modules with 3 band parametric EQ, and +4 output levels. Available with "Jensen" mike preamps. Also available, a complete line of "SPECKMIX" expander consoles. Under \$4,400.00

**SPECK ELECTRONICS • (213) 897-4188
12455 Branford St., Unit 2, Arleta, Ca. 91331**

Circle #031 on Reader Service Card

Barnes, Carpenter's Tools, Children of Light H.I.S., McDonalds, Bell, I.B.M., Six Flags, Jazzercise

Services Offered: Twelve Oaks Studio is the 24 track production facility of Sonny Lallerstedt and Randy Bugg. This provides the client a priority rank in the studio. We have been involved in contemporary Christian music since its early days, first with Dove and then the Pat Terry Group. This long association with the music ministry benefits our clients.

MICHAEL LAMB

Engineer & Producer

GATTUSO'S RECORDINGS

1300 Market Ave. N., Canton, OH 44714
(216) 456-2806

Credits: We've done work with Joe Vitale who has played for many artists including Crosby, Stills and Nash, Joe Walsh, Dan Fogelberg and The Eagles. We are known throughout Northeastern Ohio as "The Musicians Choice" and have recorded albums from contemporary Christian to mainstream jazz.

Services Offered: Complete 16 track 2" format studio including, dbx noise reduction, 24 hour recording available. Soundtracks for video tapes, commercials, film, vinyl pressings, or demos. Outboard gear includes, Echoplex, Lexicon MXR, White, Yamaha, dbx 165s, and more. Mikes include Neumann U-87s, AKG-414s, EV-RE20s, Sennheiser 4410s, various Shures and others. Any of our many instruments are available to our customers to use in the studio for free!! Just some of these include a Yamaha CP80 electric grand piano, Yamaha GS1, the new fantastic digital Yamaha DX7 and DX9 keyboards, and a full size Premier drum kit.

JACK LANCASTER

Producer

176 Inverness Way, Alameda, CA 94501
(415) 522-8185

Credits: Produced various artists in top London studios including Rod Argent, Stephane Grappelli, Gary Moore, Brian Eno, Clive Bunker, Phil Collins, Ella Jordan, Manfred Mann, Cosy Powell, Zeitgeist, Kayak, Krsna, The New Ornamentalists, several film and TV scores, etc. Has had hit singles and albums in Europe and USA.

Services Offered: Production, arrangements, compositions, plays all saxes, flutes, clarinet, lyrics. Can supply engineer for productions. Has produced many styles of music including rock, new wave, pop, fusion, etc. Willing to travel.

GARY LEIDER

Producer

522 Shore Rd., Suite 1KK, Long Beach, NY 11561
(516) 889-0244

Management: Talent scout/freelance for Infinity Records on Spyrogyra signing, producer national and local radio spots and promotional manager The Dragons.

Services Offered: Management, production, radio and video, contemporary pop or instrumental.

BRADSHAW LEIGH

Engineer

LEIGH AUDIO ENGINEERING

600 W. 58th St. Suite 9113, New York, NY 10019
(212) 661-9295

Credits: Albums: Joe Jackson "Mike's Murder", Billy Joel "An Innocent Man", Billy Joel "Nylon Curtain", Stephanie Mills "Mercedes", soundtrack "Toolbox" and others. Film scores: "Reds", "D.C. Cab", "Mike's Murder". Video: HBO Simon & Garfunkel HBO Paul Simon Show soundtracks. N.Y.C.'s Little Shop of Horrors.

Services Offered: Extensive experience with video SMPTE interlock, and film, studio and remote recording.

HENRY LEWY

Engineer & Producer

CATALYST PRODUCTIONS

P.O. Box 814, Beverly Hills, CA 90213
(213) 820-5906

Credits: Joni Mitchell, Van Morrison, Leonard Cohen, Stephen Bishop, Joan Baez, Minnie Riperton, Joan Armatrading, Hoyt Axton, Bill Hughes, Leah Kunkel, The Flying Burrito Brothers, Keller & Webb, Jude Johnstone.

Services Offered: I'm sensitive to people's moods, I enjoy music and I've got lots of patience. I allow creative freedom with control. I have extensive experience in recording, mixing and editing. I enjoy working with new talent. My sessions are fun and this seems to inspire the artist to reach new heights. I enjoy my work and my relationship with the artist.

JIM LINKNER

Engineer & Producer

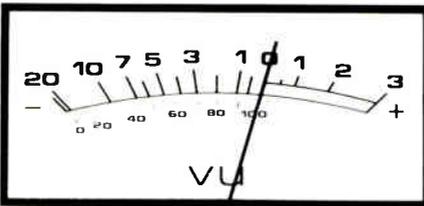
JIM LINKNER

1015 Aolaa St #330, Kailua, HI 96734
(808) 261-8232

Credits: Engineered over 350 albums in the state of Hawaii. Received two Hoku awards (Hawaiian Grammys) and one Nani award for engineer of the year. Recorded artists such as Eric Martin Band, Davey Johnstone, Herbie Hancock, Mark/Almond, Ted Neeley, Lee Oskar, Don Ho, Seawind.

Services Offered: Recording/mixdown engineering (remote and studio), production concept and music co-production, budget and package planning, lodging and facility coordination in Hawaii for visiting groups.

INDEPENDENTS



BARRY L. LITTLE

Engineer & Producer

NOMAD PRODUCTIONS, INC.

1557 Monroe St., Mobile, AL 36604
(205) 479-2769

Credits: Religious recordings for Cottage Hill Baptist Church & Dauphin Way Baptist Church, radio dramas for WHIL-FM in Mobile, operatic & classical music recordings for WHIL-FM.

Services Offered: Two track mobile unit; Sound reinforcement, specializing in monitor systems, Broadcast maintenance, Tape duplicating, Production of radio dramas; Live music broadcasts.

GARY LOIZZO

Engineer & Producer

PUMPKIN RECORDING STUDIOS

6737 W. 95th, Oak Lawn, IL 60453
(312) 598-3045

Credits: Engineered Styx (Cornerstone, Paradise Theater, Kilroy). Engineered and co-produced (REO Tuna Fish album, Skatish album, Survivor Rebel Girl single, The Kind album, Heartshield album, Omni album, Peter Brown album).

Services Offered: Complete studio (48 track) production & engineering services.

DAVID LUKE

Engineer & Producer

Santa Cruz, CA

(408) 426-3340 or (408) 475-7505 message only

Credits: Eddie and the Tide, Humans, Steve Marnott, Leslie West, Lee Catzman, Quartet, Al Plank, Trio, Film/TV, Shure Films, Gene Evans films, and jingles of America.

Services Offered: Engineering, record and demo production, location film sound and live mixing. Reasonable budgets, per-production planning, quick demos, co-productions and good boardside manner.

LEE LUSTED

Engineer & Producer

LEE LUSTED MEDIA SERVICES

2601 College Ave. #111, Berkeley, CA 94704
(415) 540-8467

Credits: 10 years experience in multi-track audio and video production. Audio production for film, video, radio, multi-media and live sound. Video production for broadcast and cable TV, and educational media. Experience with CMX editing. Special interest in high quality audio for video applications.

Services Offered: Audio for video and film. Video camera work and video editing. Video and audio system design and set-up. Project consultation and planning.

GORDON LYON

Engineer & Producer

GROUND ZERO RECORDING

177-29th St., San Francisco, CA 94110
(415) 456-7666

Credits: Staff Engineer, Tres Virgos Studios. Clients include Mingo Lewis, Stewart Copeland (The Police), Ronnie Montrose, Francis Ford Coppola Presents, Peter Bilt, Tamann Productions.

Services Offered: Albums, singles, demos, video, soundtracks, film scores, jingles, live recordings. I am experienced with various audio/video/film interfaces as well as tight budget and time limits. Making your sound better. At Ground Zero, pressure is just part of the job.

JACK MALKEN

Engineer & Producer

SECRET SOUND STUDIOS

147 W. 24th, New York, NY 11023
(212) 691-7674

Credits: Ya Mama, Wu Ticket, Prelude Records, Cosial You, Uptown, Silver Screen Records, Can't Stop Til I Reach the Top, Silver Screen Records, Hustlin' Tim: Silver Screen Records.

Services Offered: Engineer, producer, remix, live, remotes, video, Dancer Records, Rock'n'roll, etc.

PATRICK MALONEY

Engineer & Producer

61 Elsie St., San Francisco, CA 94110
(415) 285-6071

Credits: Engineered 20 Direct-to-Disc Albums for Crystal Clear

Records, Co-engineered & produced Blondie "Atomic" EP (European Release). Fifteen years live concert mixing for Herb Alpert, Liza Minnelli, Burt Bacharach, Monterey Jazz Festival, Blondie, etc.

Services Offered: Specialize in projects requiring speed and efficiency based on many years of live "one take" engineering & producing.

JORGE MARTIN

Producer

STREET LEVEL PRODUCTIONS

5741 Carlton Way #305, Hollywood, CA 90028
(213) 466-8916

Credits: Rubbed shoulders with musicians like producer Clayton Richardson (Bill Summers), Gramavision recording artist Pheerdan AK Laff; NYC drummer Richy Morales (Brecker Bros.); Jim Felder (Blood, Sweat & Tears); Fred Allen (Fresh); Jack Rigg (David Johansen); Ronco Morris (Was Bros.); Blue Standard Music Publishers. Technical and aesthetic studies: University of Michigan and UCLA.

Services Offered: Impressionistic world music approach that reflects a multitude of varied musical and rhythmic influences. An arsenal of some 30 different indigenous percussives can be activated in the modus operandi. Involved with all the creative elements; composition, performance, conception, organization and production. Acute listening, unlimited flexibility and sensitivity. As a conduit-catalyst (causing a reaction and capturing it on tape) The focus is on audio-imagery, culminating in an acceptable illusion. A musical strategy whose totality encompasses a world of sound. Production that aims to communicate on an instinctive level—Street Level.

DAVID W. MATHES

Engineer & Producer

THE MATHES COMPANY

Box 22653, Nashville, TN 37202
(615) 824-3475

Credits: Eddie Albert, Johnny Cash, Tom T. Hall, Blackwood Bros., Dolly Parton, Faron Young, Warner Mack, The Four Guys, Roy Drusky, Jerry Lee Lewis, DeAnna, Mel Tillis, Oakridge Boys, Jeannie C. Riley, Honeytree, Sonny Throckmorton, Capitals, Jimmy Gateley, Leon Everette, Silver Eagle Band, Johnny C. Newman.

Services Offered: Freelance engineer, also complete record production and publishing. We specialize in gospel and country music. With over 25 years in Nashville, we earned our reputation and we are anxious to keep it. You may get it done cheaper, but you'll never get it better than with us. For information, please write to: Col. David Mathes.

DAVID MATHEW

Producer

c/o Spectrum Studios, Inc.
905 S.W. Alder, Portland, OR 97205
(503) 245-0248

Credits: I have engineered for 12 years for Pacific Northwest, national and internationally selling acts and have charted on singles chart in Billboard as a producer.

Services Offered: Guidance in selection of material and in arranging, pre-production demoing before session, contracting, direction & engineering in studio, mixing with two of the best ears in the Northwest.

ROBIN McBRIDE

Producer

BIRD PRODUCTIONS

1946 N. Hudson Ave., Chicago, IL 60614
(312) 787-6060

Credits: Own small label (VU Records), have produced jazz, rock'n'roll, new wave, progressive soul, experimental music. Celebrating 20 years of producing including: Bohemia, Ohio Players, Chuck Mangione, Heartfield, Buddy Miles, Chico Hamilton, The Remains and many more. As A&R Management exec. 3 years Columbia/Epic, 3 years Folkways, 11 years Mercury. Guest lecturer at Columbia College.

Services Offered: Production and general music business consultation, label release and music publishing, presentation of acts/product/demos to major labels.

CHARLES McDANIEL

Engineer & Producer

230 W. 107th St., New York, NY 10025
(212) 666-4376

Credits: 10 year experience w/Fortune Five Hundred Co., 2 first place awards at AMI for scoring and mixing soundtracks. 3rd place IMI for scoring and mixing soundtrack.

Services Offered: Film/video location sound, film mixing, video sweetening, multi-image production i.e. producing, scoring, mixing. Sound reinforcement, Business theater.

HUEY P. MEAUX

Producer

SUGAR HILL STUDIOS

5626 Brock St., Houston, TX 77023
(713) 926-4431

Credits: 40 gold records throughout the years, plus platinum albums with artists: Freddy Fender, Sir Douglas Quintet, B.J.

Thomas, are among the numerous artists who have been affiliated with us over the years. We have two 16 track studios.
Services Offered: Hit records

MICHAEL MIKULKA

Engineer & Producer
GOPHER BAROQUE PRODUCTIONS
 7560 Garden Grove Blvd., Westminister, CA 92683
 (714) 893-3457

Credits: Berlin, Otha Young/Juice Newton Band, Meadowlark Lemon, Knotts Berry Farm, 1st place winners, American Song Festival for past 3 years (inc. Michael David - grand prize) "Christmas Needs Love" performed by Andy Williams (Bob Hope Christmas Special).

Services Offered: Owner of Gopher Baroque Productions, a full service facility which includes a recording studio, publishing company & fully synthesizer lab (ted in w/2 record labels). Looking for pop/new music bands, singer/songwriter, strong performers seeking material

KEVIN MISEVIS

Engineer & Producer
KIM CHANDA SOUND STUDIOS
 Star Route Box 9, Stamford, NY 12167
 (607) 652-3387

Services Offered: 24 track recording, automated mixing, video recording, housing accomodations on 360 acre horse & ski farm, secluded out way setting \$5,000/week (18 hrs per day) includes housing accomodations. All outboard equipment included 224X Lexicon digital reverb, Pultecs EQ, UREI limiter, Lexicon Prime Time, MICMIX, Aural Exciter, Aphex comp/lim/exp Mikes: Neumann, AKG, Electro-Voice, Shure, RCA, ARP synthesizer, Prophet 600, Casio, Rhodes, Baldwin piano

ROBERT L. MISSBACH

Engineer & Producer
REAL LIVE MUSIC
 P.O. Box 684, Mill Valley, CA 94942
 (415) 383-8919

Credits: References and discography available on request. Musical training SF Conservatory of Music. Chief Engineer: Tres Virgos Studios, San Rafael. Maintenance Engineer: The Plant Studios, Sausalito.

Services Offered: Complete audio production and engineering; live mixes to multi-track recording; audio for film/video, commercials, demos, records.

ANTHONY R. MODSTER

Producer
CLARK BROWN AUDIO
 3210 W. 54th St., Los Angeles, CA 90043
 (213) 296-0352

Credits: Richard "Dimples" Fields, Larry Farrow, Hence Powell, The Patterson Twins, Monty Seward, Roney Hasely, Worlds of Curls, Pro Line, "OUCH", 7th Heaven, Leslie Dayton, Ray Hall and Company, Tute Heath, Dave Moch, Donny McCullough
Services Offered: 16 and 24 track recording, cassette and reel to reel copies, live sound systems max 3000 seaters

CARLTON MOODY/DAVID MOODY

Engineer & Producer
LAMON SOUND STUDIOS
 6870-A Newell-Hickory Grove Rd., Charlotte, NC 28212
 (704) 537-0133

Credits: Billboard Single Picks include artists Oscar Burr, Carlton Moody, and Billy Scott and the Georgia Prophets. Over 100 album and jingle projects. Nominated Record Producers of the year - 1983 (Beach Music Association Awards). Involved with the production of Square Dance recording for Lamon and Panhandle Records.

Services Offered: Production services include mono to multi-track production; voice to musical styles including country, bluegrass, beach, square dance and gospel. Services offered through CDT Productions. Our clients are our best advertisement.

PHILIP S. MOORES

Engineer & Producer
 313 Raymondale Drive, Apt. C, So. Pasadena, CA 91030
 (213) 799-0320; In London (01) 445 4860

Credits: I have worked in LA for six years with such diverse clients as: Vinnie Poncia, Kim Fowley, David Carr, The B'zzz, The Ventures, The Johnny Z Band, The Fools, Peter Noon, Patrice Rushen, George Duke, Tina Turner, Brenda Russell, Harvey Mason, Tavares, Helen Reddy, Flora Purim and Airto, and Tommy Faragher.

Services Offered: I can offer my clients complete engineering services, from in-studio recording to full production, including film and video. As well as engineering, in the past year I have started producing local talent such as "Picture This" and "Divine Design". I have also been recording and mixing post-production sound for video and film, and can produce a music video from the basic tracks to a ready-to-air finished product. I am very enthusiastic, hardworking and creative, and always interested in something

new and challenging. For a skilled and professional approach to your project, call me.

RICK MURPHY

Engineer & Producer
RICK MURPHY CREATIVE SERVICES
 The Meridian Building, 2984 Triverton Pike,
 Madison, WI 53711
 (608) 274-2825

Credits: Twelve years' full-time audio production and engineering experience. Roughly 200 records (including Tony Brown and Ben Sidran), 1000's of demos (all types of music), 1000's of jingles and other commercials, 100's of film, television and A/V soundtracks. Dramatic programs heard on NPR, CBC and BBC.

Services Offered: Specializing in audio production for records, film, television and audiovisual soundtracks, network and syndicated radio programs (dramatic and otherwise) and broadcast commercials. Full pre-production consultation, studio selection, musician and actor hiring, producing, directing, and/or engineering, in-studio and on-location, music arrangement and script assistance. Narration/production facilities on-premises, within an easy drive of several multi-track facilities. Available to fly to out-of-town assignments with sufficient notice. Collection of vintage condenser and ribbon microphones available.

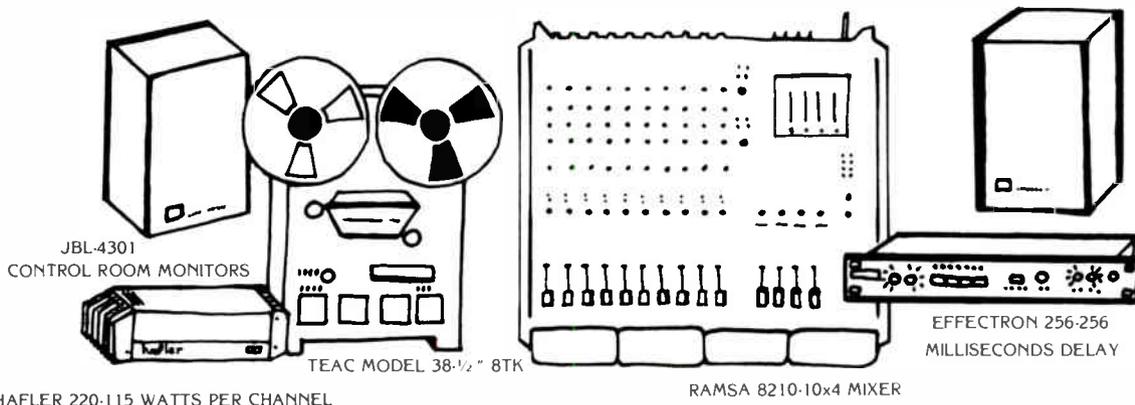
PETE MYERS

Producer
P.M. PRODUCTIONS
 P.O. Box 6477, San Jose, CA 95150-6477
 (408) 294-0944

Credits: Pete Myers is the President and Chief Research Scientist of P.M.'s sister corporation—the only corporation dedicated to psychoacoustic research and the O.E.M. licensing of its technology to the recording industry. Mr. Myers is responsible for the first bionic emulation of the human auditory system.

Services Offered: P.M. Productions provides state-of-the-art, psychoacoustically encoded, digital recording, of acoustical events, for Compact Disc mastering. The recordings, when listened to via headphones, transport the listener's location through time and space, so the listener has the acoustical perception that he or she is at the acoustical event. This recording technology is as radical a departure from stereo, as stereo was to mono. P.M. will slate a limited number of productions in 1984 as an "equipment rehearsal" for P.M.'s sister corporation in developing the technology for the recording industry and to make it available for O.E.M. licensing.

MORE for LESS!



COMPLETE
 8 TK STUDIOS
 from
\$4975.

As a serious musician, your recording studio should reflect the quality of your music. And you know that hooking together high quality components doesn't always deliver that "special" sound.

At AEA, we design systems for the brightest recording artists in the country.* We know what systems sound great together no matter what the budget. We can set you on the road to a super sounding studio whether you're starting at 1/2" 8-TK or upgrading to 2" 24-TK. Call us; you'll like what we deliver.

NEED MORE TRACKS? FOSTEX B-16 1/2" 16TK or TEAC 85-16B 1" 16TK also available
 *List available upon request



1029 North Allen Avenue • Pasadena, CA 91104 • (213) 684-4461 or (818) 798-9127

JOHN NEVIN*Engineer & Producer***JOHN NEVIN CONSULTING & PRODUCTION**

265 Auburn, Winnetka, IL 60093

(312) 446-2285

Credits: The Luchs Brothers, The Marquis Prettyboys, Z Factor, Stan Nevin Band, Carolyn Love, Wind, Rescue Mission, Buffalo Trout, Mark Ghent, Front Lines, Jim Glover Band, Banjo Buddies Dixieland Band, Dave Holmbo, Magic, Raphael Productions, Robert Conant, Guy Wheel, Deep River

Services Offered: First class, professional recording. With personal attention.

DAVE NODIFF*Engineer & Producer***STUDIO N PRODUCTIONS**

706 Waverly St., Framingham, MA 01701

(617) 872-6843; 965-0778

Credits: Engineered and/or produced LPs Douglas Ecker (2), Fred Sokolow, Paul Krieger. Video soundtrack Levi Strauss & Co. Clients: Blair Perry (ex Blackbyrds), Willy Holtman, Ron King (ex-B Preston), The California Little League. Album credits since 1976, experience in Los Angeles as second engineer on many major label projects, 1978-82. Complete track record available.

Services Offered: Expert production assistance, concentrating on overdubs, mixdown. Music customizing/editing, transfers, record pressing, film and video soundtracks, SFX, digital drums digital mix. Please contact for full info and rates.

JOHN NOWLAND*Engineer & Producer***MIXMSTR PRODUCTIONS**

239 Huckleberry Trail, Woodside, CA 94062

(415) 851-8537

Credits: Neil Young, Juice Newton (w/Elliott Mazer), Maze (4 gold LPs), Dr. Hook (Only 16), Sammy Hagar, Herbie Hancock, Angela Bohil, Patti Austin, Phyllis Hyman, Stacy Lattisaw (w/Narada Michael Walden), James Lee Stanley, American Gypsy, Spargo, Diesel (in Europe)

Services Offered: Engineering, producing and systems design consultation in America & Europe. 12 years engineering & producing albums and singles in studios throughout the State and Europe, well established as well as new acts, means a knowledgeable, fast adaptable partner in getting your sound and making your music. Here to make your project a successful joy instead of a unsatisfying labor. Offices in SF, CA and Amsterdam, The Netherlands, to serve your needs.

STEPHEN O'HARA*Engineer & Producer***BIG GUY PRODUCTIONS/COTTAGE RECORDS/****OLD MILL MUSIC**

San Francisco, CA

(415) 346-6225

Credits: 17 years as singer/songwriter/performer. Have placed over 30 tunes with publishers. Grand prize winner, Tokyo International Song Festival. Produced and engineered hundreds of demos and disks for Bay area artists and voice talent, including Kid Courage, Los Microwaves, Roberta Vandervort, Manx, Roy Loney, and numerous non-commercial voice talents.

Services Offered: Cost conscious production of demos, records, soundtracks and commercials, from concept through finished product. Resources for video production, pressing, cover design, promotion and publishing. I strive to create strong commercial product while preserving the artist's musical and creative integrity. Please call me and let's talk.

BOB OLHSSON*Engineer*

3653-24th St., San Francisco, CA 94110

(415) 821-1233

Credits: Staff Engineer, Motown-Detroit, 1965-1972. I participated in 14 #1 pop singles, numerous #1 R&B singles and over 100 million-selling singles. At least one of our team members has had something in the top 20 continuously for 20 years. I've also worked with Tony Clarke (Moody Blues), Mick Most and Andrew Loog Oldham.

Services Offered: My area of greatest expertise is the hit single record. I engineer or co-produce. Also mastering supervision and quality control. I also consult on studio construction equipment, engineering and production. I have engineered a lot of successful rock records as well as R&B and gospel.

GRADIE J. O'NEAL*Engineer & Producer***TIKI SOUND STUDIO**

792 E. Julian St., San Jose, CA 95112

(408) 286-9840; 286-9845

Credits: Various artists nationwide.

Services Offered: Producing albums for television marketing, producing albums in country and gospel. Arrangements for strings, horns, background vocals.

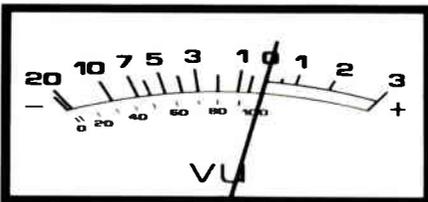
JEANNINE O'NEAL*Engineer & Producer***TIKI SOUND STUDIO**

792 E. Julian St., San Jose, CA 95112

(408) 286-9840; 286-9845

Credits: Various artists nationwide.

INDEPENDENTS



Services Offered: Producing albums for television marketing. Producing albums in rock, pop, country and gospel. Arrangements for strings, horns, background vocals.

JOHN PALERMO*Engineer*

229 W. 26th St., New York, NY 10001

(212) 989-9341

Credits: Engineered albums with Gato Barbieri, Randy Brecker, Edgar Winter, David Sanborn, Tommy Mandel, The Sir Douglas Quintet, Assisted with the Rolling Stones, Hall and Oates, Foreigner, Joni Mitchell, Joan Jett, Ronnie Spector, Billy Joel.

Services Offered: Very familiar with rooms at several major 24 track studio in the New York area as well as the rooms at less expensive facilities that provide high quality and comfortable working conditions. Able to adapt to unfamiliar rooms easily. Experienced in recording all kinds of music including jazz and rock as well as dance and synthesizer music. I am also a musician making communication much easier in studio.

DOUG PARRY*Engineer & Producer***SMOKETREE MUSIC**

1124 N. Hollywood Way, Suite B, Burbank, CA 91505

(213) 998-2097

Credits: Independent production. Engineering credits: Hill St Blues, Magnum P.I., Theme from Greatest American Hero, Nine to Five, Tom Wopat, Dolly Parton, Mike Post, Englebert Humperdinck, Gino Vannelli, Cicellio & Kapono, Sylvester Stallone, Joey Scarbury, many more.

Services Offered: Independent production engineering film and remotes.

STEPHEN PENN*Engineer & Producer***NORTHWEST RECORDING**

319 N. 85th, Seattle, WA 98103

(206) 789-1369

Credits: Best of Northwest 82, B.S. Heart, Randy Weston, Vonne Griffin, Michael Biso, Mark Lewis, Mad Shadows, American Boys, Rumours, Kevin Wallace, Ghost Riders, Blue Lights, Crosstown Rivals, Mickey Martin, Al Turray, Jim Valley, Lonesome City Kings.

Services Offered: Complete 16 track, 8 track production facility in-house production company. Melody Productions, Reflection Records house label.

JULIE ANNA PEREZ*Engineer*

5711 S.W. 45th Terrace, Miami, FL 33155

(305) 662-1593

Credits: Independent engineer for the following organizations/production companies: National Public Radio, Gold Rush Productions, Greater Miami Opera Association, UM Public Relations, Ron Miller/Gary Keller Quintet, ECM, Avant Garde, and Fusion Ensembles - Ron Miller, director, many others. Awards/affiliations: 1983 Down Beat Award - Best Engineered Live Recording, Audio Engineering Society, Acoustical Society of America.

Services Offered: Concert Recording. Live to multi-track or 2 track. Experienced in all musical styles including jazz (fusion, avant garde, big band), classical and rock. Sound Reinforcement PA/monitor engineer for small club to large concert hall performances. Studio Session Work: Albums, demos (record company, publishing company, club gigs, etc.) and jingle production. Television production: All aspects of audio for video including "live to tape" studio and remote productions and recording all pre- and post-production music/dialog. Film Production: On location audio engineer, film scoring and Foley recording engineer/mixer. Audio Maintenance: Maintenance and installation of equipment, tape machine calibration and systems design.

ROB PERKINS*Engineer & Producer***DR. ROBERT PRODUCTIONS FOR RASPBERRY RECORDS**

2212-4th Ave., Seattle, WA 98121

(206) 624-8651

Credits: Labels RCA, CBS, MCA, Epic, Warner Bros., Motown, Capitol. Platinum LP award: Heart's "Bebe Le Strange", Gold Award: Heart's "Greatest Hits/Live", Heart's single, "Tell It Like It Is" (recording and mixing). Bachelor of Science Degree in Music Composition.

Services Offered: Engineering/production for singles and LPs.

Includes: Song selection, structural organization, melodic and lyric refinement, arrangements, layered orchestration, creative instrument ambience and balance, audio image construction, vocal style development, Mastering and pressing assistance. General career advice. Positive encouragement.

MICHAEL PETERS*Engineer***PETERS SOUND RECORDING SERVICE**

Euclid (Cleveland), OH 44123

(216) 731-4171

Credits: "Telelesta" contemporary passion play Harry Hershey's personal sound engineer. Unda USA conference (soundtrack to multi-image production). Catholic Diocese of Cleveland marriage office video production "Natural Family Planning", Lordburger, Shoppers Choice jingles, etc.

Services Offered: Demos, albums, singles and jingles, multi image slide shows, reinforcement work.

KAREN IRVING PETERSEN*Producer*

New York City, NY 10036

(212) 354-4289

Credits: Co producer and engineer Craig Anderton's album "Down to the Wire," have licensed as producer albums throughout Europe and South America.

Services Offered: New wave rock and R&B production. I view production as a cooperative effort from choice of songs to mix down. I work with 2 major 24 track NYC studios and can get the finished master heard in the A&R departments of most American and foreign record companies.

TOM K. PICK*Engineer & Producer***GOLDUST PRODUCTIONS**

316 Appomattox Dr., Brentwood, TN 37027

(615) 373-0288

Credits: 24 gold albums, 3 platinum albums, 4 gold singles, 1 double platinum and 1 triple platinum albums.

Services Offered: Complete recording services.

KEN PINE*Producer*

4 Horizon Rd., Apt. G21, Fort Lee, NJ 07024

(201) 224-0043

Credits: "Inside Out" Jim Lord - Billboard Top Pick. Jack and the Family Jewels single "Maybe" & "City Kids" Gary Meekins EP in production (album untitled) for release after New Years. Various demos for label consideration. Plymouth, Alexanders, Widmer Wine (TV) commercials, etc.

Services Offered: Production, arranging, keyboard, guitar, singing.

STEVE PONZETTO*Engineer***SPL SOUND & MUSIC, INC.**

2006 So. Delsea Dr., Vineland, NJ 08360

(609) 691-6690

Credits: The Agents, Dick Tracey, The A's, The Vels, Fantare, The Dirt Band, Old City Day '83, Chet Bolins, Polyrock, Brackets, Culture Festival '78-83, Adams Dance Academy, Rita Grant Dance Studio, Garcon Pier Marathon Run #1, Alan Man, Big Street, Hagley museum show #3, Sportsman, Imboree '78-83.

Services Offered: Studio and live sound engineering. Rental, sales and service of Pro PA recording and musical merchandise.

GARY POWELL*Producer***PSP RECORDS**

303 W. 12th, Austin, TX 78701

(512) 478-6941

Credits: Phillip Sanditer, contemporary Christian, Megan Meisenbach, classical flute, Tony Taliaferro, country, Dave Kemp, country, Al Nelson, top 40, Karla Taylor, country, Randy Ellis, gospel, Tish Lunville, crossover country, Rhema, gospel, Joe Scruggs, children's music, Tommy Pierce, top 40, Johnny Reed, country.

Services Offered: Arranger/producer, recording primarily in Austin and Dallas. Marketing and placement of masters by Ron Lee Management, Canoga Park, California.

JEFFERY J. PRATT*Engineer & Producer***AMERICAN RECORDING CENTER**

515 W. 18th St., Orlando, FL 32805

(305) 425-1342

Credits: Have done sound engineering work for Van Halen, Edy Money, The Cars, Marvin Gaye, Weather Report, Herbie Hancock, The Dirt Band, England, Dar, & John Ford Coley.

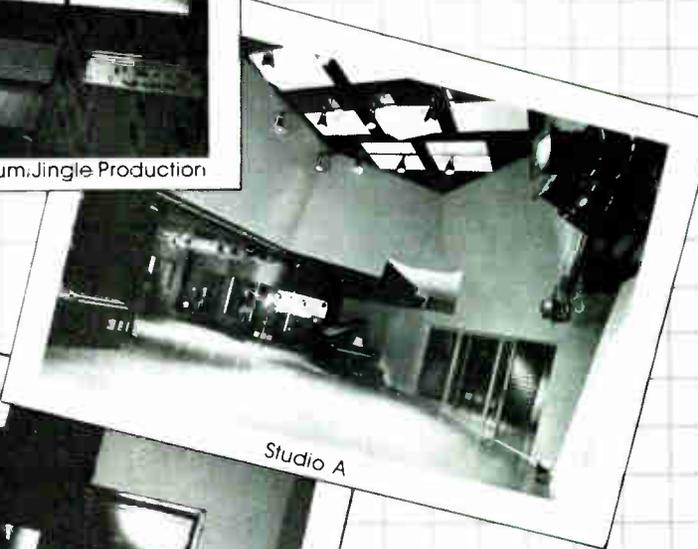
Services Offered: I now have my own 16 track studio in Orlando, Florida where I am presently engaged in producing young, new progressive groups. I supply a house that sleeps 8 people next to the studio, free of cost, to those working on an album at a rate of \$55/hr recording time. Also a 16 track mobile with 3 camera video capability.



Film Scoring, Video Sweetening, Album/Jingle Production



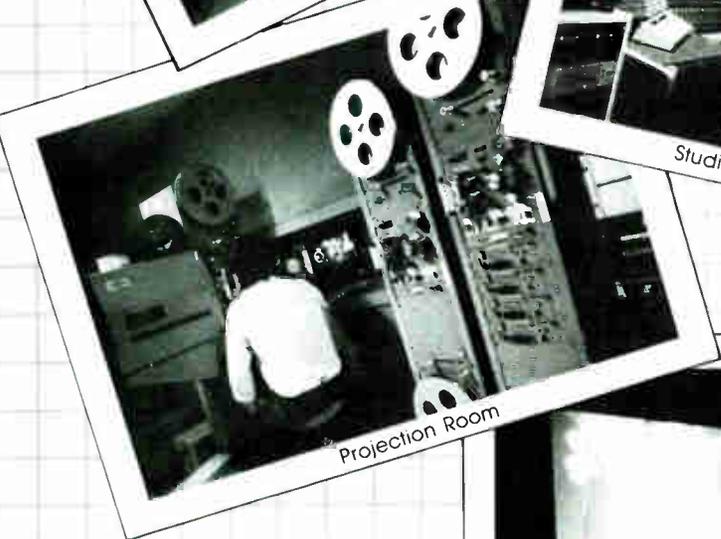
Control Room A



Studio A



Studio B-Video Sweetening



Projection Room



Film Editing



Film Screening

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*To sound good is not enough
when you dream of sounding great.*

DALLAS
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SPENCER PROFFER

Producer
PASHA MUSIC ORGANIZATION, INC.
5615 Melrose Ave., Los Angeles, CA 90038
(213) 466-3507
Credits: Quiet Riot, DNA, Billy Thorpe, Streetheart, Randy Bishop etc.
Services Offered: Full production capabilities

NORBERT PUTNAM

Producer
TREBRON PRODUCTIONS, INC.
134 4th Ave. N, Franklin, TN 37064
(615) 790-8696
Credits: The Dirt Band, Jimmy Hall, Dan Fogelberg, Jimmy Buffett, Florence Warner, Mickey Newberry, Jesse Winchester, Kris Kristofferson, Joan Baez

D.J. RADKO

Producer
PLUM PRODUCTIONS
5988 Silvery Ln., Dearborn Heights, MI 48124
(313) 277-0082
Services Offered: Production of "new original" talent in the top 40 field

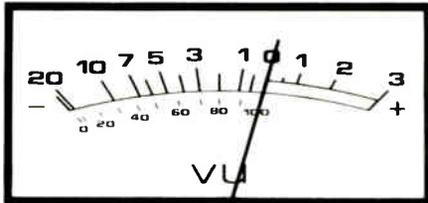
PHIL RAMONE

Engineer & Producer
Route 2 Box 233, Pound Ridge, NY 10576
Credits: Billy Joe, Kenny Loggins, Paul Simon, Barbara Streisand, Chicago, Karen Carpenter, M. D., Seal, Phoebe Snow, Madonna and many others.
Services Offered: Works with major labels, recording, mixing, Grammy award winning producer/engineer. Film scoring. Most recently supervised music for the hit film "Flashdance"

ALEX RAPHAEL, WAYNE LANDRY, SAM RAPHAEL

Engineer & Producer
STARWEST PRODUCTIONS
5900 S.W. Rhododendron Dr., Port Orchard, WA 98366
(206) 674-2609
Credits: Sound reinforcement for Head East and Elvin Bishop tours, co-production for Le Max's demo tape, promoters of 1st annual Summer Jam, promoters of Rais album release party

INDEPENDENTS



(Bremerton), currently designing Glamour Tracs Studio, developed StarSound Speaker Series
Services Offered: Studio & sound reinforcement consultants, Studio & sound contractors, Concert and stage illumination consultants & contractors, Professional audio products dealers, Carver Pro Audio, Emilar, Klark Teknik, Brooke-Siren, Pulsar Labs, Canonic Wire Products, Symetrix, Orban, N.E.T., Bobacilla Cases, Custom Patch Bays, snakes, cabling, concert sound system rental, lighting system rental, producer & engineer availability for tours etc.

JERRY RAY, PRESIDENT

Producer
JERRY RAY PRODUCTIONS
P.O. Box 1350, So. Pasadena, CA 91030
(818) 799-0478
Credits: Sparrow Records, Altria Publications, Fred Brock Music, Gentry Publications, Jensen Publications, Fantasia Enterprises, Sunshine Inns, William Pitt Jewelers, Leading Jewelers Guild, Hart's Jewelers, One More Chance Disco I.W.L., LA Children's Theatre, Down In My Heart, Kathy Fitzgibbons, I Believe In Love, Carl McIntyre, Look For the Light, Thelma
Services Offered: Jerry Ray Productions is in touch with all aspects of the music business. We offer our clients complete production services from start to finish—concept to completion—within your budget! We have the resources and expertise to handle ANY music production situation including master album projects, TV/radio jingles, TV/movie themes, station IDs, demo production, artist development, musicals, films, educational product, live performance tracks, contemporary Christian/gospel

projects, arrangements with access to incredible studio musicians/vocalists and superb master quality studios JRP can create your dream!

STEVEN REMOTE

Engineer & Producer
REMOTE MEN ENTERPRIZES/AURA SONIC MOBILE AUDIO/VIDEO
140-02 Poplar Ave., Flushing, NY 11355
(212) 886-6500
Credits: TV Audio, Frank Zappa, James Brown, Lena Lovich, Paddy Noonan, Soca Festival, Steve Forbert, N.Y. String Orchestra, Johnny Thunders, FM Live Broadcasts, The Police, XTC, The Members, Jerry Lee Lewis, Sam and Dave, Joan Armatrading, Magazine, Buzzcocks, Gary U.S. Bonds, Polyrock etc. Records, Man Parrish, Stevie Wonder, Simple Minds Live, Chris Rush Live, David Sanborn, Marcus Miller, Sal Richards Live, Remote Men, Quest, Screaming Honkers Live Audio, Man Parrish, Madonna, Shannon, Clark, Yiannis Parios, Soul Sonic Force, New Addition, Klau, Nomi Hill, Crash Crew etc.
Services Offered: 4 track mobile audio video for pre and post production, audio mixing, engineering and production (32 track digital available upon request) plus sound reinforcement

SLIM RICHEY

Engineer & Producer
SLIM RICHEY PRODUCTIONS
7121 W. Vickery #118, Fort Worth, TX 76116
(817) 731-7375
Credits: Produced 50 albums on Ray Sharpe, The Winkles, Bugs Henderson, Country Gazette, others. Recorded many stars in studio: Delbert McClinton, Ricky Scaggs, Grandpa Jones and Ry Coker. Own four record labels and two publishing companies including Flying High Records, Tex Grass Records, Grass Mountain Publishing, BMI, and Ridge Runner Publishing (ASCAP).
Services Offered: Specialize in start to finish production of albums, singles and demos including taping, selecting musicians, arranging, publishing, art work, negatives, jackets, labels, and pressing. Help with song placement, shopping and negotiating record deals, distribution and some promotion. Experienced at producing rock, country, jazz, blues, bluegrass and new acoustic music. Good contacts with major record labels, important publishing firms, and other producers.

KURT RIEMANN

Engineer & Producer
NIGHTWORK RECORDS
325 W. Potter Dr., Anchorage, AK 99502
(907) 563-3251
Credits: Most recently "Nightworks" an album of classical and original electronic music, producer/engineer's most Alaskan albums a rustic rock jingle work new themes, sound effects.
Services Offered: Electronic music drops, computer voices etc. Also jingles and album work at our own Survival Studios 16 track MCI equipped facility; music on buy out or lease, call for availability.

T. MALCOLM ROCKWELL

Producer
FURWORTHY PRODUCTIONS, INC.
24924 Campus Dr., Hayward, CA 94542
(415) 886-6048
Credits: Mr. Rockwell has been active as a musician (piano, banjo & guitar), arranger & composer since childhood. He has performed both live and in studio with Steppen Stills, Gram Parsons, Luther Tucker and Hound Dog Taylor among others. Through his preference (as musician) is blues, Mr. Rockwell has produced, and is experienced in, a broad range of musical idioms.
Services Offered: Mr. Rockwell is also the owner/manager of Rainbow Sound Studios a small but tasty 16/8 track facility located in Hayward, CA (SF East Bay), and president of Furworthy Productions, Inc., a full service musical talent development corporation. With offices in both New York City and the San Francisco area, Malcolm and his co-partner Adam Kreiswirth, specialize in the field of "in-industry" promotion and exploitation of new acts. So, if you seek "overnight success", do not call Furworthy— if you have the tenacity to take time to it right and, most importantly you have the talent please phone us. Because we do!

W. DALE ROGERS

Engineer & Producer
EXCALIBUR PRODUCTIONS
2213 Highcrest Dr., Bedford, TX 76022
(817) 283-0624
Credits: Engineered/produced recordings intended for local and national radio broadcast: Stevie Ray Vaughn, Randy Meisner (assistant engineer), Carlos Montoya, Jim Houseman, Gary P. Nunn, Townes Van Zandt, Shake Russell/Dana Cooper Band, Uncle Walt's Band, Elmar Oliveira, Austin Symphony Orchestra, Concord String Quartet, University of Texas (Austin), Jazz Ensembles etc.
Services Offered: Whether your need is a demo tape, a record, a radio production, an audio/visual production, a script, or just advice, please call. Residing in the center of the Dallas/Fort Worth area I am a 1978 honors graduate of the University of Texas at Austin with a Bachelor of Science degree in Radio-Television-Film, an advanced graduate of the Eastman School of Music

PIANO STILL SOUND LESS THAN GRAND?



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In IL, AK, HI, CAN. Call 1-312-359-9240

Recording Institute, and a member of the Audio Engineering Society.

DON ROSS

Engineer & Producer

3097 Floral Hill Drive, Eugene, OR 97403
(503) 343-2692

Credits: Studio: Dan Siegel; Inner City, Don Latafski; Pausa, Jim West; MCA, Sterling Whipple, Elektra, Sneakers; City Lights, Don Norris; Pheasant, Tommy Smith, Mason Williams, Johnny and the Distractions, Gregg Tripp, Graphics, Hell, Rob McIntosh and Laurie Brown. Live: Oregon, Trapezoid, Holly Near, Hot Rize, Akiyoshi/Tabackin, George Shearing, Betty Carter.

Services Offered: For the past 6 years I have been engineering and producing demos, albums and singles for up and coming and established musicians alike. Combining many years as a musician with the necessary technical skills that comprise recording technology as it exists today, my goal is to offer new and established acts an accessible means to the public through the media of recording. Like many of the other engineer/producers, I have my own bag of tricks for creating national product, but in addition take great pride in my ability to relate to the musicians and their individual needs and goals.

JOHN RYAN

Producer

CHICAGO KID PRODUCTIONS

13251 Ventura Blvd., Suite 3, Studio City, CA 91604
(213) 788-4443

Credits: Santana, Patrick Simmons, Styx, The Allman Brothers Band, Billy Rankin, Brokene, Climax Blues Band, The Gap Band, Robert Fleischman.

MARIO SALVATI

Engineer

MOON STAR SOUND

257 Deauville Parkway, Lindenhurst, NY 11757
(516) 957-6724

Credits: The System (Atlantic), Howard Johnson (A&M), Attitude (RFC, Atlantic), KAS Product (RCA), Fania All Stars (Fania), Tom Varnier (Soul Note), Willie Colon/Ruben Blades (Fania), Radio France (Remote Broadcasts).

Services Offered: 10 years experience. "I give good sound."

RICHARD SANDERS

Engineer & Producer

SALT PRODUCTIONS

P.O. Box 21021, Denver, CO 80221
(303) 469-5151

Credits: We have written and produced soundtracks for many industrial films & multi-media soundtracks. Also, we write, arrange and produce for many Christian groups, both nationally and locally.

Services Offered: We do producing, engineering, writing and arranging of almost any type of music. We are able to provide whatever is necessary for any audio production, including musicians, synthesizer programming, and studio or live recording dates. We specialize in music production, arrangements & original scores for soundtracks, albums & tapes. Quality at reasonable prices.

RICK SANDIDGE

Producer

SANDCASTLE RECORDING STUDIO

Wade Hampton Mall, Suite 109, Greenville, SC 29609
(803) 235-1111

Credits: Rick Sandidge has produced the following: Sonny Turner, Pilots, Panic, Rob Cassels, The Killer Whales, J.D. Wilson, Harvey Willis, Bill Barnes, Joe AmLee, Don DeGrate, Susan Atkins, Country Gold, Ramblin Band.

Services Offered: Producing, engineering, video producing, sound reinforcing.

MICHEL SAUVAGE

Engineer & Producer

345 W. 85th St., New York, NY 10024
(212) 595-3628

Credits: Producer: Ernie and the Imports, Rivendell, Anel, Maria Lewis. Engineer: Xavier, Fallen Angel, Caroline Loeb, Minglewood, Tom Dickie and the Desires, Don McLean, plus contributions to Foreigner "4", Kid Creole and the Cocanuts "Wise Guy", Peter Tosh "Mystic Man", Bionic Boogie "Tiger, Tiger", Hall and Oates, The Clash, B.B. King.

Services Offered: Strongest asset is ability to inspire musicians and singers to reach new heights in the studio. Also helps create atmosphere of highest quality work, resulting in top performance from everyone associated with the project. "Vibe"-oriented producer, believing that if players feel positive and excited the feeling will transfer to tape, making a hit possible at any time. Musician (guitar and keyboards), composer, arranger. Also big on technical excellence and audio art, being influenced by David Tickle, Robert John Lange, Hugh Padgham, Ken Scott, Alan Parsons. Loves teamwork, and serious but fun approach to recording (within budget).

JOSEPH SCHLICK

Engineer & Producer

AUDIO PRODUCTION SERVICES

P.O. Box 1435, Santa Fe, NM 87501
(505) 473-0208

Credits: Produced and/or engineered projects for: The Philistines, Holy Cow, Dal Neon, Off the Wall, Madonna Moderna, Lumbre Del Sol, Kevin Murphy, Flora & Arto, Michael Murphy, Bill & Bonnie Hearn, The Grandmothers, The Refrigerators.

Services Offered: Full audio production services for record, video and live projects. Independent record marketing and promotion consultant, recording & concert engineer.

GEORGE SEMKIW

Engineer & Producer

G.S. PRODUCTIONS LTD.

735 Queen St. W., Toronto, Ontario, Canada M6J 1G1
(416) 362-6472

Credits: Moe Koffman, Johnnie Lovesin, Lou Reed, Simon Caine, Symphonic Siam, F.I.S.T., Skatt Bros., Rick James, T.H.P. Orchestra, Thor, Michael Pagliaro, Harry Belafonte, Duncan Sisters, Streetheart, B.T.O., Johnny Nash, Trooper.

RODNEY D. SLANE

Engineer & Producer

STAR TRACK RECORDING STUDIOS, INC.

5840 S. Memorial Dr., Suite 210, Tulsa, OK 74145
(918) 622-6444

Credits: Producer/Engineer & Writer of the award winning MusiPak Production Music Library and Electrolysis Production Music Library. Engineer of many regional and national TV, radio & film soundtracks. Engineered/produced over 12 nationally released aerobic dance records. Just to mention a few of our recording artists: Scotty Harrell (original member of Sons of Pioneers), Michael James Murphy, Michael Brewer (Brewer & Shiply), and Steve Smith (Journey).

Services Offered: Owner of Star Track Recording, Inc., a 24 track professional recording facility. Complete production for film sound tracks, production music, background music, jingles, records and professional demos. Complete array of instruments available: Kawai grand piano, LinnDrum Computer, Pearl drum kit, Roland Juno 6, Pro One, Roland Vocoder. Star Track is fully equipped with outboard equipment, Automated mixing, post video audio, video demos and real time duplication available.

JIM STABLE

Engineer & Producer

PYRAMID RECORDING STUDIO

1228 Lula Lake Rd., P.O. Box 331,
Lookout Mountain, TN 37350

(404) 820-2356; (615) 842-4677

Credits: Allman Brothers, Alabama, Humble Pie, Bertie Higgins, Point Blank, Bonnie Bramlett, Kristy McNichol, Dennis Quaid and entire movie soundtrack, Toronto, Melissa Manchester, Dickey Betts, Unipop, Cowboy, Savannah, Tina Rainford, Kim Larson, CBS Intl., Norman Blake.

Services Offered: No project is too big or too small. I enjoy working with the groups in order to get the sound that is unique to their band. Or, to work with an artist in order to find the right material and musicians to complement their performance. Most of my work is done at a 24 track all Studer equipped studio on top of Lookout Mountain two hours away from Nashville, Atlanta, or Muscle Shoals so there is a wealth of musicians, but a quiet natural studio to work in with no distractions.

MAURICE STARR

Engineer & Producer

MAURICE STARR PRODUCTIONS

20 Linwood Sq., Roxbury, MA 02119
(617) 445-3697

Credits: New Edition, Jonzun Crew, Irving & the Twin, Tom Browne, Jeff Lober Fusion, Maurice Starr and other.

Services Offered: Writing, arranging, mixing, musician producer. Works with major and independent labels.

RICHARD B. STAWINSKI

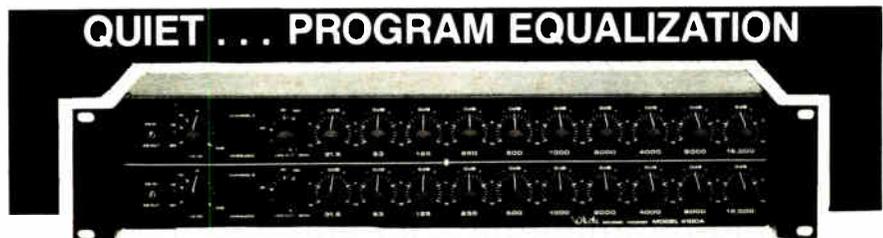
Engineer & Producer

STUDIO DELUX

5346 Sunnycrest Dr., W. Bloomfield, MI 48033
(313) 855-2942

Credits: Mr. Stawinski is represented by DD&B Studios, Inc. for his industrial work and has composed and produced award winning soundtracks for clients such as AT&T, Oldsmobile, Boeing, Little Caesars, ANR & Audio Visual Labs to name a few. He also produces contemporary Christian artists and owns Studio Delux.

Services Offered: Complete production services: Artist & commercial consultation, composing & arranging, motion picture & industrial soundtracks, automated 16 track recording studio with audio/video post-production capabilities (Studio Delux).



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BOB STOHL & KAT EPPLE
Engineer & Producer
BOBKAT MUSIC PRODUCTIONS
 P.O. Box 5503, Berkeley, CA 94705
 (415) 548-9766

Credits: Music for films for Pepsico, NASA, Metropolitan Museum of Art, Jet Propulsion Laboratories, Smithsonian Institute, documentaries, PBS. Emmy award for music - 1980. Addy Awards for music 1979 through 1983. Cine Eagle Award. Music for ads for Miami Airline, Aetna Insurance, Falmalare Shoes. Theme music for TV news. Music for planetariums.

Services Offered: Full production of original music for films, video, dance, radio and television commercials. Excellent multitrack facilities—up to 24 tracks. All instrumentation and styles of music. Specializing in synthesizers and digital orchestrations. State-of-the-art digital synthesizers and outboard gear. Custom sound effects. Library of music and sound effects available. Computer generated video special effects (NTSC) also available. Recording facilities in San Francisco Bay Area, Dallas, and NY area. Quality music to fit your needs at very reasonable rates.

RON STREICHER
Engineer & Producer
PACIFIC AUDIO-VISUAL ENTERPRISES
 545 Cloverleaf Way, Monrovia, CA 91016
 (818) 359-8012

Credits: Audio engineer for Mann Music Center/Philadelphia Orchestra, radio broadcasts for the Los Angeles Philharmonic Orchestra, live "direct-to-stereo" recording for National Public Radio, Calif. Radio Music Network, KPFK; recordings for Angel, CMS Desto, Discovery, CRI, SAZ, and A.E.A. record labels; first digital recording in Pakistan; co-author of treatise on the M—S miking technique for the Journal of the A.E.S.

Services Offered: Specializing in "live-to-stereo" mixing, I can provide full studio and location recording services for live concert or session recording, and for sound reinforcement or broadcast. With my lifelong background in music production, I can also offer assistance as a music producer, as well as a recording engineer. Specific services: analog or digital recording, editing, and production; record or cassette production; broadcast production; live mixing for concert sound reinforcement; music production and performance coordination; audio systems design and consultation; lectures and seminars on recording techniques.

BRET TEEGARDEN
Engineer & Producer
BT PRODUCTIONS
 P.O. Box 4178, Tulsa, OK 74159
 (918) 747-7318

Credits: Associate Engineer/producer with Musipak Productions (nationally distributed production music libraries) Record and commercial jingle credits are available on request

Services Offered: Custom record and demo production; commercials and jingles; audio-visual soundtracks, 8 track to 24 track studio and remote recording services. (Sound reinforcement contracting also available.) All forms of music and recording production

CHUCK THOMAS
Producer
MASTERSOURCE PRODUCTIONS
 704 North Wells, Chicago, IL 60610
 (312) 922-0375

Credits: Top 40 record production for 7 years. Past production for major independent labels throughout the Midwest. President, Music Events, Inc. (producers of the Midwest Music Exchange); Board of Governors, National Academy of Recording Arts and Sciences. Chicago chapter

Services Offered: MasterSource is connected to a broad network of major and independent labels. We are interested in developing a long-term relationship with established bands and singer/songwriters. We have a co-publishing agreement with Tree Publishing and have developed significant management and label (major and independent) contracts. Our strength is in assisting talent development musically in the studio and negotiating revenue sources for our artists. We prefer established talent (been together 2 years or more) that are workable songwriters. Speculative projects are limited. Outside funding is preferred. Call for free demo of our work

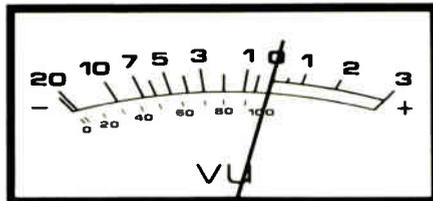
RICHARD PAUL THOMAS
Producer
RPT PRODUCTIONS
 2600 Southwest Freeway, Suite 850, Houston, TX 77098
 (713) 526-5199
Credits: Resume available upon request.

TIM TOMKE
Engineer & Producer
Box 747, Stinson Beach, CA 94970
 (415) 868-0763

Credits: Owner of Ocean Records, Ocean Television. Experience at (the rock group) Queen's Studio in Montreaux, Switzerland; Warner Bros. Studios; MCA Records. Currently working on album and video projects at Ocean Studio for John Torrey and Timi Tennie.

Services Offered: Large records, small records, video clips, tapes. I will work closely with you giving personalized, individualized attention and guidance through your project. I understand all facets of the industry and can advise you on the right moves to maximize your impact and minimize your expenses. I offer you a comprehensive perspective and the advantage of total top-line production facilities. Under my auspices you will find strong financial incentives and advantages as well as top quality professional services. Call now so I can discuss your project with you; package rates and quotes will be freely given.

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BOB TRIPP
Engineer
B.T. PRODUCTIONS
 2133 Sindle Pl., Tucson, AZ 85746
 (602) 883-7044

Credits: Cassette albums for: The Jovymakers, David Ramonette, Sheer Madness, Grace. Demo for Dave Holt. Plus many other live cassette specialties

Services Offered: 8 track recording studio specializing in cassette albums as well as the standard LP. Equipment: Tascam model 38 8 track with dbx, Tascam mixing board model 3, plus reverb by Fostex, Harmon Kardon monitor amp, and equipment by Aiwa, Technics, Casio. Call for rates and ask about our cassette album package. "We pamper."

BILL TULLIS
Engineer & Producer
PMS PRODUCTIONS
 Box 49567, Atlanta, GA 30359
 (404) 321-1600

Credits: Radio Luxembourg (music production), Brain/Metronome Records & Phonogram (Germany), WTBS-TV (music direction & production of custom projects), theme music for Atlanta Braves & Hawks.

Services Offered: Artist placement, jingle & theme production & concepts, freelance engineering & consultation.

DANIEL R. VAN PATTEN
Engineer & Producer
2773 Quail Ridge Circle, Fullerton, CA 92635
 (714) 671-1843

Credits: Geffen, Phonogram Int. & U.K., Enigma Records, Island Records, Duraco Records, Rak Records, Teldec/Telefunken-Decca, Chinn-E-Chap, Cocteau Records (U.K.). LPs and singles for Berlin Pleasure Victim Metro singles also Big Country, Madness, Chris Ruiz-Velasco

Services Offered: Independent producer/engineer specializing in synthesizers. Staff producer M.A.O. Records Complete synthesizer system including Prophet 5, Moog Modular, Roland Modular Systems 700 & 100 Roland Microcomposer Roland CSO600 & TR808, Vocoder and Roland Juno 60.

JOE VAN WITSEN
Engineer
SPEED OF LIGHT
 2430 Jones St., San Francisco, Ca 94133
 (415) 441-7806

Credits: Broadcast radio and TV production of commercials for CBS, Warners, Capitol Records, RCA Records.
Services Offered: In studio and on-location sound recording. Mixing and special effects. Special emphasis on music video production

BRIAN A. VESSA
Engineer & Producer
VESSA ENGINEERING & PRODUCTION
 1127-B 20th St., Santa Monica, CA 90403
 (213) 453-3636

Credits: 3 gold albums and assorted recordings for Anola and Melody Records; LAX "Dancin' at the Disco"; CSUN Jazz Band; numerous commercials, including Disney, Tomy Toys, Select TV, Aqua Vend, Del Monte, etc.; Many EPs, singles and demos for L.A. artists; Chief Engineer and audio designer for Sally Dog Recording.

Services Offered: Multi-track recording and production, pre-production planning and demos, live sound, remote recording, audio consulting and wiring. Each project receives my full attention to detail, regardless of the type of music or budget. As a musician, electronic engineer, and studio builder, I can work comfortably with artists and equipment alike. My interest is in the creative process and the realization of musical ideas.

STEVEN E. WALKER
Engineer
 P.O. Box 112, Rialto, CA 92376
 (714) 370-0341

Credits: Studied telecommunications in 2 & 4 year colleges. Concentrated instruction with Brian Ingoldby of SoundMaster Schools Radio production experience.
Services Offered: Studio & live mixing; sound sweetening & editing; commercial composition & production with voice over-announcing. Willing to commute or relocate.

MATTHEW WALLACE
Engineer & Producer
DANGEROUS RHYTHM
 3700-B East 12th St., Oakland, CA 94601
 (415) 261-9150

Credits: Produced and engineered: IfThenWhy EP, Monkey Rhythm EP, Necropolis of Love single, Big Race tape. Engineered: First B-Team EP, Peter Accident EP, Virgin Release single, Rory McNamea album, Bad Attitude album. Produced: Fade To Black EP, AquaVeets tape

Services Offered: Everything from pre-production to engineering to quality control of record pressings. I have access to a professional 8 track recording studio (Dangerous Rhythm); have worked in local 16 and 24 track studios. Work with Laurie Nelson on photos and album covers. Work with many quality mastering rooms and pressing plants.

JIM WALLER
Engineer & Producer
ROAD APPLE PRODUCTIONS
 555 Cicero, San Antonio, TX 78218
 (512) 656-1382

Credits: Producing and arranging for Warner Brothers, Motown and United Artists. BA in music composition, UCSB. Director of Santa Barbara Community College Jazz Ensembles 1976-1977. Studio work on trombone, saxophone and keyboards.

Services Offered: Independent record and jingle production with 8 track studio on premises and 16-24 track available on request. Steinway grand piano, Drumulator drum computer, Rhodes Chroma, digital synthesizer free (including programming) with all services. Arrangements, demos, film and TV scores, musicians, engineers, music copying and lead sheets.

JEFFREY WEBER
Producer
EN POINTE PRODUCTIONS
 P.O. Box 1451, Beverly Hills, CA 90213
 (805) 497-1584

Credits: Tom Scott, Stanley Clarke, Chick Corea, Lenny White, Puppets of Mankind, Maynard Ferguson, Lalo Schifrin, Freddie Hubbard, Free Flight, Steve Lukather, Kenny Burrell, Tim Weisburg, Roger Kellaway, Louie Bellson, Nancy Wilson, Richard Page, Maria Muldaur, Lee Ving, Night Plane, Patrice Rushen, Russ Kunkel, Michel Petruccianni, Paul Smith, Barney Kessel

Services Offered: Our firm specializes in live, digital, and direct to disk recording with special emphasis on live 2 track technology. We are the only independent audiophile production company and our label credits include Atlantic, Elektra/Asylum, Musician (E.A.), Handshake (CBS), Rejoyce (CBS), Nautilus, Caedmon/Arabisque, Varese Serabande, Discwasher and AudioSource

FLETCH WILEY
Producer
UNLEAVENED PRODUCTIONS
 2223 Strawberry, Pasadena, TX 77502
 (713) 472-5563; 471-7462

Credits: "Take Me Back" (Andrae Crouch, Grammy winner, Light Records), Dannebelle Hall (Light Records), "Music Machine" (Gold album-childrens, Sparrow Records), Fletch Wiley, Peter Beveridge, Worship Albums I and II (Star Song Records), Sherman Andrus, Bruce Hubbard.

Services Offered: Unleavened Productions is a full service music production company, specializing in the burgeoning field of Contemporary Christian Recording. We have extensive experience in children's music, jazz, Black Gospel, and pop styles. From pre-production to art direction, from orchestration to album fabrication, Unleavened Production will help at every step along your album's journey. P.S. We're not cheap, so please don't call us if you are.

MILES WILKINSON
Engineer & Producer
TSUNGMA PRODUCTIONS
 (Agent-Bob Hunka) 5102 Vineland Ave., No. Hollywood, CA 91601
 (213) 851-6747

Credits: Linda Ronstadt, Anne Murray, Dolly Parton, Barbara Streisand, Kris Kristofferson, Emmylou Harris, Mac Davis, Spinners, Nicolette Larson, Rodney Crowell, Gordon Lightfoot, Ian Tyson, Jerry Reed, Guy Clark, Ray Stevens, Glen Campbell, Devo, Ben Sidran, Roy Buchanan, Boston, Joe Walsh, The Phogies, John Allen Cameron, Rockie Robbins, Oregon, Diamond Joe White.

Services Offered: Miles Wilkinson has worked in live and recorded music for more than twenty years. His career has included performing as guitarist and bass player, concert sound mixing, producing recording sessions, engineering recording sessions, televi-

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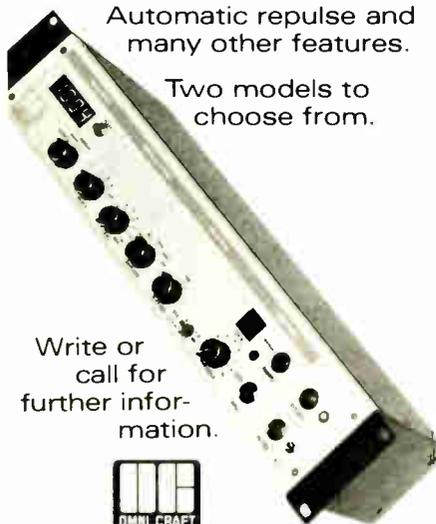
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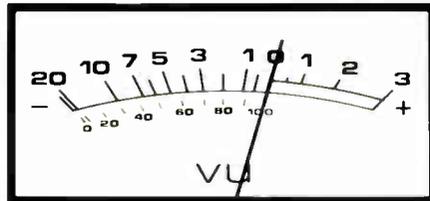
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Lockport, IL 60441
(815) 838-1285

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INDEPENDENTS



sion and motion pictures. In his early teens, Miles made the acquaintance of engineer-producer Brian Ahern and began developing and learning his skills at the side of Mr. Ahern for 12 years. This has resulted in an understanding of the demands and requirements of the buyer of recorded music combined with sensitivity to the subtle needs of those people (musicians and producers) involved in creating product.

TERRY WOODFORD

Engineer & Producer
WISHBONE, INC.
Webster Ave., P.O. Box 2631, Muscle Shoals, AL 35662
(205) 381-1455

Credits: Produced Temptations, Commodores, Thelma Houston, Hank Williams, Jr., Mac McAnally, John Kaye (Steppenwolf), Wayne Newton, Brenda Lee, Hot, Supremes, Jerry Butler, Shawn Christopher & others
Services Offered: Production, 24 track automated studio, digital available, luxury lodging facilities on location, publishing (Angel in Your Arms, Old Flame, Minimum Love, Get It Up, It's A Crazy World), music videos, Staff Writers Mac McAnally, Robert Byrne, Alan Schulman, Brandon Barnes, Clayton Ivey, Richard Butler, and John Willis

ARTHUR G. WRIGHT

Engineer & Producer
NONSTOP PRODUCTIONS, INC.
3320 E. Century Blvd., Lynwood, CA 90262
(213) 636-2573

Credits: Produced and arranged Billy Preston, Syreeta, Mary Wilson, Raul de Souza, The Pips, Jose Feliciano, Thelma Houston, Diana Ross, Smokey Robinson, Donna Summer/Paul Jabara, Sunshine, Rare Gems, Wright Brothers Flying Machine, Thank God It's Friday, Jackson Five, Jermaine Jackson
Services Offered: Producer/musician/engineer. Audio consultant, equipment design and construction. Complete record production services including guitar, bass, arranging, conducting.

Recording studio design and construction. Designed and operated successful recording studio for five years (NSP Studios, Hollywood). Design and manufacture recording consoles: NSP 84B, NSP 128A, Quadgate, power amplifiers - D104 series. Design consultant. Songsmith Recorders, Woodland Hills; Impact Studio, Redondo Beach; Bruce Brown Studio, Long Beach; Billy Moore Studios, Los Angeles. Engineering and production at Quad Teck Studios, Los Angeles. Offering the best in musical and technical production services in all recording formats.

PETER J. YIANILOS

Engineer & Producer
ARTISAN RECORDERS, INC.
1421-A S.W. 12th Ave., Pompano Beach, FL 33060
(305) 786-0660

Credits: Produced and engineered Jaco Pastorius' "Word of Mouth", "Invitation" and "Twins". Engineered Pat Benatar "Live from Earth", Pat Travers "Go For What You Know", Blackfoot "Strikes", Heart "Cook with Fire", Allman Bros. MTV Special, The Police, Supertramp, Weather Report, Triumph, Third World, Steel Pulse, George Martin, Crosby, Stills and Nash.

Services Offered: Record Production Services include Studio recording and soundmixing, live and remote recording and soundmixing, seven years experience as President and Chief Engineer of Artisan Recorders, and the skills acquired as designer, builder, owner and operator of a dual 24 track MCI mobile recording studio. For more information, please call Rey Monzon at (305) 786-0660.

PHIL YORK

Engineer & Producer
Box 45744, Dallas, TX 75245
(214) 438-8248

Credits: Two platinum LPs for Willie Nelson. All musical numbers in Universal's feature film "Tender Mercies". A&M Records' "D Day" group. Produced LP on legendary Texas rock blues artist Bugs Henderson. Music audio for TV's "Country Kids" show. Thousands of hours in Texas' best studios as engineer. Currently doing quality rock videos.

Services Offered: Main service offered is the production of highest quality, world class record sessions. Other services include highest quality freelance engineering at many of North Texas' best studios, including proper use of exotic outboard gear such as exciters, etc. Expert at providing quality music audio for critical TV shoots, videos. Also teaches, three times a year, successful private lessons on multi track studio recording, starting with basics and finishing with students engineering individual projects on state of the art gear.

BRYAN H. YOSHIDA

Engineer & Producer
FARALLONE PRODUCTIONS, INC.
P.O. Box 156, Saratoga, CA 95071
(408) 253-8043

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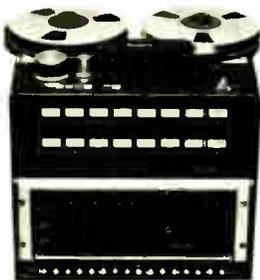
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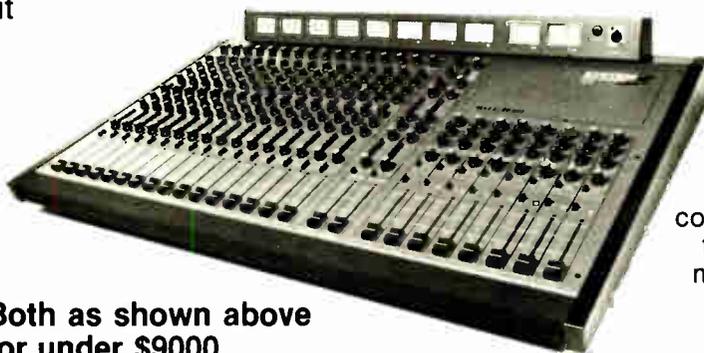
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LUNCHING WITH BONZAI

Managing a recording studio can drive a person to brittle madness and emotional badness. As a recovered studio manager, I can easily appreciate Rose of The Record Plant. She has poise and resiliency,

spirit and humor—and she has somehow managed one of the world's busiest studios for seven years.

Rose Mann got into the music business by starting a booking agency when she was 21. Among her many clients were The Buckingham and Rufus. She juggled national schedules for five years and dreamed of getting into music publishing. When an old client of hers, Al Kooper, suggested managing the Record Plant, she felt it would be a good way to meet producers.

A studio manager is responsible for everything from good maintenance to bad debts. It's a 24-hour-a-day, seven-days-a-week traffic jam. Rose learned her job during the music boom of the '70s. "I lost my twenties somewhere along the line," she reflects. It's a job that requires a peculiar combination of discipline and flexibility. And at the L.A. Record Plant there are four high-powered studios and three remote recording trucks waiting for a nervous breakdown.

ROSSIE OF THE RECORD PLANT

by Mr. Bonzai



PHOTO MR. BONZAI

Bonzai: As a booking agent you must have spent time in recording studios before you jumped in and started managing the Record Plant.

Rose: I had, but managing is a lot different than sitting in the control room and watching. You have to put the session together—from the telephone call, to the deal, to choosing the engineer, choosing the second, helping with the room, the equipment, everything all the way down the line until it's finished.

Bonzai: What was the first session you booked?

Rose: Oh, God . . . The Eagles' *Hotel California*. This studio brings in a lot of business by itself, so the trick is to keep them in and take care of them. That's why our overhead is so high. The first session that I was really proud of was with Supertramp, because I brought that one in myself.

Bonzai: How do you handle a newcomer to the Record Plant?

Rose: I treat them all the same, but I do spend extra time with people who don't know what they're doing. You can tell when they don't know what they need. I just spent 20 minutes on the phone with a woman from Milwaukee who had \$8,000 and wanted to come to the Record Plant.

They'll come that far, you know, but I discussed her project and sent her to Universal in Chicago and explained to her why. I really think that's important.

Bonzai: Who has been the easiest client to work with?

Rose: John Boylan is wonderful. [Ed. note: producer of Quarterflash, Charlie Daniels, Boston, Karla Bonoff] There is no ego involved and I also know how he works. I know if he's not booking enough time.

Bonzai: What do you do when you have a scheduling problem and have to dump somebody?

Rose: You mean like when my boss made a double booking with Neil Diamond and Rod Stewart last year? I buy the time back. I just tell them I'm in trouble and one of them gives in and I give them their day. If I mess up, I have to pay, but most of the people that record here work along with each other. Usually, they just work it out amongst themselves.

Bonzai: What was the worst disaster at the studio?

Rose: The fire we had in 1978. Studio C went down in 40 minutes. That's when you really know that you have friends. That was in the days when we had a lot of velvet and

cushy stuff in the studio. Some sparks flew and it just went "poof." The first thing that we did was to pull tapes from the library. Three artists had just finished their projects that weekend and there were masters everywhere. It was terrible. Steve Stills was there—in fact, he was the first person to work in Studio C when it opened and he was the last. He got all his guitars out, but Russ Kunkel's drums melted. We lost thousands of dollars in Telefunks. It was like a night train and everybody just pulled for 24 hours. A few weeks later, Chris [Stone, owner of L.A. Record Plant] called a meeting and said he couldn't afford to pay anybody. We all worked together for three or four weeks without paychecks.

Bonzai: What do you do when you are faced with a job applicant—someone who wants to be an engineer soooo badly? Does this happen very often?

Rose: We have a minimum of four a day, not counting the phone calls. They would work for free, because they know this place gives the best training.

Bonzai: Have you ever taken anybody off the streets?

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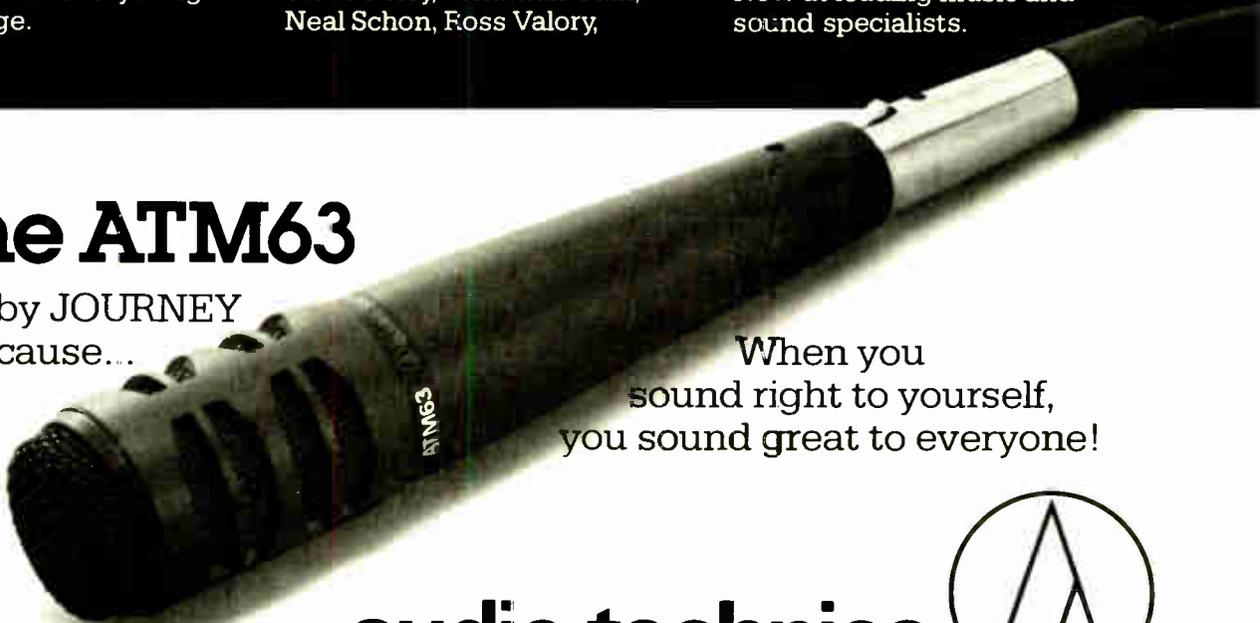
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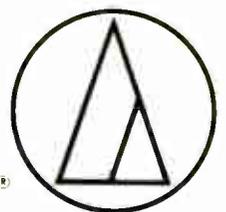
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Rose: Absolutely. David Bianco is going to be the greatest engineer in the world. He just finished a project with David Kirschenbaum, Joe Jackson's producer. He came right off the streets.

Bonzai: What made him stand out?

Rose: He drove me crazy. He was in a lot, and I run on gut feelings.

Bonzai: Had he ever engineered before?

Rose: Never. He was a singer. There was just something about him that made me think he was going to be good. It took a few months, though, before I gave in.

Bonzai: What are the qualities that make a good manager?

Rose: First of all, you're only as good as your staff—your maintenance and your assistants and your front desk and your gofers. If they're no good, you're no good. Another thing is that you have to watch your clients when they come in. You have to study the way they work. Everybody wants to make money, but there's a time when you have to throw up the red flag if



they're spending too much. You have to help them out. You also have to protect the engineers. For instance, one of my clients got in trouble with an album project—the label didn't like the mix. He was in trouble and I felt it was right to give him a break. If you have a good client, you know that they're going to come back. There has to be some flexibility.

Bonzai: The first time that I visited the Record Plant was back in the '70s. I was waiting in the lobby for a friend and Steve Wondier was working in-

side. I wasn't allowed into the inner sanctum, but it was a thrill just knowing that he was there.

Rose: You know, when I first went to work here, I thought that Stevie Wonder was lying about being blind. I swear to God.

Bonzai: Why, because he knew how to get around the studio so well?

Rose: Yes, that's true, but he was playing air hockey, and I sat there and I watched him play and in my mind, I'm going, "This is a con—he can't be blind."

Bonzai: He could play by the sound...

Rose: Yeah, he could. That damned air hockey game—this was in '76. That's when I used to go to The Record Plant at eight in the morning. It drove me nuts, because I'd walk in and the place would be going like it was five in the afternoon. We had a lot of good sessions, a lot of good times. We still have them. You go through generations of people about every three or four years, and every generation says it's not like it used to be.

MR. BONZAI GOES TO THE MUSIC VIDEO CONFERENCE

Well, I had a rockin' ball at the 1983 *Billboard* Music Video Conference. It was sure exciting to be there on the ground floor as this new MV industry begins to sink its financial roots and sprout blossoming bucks. Of course, no one knows who is going to get rich—but *somebody* must profit from all this hooplah. The question on just about everybody's mind was: "Who will be getting rich next year?"

I have to admit I didn't make it to all of the official festivities, but I'll share a few glimpses with you:

The first evening was highlighted by the most happening event in Los Angeles: the MTV/*Billboard* Party. I sure felt cool as I flashed my press badge and was escorted through the mob of riff-raff and pop panhandlers who were trying to crash in. They won't be holding the conference next year at this Sheraton. The staff wasn't quite ready for a Gucci Love-In. Yes, the new and colorful music video generation came out of their jacuzzis and lofts to see where the action was.

Billboard has hosted four of these gatherings, but this was the first MV event to hit the map *and* the target. The staff of *Billboard* were really trouper and did a great job of riding herd on the festive folks.

Fee Waybill was there from The Tubes. He was zipping around, shaking hands, and I was immediately struck with his size. Fee is a very large person. He doesn't look as big on TV because he has a very large head and his proportions translate him as average size on the tube. The Tubes have done good, wild things for the MV genre and it was fitting that Fee was chosen as the master of ceremonies for the first MV Academy Awards. He cracked the whip gently on the sometimes sluggish proceedings. A name hasn't yet been chosen for the MV Oscar, but I suggest the "Tube." Fee suggested the "Billys", in honor of this event.

The party staggered on into the night and the next two days were filled with panel discussions and analyses of production, conception, distribution and budgets. I attended the "Fixing It in the Mix" seminar hosted by the well-respected publishing czar David Schwartz. Prime guys responsible for the MV "art form" disclosed their secret video methods. It was great fun and newcomers to the field were shocked when MV director Joe Dea revealed his personal secret for getting "hot ideas": a surgical mask doused with airplane glue!

There were many hearty con-

tributors to the event. Lynn Goldsmith appeared disguised as a C&W queen, a bag lady, and a man to introduce various functions. Herbie Hancock graciously accepted the praise for his "Rockit" video and gave full credit to Godley & Creme. Jerry Casale of DEVO gave terse, good natured criticism and referred to most rock videos as "monkeys on parade." Music video pioneer Frank Zappa did not attend the conference but reportedly mentioned in a phone call that most of the groups in these video days are "being signed for their haircuts."

A little city of 700 existed for three days. There were energetic conversations in the bars, hospitality suites, hallways and elevators. The great and the would-be's mingled easily. There was a great urge to discover, shared by a wide assortment of professionals and novices. It was like being in Hollywood in the early part of the century when some dreams succeeded and others exploded. The award ceremony was fun and funky—it hasn't yet become a strict black tie affair with stiff rules and regulations. The real winner is the music industry, because video has given eye-opening hope.

—Mr. Bonzai



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Circle #040 on Reader Service Card

by David Wilson

At first blush, it seems like something straight out of the Rube Goldberg exhibition at the Smithsonian. Somehow, the notion that a needle, dragging along a scratch in a piece of plastic, can produce anything even approaching the sound of live music is enough to strain the limits of one's credulity. But it's true! Edison's phonographic cylinder has come a long, long way. And even now, when the devotees of digital are loudly proclaiming the demise of the analog record, convincing recordings of great music continue to be produced in this seemingly archaic yet wonderfully effective medium. To paraphrase Samuel Clemens, reports of the death of analog appear to be premature.

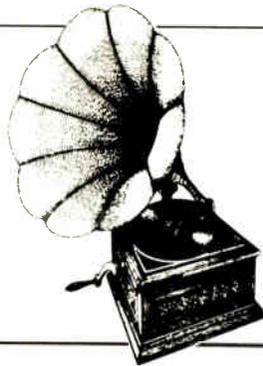
A key character in making this whole analog "thing" work, is the phono cartridge. This little transducer has the job of faithfully changing the mechanical energy of the record groove undulations into analogous electrical waveforms. Sound simple, eh? Realize that the largest of these grooves, (low frequency, high amplitude) are a little hard to see, and that the smallest (high frequency, low level), are getting literally down to molecular size.

It has been fascinating to watch the development of the stereo cartridge since around 1958, when they were first generally introduced to the commercial market. The first generation of these cartridges with which I was familiar included the Shure M7D and M3D, Fairchild SM-1, GE VR-227, Weathers C-501, and ESL Gyrojewel. Because the moving parts (jewel, cantilever, generating element) were so massive (except in the Weathers), the compliance of the system was kept low, i.e., 3.5×10^{-6} cm/dyne, and high tracking forces of 3 to 5 grams were required. It was enough just to get somewhat linear frequency response and enough tracking ability to keep the stylus from getting bounced out of the grooves of your favorite Hi Fi Brand or Audio Fidelity First Component Series record. Forget the Cook Earthquake record . . . *Nothing* tracked it!

The next generation of cartridges began to include some units with low tracking forces. The ADC-1, of the early '60s, boasted a compliance of 30×10^{-6} cm/dyne, and a *maximum* vertical tracking force

PART ONE

THE CARTRIDGE COMES OF AGE



(VTF) of $1\frac{1}{4}$ grams. None other than *Consumer's Union* "engineered" a favorite, the high-compliance Shure N21-D stylus into the old and inexpensive Shure M-7 body. Presto! \$39 and 2 gram VTF. The mid-'60s saw what, in retrospect, was a developmental stalemate. Everybody was getting on to the low VTF bandwagon by raising stylus compliance. It was like a horsepower race. Unfortunately, the technology for truly low mass, high rigidity cantilevers did not exist, so we had to endure a generation of cartridges with severe high frequency resonances and generally mediocre sound. The most sonically promising cartridges were the Decca "positive-scanning" variable reluctance, and the Ortofon SP series moving coil with built-in transformers. The Decca was anything but smooth in the high frequencies but, because it had no cantilever, it produced incredible transient "immediacy". The Ortofon was simply a wonderfully smooth, honest-sounding cartridge, with no high frequency peaks below 20 kHz.

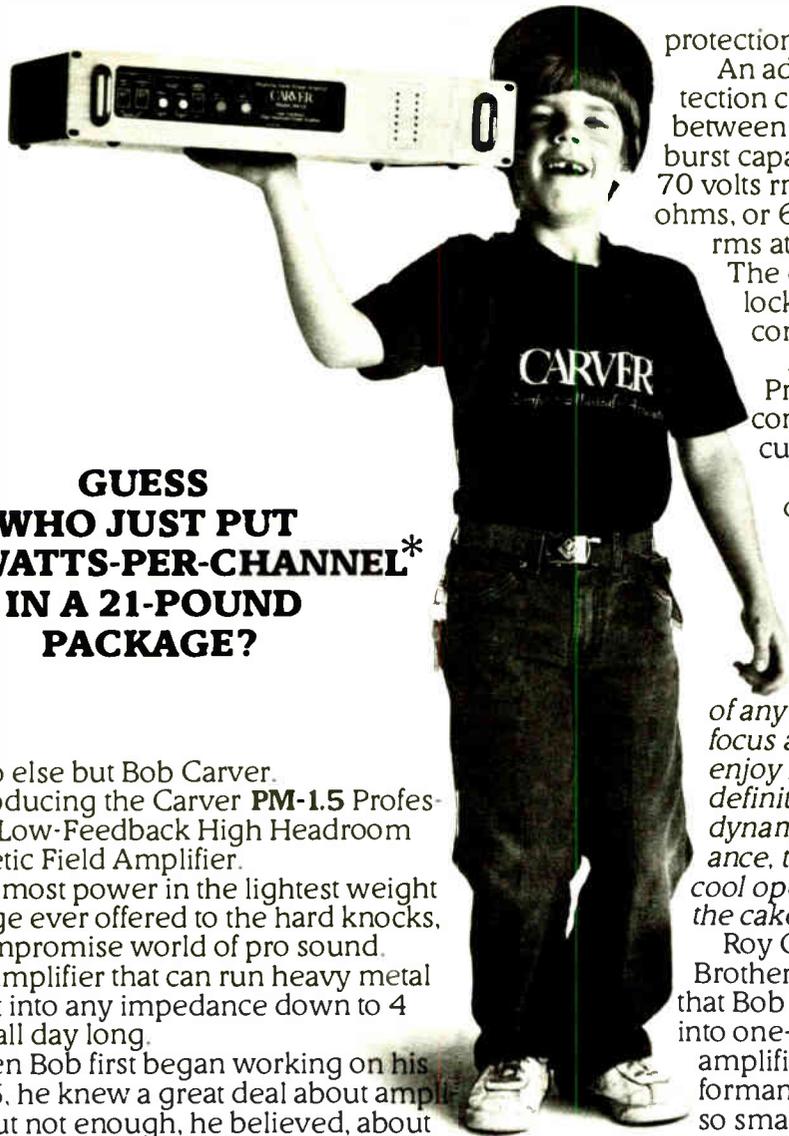
From the late '60s through the early '70s, the elliptical stylus took

hold and was considered virtually standard equipment in a "high performance" cartridge. Shure's V-15 series of moving magnet cartridges became established. High frequency resonances were being flattened by now, in the best models. The commercial stereo magazines were publishing test reports of cartridges with impressively flat frequency response curves (± 2 dB, 20-20 kHz) and low ($1\frac{1}{4}$ gram) tracking force requirement. Surely the cartridge was finally perfected! How could anyone criticize these feather-light tracking wonders? Were any of these cartridges, as their manufacturers promised, "the last cartridge you will ever have to buy"? In retrospect especially, but even then, most of the offerings were distinctly disappointing. Why was it that, almost 20 years after their commercial introduction, phono cartridges were still so clearly imperfect? What has been learned in the last eight to ten years that exalts today's best cartridges to a level of performance extraordinarily above their ancestors?

As I see it, there are at least five developments of the past decade which have forged the great cartridges of today. This month we will consider the first.

The first, but not necessarily the most important factor was the stylus tip itself. The new stylus tip geometries have been formulated with the happy result that, not only can a much greater amount of information be scanned accurately than was ever possible with the original elliptical tip, but record wear has also been reduced. However, to give you an idea of how adjusting one parameter will not guarantee a product's success, consider the following.

The original elliptical provided superior tracking and tracing ability compared to the standard 0.7 mil conical. There was a very real and welcome reduction in groove wall contact width with the elliptical. Ironically though, because the total contact area of the elliptical was smaller than the conical, unit pressures were higher. Sonically, this had the effect of *lowering* the elliptical's stylus/vinyl resonant frequency well down into the audible mid and lower treble. Cartridge engineers were able to "smooth-out" this resonance by adjusting elastomer damping, stylus and cantilever moving mass, and



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When Bob first began working on his PM-1.5, he knew a great deal about amplifiers but not enough, he believed, about the night-in night-out requirements (and wish dreams) of the pro sound world. And so he spent much time consulting with a large number of sound reinforcement professionals, including the "pros' pro," Clair Brothers.

Clair Brothers asked for lower input ac line current, greater transformer thermal capacity, dual modes of precision balanced inputs with 1% resistors, back-to-front cooling with a fully proportional fan system that can just tick over at idle or blast 1000 ft/min. to keep output transistor temperatures constant. They wanted greater noise immunity and unbelievable long-term, high-power operation, as well as a 3/16" front panel with deep-recessed controls.

Others wanted rear rack-mounts, adjustable protection circuit thresholds, front panel selectable clipping eliminator, and even a sequential, soft-start power-up mode.

Now that the PM-1.5 has undergone thousands of lab test hours and seven months of hard road testing, Clair Brothers, Bob, and you get all that and more.

The PM-1.5 is designed to run balls-to-the-wall, even into 4 ohms day and night without compromising itself or your drivers. Because the PM-1.5 has three special adjustable speaker

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An adjustable Short-Term Speaker Protection circuit adjusts dynamic headroom between 60 and 77 volts with a short term burst capability of 70 volts rms at 8 ohms, or 60 volts rms at 4 ohms.



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An adjustable Long-Term Speaker Protection circuit matches the time constant of the output shutdown circuit to your PA or monitor system.

Finally, the Clipping Eliminator detects clipping lasting longer than 30 milliseconds and attenuates the input signal just enough to pull the PM-1.5 out of clipping.

As for sound quality, consider this quote from **The Audio Critic Magazine**, "...the equal of any power amplifier in transparency, focus and smoothness. We especially enjoy hearing spatial detail, instrumental definition and completely natural dynamics. At this level of sonic performance, the astoundingly small size and cool operation become icing on the cake..."

Roy Clair and Ron Borthwick of Clair Brothers said it this way, "We are amazed that Bob was able to put the same wattage into one-fourth the volume of conventional amplifiers without sacrificing audio performance. It's hard to believe that an amp so small and lightweight can put out so much clean power. But it does!"

Whether you run a megawatt sound company, a struggling bar band, or a recording studio gearing up for digital, the PM-1.5 will pay you. In increased portability and reduced freight costs. In freedom from expensive blown drivers. In sheer sonic excellence.

Write for a detailed brochure today or give your local pro store no peace until they order you 21 pounds of pure power.

***Power:** 8 ohms, 450 watts/chan. 20 Hz-20 kHz both channels driven with less than 0.1% THD. 4 ohms, 600 watts/chan. rms 20 Hz-20 kHz both channels driven with less than 0.1% THD. 16 ohms, 300 watts/chan. 20 Hz-20 kHz both channels driven with less than 0.1% THD. 2 ohms, 525 watts/chan. at clipping, 1 kHz, with less than 0.2% THD. Note: 2-ohm specification for information purposes only. Operation at 2 ohms is permissible but not recommended. **IM Distortion:** Less than 0.1% SMPTE. **Frequency Response:** -3 dB at 3 Hz -3 dB at 80 kHz. **Damping:** 200 at 1 kHz. **Gain:** 26 dB. **Noise:** Better than 115 dB below 450W A-weighted. **Input:** Balanced to ground. XLR or phone. **Impedance:** 15k-ohm each leg, balanced to ground. **Bridging:** 1200W into 8 ohms. 1000W into 16 ohms, accessed through rear-panel recessed switch. **Dimensions:** 19 in wide, 3 1/2 in high, 10 1/4 in deep. Weight: 21 lbs



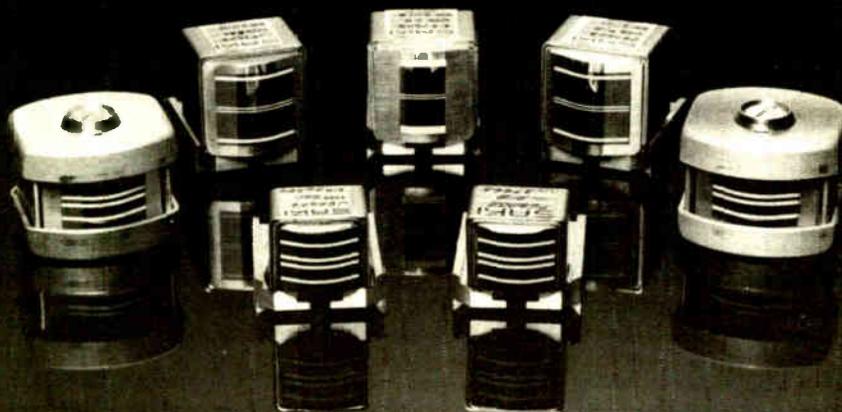
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generator inductance. Unfortunately this usually resulted in a "suck-out" or response depression in the 5 kHz to 10 kHz region which robbed music of "presence" and a sense of "aliveness". As if that weren't enough, the reduction in moving-mass usually meant smaller diameter, less rigid cantilevers. So, in spite of some theoretical advantages, many purist audiophiles found themselves preferring the conical stylus version of some of the cartridges, such as the Shure V-15 IIIg, Decca 4RC, and Denon 103C, because they had more accurate tonal balance in the 5 kHz to 10 kHz octave, and sometimes because their more massive cantilevers also happened to be more rigid.

So the elliptical brought us better tracing, but not necessarily more musically satisfying sound.

The demands of the very high frequency four-channel carrier prompted the development of the so-called "Shibata" stylus configuration. The Shibata further reduced the width of groove wall contact, thus extending the effective high frequency bandwidth. The Shibata, however, never really caught on with high-end audiophiles. It is believed by some that the asymmetry of the Shibata results in the generation of higher-order distortion byproducts.

The author's favorite stylus tip configuration was developed by A.J. van den Hul of Delft, Holland. The van den Hul features an extraordinarily narrow contact radius of only 3.5 microns. Compare this to the "hyper elliptical" at 6.5 microns, the "Shibata" at 9 microns, the original elliptical at 9.5 microns, or the 0.7 mil conical at 18 microns. Obviously the van den Hul can trace very short wavelength information . . . out to 85 kHz. Because this small radius traces only a small area of a given high frequency groove modulation at any one time, distortion by-products are dramatically reduced. Finally, while the width of contact with the van del Hul is remarkably narrow, the length of groove wall contact is an astonishing 85 microns. This long and narrow contact provides a relatively large surface area, as measured in micrometers². Thus, the unit force is relatively low, with excellent heat dissipation. The result is lower record and stylus wear. Cartridges of ten years ago didn't begin to have this degree of sophistication . . . and this is only the stylus tip!

Check us out next month to find out what other advantages today's cartridges have over their ancestors of a decade ago. Also, we're going to start analyzing why many of the measured specs of cartridges don't adequately predict their sound quality. ■

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The choice of master recording console is one of the most important that a studio owner must make. The console is the electronic heart of the studio and is the one piece of equipment that most critically affects the basic technical quality of the final product.

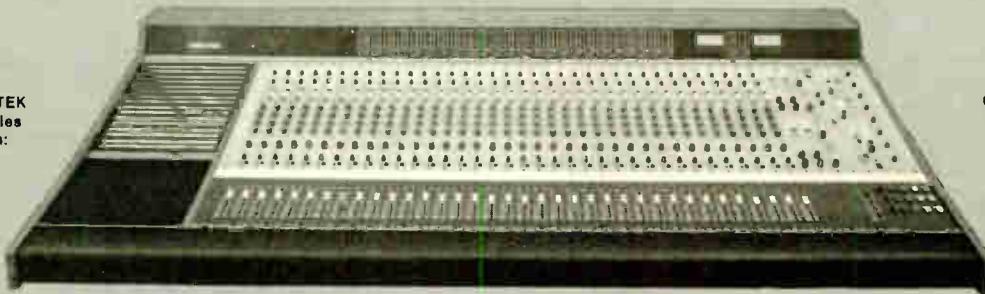
will become insignificant when compared to its value.

While we at Flanner's Pro Audio believe there are many good reasons for choosing NEOTEK consoles, one fact above all has been conclusively established: when it comes to sound,

nothing compares to the quality of a NEOTEK.

Let Flanner's Pro Audio give you the information you need on the NEOTEK console that will best satisfy YOUR recording studio's requirements!

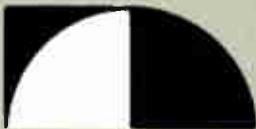
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In conventional analog recording systems, the quality of sound reproduction depends upon the properties of magnetic tape and heads, so that it is virtually impossible to bypass the inherent limitations of conventional analog recording, including its limited dynamic range and frequency response, and its associated distortion.

The Pulse Code Modulation (PCM)

system points the way to a new era in sound reproduction. It can offer performance and fidelity far superior to any analog system.

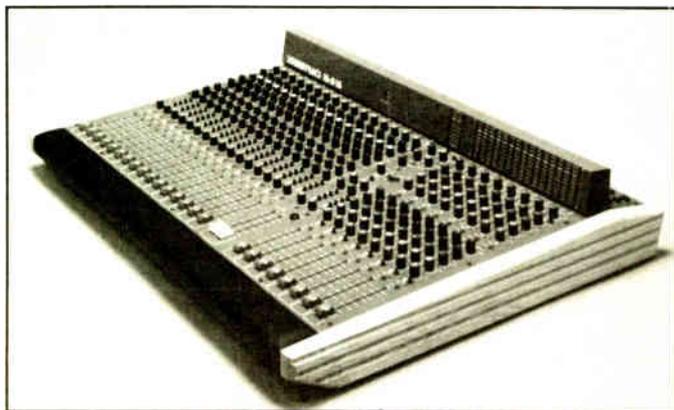
In the PCM system, sound levels are converted to a series of binary codes. This information is recorded as digital pulses of equal amplitude. In playback, all that has to be done is to discriminate between the presence and absence of a pulse. The quality of

recording and playback is thus not dependent on the characteristics of tape and heads.

With the DMP-100, hi-fi sound reproduction with wide dynamic range, minimal distortion, low wow and flutter (lower than the measurable limit), and flat frequency response is achieved. Listening to the reproduction of your DMP-100 is just like being in the concert hall.

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PREVIEW



Soundtracs 16-8-16 Mixer

The Soundtracs 16-8-16 is a versatile console which can be used in a variety of configurations: 32x2, 24x8x2, and 16x8x16. Features include full 16 track monitoring while recording, phantom power, quasi-parametric equalization, input channel mute, fader reverse on the eight subgroups, and phase reverse on each input. The 16 tape returns are normaled to the 16 monitor sections, so re-patching is unnecessary when going from recording to mixing. Visual monitoring is provided by an 18-way meter bridge with bi-colored, ten element LED ladders. The console's power is supplied by an external unit with switchable (100, 120, 220, 240 Volt) mains input.

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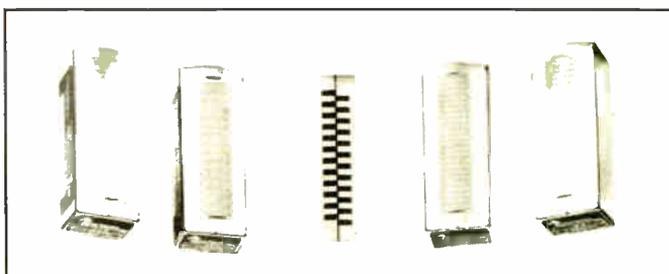


FM 236 Linear-Phase Electronic Crossover

FM Acoustics Ltd. of Switzerland have introduced the FM 236 Linear-Phase Electronic Crossover, employing six proprietary filters which achieve a 36 dB/octave slope. Handselected computer-type selected capacitors and military grade metal film resistors (both 0.5% tolerance) and individually tuned transistor stages produce a high degree of accuracy. All buffers and amplification modules use hand-tuned thermo-coupled class A technology and are built out of selected discrete components instead of IC's.

There are 22 high-pass and 22 low-pass crossover modules with a range of 100 to 12,500 Hz available as standard. Any other crossover frequency can be manufactured to order.

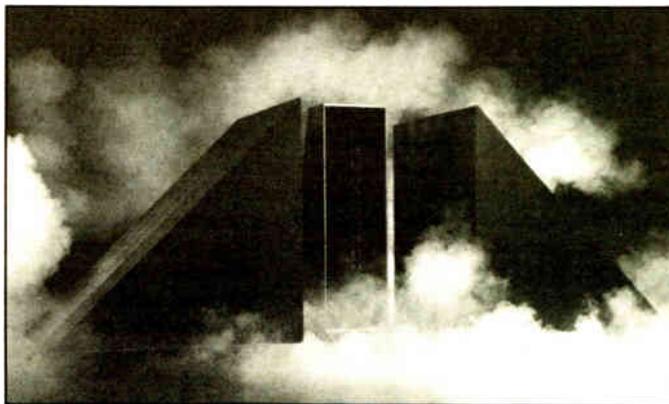
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Replacement Heads for MCI Multitracks

Sprague Magnetics, Inc. of Van Nuys, CA has unveiled its new line of 16 and 24 track replacement heads for MCI recorders. Manufactured by Applied Magnetics Belgium, Sprague is the exclusive U.S. distributor for the product. 16 track heads are \$1375 each for record and reproduce, erase is \$1500. 24 track heads are \$1550 each for record and reproduce and erase is \$1800. Dealer inquiries are invited and product is available for immediate shipment.

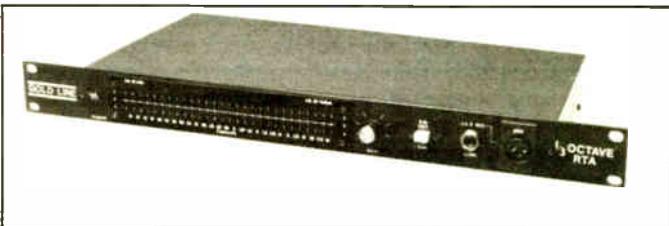
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Aura High Capacity Monitors

To meet the extreme demands of live music recording and playback, the Aura KT6000 was designed to play effortlessly at 115dB with low distortion. Measuring 7 feet by 7 feet by 6 feet, the system comes with its own electronics, 4 active crossovers and 11 amplifiers capable of producing 6,000 watts RMS of power. The KT6000 is a four-way system comprised of 36 drivers with crossover points of 60Hz, 300Hz and 12kHz. The speaker enclosures are not integral to the inside modular components. Therefore, the design can be altered in size, shape, appearance, and budget. The price of the KT6000 is \$35,000.

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Gold Line Real Time Analyzer

The Gold Line LM-27 is a rack mounted, 1/3 octave real time analyzer with 27 bands from 40 to 16k Hz. The unit's LED display can be switched to indicate either ± 3

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or ± 6 dB, and the bands are set at standard ISO center frequencies which correspond to most one-third octave equalizers. Front panel inputs and controls including a low impedance balanced microphone input, an unbalanced line input, range control and gain.

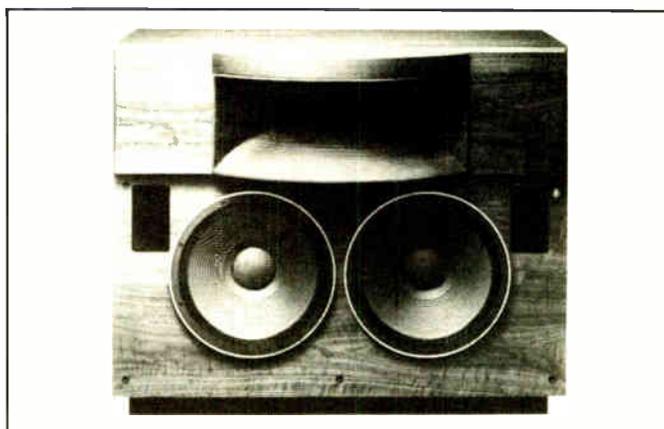
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Simmons Digital Claptrap™

The Claptrap, from Simmons Electronics, is a hand-clap synthesizer with digital eeprom that reproduces real handclaps for live or studio use. Controls include adjustments for speed, sensitivity, pitch, decay, clap/noise balance and level. The unit can be triggered via a manual trigger button, a footswitch (included), a synthesizer, an audio input jack, or automatically by an internal clock. A "Humaniser" control introduces a random element for a more realistic effect.

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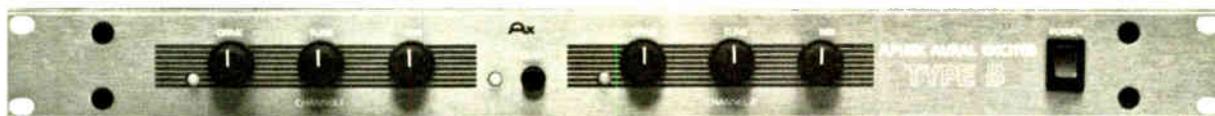
TAD Studio Monitors

Recently shown at the New York AES show, the TSM-1 and TSM-2 are high performance studio monitor systems employing TAD (Technical Audio Devices) driver and components. The use of high quality TAD components ensures that these speaker systems are able to meet the rigorous demands of studio use. Not only do they have wide dynamic range, linearity, smooth response and low distortion, they also have the ability to reproduce the low frequency range clearly and accurately.

The TSM-1 is a dual woofer, three way system with a suggested retail price of \$5,000 each. The TSM-2 is a single woofer, three way system with a suggested retail price of \$3,500 each.

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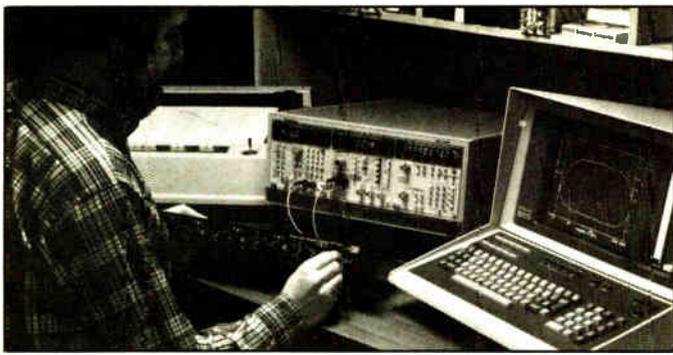


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Tektronix Automated Audio System

First shown at NAB '83, the Tektronix SG 5010 Programmable Oscillator and AA 5001 Programmable Distortion Analyzer are now available. With respective US base prices of \$4,000 and \$3,300, these two new TM 5000 plug-in products can be configured flexibly into an automated audio test system.

An AA 5001/SG 5010 based system automatically performs harmonic distortion to IHF A202; intermodulation distortion to SMPTE TH 22.51, DIN 45043, IEC 268.3 and IHF A202; frequency response to IHF A202, signal-to-noise ratio to IHF 202, and similar industry standard tests. With optional capability, noise measurements can be made to CCIR 468-2 and DIN 45405. In addition, frequency counters, signal switchers, interface devices, and hard copy units or plotters may be added to the system.

The SG 5010 and AA 5001 based systems are designed for automated audio testing in the moderate-to-high volume production line for consumer and professional audio equipment. Test results can be economically logged for files or printed out for customer inspection. Also highly complex devices such as recording consoles with multiple inputs and outputs or large audio switchers may be impractical to test manually, and may only be truly maintained through automation.

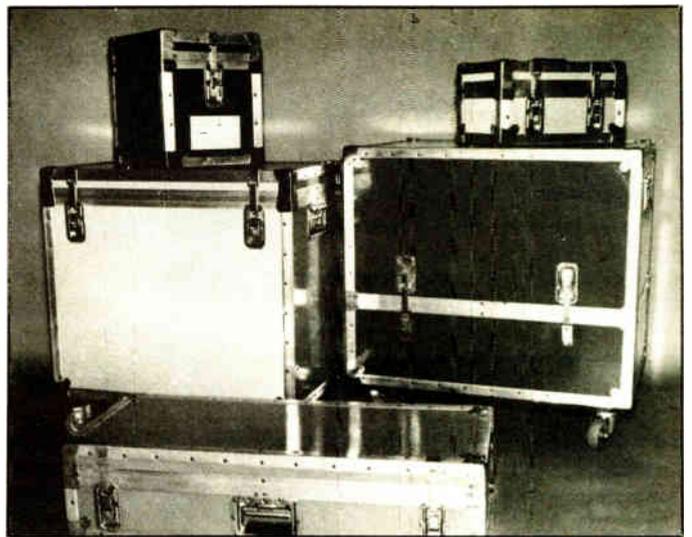
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Cramolin® Red Liquid

Cramolin® Red Liquid is a fast acting anti-oxidizing lubricant that cleans and preserves metal contact and connector surfaces. Corrosive atmospheric compounds coat metal connections with non-conducting oxide films increasing contact resistance until the resistive film is so thick that intermittent signals or complete failure results. Cramolin® Red Liquid dissolves oxide films and leaves a long lasting protective layer, and can be used on switches, relays, PCB connectors, potentiometers, interconnecting cables and other applications.

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Cases Inc. Unveils New Line

Cases Incorporated has introduced its new line of carrying, shipping and storage cases including newly designed A.T.A. (Air Transport Association), specification 300, category 1 reusable shipping cases. These cases are certified to meet or exceed this classification, one of the most stringent guidelines for manufacturing reusable air shipment containers.

According to Howard Chatt, president of Cases Incorporated, "The ATA specification 300, Category 1 requirements are important guidelines and companies who are willing to manufacture to these specifications can be assured to producing a quality product."

Circle #137 on Reader Service Card



Hill 000 Series Power Amplifiers

Hill Audio Inc., have introduced their 000 series of two channel power amplifiers with four models in the line: the DX1000, DX1000A, DX2000, and the DX3000. All amplifiers in the series have dual power supplies sharing a common toroidal transformer with dual windings. The circuitry uses a unique transformer coupled driver stage which features identical ultralinear NPN output devices connected in a Super A sliding bias configuration. The transformer driver stage interrupts the DC voltage chain, eliminating the possibility of introducing DC voltage into the speaker.

The 000 series range in power from 300 watts per channel at 8 ohms, 1000 watts mono (DX1000); to the DX3000, with 450 watts per channel into 8 ohms and 3000 watts mono. Amplifiers in the series are priced from \$1499 to \$2499.

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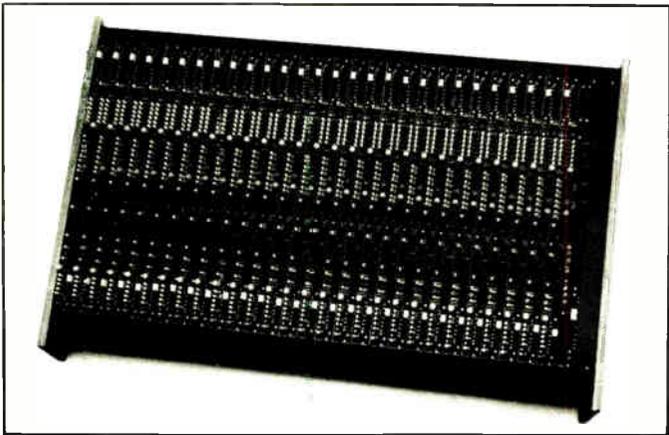


Shure SM83-CN Lavalier

Shure Brothers Inc. has introduced the SM83-CN, an omni-directional, lavalier condenser microphone, which addresses the "chest resonance" phenomenon often encountered when using lavalier microphones. The SM83-CN's frequency response has been tailored to compensate for this problem with an electronically created dip at 730 Hz and an acoustically generated high-frequency boost above 3 kHz. The result is an extremely natural sound without boominess or excessive brightness. In addition, the SM83-CN's controlled low-frequency rolloff substantially reduces clothing, handling, and room noise.

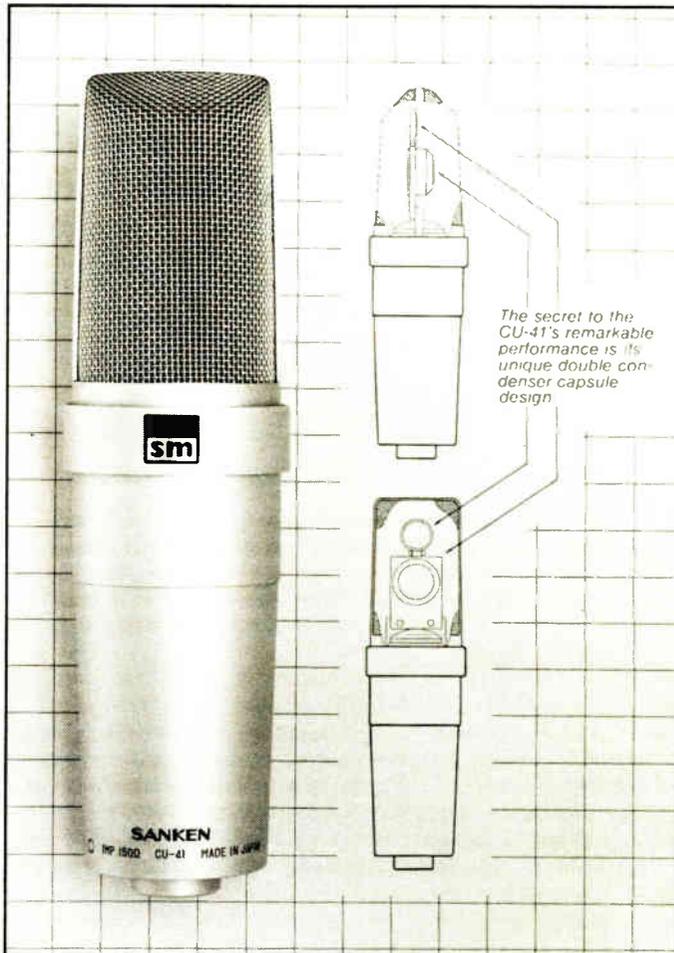
These sonic characteristics are made possible through the use of a Shure-developed amplifier supplied with the SM83-CN. The compact, light-weight amplifier can easily clip onto the user's belt or fit into a coat pocket and may be powered by a standard 9-volt battery or 5-52 VDC phantom power. Four mounting clips are provided: a single-mount tie-bar, a dual-mount tie-bar (for mounting two microphones simultaneously), and two multi-purpose mounting clips which may be sewn, pinned, or taped onto clothing.

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Interface Model 324 Modular Multitrack Console

Interface Electronics has announced the new Series 324 mixing consoles which incorporate all of the functions of the mixer in each module, so that, for example, a 28 input 24 track console requires simply the insertion of 28 input modules in the standard frame. Each module incorporates a track output master with an LED VU level indicator, as well as input module features including track assign, four equalizers, and four cue/effects sends. Also included is the Model NA monitor module, which allows three stereo mixdowns



The secret to the CU-41's remarkable performance is its unique double condenser capsule design

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from the monitor send section of the individual modules. The NA module also includes talkback and echo returns.

For recording, the system can be set up for up to 24 tracks and provides a simultaneous stereo mixdown, with a stereo mix for control room with solo and another mix for studio without solo. For live sound systems, the mixer provides up to 24 submixes each panned into the stereo house output, with another stereo output with solo functions for the operator. Many points in the mixer can be soloed into the monitor.

The Series 324 mixers are fully modular and use socketed ICs of the latest type, and are capable of a dynamic range approaching 120 dB under most conditions.

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RolandCorp's Boss HA-5 Play Bus Headphone Amp

The Play Bus has inputs for an instrument and an external source such as a cassette player, rhythm box, or microphone—plus a unique "bilateral bus line" which enables two HA-5s to be interconnected for silent (to the outside world) performance *a deux*. In addition to Bass and Treble controls, the HA-5 features these effects: overdrive, a soft distortion circuit, can be adjusted separately from the overall sound level; the Stereo Chorus has adjustable Rate and Depth and can be switched out in favor of a stereo 35-millisecond delay, providing a doubling effect. In addition to its private- and dual-headphone feature, the HA-5 can be connected between an instrument and amplifier for

use as a signal processor/preamp.

A Headphone-Microphone (RH-11M) allows two players using interlinked HA-5s to communicate with each other while playing. Microphone volume is adjustable (on the HA-5), and a Bus Mute switch facilitates communication without altering the amp's settings. The RH-11M's boom mike automatically switches off when it is swung out of talking position.

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The KAD-301 Analog Delay for Korg PME-40X

Three new signal processor modules have been added to the PME-40X pedalboard system by Korg. The KAD-301 Analog Delay ranges from 20 to 300 milliseconds; its two outputs can be used with the PME-40X's stereo outs for routing to separate amps or combined for sweeping effects. The KNG-101 Noise Gate, usually placed at the end of the signal-processing chain to eliminate unwanted noises from the instrument and effects, features a release time adjustment ranging from a gradual taper to a sudden stop. The KPH-401 four-stage Phaser features Depth, LFO Speed, Manual (center frequency), and Feedback controls.

The PME-40X system console holds up to four effects. Other modules currently available include Stereo Chorus, Stereo Flanger, Overdrive, Compressor, Distortion, Graphic Equalizer, and an EXT Selector for patching in additional outboard effects.

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The RMX 16 digital reverberator offers more for less. An 18kHz bandwidth digital system in a 2U high 19" rack mount case, with a continually expanding range of programs and an intelligent remote control. The RMX 16 is much more than just a high quality digital reverberation system, with programs ranging from the smallest of rooms to ambience with an infinite decay time, programmable stereo echo, nonlinear, reverse and special effects.

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Computer Assisted Music Production

THE NEXT REQUIRED ADDITION TO YOUR REPERTOIRE

by Shelly Palmer

When people ask me what I do for a living, I generally say, "I am a composer/producer." This title used to mean "Composer of Music" and "Producer of Music Sessions" for hire. Not any more.

Now I am expected to be musician, composer, arranger, performer, producer, engineer, computer programmer, systems technician, chief cook and bottle washer . . . and the list grows longer every day.

The only way I am able to perform so many tasks is with the aid of a computer.

I may enter the project at any stage (from storyboard to finished visuals) and I am expected to make instant changes in the score if the visuals change. I must also be able to work in every visual format (i.e.: 70mm, 35mm, 16mm film formats and international videotape formats like NTSC, PAL, SECAM, etc.). Since various formats have different framebases, maintaining sync is a challenge.

The Master Click Program

Once you have a musical idea for a score, you must find the best tempo for it. In a pre-score, it may be as simple as getting an even number of 8-bar phrases into 59 seconds. In a post-score, it may be as complex as finding a click that hits 25 visual cues, has a groove, and still sounds like music. The Master Click Program completes all of the click track calculations quickly and accurately without the use of messy pencils and paper. We type the frame counts and descriptions directly into the computer via the terminal.

After Master Click determines a tempo for the piece, it will produce a down-beat location list and a listing of note values in SMPTE time code, absolute time and film feet & frames. (See Examples) If other calculations are necessary, the program has a calculator that works in every known film and video format.

Once the tempo data is ana-

lyzed, I am able to begin work on the score. Using "archaic technology," I grab some music paper and write a sketch score or a full orchestral arrangement, depending on the job.

However, with our computer, there are additional options to pursue before entering the recording studio.

I can play the arrangement directly into the synthesizer via any of four human interfaces: A piano styled synthesizer keyboard, a DEC VT100 computer terminal, a guitar interface or a modified Lyricon II woodwind style

interface.

The computer will then read and compile this musical information a number of different ways. It can print out conventional sheet music for the individual parts or combine the parts into an orchestral score format. It will display the information in a Computer Music Composition Language like Mus V or Script. It will also print out locations and durations for each note of the composition in absolute time, relative time, SMPTE time code (drop or non-drop) and film feet & frames.

Shelton Leigh Palmer & Co. - Hit Point Data Sheet - Monday November 7, 1983 7:22:46 pm - 30 FPS

Hicks & Griest Shower Machine TV - 30 beats per minute = 133:200 File name: Moon Dealer Page 1

Label	Hit Point MI:SE:FR	Description	Duration MI:SE:FR	Location in Beats	Measures in 4/4	Measures in 3/4
AA	00:00:00	Music In	00:03:21	0.000	0.000	0.000
AB	00:03:21	Moon to Product	00:00:23	8.214	2.053	2.738
AC	00:04:14	Product Rotates	00:00:16	9.916	2.479	3.305
AD	00:05:00	Stops/Top Lifts Off	00:00:20	11.100	2.775	3.700
AE	00:05:20	Top Out of Frame	00:02:26	12.580	3.145	4.193
AF	00:08:16	Hand Sweep	00:00:18	18.944	4.736	6.314
AG	00:09:04	Hand out of Frame	00:02:12	20.276	5.069	6.758
AH	00:11:16	Face	00:01:29	25.604	6.401	8.534
AI	00:13:45	Clock Sequence Begins	00:04:29	29.970	7.492	9.990
AI	00:18:14	Clock Sequence Ends	00:01:00	40.996	10.249	13.665
AK	00:19:14	Product Shot	00:02:08	43.216	10.804	14.405
AL	00:21:22	Gun	00:00:25	48.248	12.062	16.082
AM	00:22:17	Subject Up	00:00:01	50.098	12.524	16.699
AN	00:22:18	Gun Talks	00:00:10	50.172	12.541	16.724
AO	00:25:05	Music Out	00:00:01	55.850	13.967	18.627

The total length for post = 00:13:15

Length to last important hit point = 00:59:00 seconds

Sample Hit Point Data Sheet

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Post Production

After the score has been written, the computer becomes especially useful in sound effects production and editing. As in music production, sound effects on the computer may be either acoustic (e.g. a door closing) or synthesized (e.g. a laser gun firing). Literally thousands of such effects may be accessed from computer memory.

A typical computer statement may be:

```
Notelist Using 1-1  
00:01:12 C1 00:00:04  
(v) (a) (t)
```

This notelist uses the timbre or sound effect stored in memory location 1-1. 00:01:12 represents one second,

twelve frames (in any frame base up to 5,000 frames per second). C1 is the pitch C in the lowest octave on the keyboard. 00:00:04 is the duration of the sound in frames. (v), (a), and (t) stand for volume amount, articulation multiplier, and timbre envelope respectively. Any timbre can be stored in any one of 512 memory locations on line at one time. This means that the computer is capable of producing 512 sound effects per cue.

An example

Recently I created additional music and synthesizer effects for the motion picture *XTRO*, a blood and guts story about an extra-terrestrial beast

that eats London. To make the movie scary enough for its American release, it was necessary to add several minutes of musical cues to the existing score, along with over 600 sound effects.

After the score was written, timbres were constructed for the music cues. Then, the sampled and synthesized sound effects were collected and programmed into computer memory (in the format shown above). The synthesizer outputs all the contents of the computer memory onto two-track analog audio tape. Channel 1 was program, and Channel 2 had 60 Hz sync for the film dubber to read. All of the signal processing (e.g. echo, reverb, EQ, compression, etc.) was done in software. The computer placed a beep tone two seconds before the first frame of picture corresponding to Standard Academy Leader. The film editor simply lined up the beep tones for each of the nine 10 minute reels to obtain sync with the picture.

The two-track audio was transferred onto eight magnetic stripes for optimal track separation in the film mix. The mix was done at Sound One in New York City, because they had just purchased a 6X fast-forward/fast-rewind projection system. Total mixing time for this 90 minute film was 5½ hours with pre-mixed dialog.

It must be added that all the technology mentioned in this article saved thousands of man-hours in labor. The entire audio production, including the mix, took five days to complete. And, more importantly, the processes allowed the director and composer a painless and efficient way of communicating their ideas.

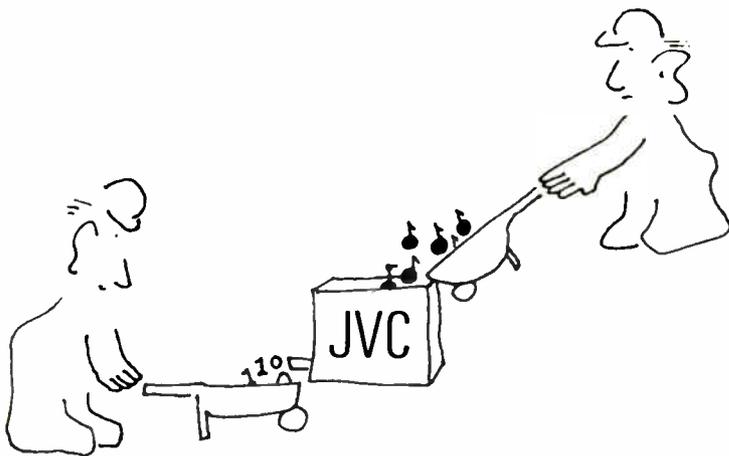
The Future

The computer will radically change audio production methods. In the future, our research in this field should lead to the following advancements:

- Modern communication from our main bank of Winchester hard disk drives to terminals in remote locations, such as outside recording studios.
- Software to analyze the aspects of musical style for use in our artificial intelligence experiments.
- A re-synthesis algorithm for our sampling device for use in dubbing films into foreign languages with the original timbres of the original actors' voices.
- Software architecture for the first tapeless recording studio. (The hardware already exists.)

And finally, I look forward to more creative music writing. While this article has stressed the advancements in technology, the most exciting aspect of music production will always be the music itself. ■

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—from page 5

Secondly, I had some minor disagreements with the instructions for setting playback level. If the article was intended for less experienced technicians I feel it would have been wise to clarify the fact that the playback metering is not an "absolute" reading and can be set to anything one wishes, regardless of the actual output level of the machine (and that there are no absolute rules governing this setting). Setting the meters to read +1 or -3, or anything else, is merely to make the use of the machine more convenient, and does not necessarily represent the "actual" signal level. This should be checked at the machine outputs.

The concept of tape fluxivity and its relation to signal levels must be understood because the *test tape* is the standard used for setting levels. Incidentally, I see 250 or even 320 nW/π reference levels all the time. Generally the manufacturer recommends an optimum reference level—and newer machines are designed to work with the "high output" tapes.

Thank you,
Eric Wenocur
Lab Tech Systems
ROAR Productions
Columbia, MD

Dear Mix,

I'm writing concerning your article on the North Central edition in which I did an interview with Cary Baker concerning 5th Floor Recording. I am very appreciative of the support that Mix has given 5th Floor Recording by publishing pictures, interviews and articles concerning the activities here, however, there was one paragraph where I was misquoted that I need to clarify.

Cary, who I think the world of, put together two sentences that really needed to be handled separately. I'm sure the confusion lay in the fact that we were talking in fairly technical terms and Cary may have misunderstood what I was getting across. On page 20, third column, paragraph three, it says:

"Concerning digital, Goldman has rented the JVC digital system and has used it to mixed avail. Some of the rock and roll doesn't sound good, yet R&B sounds great."

In fact we have used JVC digital systems on several different kinds of program material including rock and roll and I have felt along with the staff here that it performs exceptionally well. What I told Cary in the interview is that I have heard *other* systems (which I did not specify for obvious reasons) that did not sound very good on rock and roll where there seemed to be undesirable edginess in particular rock and roll guitar sounds.

In the paragraph that was printed it comes off as though I'm saying the JVC system doesn't sound good on rock and roll, which is simply not the case. We recently mixed down Adrian Belew's new album on Island Records with the JVC system and we were very satisfied with the results.

I also want to make it clear that I feel that Cary Baker did a fantastic job writing this article as he does for many other publications besides Mix, and I'm sure this is something that simply slipped by.

Best Regards,
Richard Goldman
5th Floor Recording Studios
Cincinnati, OH

Dear Mix,

I have been receiving your fine magazine for about two years now, thanks to my cousin Bob Missbach of Tres Virgos Studios, who gave me a subscription. I anxiously await each new copy as it is the most complete publication of its kind and my main way of staying even partially abreast of current developments. Shreveport, LA is not exactly in the industry mainstream. As a matter of fact, until I started receiving your magazine, I thought that "multi-track" was a descriptive term for a town with two drag strips.

I am writing in reference to Dan Forte's article on "Jo-EL Sonnier." We here in Louisiana are familiar with a Joel Sonnier. (Which we of course know to pronounce "Jo-EL Sahn-YEA.) Perhaps Mr. Sonnier has had to change the way his name is written in order to get you Californians to say it correctly.

Mr. Forte refers to Joel's instrument as a "tiny Cajun pushbutton accordion." Given the price of ink and typesetting these days, you might be interested in the instrument's given name—the "Zydeco"—an instrument whose roots go back as far as Cajun history.

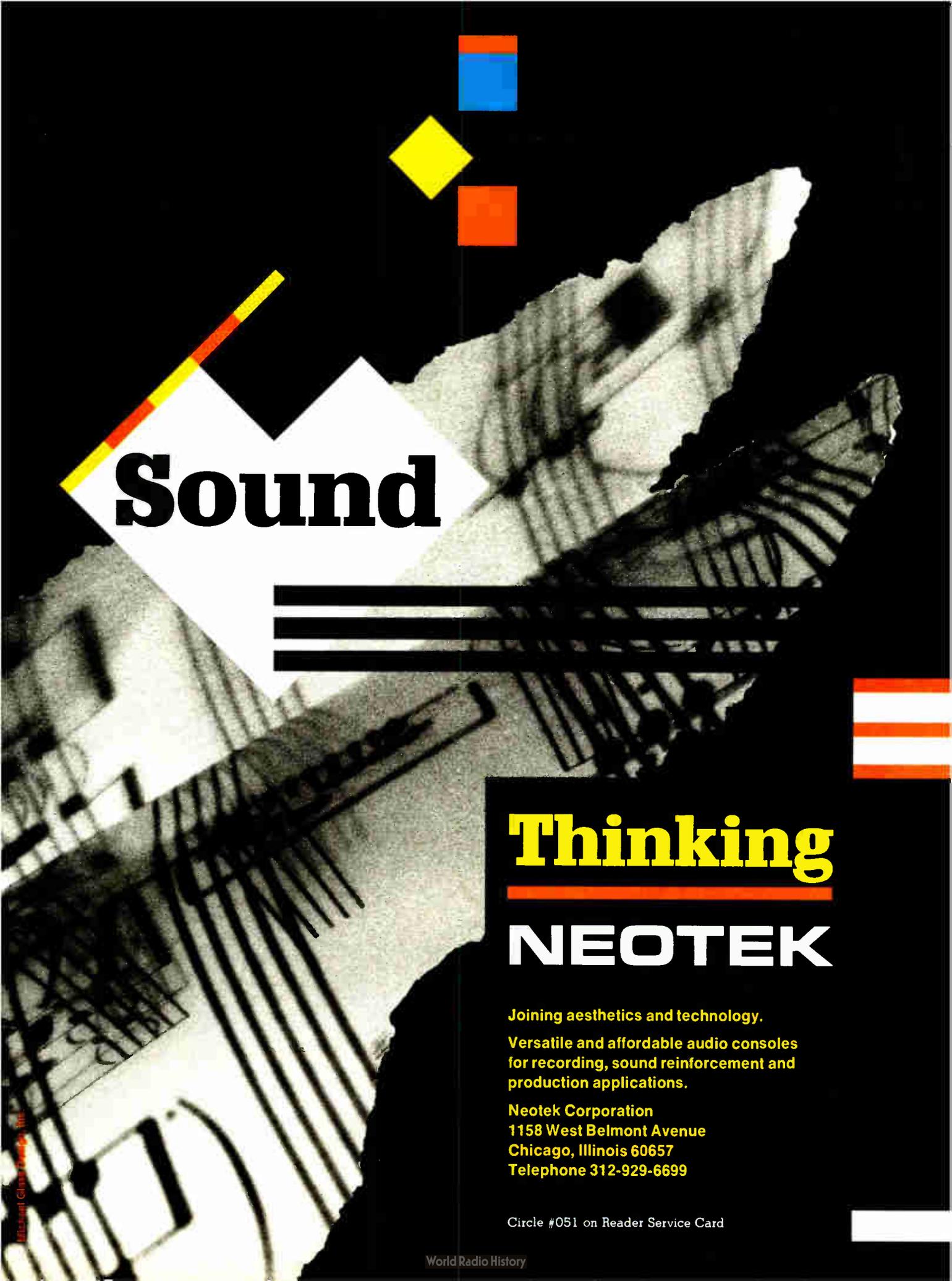
See, even us "backwoods Louisiana cats" know how to keep printing costs down.

Thanks, and keep up the good work.

D.W. MacKnight
Engineer/Editor
The Louisiana Hayride
Shreveport, LA

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Jan Hammer and Gene Perla
find their dream at

RED GATE

by Greg Thorndike



Gene Perla and Jan Hammer met in early 1970 and soon became rhythm-mates with vocalist Sarah Vaughan, on acoustic bass and piano respectively. This began an association that's still going strong today—currently, the two are partners in Red Gate Studio, a state-of-the-art recording facility. Other musical collaborations the two have experienced have been with drummer Elvin Jones, flautist Jeremy Steig, Mahavishnu Orchestra (Perla was the original bassist but opted to play with Elvin Jones), saxist Steve Grossman and Perla's own group, Stone Alliance. Except for Mahavishnu Orchestra, LPs exist documenting their work together.

"The first thing I remember," says Gene of the then infant musical electronic scene, "next to Fender, Wurlitzer and Clavinet keyboards, was Tom Oberheim's Ring Modulator. It was a wild sound at the time that turned peoples' heads around because we were playing modern, post-bop music and all of a sudden this 'zucelet', as we called it, would come in and it would blow their minds. I met Tom Oberheim, Bob Moog and a number of other creators through Jan. Since he was the

musical innovator of these new instruments, prototypes were, and still are, at his disposal."

In 1973, Gene decided that it was time to get into new areas. He didn't want to travel for the rest of his life as a musician, and because he had growing opportunities to record he enrolled in a three month night course at the Institute of Audio Research in New York City, with such instructors as Albert Grundy and John Woram. At the same time, fortune smiled upon him in the form of a job at Todd Rundgren's Secret Sound Studio. Within nine months, Gene became head engineer, working on such projects as a U.S.

—page 76

Red Gate's Goodies

MCI JH-24-16 with Autolocator III (runs at 30 ips with Scotch 250)
Sound Workshop Series 30 console (20 inputs)
McIntosh 2100
2 JBL 4333
Biamp EQ 270 Graphics
Pioneer SA-8100 (for cue)
Sony MX-14 (6-channel mixer)
Echoplate
Revox A700 (Studer electronics) (runs 15 ips with Scotch 250 and Dolby A)
Dolby A 361
Sony TC-854-4 (4 tk.)
JVC KD-D55 (cassette)
Sony TC-153SD (cassette)
2 UREI 1176LN (limiters)
2 UREI 175 (limiters)
Ibanez HD1000 (harmonics delay)
Ibanez DM1000 (digital delay)
Ibanez UE405 (multi-effects)
Orban 111B (dual reverb.)
2 MXR Auto flangers
4 Kepex
2 Gain-Brain
4 APSI 559 Eq
dbx 119 Stereo Compressor

EMS 8 octave filter bank (two)
DeltaLab Acousticcomputer DL-2
JVC HR-7300 U video cassette recorder
LinnDrum
Bode Freq. Shifter 1630
Rockman Model II S R & D
DBJ Labs. Power Plant D-103R
Roland Rhythm Composer TR-808
Moog String Filter
Oberheim Syn. Exp. Module
Oberheim Digital Sequencer DS-2
Conn Strobotuner
Alembic F-2B Stereo Preamp
B & K Precision Electronic Multimeter 277
B & K Precision Reg. Counter 1827
IVIE Spectrum Analyzer System

Fairlight CMI
Cerwin Vega A-1800 I Amp
2 JBL L200B
3 Mini-Moogs (custom)
Fender Piano 88 (suitcase)
GMT 800 Amp
Steinway Grand Piano
Prophet V
Memorymoog

Hiwatt 100 Custom Amp
GMT 600G amps (2)
2 Gon Bops Congas
Timbales
Gretsch Drums
Camco Drums
Melotron
Probe by Royalex
Music Man Amp
Hammond Organ L100
Oberheim Studio Amp
Marshall Amp
Various Guitars
Misc. Percussion

5 Neumann U87
6 AKG D200E
6 AKG CM2000
2 AKG D12
1 AKG G160E
1 Beyer M201N
1 Beyer M160N
1 Shure SM33
8 Sony DR-M5 (headphones)
gobos, mic stands, direct boxes (custom)
cue boxes

Brooklyn Bridge
Centennial Celebration
May 24, 1983.



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World Radio History

Navy commercial with singer Lou Rawls, and with Rundgren on album projects by Hall & Oates, Hello People and former Rascals' leader Felix Cavaliere. Then, tenor saxist Sonny Rollins called for a tour of Europe which took him away from the studio scene until almost immediately, Jan called and wondered if they could rent a large home together, out of the City, and set up a small studio. Finding that it would be cheaper to buy, they found a dream come true in Red Gate Farm. Owned by the Presbyterian Church, it is located about 1½ hours north, by car, of mid-town Manhattan. It's comprised of eight acres of land, it has a large (seven bedroom, five bath) house, a smaller (four bedroom, two bath) home and a big barn.

At first, it was an 8-track with a used Scully, originally from Atlantic Studios, and a Tascam console, spring reverb and limited mikes. With the technical assistance of Andy Topeka, it was a fun place to be and the partners began to flourish, first recording a special LP with Elvin Jones. Can you imagine a Mini-Moog with John Coltrane's drummer? It's called "On the Mountain" in reference to Red Gate, not only in physical location, but in spiritual and musical attainment.

Over the years many artists have taken advantage of the studio, including Jeff Beck, Tony Williams, Al DiMeola, Randy and Mike Brecker, David Liebman, Neil Schon, John Abercrombie, Pharoah Sanders, Peter Frampton, Don Alias, Walter Bishop and others.

Red Gate is not a commercial studio in the usual sense, since it was conceived by the partners as a private tool to achieve their own goals: for Gene, it provides a vital component needed for the productions on his two labels, P.M. Records and Plug Records; and for Jan, it is ideal for his artist projects and for those associated with him. Most recently, with the use of the Fairlight, movie soundtracks have emerged as new creations from Red Gate. In addition to his other activities, Gene is presently an instructor of Audio Arts at the Center for the Media Arts in New York City.

Small, but adequate, the control room measures approximately 8' x 12' and the studio 15' x 40', with acoustical insulation throughout, rheostat track lighting, mike inputs and cue outputs. The atmosphere is delightfully rustic with many windows looking out on a country setting. For all the great music that's produced out of these back roads, it's main lure remains something largely intangible: peace and quiet. ■

latest LP with *Bill Overholtzer* producing, *Dennis Rose* and *John Goetz* engineering. That duo is also engineering sessions for *Essence*, a fusion band recently signed by Geffen Records. . . . *Joe Williams* is laying tracks for a Bosco Records LP at *Group IV Recording* in Hollywood. *Pete Christlieb* is producing, *Angel Balestier* engineering, with assistance from *Andy D'Adario*. . . . *Pinkard & Bowen* may not be household names, but a few of the friends who helped make their new Warner Bros. comedy album at *Sunset Sound* in Hollywood are—like *Dan Fogelberg*, former Eagles *Don Henley* and *Glenn Frey*, *David Carradine* and *Jackson Browne*. *Jim Ed Norman* is producing, with *Terry Christian* engineering. Other big names at *Sunset* recently include *Van Halen*, mixing their upcoming album, produced by *Ted Templeman*, engineering by *Lee Hirschberg*, and *Rickie Lee Jones*, working with engineer *Mark Linnett* and assistant *Stuart Furusho*. . . . Current projects at *Morning Star Sound Recorders* in Baldwin Park find *Full Sail* working on their third album with *Steve Brown* producing; *Yolanda Cagigas* doing vocals for her debut LP with *Hector Reyes* producing and *Brown* at the board; and *Cairo* cutting sides with producer/engineer *Brown*. . . . At *Sunswept Studios* in Studio City percussion giant *Airto* played on six tracks of the upcoming LP by *Darius & the Magnets*. That record is being produced by *Dennis Degher*. . . . Here's a good match: *Stanley Clarke* producing keyboard wunderkind *Rodney Franklin's* next Columbia LP at *Larabee Sound* in L.A. *Erik Zubloer* engineered, assisted by *Tony Greene*. Also in *Larabee* are producers *Tito Jackson* and *Howard Hewitt*, mixing *LaToya Jackson's* new single. *Randy Tominaga* engineered. . . . *Al Kasha & Joel Hirschorn*, the award-winning songwriting team, are producing new songs for an upcoming *Mel Brooks* film at *KSR Studios* in Hollywood. *Ken Story* is engineering. . . . *Betty Boop & the Beat* are currently producing their own record at *Prime Track* in North Hollywood, with *Daniel Chance* working as engineer. . . .

STUDIO NEWS

Trident USA recently announced installations of A.M.S. digital equipment: *Electric Lady* in NYC, are now the proud owners of two DMX 15-80S units, and *P.C.I.* in Rochester, NY have recently taken delivery of a DMX 15-80S, complete with 1.6 seconds on channel A, 400 m/seconds on B and pitch changer. All of the delay units feature the loop editing system which affords engineers an extra amount of creativity. The unit will lock-in up to the maximum delay in memory and dump it on request via a push button or external sound trigger. . . . *Trade Secret Recording* is a newly designed and constructed 2,300 sq. ft. facility located just south of Cleveland, OH. The spacious 1,100 square foot studio area features variable acoustics with two to seven feet of trapping, full-scale monitoring, two floating vari-trap isolation booths, live cell, and luxurious isolation room.

The control room is an advanced Live End acoustic transformer design, featuring full compression ceiling and 1.7 kilowatt JBL monitoring. Equipment highlights include MCI multitrack, Neotek console, and the EMT 251 micro-processor-controlled digital reverberation system. . . . *Nimbus Nine Recording* in NYC, formerly a private studio, has announced that its doors are now open to outside clients. Owned by *Geoff Daking*, a recording engineer veteran who was a member of the popular '60s rock group, the Blues Magoos, the studio features a Trident Series 80 console, MCI JH-24 multitrack, JBL 4430 monitors, EMT tube stereo reverb, AKG two channel reverb, Lexicon PCM-42's, Pultec equalizers, API compressors, A&D compressor/limiters, Ursa Major Space Station, Kepex II's, Gain Brain II's and SMPTE synchronization for interlocking the multitrack to any other audio or video equipment. . . . *Lou and Lindy* at *Barrett Recording* in Seattle, WA have announced the addition of a new receptionist, *Rachel*, weighing in at 7 lbs, 2 oz. . . . *Recording Etc.*, a Palo Alto, CA recording studio, has announced the appointment of *Ted Brooks* as general manager. Brooks, whose credits include production projects for IBM, Consolidated Freightways, Hewlett-Packard and Syva Corp., will be responsible for supervising all phases of production. *Recording Etc.* specializes in broadcast/a-v production and cassette duplication services. . . . *The Outlook Recording Studio*, outside of Bethel, ME, has just been upgraded to 24-tracks with the addition of a new Studer A-80 Mark III 24-track recorder and a Trident Series 70 console. Other recent additions include Echoplate III, Lexicon PCM 41, AKG 414, JBL 4312's, Bryston 26 and 36, and a Hammond organ. The studio and control room have been recently renovated and enlarged, and a large isolation booth was added. . . . Studio B at *Compass Point Studio* in Nassau, The Bahamas has been fitted with a Solid State Logic desk, with a 40-channel capacity and total recall. The studio, in addition, has a new Studer A800 24-track tape machine plus UREI 8138 monitors. Studio A is also being refurbished with the installation of a 36-channel MCI JH 536 desk. . . . *Criteria Recording Company Inc.* of Miami, FL and *Fanta Professional Services* of Nashville have entered into a joint venture agreement to market the *Criteria* mobile recording truck. The 26' GMC transmode, equipped with an MCI 636 console, will be based at *Fanta's* Nashville headquarters. . . . *Reflection Sound Studios* in Charlotte, NC is re-equipping both of its 24-track studios. Studio "A" is having a new MCI JH-636 Automated Console installed with Plasma Metering, Parametric EQ, Spectra-Vue, plus a new JH-24 24 Track recorder and Lexicon 224x digital echo chamber with LARC option. Sessions are already running in Studio "C" its new MCI JH-636 board, featuring VCA fader grouping, and cutting tracks on a new MCI JH-24 24 Track recorder. There are now dbx 900 frames in both rooms with limiters, gates and de-essers, and an increasing number of final mixing is being done on the MCI half-inch two track recorder in Studio "A". ■

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World Radio History

KEYBOARD ARTIST FORUM

Problems and Solutions

by George Petersen

The role of a modern keyboardist is a far cry removed from the simple moniker "pianist" or "organist" which described a player's duties twenty years ago. These days, it is hardly an unusual sight to find a musician struggling to provide some combination of piano, strings, organ, bass, synthesizers, and even drums in a live situation, buried behind a seemingly endless pile of instruments.

How do today's keyboardists deal with the complexities of sequencing, music programming, instrument interfacing, signal routing, and audio processing, yet still retain their identities as creative musicians and performers? We polled seven top-notch players of diverse backgrounds to find the answers. Read on and enjoy.

Roger Powell

Best known for his long association as the keyboardist with Todd Rundgren's Utopia, Roger Powell is also widely recognized as a composer of motion picture soundtracks, a music software designer, and as the inventor of synthesizers such as The Probe and Data Boy. We caught up with David while he was involved with the final overdubs for *Oblivion*, the new Utopia album released last month.

Mix: Does it seem to you that keyboardists today have to be computer techs first and musicians second?

"There seems to be more of a demand at this point for musicians that are competent with the new wave of micro-processor-based instruments. It requires a bit of mental gear shifting for a lot of musicians and in a way, it creates a new category, a way for people to get involved in the music business: as consultants and programmers. What I see with expensive digital synthesizers, the highly complex devices like the Fairlights and Synclaviers, are people getting these and renting themselves and their machines out. There's definitely something changing out there. It's more complicated than it was ten years ago."

Mix: What is your current setup?

"When we go on the road, which has been infrequent this past year, I've tended to slim down the normal barage of keyboards to just one or two. A few years ago I was using a device of my own invention called The Probe, which was a remote keyboard controller for a bank of synthesizers which sat off stage. Jan Hammer is currently using that.

"On the last tour I used another device I designed and built called the Data Boy, which was basically an S-100 computer with a Casheab digital oscillator board. We took these standard computer components, added the digital oscillator, and built a digital synthesizer. We bought a commercial keyboard, put it in a case, designed an interface for it, and I wrote all the software for an operating system. I had that machine on the road for a year and it was 100% reliable.

"I also had a Korg PolySix on the stage at the same time, so I had both a digital and a very affordable analog machine which has a very good sound. In fact I just finished an in-

dustrial project for the Washington Post and I used the Korg for the entire thing because there was nothing else in the studio at the time. It's very versatile."

Mix: Do you have preset programs you've written for that?

"No, in fact I never use any presets, unless I go on the road, where I might use eight presets. I've never seen the need for using more than eight presets. When in the studio, I'm always in the manual mode. I've never been satisfied to pull out a standard preset. It never seems to work for different pieces of music. It may be a starting point, or a stepping stone to the sound you want, but I've always had to twiddle knobs for the exact effect.

"On *Oblivion*, the new Utopia album we just finished, which is distributed through Passport Records, I used an Oberheim OB-8 for about 80% of my part. I've been tending to favor that machine for recording. It's extremely versatile. I can always get a good fat sound out of it as well as in-

—Page 84

Roger Powell using his Data Boy system during a 1983 outdoor concert in Toronto.

PHOTO: GEORGE COWAN



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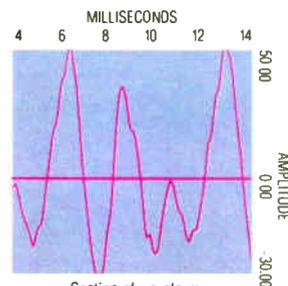
Skeptical? Go to one of the dealers listed on the next page and see a live demonstration of the Kurzweil 250. You'll not only hear its incredibly accurate piano sound, but also its strings, brass, percussion, vocal chorus, plus up to 90 other acoustic and electronic sounds that the Model 250 is capable of storing.

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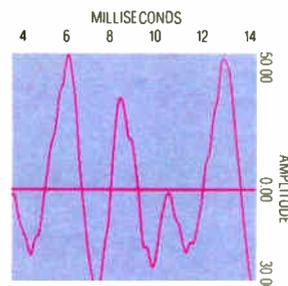
During the last several years, new keyboard products have proliferated throughout the music world. And some have been introduced with a considerable amount of fanfare. But none has been as eagerly awaited as this one.

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from 79, Keyboard Forum

tricate effects. That line of products seem to give you the most access to the microprocessor flexibility built into it. A lot of internal programming can be accessed by the user.

"We also use the two other elements in the Oberheim System, the DSX sequencer and the DMX drum machine. Both Willie [Utopia drummer John Wilcox] and I had access to those machines while developing material for the album. It's a funny situation—most people in the industry write the music first and then use the machines to play it. We operated differently—we had the machines compose the music and then we played it. On the album we actually play most of the music."

Mix: Is there anything that's changed your approach to synthesis?

"Yeah—an affordable home computer. It's changed my approach to everything. One of my major future projects, which I'm actively working on now, is to have a multitrack tape recorder and a flexible synthesizer model in a home computer. So with the home computer in your living room, you should be able to put in a disc or small piece of hardware which would allow you to do studio quality sound with unlimited flexibility. We're only a few



Jim Peterik (far left) of "Survivor" (other members 2nd left to right) Frankie Sullivan, Mark Droubay, Dave Bickler, and Stephan Ellis.

years away from that.

"That's what we have in store for the future. Every year, there's a whole slew of new hardware that is either a re-packaging of last year's hardware, or has one new feature added, or may be an entirely new product. You can have trouble keeping up with this hardware explosion. Theoretically you should be able to invest in one set of hardware, like a multi-track board

and also have an incredibly fast computer with a lot of memory that can be reprogrammed to do various things with it. All of this is available for half a million dollars. My approach is to do something similar to that with a Commodore 64 or some enhancement of it."

Jim Peterik

"I'm really a guitar player who started playing keyboards through necessity," says Jim Peterik, who is best known as one of the founders of Survivor, and a co-writer of their international platinum success, "Eye of the Tiger". Not one to be labeled an overnight success, Jim was the lead guitarist and vocalist for The Ides of March, whose hit single "Vehicle" rose to the #2 spot on the charts in 1970.

Mix: What is the keyboard setup you're using onstage with Survivor?

"I keep my setup really simple; A Yamaha CP-70, a Roland Jupiter-8 and sometimes a Korg CX-3 organ. I use a small mixer, a Crest power amp, a Furman parametric equalizer and an E-V SRO speaker, but that's just for monitoring and has nothing to do with how it sounds to the audience.

"It's so ironic—you work for an hour getting your sound right on stage, and that's not really what the audience is going to hear anyway. You're always at the mercy of the house mixer, but luckily, with Rick Weigand, who's been our sound man for years, we know it's gonna sound great out there."

Mix: Do you use any sequencing on stage?

"Only a pulse kind of thing with the Jupiter-8, like on 'American Heartbeat' or 'Half Life'. It's really hard to keep it accurate from night to night, because the Jupiter-8 has a slide control and if it varies just a millimeter, it's the wrong tempo.

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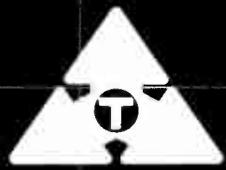
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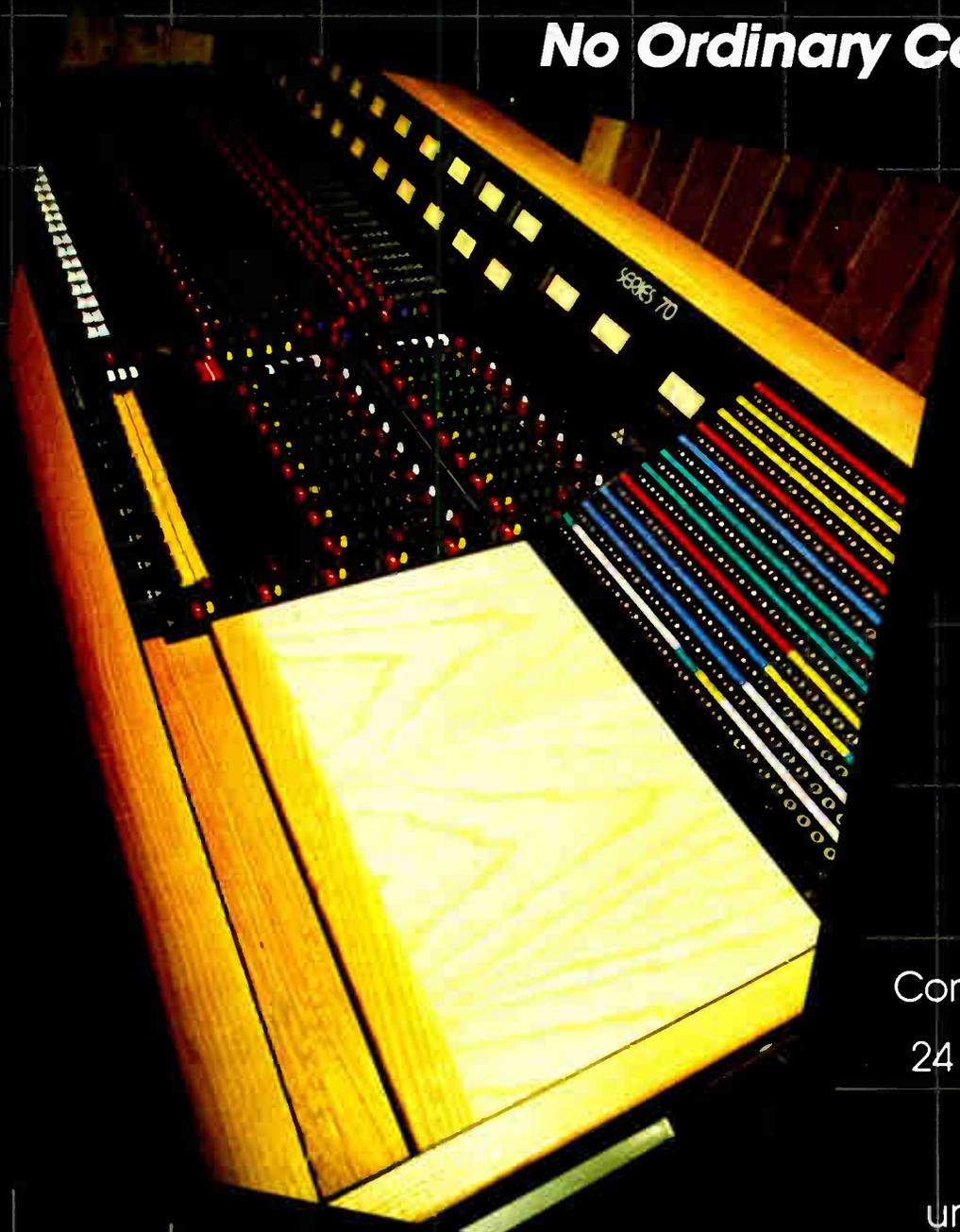
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"In the studio we use all kinds of keyboards, the Emulator, the Memory Moog, and we've also had Daryl Dragon guest on our albums, and he brings his arsenal of keyboards, but for live gigs it's just too complicated. I'm not the guy with the cape who spreads his arms over three banks of keyboards. I like it really simple.

"I think a lot of keyboard players are in the spot I'm in. They're not techno wizards and don't want to be. They just want to sound great and have a simple setup to do it. I play synthesizers because they make everything sound great, not because I love the synthesizer or have any affinity to the synthesizer. I write most of my songs on the grand piano and all the grand piano you hear on the album is me."

Mix: Have you been using a Hammond or your Korg for organ in the studio?

"We used a B-3. They have a pretty good one at Rumbo. There's nothing that can exactly replace that sound. The Korg makes a nice try at it, but the psychology of that Korg organ is all wrong. An organ is supposed to be a huge monstrous thing that you play like the guy in The Young Rascals. It shouldn't be a little dinky keyboard.

"For Survivor, we use a lot of organ. There's a real fine line—a lot of times an organ can cover instruments rather than enhance them. So you have to mix an organ way back, because it pops out like crazy, especially on the radio. I don't know what happens—maybe it's Mr. Hammond getting back at us all or something."

Mix: What are some of the other keyboards you've used?

"I remember when we were first recording, we had this horrible thing called a Freeman String Synthesizer. This thing was a real beast. It weighed about 900 pounds and it had this one sound you used, this bleating string sound. Alone it sounded like pure shit, but if you added it to the track, it sounded like twenty drunk string players trying to play together. It was awful.

"Gradually all the keyboardists started getting ARP String Ensembles. You couldn't beat it for that Styx 'Lady' sound. Now there are so many great string sounds. I've got a string sound on my Jupiter-8 that just kills. I split my keyboard in stereo and have two really great string sounds, one in each hand. When you pan them left and right, it sounds amazing. It's the most transparent keyboard out there.

"I want a Kurzweil. I went to the demonstration at the AES Show.

The grand piano was spot-on, just unbelievable, but the demonstrator was playing mostly arpeggiated passages rather than pounding chords. I asked him about it later and he said it had to do with the sustain factor, and the Kurzweil couldn't do that yet, but the problem would be fixed in the future. Its sounds were amazing and its human voices were astounding. If I can't afford a Kurzweil, I'm going to get a 360 System, which I've experimented with a lot. It's a poor man's Kurzweil and it's got some great sounds. It's got a classical guitar that's heavenly, and a Fender bass that doesn't sound much like a Fender bass, but still sounds cool."

David Sancious

David Sancious is known both as a session and backup player (for Bruce Springsteen and others) and for his distinct progressive style as a solo performer, which has earned him the respect of critics, fellow musicians and the general public in both Europe and the U.S.

Mix: What is the keyboard setup you use on stage?

"I use the Oberheim system plus another Oberheim OB-8, a Yamaha D-7 grand piano, a Yamaha DX-7 and a heavily modified Minimoog. The Oberheim has a certain warm sound quality that I like. Their whole synthesizer-drum machine-sequencer system is amazing as far as what you can do with it. For writing it's a great tool, and I just did a tour of Europe where we used it extensively on quite a lot of songs—it's like having two extra sets of hands."

Mix: Do you use microphones or a pickup system for the acoustic piano?

"It depends on the situation. If it's a solo piano piece, I prefer to mike it with [Crown] PZMs, because you can get a ton of volume and they don't color the tonal quality of the instrument. The PZMs are great for piano. I don't really care for the Yamaha CP-70s and all that, because if you grew up playing real pianos like I did, then the only useful part of the CP-70 would be the middle two octaves. The rest of it is fairly useless for piano sound. I always use real pianos."

Mix: Is there any type of instrument or piece of gear you wish somebody would make?

"The improvements are coming so fast that someone has actually made just about everything I've dreamed about—now it's just a question of getting it on the market. The Kurzweil interests



PHOTO ARMANDO GALLO

David Sancious

me a lot, although I haven't played it yet. I was out of the country during the last AES show, but some friends of mine went and played it and raved about it.

"I think the whole trend in keyboards has gone away from having 8 zillion keyboards, and back to having a few that have a lot of capability. The ideal for me would be to have one really amazing keyboard, maybe a double manual thing that you could get everything from. I don't like the idea of playing seven synthesizers because it just gets redundant after a while."

David Frank

David Frank comprises one-half of The System, whose first album, *Sweat*, garnered critical acclaim last year. Currently working on the group's second album, David explained that his career goes back to some inauspicious beginnings. "When I was in the tenth grade, in the middle of the psychedelic era, my father bought me a Farfisa organ, and I proceeded to paint it with day-glo colors." Obviously his keyboard arsenal has changed a lot since then.

Mix: Can you describe the setup you use in the studio?

"I've been using the Oberheim System, with the OB-Xa, the DSX and the DMX, and also using the DSX to trigger Simmons drums. I'm also using the PPG Wave with the Wave computer terminal. I've been doing a lot of sequencing with that as well, in conjunction with DSX; and sampling voices which you'll hear more on our next album.

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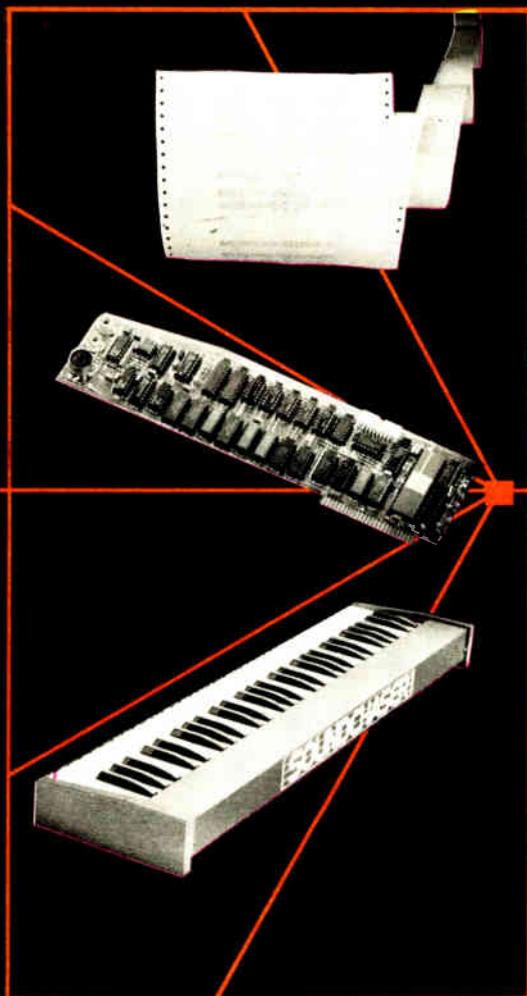


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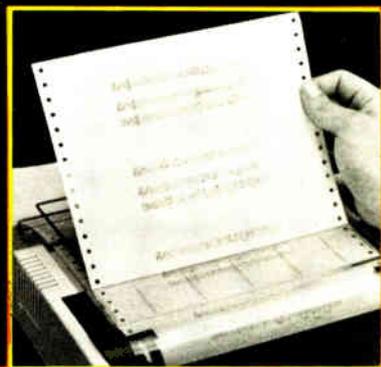
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Mic Murphy and David Frank of "The System"

really express yourself on the instrument and accent things. It's kind of the opposite of the whole sequencer way of doing things where everything becomes very exact. People who say 'playing performance isn't important anymore' are going to be proven wrong in the long run, although the complex and rhythmically exact things that are possible through the sequencer revolution will also have a lot of influence."

Mix: Is there any kind of "black box" device you wish someone would invent?

"I would like to see someone put together a drum machine where you can program in volume level differences."

Mix: You mean in terms of dynamics?

"Yes, like touch sensitive pads on the buttons, and programmable from a step mode would be convenient too."

"I'm looking forward to getting the Yamaha DX-1 because it will have all the capabilities of the DX-7, and a lot more, and it will also be able to work with sequencing—the computer that comes with it has all sorts of sequencing possibilities. People are having trouble getting the DX-1, even in Japan, but I'm secretly shipping one

in. They don't even have English manuals for it now."

Mix: You better start brushing up on your Japanese...

(laughs) "Definitely."

David Diamond

Synthesist/guitarist David Diamond of the electro-pop band Berlin had his first musical experiences with classical training in violin and piano. The group's enormously successful record debut (an EP entitled *Pleasure Victim*) ironically was a four-song demo tape that had been turned down by numerous record labels. Berlin's first album, *Love Life*, features more sophisticated synth work than the EP (which only used a Prophet 5), and is slated for release this month.

Mix: What keyboards did you use for the album?

"The Prophet 5 is still the main instrument because it's a phenomenal keyboard and I love it. We also used the Jupiter-8, which I'm not so thrilled about. My attitude towards the Jupiter-8 is it will do anything—all these amazing things—but only one-fifth of what it does is practical and useful for what I use."

"We used the Fairlight for some tracks. It wasn't as difficult to use as I

"I've been running the Oberheim System from the clock out on the PPG and using the sync tone out from the Oberheim to do anything else I have to do. It works out very well for me."

"I've just recently got a Yamaha DX-7 which I also use."

Mix: Do you use a similar setup on stage?

"Very similar. On our last tour I used the Oberheim System and a Memorymoog and a Minimoog. I was triggering the Minimoog with the DSX."

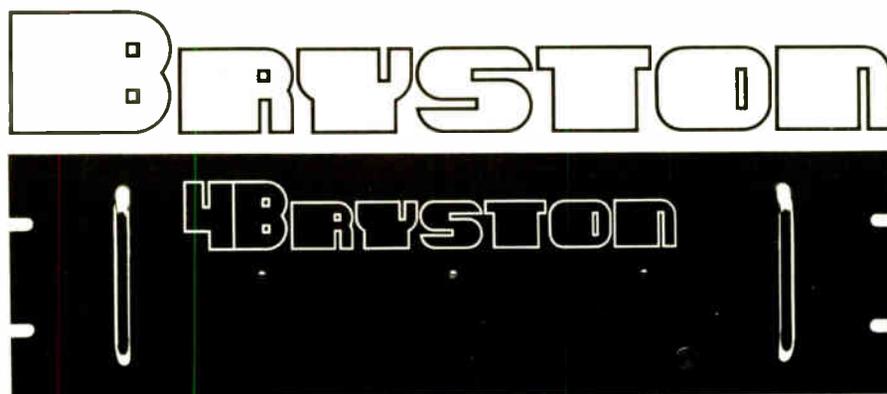
Mix: Are you using any outboard signal processors on stage?

"I don't have any racks on stage. In the studio I use a lot of it, but on stage I leave it up to the sound man, because I really have my hands full doing all the drums, bass, and a lot of the other parts myself."

Mix: Is there any instrument or piece of gear that's changed your outlook?

"When the Oberheim System came out, that completely changed my outlook on keyboards because I was able to program things and quantize playing so I was always exactly correct to the beat. That did have a lot of influence on my playing. Since then, I've also been influenced by the PPG because it has entirely different kinds of sounds than most analog synthesizers have."

"I think the Yamaha DX-7 is going to change my outlook too, because it's comfortable—you can



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thought it would be. We used the Yamaha DX-7, which was incredibly difficult to use. It sounds wonderful, especially for the price, but if you have one sound, and want it a little brighter, you have to go through all these algorithms. You can't just open up a filter and make it brighter; you have to change the sequence of carriers and modulators and you could end up changing the entire sound."

Mix: What drum machines did you use on the album?

"We used a Movement computer, it's made in England and it's a 48k basic language computer incorporated with a digital machine. It's easy for sampling, and one good thing is that it triggers faster than a LinnDrum. If you

use a tape signal to trigger one of the voices in the movement, it gives you a tighter trigger than the Linn. But I really prefer the Linn for the sounds it gives you. It's a wonderful machine."

Mix: Is there anything which has come out which has changed your approach to synthesis?

"Yes, I bought an IBM PC computer because some good software is being written for it. E-mu Systems is working on a package for the Emulator.

"There's a gentleman working on some software right now, so you can set up an entire band going through separate inputs on the IBM and it will write out musical notation of what everybody played. And it will do the opposite. You can write a

score with, say, a flute part, and program it into anything with a MIDI interface. You go on and do the bassoon, tuba, violin, viola, cello, and it will play back the whole composition on the various synthesizers with the right sounds. The main advantage it's got is that I could use any synthesizer that has a MIDI interface.

"In this day and age, what's coming along for the synthesist is incredibly exciting. I think I can get a better string sound out of my Prophet than you could get from a Fairlight, and it has real strings. It's all in the programming."

Michael Boddicker

Michael Boddicker is both a highly sought-after studio keyboardist (his recent credits include the new albums by Don Henley, and Chicago, as well as Michael Jackson's *Thriller*), and is also a skilled composer, who has scored commercials for national accounts such as Honda and Exxon, and one of the songs from *Flashdance*. He is currently scoring *Buckaroo Bonzai*, a major feature film to be released this spring. He keeps himself busy as a Governor and Trustee for the Los Angeles office of the National Academy of Recording Arts and Sciences. Last fall, Michael put on a highly successful hands-on synthesizer forum sponsored by NARAS and A&M Recording Studios, an event he plans to repeat again in the next few months.

Mix: What is your usual studio setup?

"My regular setup is a Yamaha DX-7, a PPG Wave 2.2, with Wave terminal, a modified Emulator, a Jupiter-6, a Jupiter-8, a modified Prophet 3.2, a modified Minimoog, a modular Minimoog and a couple of outboard racks, with a Prime Time, an Effectron, two Space Echoes—the 301 and 501—I use those a lot, Roland studio phasers, tube pre-amplifiers, and a Dyno-My-Piano Tri-Stereo Chorus. I've been using my Moog String Filters quite a bit and I also have a custom Bob Moog String Filter. I have a custom Modular Moog—a 55 and a 35 combined together, with several sequencers and processing stuff: pitch shifter, frequency shifter, and extra filtering. I also have a lot of Omnisonics and Aphex devices.

"I have other specialty items I keep at home, like my old ARP String Ensemble, my Synergy, and I have another PPG system there. I bought the last Polymoog they had at the factory. It works great, but it's so precious to me that I don't move it around.

"I have a 24 track studio where I keep my drum machines: the Linn

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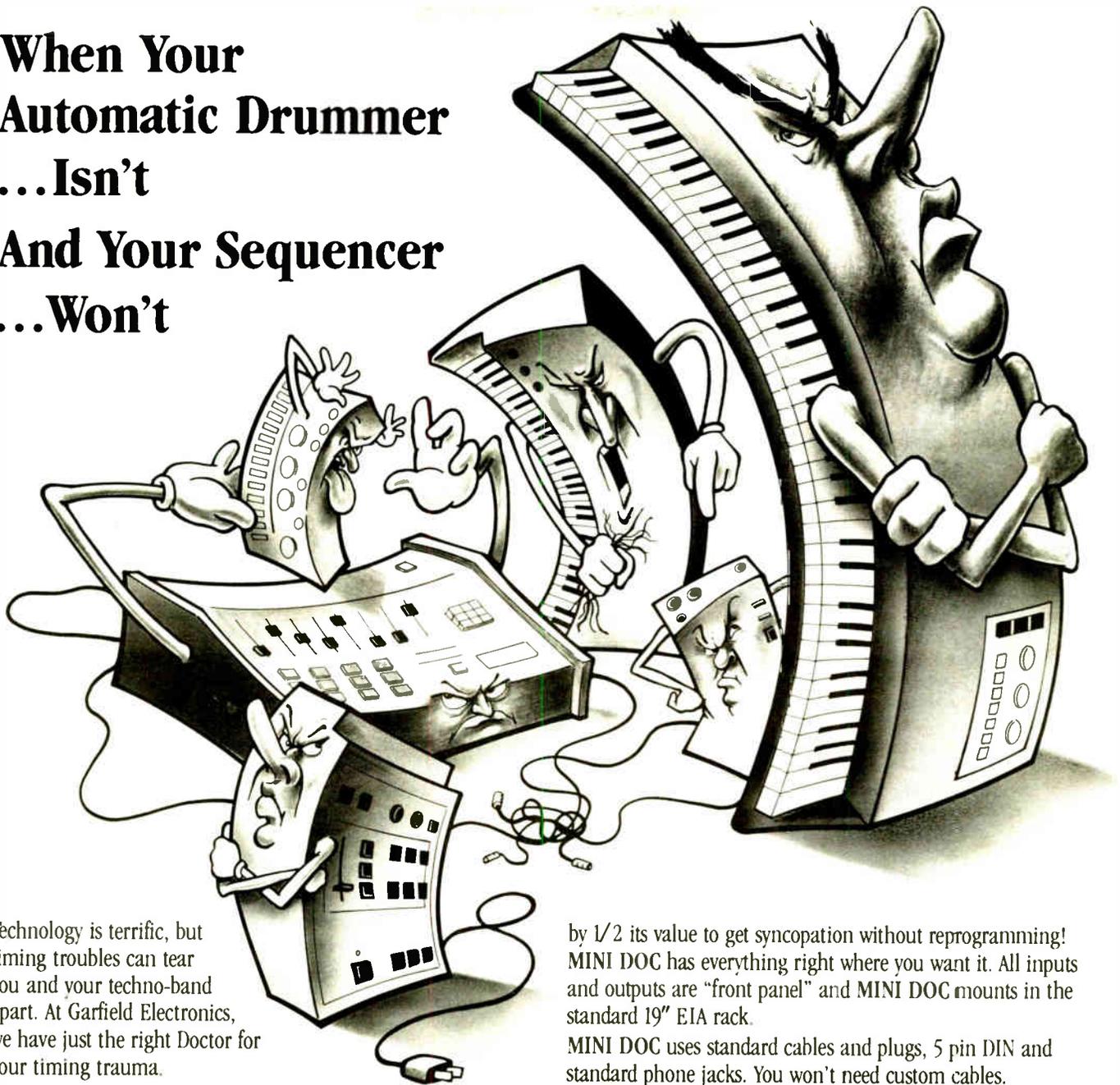


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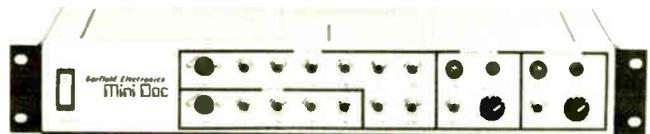
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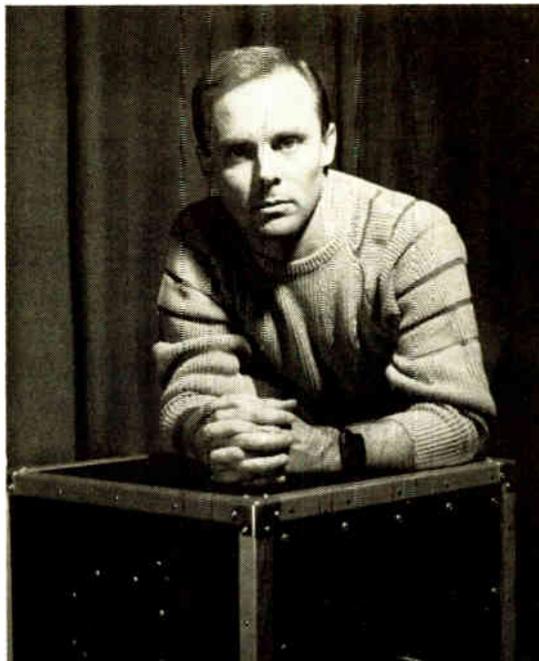
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Mix: What kinds of interface systems are you using?

"I have an MC-4 which has an OB-8 on it for the Jupiter-8 and the analog voltage interface for the Emulator. The DX-7, Jupiter-8, and Jupiter-6 are all MIDI-ed together, and as of tomorrow, my Emulator and Prophet will also have MIDI.

"I have a Doctor Click, which I use almost everyday. I had the first prototype, and we used it on Michael Jackson's *Thriller*. This was way back when, before it was called the Doctor Click. It was just a box with knobs on it. It didn't do all the things it does now, but now it's great. It's really indispensable."

Mix: Is there any instrument or piece of gear which you have been particularly impressed with?

"I finally found one synthesizer, the Jupiter-8, where if I had to, I could get by on a session with that one synthesizer alone. The only other synthesizer in that calibre, although I haven't been able to get my hands on one yet, is the Prophet T8.

"Right now I'm doing extensive sound collecting for my Emulator and PPG libraries. I imported a man from Norway, Arnie Shulze, and we've been doing 'Bodifications'. We set up a computer room, with the Wave terminal, the Emulator, and an Apple IIe that interfaces with the Drumulator, the Passport, the Roland and the Synergy. We're collecting sounds and trying to make some breakthroughs in computer synthesizers—coming up with a new approach and a lot of new noises, as compared to standard analog sounds.

"Everything is stored on disk. We also run 15 i.p.s. safety copies of everything. We've been doing more and more tape manipulated sounds, splicing them together and then entering that into the Emulator and the PPG. It's coming out wonderful. A lot of this will be heard on the new Don Henley album and on *Buckaroo Bonzai*."

Mix: In the good old days, a "keyboardist" just had to show up at a gig and say "Where's the piano?". Things have changed a lot since then...

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Rick McMillen, the Sound Engineer for Jeff Lorber's Fusion says, "The Hi-Energy System provides me with the best drum sound that I have ever encountered. Even with blaring monitors and a 115 DB noise level onstage, the Hi-Energy Mics cut through with an amazingly true drum sound. The kick drum is punchy with great transient response and a solid low end without boominess.

Gary Mullen, concert sound manager for McCune Audio/Visual says, "We tested the Hi-Energy Miking System for over a year, live, on tour, in all situations against every mic on the market. All of our sound engineers raved about the great sound, compactness, convenience and durability of the system. For drum miking, no other mics come close.

Chet McCracken, veteran drummer of hundreds of recording sessions with groups like the Doobie Brothers, America and Rare Earth says, "There are no phasing problems with the Hi-Energy System because all of the mics are the same. This eliminates a number of problems for the drummer and the sound engineers. And the kick sound is so solid I am truly impressed."

Rik Shannon, Sound Engineer for the Hollywood Palace, Tina Turner, Berlin and others says, "I can get a great drum sound in minutes instead of hours. If the drummer tunes his kit properly, the system does the rest, and every drummer has loved the fact that there are no mic stands to get in the way."



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"They are changing, but it's still the same thing. He had his technique for playing the piano, and his piano technique involved knowing what he could get out of it, what styles fit the piano, and whether he used the soft pedal, the sustain pedal or whatever—his 'outboard' gear. Synthesizers are really no more complex than that is once you understand the instrument."

Jeff Lorber

Jeff Lorber is of course the driving force behind Jeff Lorber Fusion, whose new album *In the Heat of the Night* was released last month. When Jeff was 20 and studying music at the Berklee School of Music, he decided to give it up entirely, entire "music wasn't stable enough or reliable—it was too tough a way to make a living." So instead he studied science, mathematics and computers for three years at Boston University, "so getting into the technical side of synthesis came quite naturally to me," says Jeff.

Mix: Can you describe your stage setup?

"I have a Kawai electric grand, which goes through a Mutron phaser. I like the Kawai, it's really a nice instrument, but I would definitely recommend to

anyone who buys one to get the right kind of case for it. The one we have has a ramp so you can roll the instrument right up into the case. On top of that I have an Oberheim OB-Xa which is attached to the DSX sequencer and one of the new LinnDrum computers. The sequencer also has a J.L. Cooper disk drive and I use the sequencer and drum machine on about half the set.

"I also have a Prophet 5 and one of the modifications Cooper's done for me is a switch that lets the whole keyboard control voltage go up or down an octave, which is useful.

"My pride and joy is my modular system which is a totally customized rig which has been growing and developing over the years. The heart of it is a Moog 15, an old, kind of obsolete modular system. I use it quite a bit and it gives a warm sound I really like. The system also has two Oberheim expander modules and a Sequential Circuit's programmer that operates the Moog 15. That's all basically one big monophonic synthesizer, and there are switches on it which allow me to control it from a rack mounted Liberation, the OB-Xa keyboard, or the Prophet keyboard. I had modifications done to enable the pitch bend and modulation wheels from all those to modulate and affect the sound of the modular system.

"On the Prophet and OB-8, there are external control voltages and gates which go to the modular system. I also had offset and scaling controls installed so the external control voltages can be matched up to make sure they're really in tune. One of my biggest headaches is keeping all this analog stuff in tune, and I have to check this all very carefully before going on stage.

"I get a really big fat monophonic solo sound from any of these keyboards switched to the modular system. There's a particular sound I'm identified with and it comes from combining all these monophonic synthesizers in a way that I really like.

"I also use a Yamaha GS-2 and a DX-7. The DX-7 is the only instrument I use to take solos on besides the modular system and the piano. I really dig the sound of the DX-7. It's very flexible. I've been able to program some incredible sounds into it, and it's got an electric piano sound which I prefer to almost anything."

Mix: Are you using an on-stage sub-mixer?

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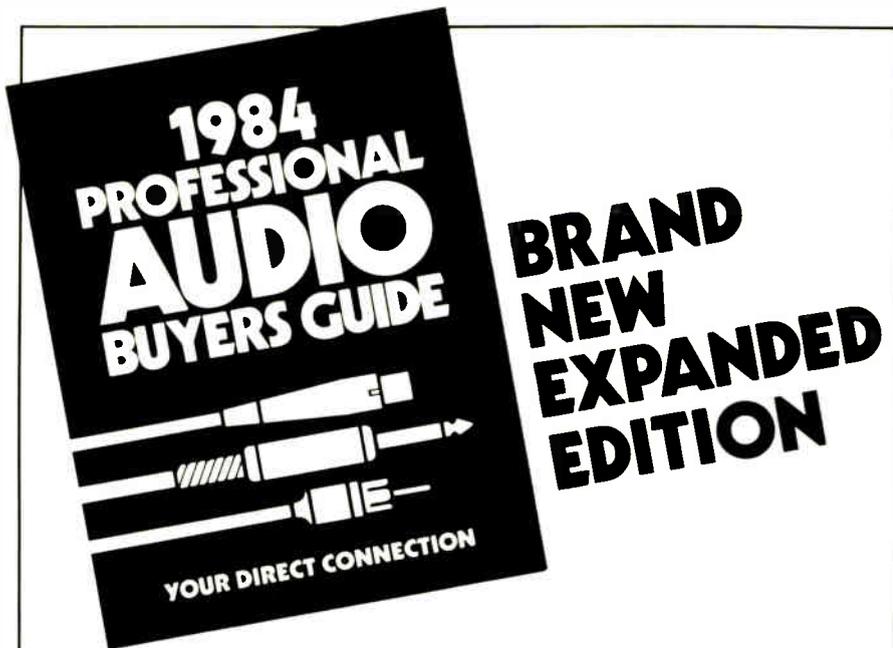
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MIX

reverb, which isn't the greatest reverb in the world, but I use it on a few tunes and it sounds pretty good.

"For monitoring, I use a Crest 800 watt amp and a Claire Brothers S-4 cabinet. I've used a lot of monitors over the years, and I've found you've got to spend the money and get a big powerful monitor or you'll never be happy. Keyboards really put a very serious demand on a sound reinforcement system because of the extreme low and high frequencies synthesizers put out.

"We use a mono feed to the house, because if you try to deal with stereo, somebody in the audience is going to get hurt every time."

Mix: Is there any piece of gear that's changed your approach?

"I've been using most of my stuff for a long time. In terms of live performance, the disk drive has made it possible for me to use the sequencer in live situations. With the way I program, one or two songs pretty much use up all the addresses of sequences on the DSX, and the disk drive makes it easy, without having to depend on unreliable tape dumps. The disk drive makes the sequencer twice as good. I'm really excited about that. It's something that anybody with a sequencer would find useful.

"In terms of synthesis, there's no doubt the DX-7 is really exciting to me. It has a totally different way of programming that allows you, almost exponentially, to increase parameters in terms of the types of sounds you can get. The quality of the sound is outrageous—the high end, clarity and realism of the sound almost makes some of the analog stuff seem like black & white compared to color. It's not complicated to understand, but it's difficult to master—it's like saying a guitar looks pretty simple, only six strings and fifteen frets, but mastering it will take some time."

Mix: Do you feel the role of a keyboardist has changed, so an artist today has to be a technician as well as a musician?

"It may be demoralizing for some people to realize that to keep up with the times as a keyboard artist, you have to invest a lot of money and a lot of time into mastering the new technology, especially with the advent of digital synthesis. And this might be time you could be writing songs or improving your technique. At the same time, technology allows you the freedom to orchestrate and expand the types of sounds you create and specifically tailor everything you do to enhance the composition you're working on. To me, it's worth it." ■

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Reminiscences
on a Winters
Day

by Carol Kaye

There's two feet of snow outside. My car looks like it's almost buried and that cold stuff is blowing everywhere. It's a far cry from the sunny warmth of L.A. where I raised my kids and grew up myself. I'd wake up every day, gulp down wheat germ, pink grapefruit and coffee and finish putting on my make-up while driving 70-75 m.p.h. up the Hollywood Freeway to make the first recording date of the day on time—hitting all the lights in time. Los Angeles does have the finest timed light system I've ever seen. I'd find the quickest parking spot. (Secret of studio work: good parking spot, be on time, good attitude and good sightreading.) I'd run in with my bass, plug in one of the amps which my cartage company delivered earlier, tune up fast and be ready to hit the down beat when the second hand hit "12".

Life was uncomplicated—taking care of my kids, being "successful" was important. It was nice to buy a beautiful home with a simple phone call, have good credit like a doctor, be treated with respect for my hard labors and be a part of a highly creative community. I never took anything stronger than coffee and I always played as well as I could, because it's true—"the tape don't lie." Playing a good record date or film call was not only fun but I could look in the mirror and say, "Carol, you did a good job"

The softness of the snow sends

my mind drifting. I was thinking of a few episodes, like when we worked on the beautiful Henry Mancini LP's—how Hank would start his sensitive solo piano playing and maybe play the wrong bridge while the whole band was waiting to come in. He'd giggle and soon the whole 42-piece band would be in hysterics. Ever try to stop 42 people from laughing? On *Room 222* and *Beneath the Planet of the Apes* at Fox, we'd all be a little bored and Emil Richards would start being silly and laughing into the pickup of his electric vibes which the Echo-plex would then repeat, repeat, repeat, etc. and cause the band to roar. We worked for a grand bunch of folks there: Leonard Rosenman, Jerry Goldsmith, Lennie Hayton (Lena Horne's late husband), Jerry Mandel (*M*A*S*H*), and Lionel Newman, whose hilarious Brooklyn anecdotes would keep us in stitches but whose candor would sometimes have to be cut short by the string bassist who had to hold up a red light sign whenever "lady" guests were present on the scoring stage.

• • • • •

When I was pregnant with Gwyn, the guys at Gold Star used to be ready to deliver on the piano (I'd be really straining to play that 12-string). Stan [Ross] would be nervously keeping the date fun while keeping one eye on me and the other on the board on those long Phil Spector dates where the guys would thank me for calling a "bathroom" break. I worked through my 9th month.

I've got to say something special about Lou Rawls. From our early "Pilgrim Traveler" gospel days of recording with Sam Cooke and Jesse Belvin (also J.P. Alexander) down through "Natural Man", it was always a pleasure to play guitar or bass in back of this amazingly talented and nice person. He has not changed through the years. Usually H.B. Bar-num wrote the funky charts (also beautiful classical-sounding charts) and would rehearse us while doing his calisthenic exercises in time to our music in the studio. It was hard to keep from laughing. He would then play piano, sax and whatever with great ease.

His last minute charts were sometimes the best. On one late Ike & Tina Turner date at RCA (about 1962), we got a lot of overtime and got paid in tons of \$5 bills. I got home in the wee hours of the morning



One of Carol's favorites: Quincy Jones

after a hurried phone call to my then-husband (who was a little miffed at the overtime) and I remember throwing the money in the bedroom first, and then everything was fine.

• • • • •

I'll never forget the one date with pianist Pete Jolly, Victor Feldman, Gary Coleman, Johnny Guerin, and others where we worked for a singer with extra long hair (which was a rarity in those days). He had recorded his singing and guitar playing earlier and the track rushed and dragged terribly. He expected us to just play along with

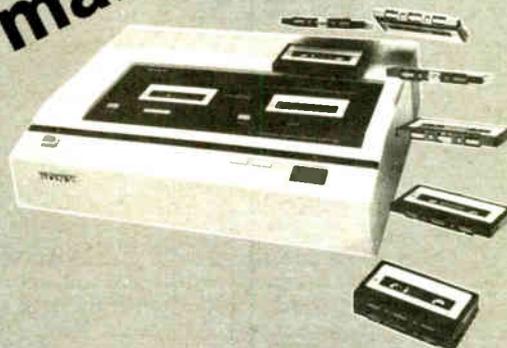
his up and down track. First, good ole Carol wrote the chord charts, since there was no music. We rehearsed with his earlier recording for the overdub for hours in Columbia's Studio "D" (where O.C. Smith's "Little Green Apples" and other biggies were cut). We honestly tried to play well with the awful track while the singer was increasingly getting impatient with us and then started antagonizing a little. In the meantime, this rather strange singer decided to shut off the lights and put lit candles on top of our baffles, which would then waver threateningly while we tried to read and play our chord charts.

The ending came when he finally got furious with us for failing to record along with his track. I became the spokesman and asked him to please let us record an original track that he could overdub to (like we did for the rest of the stars). Up till then, all of us were trying to keep cool, but the sight of him coming out to play and sing in the studio to give us the "feel," while he dramatically threw his hair around, started to break up Dennis Budimer. I looked over and saw him laughing and I couldn't help myself, too—it was funny. The singer then really blew up at me for laughing. He stopped and said that *his* "bassist" could play with his track. I started to pack up and said, "Well, you better get him then because I have an 8 a.m. call and we'll never get done by that time at this rate". He was uncouth to me and I tried to tactfully tell him why we could not play with his track, and finally had to say "You have *bad time*" which is like saying "You have *bad breath*" in this business. We all got fired. No-one in the band said boo until we got out of the studio together and then, surprisingly, they *thanked* me! The musician's union (Local 47) backed me up.

We'd practically fall asleep on all the movie scores for American International Pictures (*Beach Blanket Bingo*, etc.), but we sure had to keep alert for Michel LeGrand's films (*Thomas Crown Affair*, etc.). He's a tough writer. "What Are You Doing The Rest Of Your Life?" was especially nice to record, although it was weird because the content of the movie was kept a secret.

It was also hard to tell what *In Cold Blood* was like from the funky theme we cut with Quincy Jones. Ah—the great Quincy, who started a lot of fine writers like J.J. Johnson, Oliver Nelson and Lalo Shifrin on their way. Quincy's music would always wake you up, and his wit made all those long movies and TV shows enjoyable. It's no wonder he's
—page 109

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Five Mentals Escape from Art School, Hit Big Time

For the five sidetracked art students who constitute Mental As Anything, playing in a band is really just a lark that got loose—and having great success with it is an unexpected development, according to keyboardist and ringmaster Greedy Smith. "We don't take ourselves seriously. *Nobody* has ever taken us seriously," he says.

The fact that the Mentals have released four very successful albums in their native Australia and are in the process of spreading their brand of fun around the northern hemisphere doesn't get in the way of having a good time, Smith asserts, and the band's stage antics reflect this attitude. "Sometimes somebody will try to ruin somebody else's solo by pulling his hand off the guitar or kicking him in the bum or something," he laughs. "We're trying to get out of that, though, because our manager says it's unprofessional."

The nobility of this sentiment loses a bit of its glow given Smith's rather forgiving definition of professionalism: "We try to stand up for the whole show. That's our only criterion. If we can stand up 'til the end of the show it's pretty good."

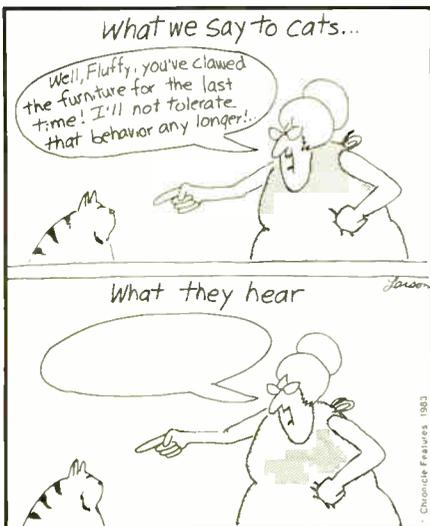
Talking with Greedy Smith is lots of fun, and despite a steady stream of humorous and self-effacing answers



JUST A-WASHIN' THE DOG—To promote their album "Creatures of Leisure", Mental As Anything ran a radio contest inviting entrants to be creatures of leisure for a day and let the band do their household chores. Seen here are (from left) Wayne Delisle, Peter O'Doherty, Martin Plaza, Greedy Smith, and Reg Mombassa giving Fido a bath. Apart from fixing the bathroom doorknob, the balance of the Mentals' chores consisted primarily of hoisting beers.

headed for art school, too," Smith notes. "You learn the entertaining craft early, and you gear your music toward making the show go well. You're there to fool the audience into having a good time," says Smith. Having a good time themselves is of paramount importance. —page 108

THE FAR SIDE By GARY LARSON



that keep an interview from ever deteriorating into anything too productive, the jolly keyboardist manages to put the necessary information across. *Creatures of Leisure*, the band's fourth Australian album, is their second American release. *If You Leave Me, Can I Come Too?*, released here in 1982, was assembled from the best tracks on their first three LPs. The band formed while Smith, guitarists Reg Mombassa and Martin Plaza and drummer Wayne Delisle were attending art school. "We started playing at parties for free drinks, and then we started getting paid and playing the hotel [pubs]," Smith recalls. Reg's younger brother, Peter O'Doherty, was drafted out of high school to play bass—"He was

Yamaha Issues Consumer Alert on DX Synthesizers

The response to Yamaha's fantastic new FM digital synthesizers has been tremendous. Waiting lists for the DX7 and DX9 are growing as word gets around about how good they sound. Demand is so high that some music dealers have bought units from foreign markets for sale here in the States.

Were this "gray market" merely a matter of trade protocol and territorial rights, this story would be appearing in *Forbes* or the *Wall Street Journal*—but according to the good people at Yamaha, what's at stake is the quality of the instrument: you buy, the sound it makes and the service you're entitled to

receive for it.

There are several good reasons why you should only buy a DX synth from an authorized dealer, and sound is the most important one. If it's not designed for American electricity, the keyboard might not work at all or the sound will be noisy. If the unit was originally built for 220 volts and is fitted with a converter, the resulting power-supply voltage may not be stable enough for the delicate computer circuitry inside the DX.

DX synths built for other markets may not be up to FCC and/or safety standards. In addition to the good

old-fashioned shock hazard a badly rebuilt power supply presents, the RF interference generated by a poorly shielded unit could be particularly troublesome in applications where wireless microphone or instrument transmitters are in use—not to mention ruining TV and radio reception.

Warranties are good only in the country for which the DX was built, Yamaha points out. In order to qualify for warranty service, you must purchase your DX at an *authorized* Yamaha dealer. The US units are shipped with a free accessory package

—page 103

Allan Holdsworth: The Uneasy Emergence of a Guitar Giant

Guitar cognescenti have long been predicting great things for Allan Holdsworth, the English-born progressive whose technical command and elegance of expression seem to defy the physical parameters of the guitar. Musicians of such unassailable virtuosity should be god-granted a position in the public spotlight, regardless of their musical framework, so the tenet goes: credit where



Allan Holdsworth

PHOTO: GLENLA FERMAN

it is due. But while Holdsworth first appeared as a white-hot guest soloist with a variety of jazz and/or rock acts several years ago—Tony Williams, Jean-Luc Ponty, Gong, Bruford, UK—his name still fails to trigger much response except in his growing cult of ardent acolytes, a devout bunch of musicians and listeners for whom Holdsworth is a veritable saint.

Why hasn't the music scene at large been more responsive to this remarkable player? Much of the reason must be linked to his own artistic obstinacy; after playing hired gun for a few years, he retreated for two years to develop a musical voice he could call his own. Landing on the West Coast after his hiatus for an impromptu tour with his band IOU, he was greeted by eager crowds lavishing a welcome befitting a returning MIA. Everywhere he played, audiences ogled Holdsworth's lean and serpentine left hand, producing rich, orchestral chords and solos like fluid lightning. Live and on a self-pressed IOU album (sold at gigs, barker-like), Holdsworth's project had an emotional density that sometimes approached the unwieldy, but the fans weren't complaining.

One of those fans got up on stage at the end of a show at the Roxy in LA to trade licks. This humble Holdsworth disciple—Eddie Van Halen—so admired the Englishman that he arranged a record deal with Warner Bros. through Van Halen's producer (and now WB's head of A&R), Ted Templeman. Migrating to Los Angeles with his wife and two children, Holdsworth appeared to be bound for the attention he deserved.

About a year and a half after the first rumors of the deal, a six-cut "mini-album" (\$5.98 list) is out, with vir-

—page 104



Jonathan Richman

Reach Out and Tickle Someone

The Country Club, Los Angeles
November 11

The nervous laughter started shortly after Jonathan Richman and the Modern Lovers took the stage at the well-filled Country Club. Though most of the crowd were hard-core Richman fans, there are always those who come to his show because they've heard of him but don't exactly know what he does. Or there are those who know him from the old John Cale days of "Road Runner" and "Pablo Picasso," and aren't in tune with his new waif-like persona.

"Is there anyone here who thinks this act is a parody?" Richman asked after a song about flopping on summer lawns and one about Paris ("the home of Piaf and Dubonnet"). "Well," he said, —next page

PHOTO: ETHLIE ANN VARE

Jimmy Messina Serves Up Some Rock and Roll

Jimmy Messina might be an ideal candidate for one of those "you know the name" credit card commercials—"Do you know me? I was the engineer and producer, then bassist, for the Buffalo Springfield. Then I helped start Poco, one of the first successful country-rock bands. My work as a producer brought me into a partnership with Kenny Loggins, and we recorded a string of hits together before moving on to separate solo careers . . ."

Messina's face—and his solo work—are less prominent than those of former compatriots including Loggins, Steve Stills and Neil Young, but he's had as many triumphs behind the scenes (and behind the recording console) as in front. His laurels as an engineer and producer match his achievements as a guitarist, singer and writer.



PHOTO: JODI BROWN

Messina hopes his third solo album, *One More Mile*, will transcend the mild commercial response to the first two, *Oasis* (released on Columbia in 1979) and *Messina* (Warner Bros., 1981). Interviewed in his comfortable home in the blue-chip woods of Santa Barbara County, Messina speaks assuredly and realistically about his motives and the friendly, variegated, vocally-rich sound of his new record.

"The place I came from in making records from the end of the '60s through the '70s was making music for music appreciators at home—albums that someone could put on and then take a glass of wine or whatever they use to stimulate their senses and really listen to," he says. "I always thought listening to an album should be similar to watching a movie in a sense, where you really get a total experience from cut to cut. But the record business has changed a lot."

Recognizing the shifted priorities of the music industry—the singles orientation, the (purported) shorter attention span of the listening John Doe—*One More Mile* is more streamlined and action-packed than its two predecessors. The title cut has a distinct Poco flavor—but diversification is the key. Messina covers his bases, from rock and rollers to country-rock nuggets, a couple of semi-tropical ballads, an R&B-tinged collaboration with ex-Doobie Patrick Simmons, and even a token evocation of new wave called "Big Tease," written with

—page 103

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—from 99, Jonathan Richman

"it isn't. And if you think it is, you can leave."

And he proceeded, for the next hour and three encores, to seduce the rest with his childlikeness, sincerity, and totally unpredictable music.

Richman's songs about insects, ice cream men and Martians can be as sappy as a telephone commercial, but they are delivered with such ingenuousness that you forgive him anything. He is a performer who strips himself naked for his audience—metaphorically and, if he could get away with it, literally. In fact, he took off his shirt early in the show, but there was no Rick Jamesian sexuality about it. It was just Richman saying "Hi, this is me. I'm Jonathan. Take me."

The current line-up of Modern Lovers provide an effective rock and roll backing for Richman's sensitive and silly tunes. They play softly, at times falling out altogether and leaving Richman to sing *a capella*. He doesn't sing well, but who cares. One listens to what he is saying.

Sax player Carla Brownlee is so dwarfed by her baritone horn that she leans over to play it while it's still on its stand. The Rockin' Robins, Ellie Marshall and Jamie Hawkins, oo-oo'ed and mm-mm'ed in perfect harmony . . . and provided wonderful camouflage for Richman's warped warbling. Stand-up bassist Greg Keranen and drummer

Michael Guardabascia added consistent rhythm tracking, and both Richman and Marshall picked up hollow-body guitars for leads. (Richman announced onstage that he is looking for a new rhythm guitar player, and even held spontaneous auditions after the show.)

There were tumultuous ovations for songs like "Not Yet Three" ("I'm stronger than you/You're just bigger than me" says the baby); "My Love Is A Flower"; and a new composition about Vincent Van Gogh ("the baddest painter since Jan Vermeer"). His tunes often sound like they were made up on the spot—which is probably how most of them started out. "That Summer Feeling," which opened the show, had some lyrics decidedly different from the ones on the Sire LP, *Jonathan Sings*.

Still, these folks can rock. An instrumental version of Clyde McPhatter's "Lover Please" was tasty as you could want, and Richman's own "Those Conga Drums" is a percussive little number to set feet a-tapping. Most listeners never notice, but Richman is a fine guitar player.

When the set closed with Jonathan (you get on first-name basis with this guy real easy) singing and talking his way through "Affection," it looked like he was about to come down and hug the first three rows. And it's a sure bet they'd all hug back.

—Ethlie Ann Vare

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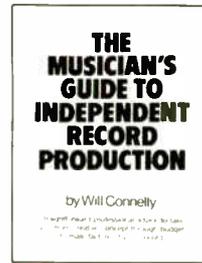
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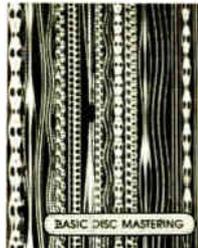
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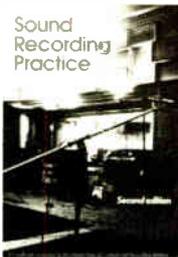
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Oberheim Updates the DMX

Due to the chameleon-like nature of the computer-based musical instruments, it's often possible to add new features to older instruments by simply plugging in some new components (circuit boards or integrated circuits) that contain updated software or hardware. This means you don't always have to

buy "the next generation" of an instrument—you can simply retrofit an existing instrument into the next generation.

Since I've been doing some documentation work for Oberheim Electronics lately, I had a chance to check out a brand new retrofit for their top-of-the-line DMX digital drum machine. The Expansion Update (\$150 list, including installation at an Oberheim Service Center) is a circuit board that holds 12 integrated circuits and installs directly over the main circuit board. Two ribbon cables connect



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it to the main board.

In addition to more than doubling the existing memory capacity (making the DMX even more useful for live performance), the software updates add over 45 new features including conversion from frames-per-second to beats-per-minute; elapsed time indication for sequences and songs; selective memory loading from cassette; additional erase modes; and more. A particularly useful option is "cue tempo" mode, where if you tap out a groove on one of the keys the DMX will give you the tempo in beats per minute.

These changes do not alter the outside appearance of the DMX one bit since all new functions are selected by means of the existing pushbutton switches. Thus, although you have new techniques to learn, the instrument remains reassuringly familiar. I'm a big fan of software updates; in this particular case, I feel that they've made the DMX into a whole new instrument.

—Craig Anderton

MIDI on the March

The Musical Instrument Digital Interface is gaining widespread acceptance among makers and users of electronic music devices. Since its introduction a year ago at NAMM, the idea of a single-cable connection making it possible for one keyboard to drive several instruments (among other useful applications) has proved to be a popular one.

Passport Designs of Half Moon Bay, California, makers of the Soundchaser computer music system and Soundchaser music software (and marketers of related computer programs), has created an interface card enabling use of Soundchaser computers with other MIDI-equipped systems. The *MIDI Network* consists of an interface card which sends and receives data in MIDI-code form as well as generating drum timing information. It behaves like a multitrack tape



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recorder, with individual track function selection and real-time tempo control. All performance data received from a keyboard connected to the MIDI Network (keypresses, key velocity, pitch bend, patch changes, etc.) are stored on a "track" and can be played back on any MIDI-equipped device. An EDIT mode is provided, enabling punch-in and punch-out modifications of previously-recorded tracks; additional tracks can be recorded in sync with existing ones. The MIDI Network requires Apple II, IIe, or Franklin Ace 1000 computer, 48K or 64K RAM, one disk drive and video monitor.

Sequential Circuits, one of the prime movers in the creation and acceptance of MIDI, has introduced a cartridge for Commodore 64 that makes that portable computer into a digital sequencer. The **Model 64** records events from any MIDI-equipped source (Rev. 1.0 MIDI spec), up to a total of 4000 notes. Velocity, pitch bend and modulation information are also recorded if the source device is so equipped. Playback can either be in real time or auto-corrected for subtle

timing errors. Tempo can be controlled with the internal clock or the drum machine clock.

The Model 64's editing facilities function as a multitrack recorder, with overdubbing, duplication and punch-in part correction; up to eight

Sequential Circuit's Model 64



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different sequences of carrying length, each with five tracks, can be recorded. Other features include footswitch jack for remote start and stop of sequences,

and a jack for external sync pulse. The cartridge plugs into the Commodore 64's memory expansion port and may be used with any MIDI-equipped synthesizer, including Sequential's Sixtrak, Prophet-600, Prophet-T8, Prophet-5 or Prophet-10.

—David Gans

—from 100, Jimmy Messina

members of The Dreamers, a Santa Barbara-based power-pop combo.

Although Messina has the wherewithal both technically and musically to pull off a self-contained production *a la* Todd Rundgren, collaboration and *esprit de corps* are concepts dear to his heart. "For this album I wanted to find a group that had worked together so I could get a young attitude to the music," he says. "In the past I've always approached a record in ways too sophisticated, and got them too right on, too clean." The core group on **One More Mile**—guitarist Chas Sandford, bassist Mark Leonard and keyboardist Alan Pasqua—built a strong camaraderie while playing

—next page

—from 99, Yamaha Alert

(volume pedal, sustain pedal, owner's manual, music stand, demo cassette, instruction cassette). The DX7 comes with two preprogrammed cartridges and a third one for offline storage of user-defined programs; the DX9 comes with a cassette interface and a tape with 420 voice programs. These cannot be purchased separately. Your warranty registration entitles you to ongoing support in the form of manuals (at press time, the American manual—a much thicker and more thorough document than the translated Japanese version intended to tide you over—hadn't even been *published* yet), software information, etc.

Here's how to tell if the DX7 or DX9 you're looking at is legit. The back panel specifies the unit's operating voltage; in the US, it's 120 volts, so if the label says 100 or 220 volts, it's a ringer. You should also look for the FCC and safety testing stickers, which are also located on the back panel. If either one is missing, *caveat emptor!*

If you have any questions as to the authenticity of a DX synthesizer or a particular dealer, Yamaha wants to hear from you. Write Combo Products Division, Music Marketing Group, Yamaha International Corporation, P.O. Box 6600, Buena Park, CA 90622. Include your phone number so they can get in touch immediately.

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—from 103, *Jimmy Messina*
behind Rick Springfield. (Former Santa Barbara Jim Saad laid down most of the drum parts).

Since moving to this lush resort town in 1977, Messina has spent a goodly amount of time in the state-of-the-art rooms of Santa Barbara Sound, and he says the only reason he didn't do this entire project there was booking conflicts—so some tracks were done at Sunset Sound in LA (where Messina spent his salad days as an engineer) and at the new Yamaha complex.

Messina is a believer in bypassing the recording console as much as possible. "I have found that the best way to avoid problems is to get the sound as dynamic as possible and onto the tape without any coloration," he says. Equalizers, VCAs, panpots and the like are avoided as much as possible.

The four-track Fostex setup Messina has maintained above his garage is soon to give way to a 24-track studio, for which he recently acquired building permits. "I'm at the point in life where I'd like to take all this time I spent

learning as an engineer and producer and start putting it into someone else whose direct focus is on being a performer," Messina notes. No word on whether he's got a specific protege in mind, however.

Having chalked up a lifetime of experience in The Industry, Messina is too smart to wear his heart on his sleeve; the breeze in this business can get pretty stiff. He considers himself a "new artist" despite all his seasoning, and he's got the competitive resolve to buck the charts. In view of current trends, Messina seems to have packed away his former emphasis on Latin/jazz colors. "There was a period there, just about the time *Oasis* came out, when Latin music was peaking," he observes. "But I think people who live in parts of the country other than the two coasts have a liking for a high-protein diet of rock and roll. They're hooked on their record sandwiches, their rock burgers, and that's what they want to eat."

So, with *One More Mile*, Messina is once again applying for the position of chef.

—Josef Woodard

—from 99, *Allan Holdsworth*
tually no promotional fanfare. *Road Games* is, by Holdsworth's account, only half the record it should be. Albums can naturally be problematic ventures, but Holdsworth's got off to a limping start: Eddie Van Halen and Templeman were slated to co-produce, but their harried schedules resulted in delays and increasing frustration for Holdsworth. "I don't like sitting on music for any amount of time," the guitarist comments.

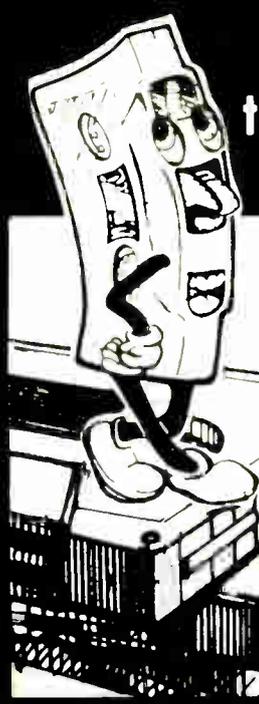
As uncompromising with his opinions as with his music, Holdsworth recalls that he saw red. "Two days before we were to go into the studio I got a call saying it was off. I said, 'Let's just forget it. I'll have a beard six feet long before this record gets done.' Eventually the record company agreed to let me do it on my own," he says, "but very reluctantly. One of my biggest disappointments is that they didn't trust me, and that fact made me question whether or not they signed me for the right reason. Perhaps they were thinking they would turn me into something I didn't want to be."

Other stumbling blocks arose in the recording process. Because of bassist Jeff Berlin's penchant for voicing sprawling chords, tuning at times became a thorny issue. Paul Williams' vocals (on three tracks; the other cuts are instrumentals) were redone by the better-known Jack Bruce at the behest

of the label. To top things off, when the Holdsworth project, by now over budget, was brought to Warners' in-house studio, Amigo, for mixdown, Holdsworth found an apparent sonic incompatibility between the equipment on which the tracks were cut at The Music Grinder and Amigo's gear. "We'd put the tape up and slap it through the board and it sounded totally miniaturized," Holdsworth complains. "All the dynamics seemed to disappear." Holdsworth and company returned to The Music Grinder, using their own funds, to mix three tracks (notice that on the album cover these cuts are "Produced by Allan Holdsworth," whereas the Amigo tracks are "Produced by Circumstance."). "I guess Warner Bros. wanted to pay themselves rather than someone else because we had gone over budget," Holdsworth offers in explanation.

"The idea was to put out an introductory record, and then they were going to come out with another album fairly fast after that. In fact, that doesn't seem to be happening either, because Ted Templeman seems to be avoiding me," he says with a slightly nervous laugh. "They could have refused to let me do it on my own; it would almost have been better to refuse me than to give it to me with one hand and take it back with the other."

Somewhat surprisingly, the in-
—page 106



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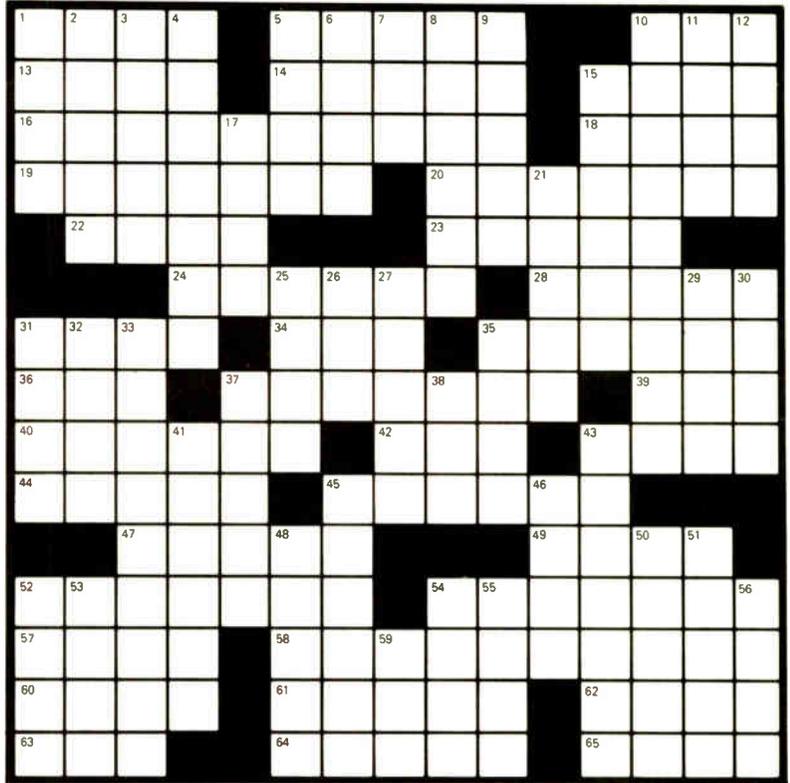
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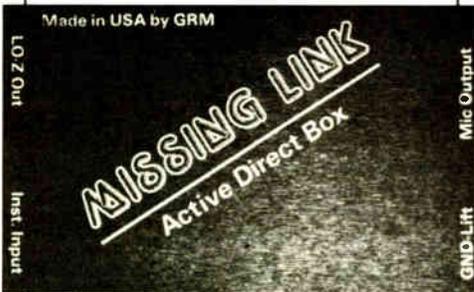
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10. Annie was told to get one
13. Marshall _____ shaw
14. On the briny
15. Process meat
16. Cartoon country with Leonardo the Lion
18. Baltic port
19. Least
20. Dispute middle-man
22. Unit of force
23. 1st on a list, as an exhibit
24. Flag
28. Enthusiasm
31. Certain Caribbean isles
34. Above, to the poets
35. Device to raise the nap on a fabric (Brit.)
36. Mid-east title
37. Burnt sugar
39. Black bird
40. Seafood sauce
42. Overdrive the VU
43. "One _____ two ..."
44. Law companion
45. Bell ringer
47. Fellow in the U.K.
49. Ms. Horne
52. Postal person
54. Causes fondness
57. Prefix with dale
58. Certain keyboard instrument
60. Naval off.
61. Executive worry worry
62. Finish, boxhead, or finger
63. Owns
64. With -chord this represents half the scale
65. German noble with weiss

DOWN

1. "Day After" item
2. R2D2
3. Comedian Bruce
4. Power plants
5. S.A. rodent
6. Billy _____

7. Sunset, in verse
8. Catch back up
9. Good-natured one
10. Ray Stevens' jungle musician
11. Egg on
12. At hand
17. Portent
21. Put an edge on, as glass
25. Fly high
26. Comparative ending
27. One old-fashioned cannon ammo
29. Peddle
30. Kazan
31. Noted Roman
32. Culture medium
33. Point of departure for Jimmy Page, Jeff Beck & Clapton
35. Portable dwelling
37. Billiards shot
38. Add things to each other
41. Bank or atom man
43. Flower; "daughter of the wind", to Plato
45. Crusty-brained
46. Norse king
48. Dead issue, to Hans
50. One setting in "War Games"
51. Band-man Shaw
52. Word for jet speeds
53. Ibsen heroine
54. Abbr. with coal, gas, nuclear, et. al.
55. Namesake of Mrs. Roosevelt
56. Offer on the market
59. Part of a theatrical presentation

Solution to January Mix Words



—from 104, Holdsworth

tegrity of the end product is intact. Rather than a slick repackaging of Holdsworth's gifts according to more palatable, salable standards, *Road Games* is a shining reflection of the guitarist in his own element. With his glassy, searing tone—more emphasis on the smooth flow of notes in the left hand than right-hand picking aggression—Holdsworth weaves in and out of his tunes, which are fashioned in a mode between modern jazz and English art rock but owing dues directly to neither school. Probably the closest comparison on vinyl would be guitarist Jan Akkerman's 1977 solo album, a haunting dark-horse favorite.

What has marked Holdsworth as one of the most important living electric guitarists is his steadfast individuality on an instrument that too often falls prey to cliché perpetuation. He executes complex vertical fretboard maneuvers and arduous chording that have no easily-traced roots in standard blues and jazz guitar nomenclature. His attitude derives in part from a healthy disdain of guitar mania and a love of spontaneity. "I can't stand the all-the-things-you've-heard-before-and-more approach," Holdsworth says. "That was what I realized when I heard Keith Jarrett—there was somebody who really truly loved improvising. I'd heard lots of great improvisers in the jazz idiom and it didn't take me long to figure out that quite a lot of them weren't really improvising anymore, because they were just applying the formula—the same substitutions, the same sounding altered dominant chords—to everything they played." Holdsworth's different-drummer motions may also be the side effect of a late, backhanded slide into music. While his father was a pianist who kept the Holdsworth household humming with all sorts of jazz and classical music, the family budget didn't stretch far enough to provide a teenage Allan with his desired axe—a saxophone. "He never tried to force music on me," Allan recalls. Almost on a whim, Allan began noodling with the guitar at age 18, and the pastime developed into an avid pursuit. He counts Eric Clapton—during his Bluesbreakers period—as a big influence, but more so the music of guitarists Charlie Christian and Jimmy Rainey and the extrafretboard legends John Coltrane and Aaron Copland. "I found my interest taking more to the music than the instrument, and I was listening to whoever was playing the most happening solos.

"When I started listening to horn players, I really liked the way they

—page 108

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—from 107, *Allan Holdsworth*

would turn certain phrases; it would be rolling like water, a cascading kind of sound. And if they wanted to tighten up, they could do that, but they didn't have to. That was the thing that was nice about it. If you could imagine what a saxophone would sound like if every note was separate—it would sound silly. It seemed logical to drift in and out like I do, like you would on a violin, I guess." (Holdsworth has also shown a preternatural feel for violin on his rare recorded examples.) While his efforts have generated a good deal of hero worship in the guitar world, Holdsworth would like to see a broader spectrum of appreciation. "I'd like to feel that my music is something that could reach out to all kinds of people, to touch people who didn't even know what a guitar was."

Holdsworth's unique musical persona, his guitar's crisp tonal color, is aided and abetted by his carefully-picked equipment. After going with the Strat-and-Marshall setup earlier in his career, he found his dream guitar—a custom-made Charvel—stocked with special-order pickups from Seymour Duncan. While using Hartley-Thompson amplifiers for his mighty

lead sound, Holdsworth switches to Lab Series amps for chord work. Rather than using foot-controlled effects, he runs a number of devices through a mixing board on stage—2 ADA stereo delay units, a Yamaha E-1010, a Lexicon PCM40, a Dynaco DBL 12 and a couple of MXR gadgets, leaning on a harmonizer, set an octave above and downplayed in the mix, which "gives a shimmering effect."

Needless to say, Holdsworth is an exacting artist, whether in his musical strategy or his equipmental lot. Single-minded in pursuit of his own musical mission, Holdsworth has no particular interest in pandering to any of this year's trends—a reluctance that could cost him in the overly-cautious record market. What does he listen to at present? Nothing, really. "Basically, I've been too engrossed in my own little planet," he comments. "I've got almost a set of tunes for, hopefully, the future album. I've got my fingers crossed."

Holdsworth's precarious claim to fame may stem from his stance apart from the musical crowd, a condition of detachment he may have summed up in discussing the music scene back home. "England is a strange place to try

and keep any kind of musical identity; it's a very fickle, pop-oriented kind of place and it's very trendy," Holdsworth notes. "Things will be fashionable for a couple of months and then be gone. You'll never ever hear it again. My old man used to tell me, 'Don't ever let me catch you on the TV, cause then it's all over. If I ever see you on there, you're finished.'" Not much worry of that at this stage of the game.

—Josef Woodard

—from 98, *Mentals*

tance to the Mentals, although their manager is constantly urging them to play the songs more like the recorded versions. "It's too hard," Smith shrugs. "He's been asking us to do things for years, but we haven't paid much attention. Let *him* have the ulcer.

"It's quite funny, because this is still a hobby for us. We're supposed to be painters; that's what we're trained for." The key to the Mentals' success is keeping it loose and having as much fun as possible with their music. "We're really slack. Unless we enjoy playing it, it doesn't work at all," Smith asserts. "It's the same with recording: If we keep it casual, it seems to be all right."

The sound of Mental As Anything is indeed pretty casual, relying on bouncy grooves and a rather slapstick approach to lyric writing—clever but not too sophisticated. The instrumentalists aren't so much concerned with being on the cutting edge of technique as with playing sympathetically and keeping spirits high. Mombassa is partial to "that playing-at-parties-through-inadequate-equipment guitar sound, turning up loud and getting a squealy sound," Smith comments. "We don't like the really smooth guitar sounds that much—they don't sound right in our songs."

The band's rollicking approach comes from honing the act in the good-time, beer-swilling club scene that sprang up in Australia about the time the Mentals got together. "About when we got going was when the pubs started putting on bands in a big way," Smith explains, "so people would go out and have a drink and see a band. Before then it was all radio-sponsored teenybopper shows."

Whereas acts like Air Supply and Little River Band are more or less indistinguishable from mainstream American pop/rock, the new Oz music movement—spearheaded at home by the Mentals and in the States by Men at Work—brings a more eclectic and less dogmatic approach to style, drawing freely from many realms. In the Men-

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tals' case, country plays a prominent role. "We used to play heaps of country and western stuff—'My Old Kentucky Home,' 'San Antonio Rose'— and when we first started out, we even did the theme from *Petticoat Junction*," Smith claims. Other influences include rockabilly, '60s rock, a bit of blues.

"In the pubs we used to start out with a sort of old-fashioned country-blues set, but everybody would stay in the other bar. It wasn't until we started the second set, doing a couple of our own songs and stuff by the Troggs, the Yardbirds, Hound Dog Taylor and the like that they'd come back in." The Bob Wills-type material fell out of the repertoire, too, because "they're very hard to play." All those 13th chords are hard to play when you're drunk, you see, and Smith confesses that his keyboard technique is limited by the fact he plays with only his right hand. "My left hand's got the drink in it."

In Oz "there are a lot of bands that play really heavy 4/4 music. It's not heavy metal, and sometimes it's not even hard rock. It's pumping music, something you can dance to when you're drinking. It's pub-rock, I guess, Australian style."

Considering that there are four songwriters in the band—only drummer Delisle refrains from writing and singing—it is interesting how unified the Mentals' style is without being rhythmically or harmonically narrow. "It's just a coincidence that *Creatures of Leisure* has got a lot of songs about broken romances," says Smith. "We haven't got any control over our musical direction, because we tend to write by ourselves. We just go in and record about 25 songs, and the best 12 get on the album. We don't think about theme, even when we're putting the album together—we just put the best songs on."

The persona that emerges from an encounter with a Mentals album is—as Smith himself puts it—"a lazy bunch of alcoholics." But the joke is most often on the singer in these songs. Take Reg Mombassa's "Float Away," for example: "I came straight home for a change without drinking in bars 'til I could hardly stand . . . without talking to every girl who came my way . . . without walking through every door that looked okay . . ." She's got another man when he gets there, but he clearly sees that it's his own doing.

In "Bitter to Swallow," Smith sings, "Another contender's hangin' off your arm/He's easy to look at, he's got buckets of charm/That sort of man could do me a lot of harm/I wish I was him. . . ." But the Mentals are the most good-natured losers around, it seems,

or at least they're not afraid to make themselves the butt of a lyric joke. Mr. Mental is the kind of guy who'd give his girl a hotfoot for the umpteenth time and then be truly baffled when she gives him his walking papers.

"We write about a lot of traditional rock and roll themes—romance, drinking, the things we like—but we give them a bit of a twist," Smith explains. "It's really important to us to aim the lyrics on the horizontal rather than talk down to anybody or set ourselves up as macho heroes. We try to be a bit clever while writing about really normal things."

While the Mentals share a certain level of humor with their countrymen Men at Work, Smith insists the similarities end there. "Men at Work are a sort of rifty band—that's Melbourne. We're more of a swifty, R&B slightly sloppier band, which is Sydney." Furthermore, Smith says, the men of the Men went to music college. "We went to art school; we're still learning our instruments."

The Mentals had an exhibition in 1982 which Smith says went quite well. "We sold 12 paintings to Elton John; he was the only one who bought any of mine. My Mum didn't even buy any." That's Martin Plaza's painting of the band on the cover of *If You Leave Me*, and Mombassa executed a series of rather Ralph Steadman-ish pencil drawings to illustrate the lyrics on *Creatures of Leisure*'s inner sleeve.

The band members take their paintboxes on the road, too. "We do little paintings, because they'll fit in your bag—none over a foot square," says Smith. It's healthier than some of the more obvious [and common] alternatives: "You go into a motel room after you've finished the gig, and the TV's gone off. There's nothing to do except drink, so it's either paint or become even worse alcoholics.

"In Australia, we'd paint on the paintings in the motel rooms. We'd sort of stealthily add a few things to those really hackneyed scenes of Parisian streets—things like shark's fins in the gutter, or two dogs mating, or maybe the Sydney Opera House in the background. There's one in a motel we always return to, and they've never noticed. We change it all the time." One can only imagine the response of a girl knocking on a Mental's hotel-room door expecting drugs and big fun 'til dawn and being greeted by a grinning bloke in a beret and smock with a palette in his hand. "It's a very good cultured image to give a band, I reckon," Smiths nods. "An interest in 'the yartz,' as they call it."

—David Gans

—from 97, *Session Player*

successful in his record career. I played on all of his movies from *The Pawnbroker* on. Movies and TV shows are a real test of your self-discipline: you have to play strong and accurately while paying close attention to the conductor. Quincy has that rare ability to command attention and respect while making you feel respected and important. Other conductors I worked with who also had those qualities: David Rose, Walter Scharf (*National Geographic* scores), Artie Butler (*Valley of the Dolls*), Dominic Frontiere (*On Any Sunday*), Don Costa, David Cavanaugh (Nancy Wilson and Mel Torme), Al DeLory (Glen Campbell), Alfred Newman (*Airport*), Stanley Wilson (resident conductor at Universal), David Shire, Billy Goldenberg, the great John Williams, Henry Mancini, Dave Grusin, Pat Williams, Elmer Bernstein, Frank DeVol, and Marty Paich.

• • • •

Well, thanks for letting me live in the past with you a little. I was lucky to be in on that stuff, and it's always a thrill to me to hear that gorgeous music still being played everywhere I go. It's like having my family of "brothers and sisters" with me always.

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Ramsey Lewis Back to Basics



RAMSEY LEWIS TRIO Reunion

Columbia FC 39158

Produced in Chicago by Paul Serrano; Paul Serrano and Goh Hotoba, Recording Engineers; recorded on location at George's nightclub in Chicago; additional material recorded at P.S. Studios, Chicago; remixed at P.S. Studios by Paul Serrano; mastered by Tom Coyne at Frankford/Wayne Mastering Labs, New York, NY.

"I'm not going to paint this session complicated 'cause it wasn't," shrugs Paul Serrano, owner of P.S. Studios, the last studio still standing on what in the '50s and '60s was Chicago's "Record Row." More in line with his avocation as a jazz "trumpeteer," Serrano's speech pattern is peppered with the drawl of an old be-bopper.

The complicated part wasn't recording the first new album by the original Ramsey Lewis Trio in 18 years. In fact, the 8-track Tascam recorder and two locked 4-track mixers fit inconspicuously under Lewis' Steinway grand piano at George's, the glitzy North Side nightclub and ristorante owned by George Badonsky who, it so happens, produced the Shadows of Knight's "Gloria" seventeen years ago.

What *wasn't* exactly simple was the task of coaxing the freshly-reunited trio to commit to vinyl. It seems pianist Lewis, bassist Eldee Young

and drummer Isaac "Red" Holt suffered ego bruises shortly after their instrumental jazz adaptation of Dobie Gray's "The In Crowd," by sheer fluke, found itself sitting between the Beatles and the Stones as No. 5 on the national pop charts in July, 1965. Never prepared to cope with pop stardom, they nonetheless rebounded with a Salsa/jazz rendering of the McCoy's "Hang On Sloopy," which shot to No. 10 in December of that year.

"Basically, we fell out of love with each other for a minute," says Lewis of the 18-year hiatus that begun as the snows set over "Sloopy," and ultimately spawned three fruitful solo careers. But when, in December of 1982, the three set up their instruments at Holt's Gumption Studios, Lewis recalls, "We clicked like we were never apart. I think we've all grown in our direction and we all agree we should maintain what we each have."

Next came a month's booking at George's for July, 1983, and a nearly instantaneous call to Lewis from Serrano. "Paul got on the wire and said, 'Hey man, this is something to record. Even if you don't release it, it might be something you'd like to have,'" Lewis says. "Paul pushed me—thank God he did!"

Serrano, in whose studio Lewis had cut his past several Columbia solo LPs, taped several nights at George's on 8-track, ostensibly for home use only. "Somehow, Columbia heard what we'd recorded but thought *they'd* recorded it. When they found out it was me and not them, they called me into their office and the guy said to me very authoritatively, 'Paul, Ramsey is a Columbia artist.' I stopped him in his tracks and said, 'Hey man, there are only two ways this tape can go—1) to CBS; 2) in the garbage can.' I guess they liked that 'cause they said, 'Let's talk.'" Lewis' executive producer at CBS approved the idea, so the Chicago trio and Serrano's troupe proceeded to finish the job they'd started.

Enter Tom-Tom 84, eccentric Windy City producer who worked on staff at Brunswick/Dakar in the '60s, later arranged horns for Phil Collins, Genesis and Utopia, and has produced Lewis' last three solo albums. Wanting to preserve the purity of a Steinway grand piano interacting with a standup bass and an all-acoustic trap set, Tom-Tom suggested a few unobtrusive overdubs—synthesizer, congas, shakers and steel drum. "It was an example of three cooks coming up with a very good stew," says Serrano. "We were long aware of what each other's best areas are."

The trio's *Reunion* LP was recorded live with an old Tascam Series 70 recorder, two locked 4-track mixers (Quantum Audiolabs MQ-8A and Interface Series 100, both literally "dredged up from P.S.'s basement, and dbx 157 noise reduction. Eight mikes were used on Holt's drums, one on Young's bass, two on the piano, and one to immortalize the finger-popping of the audience.

"We tried to do this recording as natural as possible after listening to some of Ramsey's older cuts. We tried to capture the flavor of the group

but make it sound a little bit 'today.'" says Serrano, who contends that "it may have been possible to get a totally modern sound out of Chess' old equipment; it was more today's concept of separation that set the two eras apart. Yet Chess had the concept that was selling in those days. I don't think we should emulate that method and expect to sell it to record companies today."

The 8-track concert tapes were taken to P.S. Studios, where they were transferred to 24-track on a 3M-M79 recorder, API automated board, Ampex 456 tape at 15 ips and 3 db. What began with dbx noise reduction was transferred to Dolby. "Some feel that's kind of hokey," says Serrano, "But Dolby said it himself, 'If it sounds right, it's right!'"

What they've achieved in the two step recording process—first the live tracks and then nominal overdubs and in-house mixing at P.S.—is a record that harkens back to the epoch of piano-trio jazz that might be called "post-supper-club" and assimilates the urban melting pot influences of blues, gospel, Latin, rock and roll and classical.

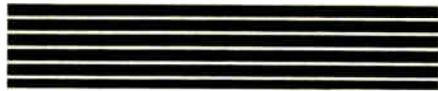
It got to the point in the solo career of Ramsey Lewis, sometime in the late '70s, that all the instrumental perks and auxiliary players were no match for the old team.

"I'd invested in three or four synthesizers but had to face the reality that my first love was the acoustic piano and that's what I always ended up practicing," he comments. "I'd practice four hours on the acoustic, leave the house, and say, 'Damn, I forgot to practice the synthesizers!' So that told me *something*."

"Around that time, I was travelling with nine players, two roadies and a road manager—twelve people on payroll! And I said to myself, 'That's enough experimenting!' The

PHOTO: LINDA MATLOW/PIX INT'L





following day, my accountant called me and asked, "When are you going to stop experimenting?"

Since Lewis, Young and Holt have returned to their mutual "roots," Lewis reports an "optimistic vibe—no tension, no stress . . . they're fun to be around."

Rejoins Serrano in his finest bebop lobe: "Ramsey, better not let this album take off 'cause that'd really be somethin'."

"That's right," laughs Lewis, "We'll have to break up all over again!"

—Cary Baker

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Exciting Return of Lefty Frizzell



LEFTY FRIZZELL The Legend Lives On Columbia FC38938

Produced by David Frizzell; engineered by Chip Young and Glenn Rieuf; recorded and mixed at Young'un Sound Studios, Nashville; Mastered at Custom Mastering, Nashville, by M.C. Rather.

The Legend Lives On, the new Lefty Frizzell album released last fall, sounds as though it could have been made yesterday—and in a way, it was. Frizzell died in 1975, leaving behind a sizable body of work including some of the most influential honky-tonk singing in country music.

David Frizzell, Lefty's younger brother and a fine country stylist in his own right, recently found himself wondering what Lefty would have

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sounded like if he'd been recorded under modern studio circumstances. He took the idea to CBS, which was Lefty's label for virtually his entire career and still holds most of the singer's material. The company expressed some reluctance to get involved—David says they weren't familiar enough with his work—but eventually CBS-Nashville exec Richie Blackburn gave his approval to the project.

After a year of off-and-on work, *The Legend Lives On* was completed, featuring vocal tracks from the '60s with new arrangements by David Frizzell (making his debut as a producer) and his guitarist, Mike Blasucci. The new recordings were made at Young'un Sound Studio in Nashville, with owner Chip Young and Glenn Rieuf engineering.

This wasn't a first, of course. There have been similar projects involving Elvis Presley (also with Young engineering) and Jim Reeves, and rhythm tracks were re-recorded on a series of Jimi Hendrix cuts after the guitarist's death. What separates *The Legend Lives On* from previous efforts along these lines is quality: it's a remarkably fine country album that sounds fresh, alive, and perfectly contemporary.

It was a labor of love for David Frizzell, who may indeed be one of the foremost Lefty Frizzell collectors in the country. His archive includes cardboard records from the 1940s and original acetates of classic material from the '50s. David sifted through some 350 recordings, but most of them were out of bounds because Lefty didn't cut on multitrack equipment until 1962. And the newer tapes presented some technical problems: almost all of them—and this is perhaps typical of the mainstream country from Nashville in the '60s—were cut with unimaginative or inappropriate arrangements; furthermore, in many cases the music had bled onto the vocal tracks. On some, the backup singers dominated Lefty's voice. The most difficult obstacle, though, was the thick echo that had been added to the voice while it was being recorded—a characteristic technique at the time but one that's decidedly out of fashion today.

After selecting the songs to work with, Frizzell began putting new arrangements together while Young transferred the tracks from the original two- and three-track tapes to 24-track (the source machines were Scully; Young'un's 24-track recorders are an Ampex MM1100 and MM1200).

Frizzell listened to the original tracks until he was familiar with the songs, then he sang them as he thought Lefty would have until arrangements began to form in his mind. It's the same way he plans his own albums. For Lefty, he wanted to take a traditional Texas honky-tonk sound and give it a strong contemporary quality. "The main thing," he explains, "was to be true to the songs and to highlight the vocals. The original arrangement really didn't do that."

The new instrumental tracks were cut relatively quickly during the hectic week of Fan-Fair '83. Keyboardist Hargus "Pig" Robbins and harmonica player Charlie McCoy had recorded with Lefty; other players came from David's road

band. Drummer Larrie Londin listened to the original tracks in one side of his headphones so he could keep the original tempo, and he heard the studio band on the other side. The rest of the players' cue mix consisted of Lefty's vocals, Londin's drums and each other. After the basic tracks were cut, Frizzell returned to Nashville as his schedule permitted to record vocal overdubs and a few extra guitar tracks.

Some of the songs were too short, so verses were rerecorded on a second 24-track tape and spliced back in to lengthen the tracks. "Once Larrie was locked into the tempo of the original track, getting enough new music on tape to create turnarounds and fades was no problem," says Young.

Sections of some vocals had to be eliminated completely where the echo was insurmountable, the bleed-through of instruments was too loud or the backup vocals were too loud to work around. In those cases, David or Allen Frizzell (David's and Lefty's younger brother, also a recording artist) sang Lefty's part; in the case of duets, one brother sang the lead and the other sang harmony. (Now, says David, he can't always tell where those other vocals were added—and where he can, he's keeping it to himself.) "How Far Down Can I Go?" was turned into a duet between Lefty and David. Both Willie Nelson and Merle Haggard agreed to sing with Lefty's track for the album, but Frizzell couldn't get clearances for the songs he'd planned to use with them—so "I had to run in and do a duet myself," David laughs.

"You'd still be able to hear the leakage from the original tracks if you eliminated everything but the voice" on the new album, Chip Young notes. "I could have knocked those things out with EQ, but that would have changed the voice. I rolled off at 100 or 200 cycles in the voice, and added some at the top end—12 to 15 kHz—too. They didn't have the ability to do that back then.

"In the old days, even the playback wasn't as good, so [this time around] we were able to dress up the voice a little bit just because we could hear it better. We did what we could, and took some of the echo out by working with the phase." Young ran Lefty's vocal track into two channels of Young'un's Sphere Eclipse C console and inverted the phase of one channel, then adjusted the balance until the optimum cancellation was achieved, reducing the echo without adversely affecting the quality of the vocal. "It's a hairy process," Young notes, "and it doesn't always work. I wouldn't recommend it to everybody." Still, it was the best way to deal with the problem at hand. "They put the echo right on the track itself in those days—either there was no way of adding echo later or they just didn't think about it."

When all was said and done, both Frizzell and Young were pleased with the outcome of the project. Some of the songs on the album were released during the '60s, but probably only fans who are thoroughly familiar with Lefty's work would recognize them. Indeed, not much Lefty Frizzell material of any quality remains unreleased; David says he's got another album's worth of material if he ever decides to do a followup to

The Legend Lives On.

"Lefty tried to redo a lot of his classic songs in the '60s, but the arrangements were just atrocious," says David. "With this record, young people who are coming into country music can hear the real thing but with more modern arrangements. If you're a country fan, you've got to hear Lefty Frizzell—but in the right setting. The '50s stuff will always be classic. Here, on some of his later material, the arrangements match the songs much better. In the old days, they'd hit a bad note and just leave it in there."

The updated tracks reflect changes in both musical and technical standards, but Frizzell expected CBS to treat *The Legend Lives On* as a catalog item. However, "When we brought it in they decided to handle it like an album by a current major artist," he says. "That makes me feel good. We changed a small project into a major recording." And Frizzell notes that the total cost of the new master was less than \$25,000.

"I think this is a really good album," says Young, "and I'm proud to have my name on it. Altering the arrangements doesn't bother me at all. We didn't destroy anything to make this—you might say we added color to black and white. Some diehard fans might not like it, but they still have the original records to listen to. For me, this record sounds like Lefty singing in the studio. That's very intriguing, I think, and you'd be able to hear it if it didn't work."

—Bruce Nixon

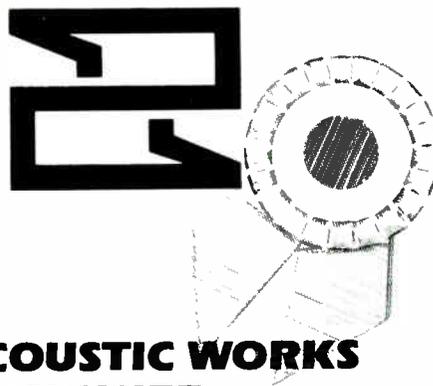
Selections include the "wrestling-rock" classic "The Crusher," "Kazooed on Classics" by Rhino mainstays The Temple City Kazoo Orchestra, "Boogie Woogie Amputee" by Barnes and Barnes, "Umbassa and the Dragon" by the Turtles, and ten more titles by the likes of Heathen Dan, the Legendary Stardust Cowboy, the Seven Stooges, et al.

As evidence of the Rhino Brothers' belief in the world-class badness of *The World's Worst Records*, the package includes a regulation airline barbag, imprinted with the message, "WARNING: LISTENING TO THIS LP MAY INDUCE INTERNAL DISCOMFORT." Does this

come under the heading of "promotional gag"? —D.G.

New and Noteworthy

Wayne Johnson Trio, *Grasshopper* (ITI Records)—Pleasant collection of compositions by Johnson, who plays lead guitar for the Manhattan Transfer, backed by bassist Jim Johnson (no relation)—who has toured with Allan Holdsworth—and drummer Bill Berg, a veteran of Leo Kottke sessions including the immortal *Ice Water*. Johnson is the kind of guitarist who doesn't let technique get in the way of an expressive performance. —D.G.



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Those adventurous, tasteful folks at Rhino Records, which may have more character than any other label currently squeezing out vinyl, recently issued a disk modestly (or is it immodestly?) titled *The Rhino Brothers Present The World's Worst Records!* The cover art pictures a guy in some kind of hermetically sealed suit handling several paper bags full of 45s, and the back has Rhino's usual—though in this instance, probably highly foregoable—thorough liner notes.

THE BRITISH CONQUER AMERICA



PHOTO RICHARD McCAFFREY

by Bruce Nixon

An unusual amount of excitement surrounded the brief early winter tour billed only as "The British Are Coming." After all, the collection of musicians involved was staggering—virtually a who's who of English rockers who came up together during the mid

... AND RONNIE LANE GETS A LITTLE HELP FROM HIS FRIENDS

'60s. Guitarists Jeff Beck and Jimmy Page were appearing in the United States for the first time in some years, each with his own band, while Eric Clapton and Joe Cocker were fronting an all-star group that included Kenney Jones of The Who, Charlie Watts and Bill Wyman of the Rolling Stones, Elton John percussionist Ray Cooper, ex-Grease Band keyboardist Chris Stainton and vocalist Andy Fairweather Low.

The tour actually began with a two-night stand at the Royal Albert Hall in London back in mid-September, a pair of benefit performances which proved to be an overwhelming success. Except for the second Albert Hall date (which was at the behest of Prince Charles, for the Prince's Trust youth charity), all of the shows benefitted multiple sclerosis research, and, in particular, research for the somewhat controversial hyperbaric oxygen treatment. Steve Winwood, meanwhile, appeared with Clapton in London but didn't make it to the States; Joe Cocker sang only on the American dates.

So much excitement swirled around the event that it was easy to forget that the whole thing really centered on Ronnie Lane, a veteran English bass player whose Small Faces was an important fixture in the second wave of the British Invasion that came in the immediate wake of The Beatles and Stones. Small Faces was one of the great Mod bands, holding a position in East London that was much like The Who's in West London during the mid '60s. The band included Kenney Jones, who would go on to drum for The Who, and they had a sizable number of English hits, although the band never quite took hold in the United States. In any case, the Small Faces added ex-Jeff Beck Groupers Rod Stewart and Ron Wood in 1969 and became quite successful. Lane departed in 1973 to pursue some of his own musical interests. By the late '70s, though, Ronnie Lane's career seemed to be over, despite a series of fine, ambitious solo albums: he was stricken with multiple sclerosis and

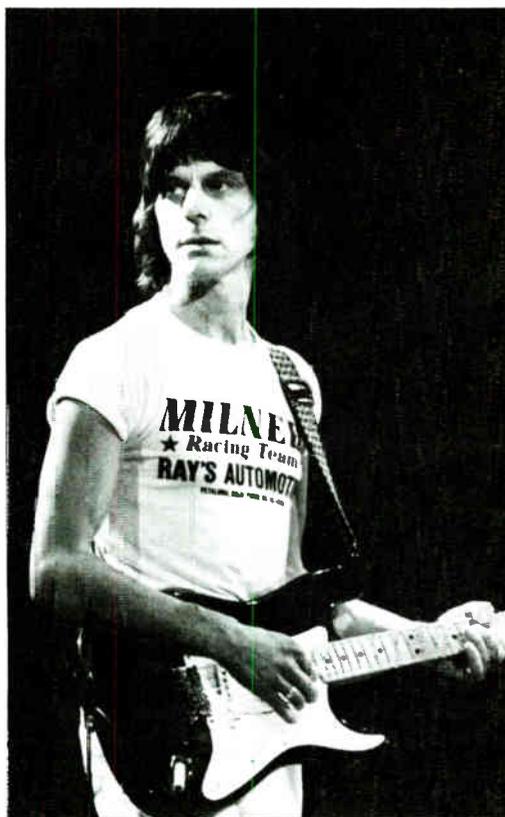
Left to Right: Ronnie Lane, Eric Clapton, and Bill Wyman (of the Rolling Stones).

could no longer play or perform.

After sampling a variety of treatments, Lane learned about hyperbaric oxygen, which finally brought him relief from the disease. The funds raised by the concerts will be channeled into research through ARMS (Action Research into Multiple Sclerosis), an English organization that advocates the treatment and is also attempting to establish itself in the United States, where an estimated quarter- to half-million people suffer from MS.

All of the American dates were co-promoted by the veteran San Francisco-based impresario Bill Graham. In a telephone interview just before the beginning of the tour, Graham overflowed with enthusiasm.

"This is a major event," Graham exclaimed, firing off words in machine gun bursts. "This is the first time people from the large English rock and roll family have done something like this. An SOS was sent out from a musician and everyone responded. When they approached me about doing these shows here, it was difficult to say no. We're doing Dylan right now, and Eddie Money and Santana, so we're busy, but we have to help out. There's not one person in this band that I haven't represented at one time or

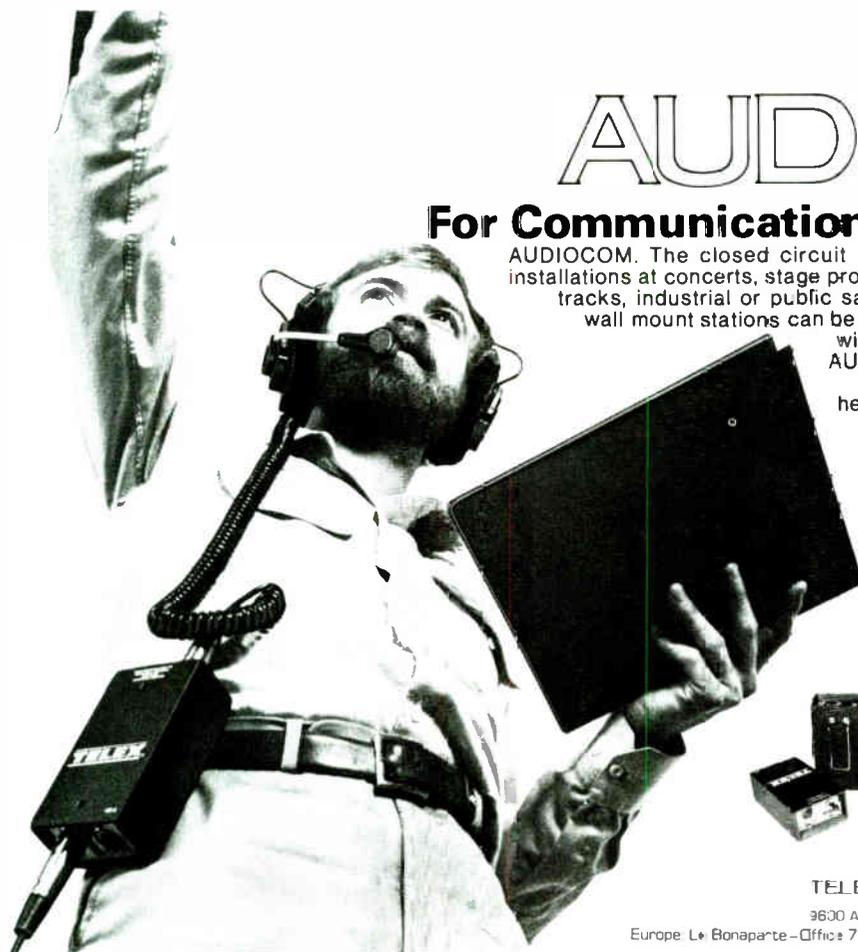


Jeff Beck

another over the years, and it would have been unreasonable not to say yes. Over the years, there've been benefits for all kinds of things, but this is the first one that's traveled from city to city like this. We did the World Peace Festival in L.A., which was big, and there were the MUSE concerts in New York. But this is the first time major rock artists have taken five weeks out of their personal schedules to do something like this."

The American tour covered ten shows in twelve nights in four cities. It began with two nights in Reunion Arena in Dallas, and then moved on to three nights in Los Angeles, two nights in San Francisco and finally three nights at Madison Square Garden in New York City. Dallas and San Francisco were selected because of hall availability, Graham explained. In most instances, sports schedules created conflicts in halls in other major cities; the tour was necessarily compact, long enough to make the endeavor financially feasible but short enough to fit into the schedules of the musicians involved. There were ticket sales of some 140,000 at \$20 a head; even the press was asked to pay for its own tickets.

The opening night in Dallas was exciting and emotional. Opening the show, Clapton and Cocker



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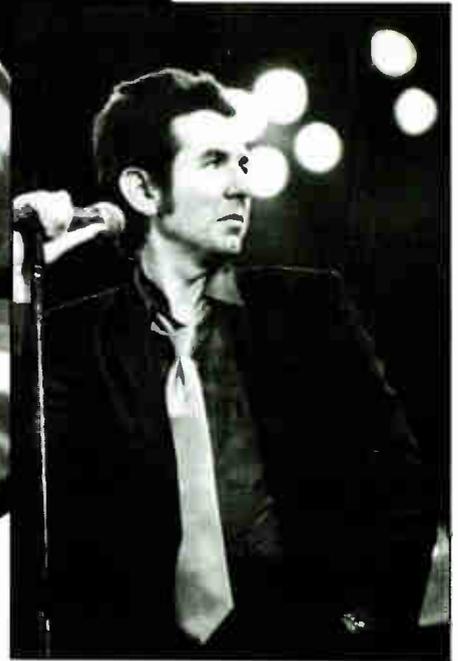
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Eric Clapton



Ronnie Lane

PHOTO © RICHARD M. CAFFEY

Jimmy Page



delivered very strong performances that included a selection of blues and some of the two performers' well-known hits. Jeff Beck, following with a propulsive quartet that featured Jan Hammer playing a strap-on synthesizer, was incendiary. Page, also working with a quartet, was unsteady and seemed out-of-practice, but all of the players joined him onstage during an extended instrumental version of "Stairway to

Heaven," and then the whole big ensemble did "Layla" and a Cocker-led "A Little Help From My Friends." Lane himself finally appeared, with Clapton guiding him at the elbow, to sing "Goodnight Irene." It was a very moving moment. From the audience's point of view, it was a splendid and perhaps historical night of English rock and roll.

The musicians had arrived at Dallas-Fort Worth Airport late

Thanksgiving afternoon, and the next day began 12-hour rehearsals on the sound stages in the Los Colinas Communications Center complex just northwest of the city. Those continued Saturday, and then moved Sunday to the arena for a sort of dress rehearsal. Dallas-based Showco was doing the sound for the tour and suggested Los Colinas as a rehearsal site since they'd used it with considerable success preparing for the David Bowie and Robert Plant 1983 tours.

Taking time off from rehearsing, Kenney Jones explained his involvement with the project.

"We've all watched Ronnie deteriorate," Jones said, "and it hurts. I grew up with him and we were in Small Faces together, and to watch him waste away, well . . . He was so energetic. That's the worst thing. He can't play. For a musician, that's like having one of your arms cut off.

"It brings a lump to your throat," he continued. "You wonder why things like this have to happen. I really wasn't aware of the disease. I mean, I hate to say it, but it takes somebody close to you before you realize what suffering goes on in the world. I've seen my ups and down, but he's a really brave man. He's accepted

it and he also wants to help others. It makes me think how lucky I am to be able to play, and if I can do this to help, then I will. I think everybody feels that way about it. I've noticed a terrific change in Ronnie, too. It's been uplifting for him. I think it's made him feel useful again."

Looking back now, Lane says he didn't recognize the first symptoms of MS. His mother had the disease, but doctors assured him that he'd never get it. He blamed first symptoms—fatigue, loss of coordination, a feeling of profound inertia—on hangovers. When he finally realized that he did have MS, he tried to cover it up. As he explained in an interview before the opening show in Dallas, MS patients don't have much of a future in England.

"They put you in a wheelchair and send you off to the beach for a vacation once a year," Lane said, sounding strong and confident. "That's no life, at least not by my reckoning, and so I tried to hide it for as long as I could. The attacks passed in a week or two, and I just went on, hoping nobody noticed."

About two and a half years ago, he had the most serious attack he'd so far experienced. He could barely crawl, and speaking was difficult. The situation looked hopeless. Ian Dury, another English rocker, had a doctor who was suffering with MS and had tried hyperbaric oxygen treatment with good results. Lane tried the treatment, and so far it's helped to the point where he's been able to do some writing and playing again, and can function. From this series of circumstances, the ARMS tour was born.

A close friend named Boo Oldfield and ex-Faces roadie John Pigeon had the initial idea for a benefit concert, Lane explained. The two booked the venerable Hammersmith-Odeon in London and went about recruiting musicians. The turning point came when Glyn Johns joined the endeavor, Lane said. Eric Clapton also was an enthusiastic supporter of the project early-on, and was instrumental in getting it off the ground. Johns, an English producer and engineer who's worked with the Rolling Stones, Lane, and, indeed, virtually every musician on the tour at one point or another, is a close friend of Lane's. He'd been visiting the musician regularly and had watched the almost miraculous response to the new treatment. Johns' involvement seemed to be the stamp of approval everybody was waiting for; the musicians hopped on board, the show was moved to the larger Albert Hall, and the rest, as they say, was history.

The musicians who played at Albert Hall prompted Glyn Johns to

contact Bill Graham in America to discuss the feasibility of bringing a longer version of the show here.

All this suggested the kind of respect Lane commands in the English rock and roll community. He shrugged that notion aside, however. "I'm also a good excuse for everybody to get together and do some playing," he laughed. "But the show [at Albert Hall] was magic, man. These fellows are such lovely people. It was magic, they enjoyed it so much, and it was all their idea. It was the musicians who wanted to keep it together and bring it to the States. It's been taken out of our hands, now. It's got a life of its own. It's fantastic."

"It's very choking," he added. "If I really stop to think about it and go into it for awhile, I really choke up. It's amazing. I hope it has a good effect. I think maybe it will—there has to be some reason why I've been there and back. I hope the whole thing has the most positive effect it can have, and helps us to get rid of this bloody disease."

Lane was speaking over the telephone from Florida, where he was continuing to undergo hyperbaric oxygen treatments—this time, at the clinic where the method was pioneered. Basically, he sits in a compression

chamber for an hour or so two or three times a week. MS is a nerve disorder that seems to affect the fine outer capillaries in the vascular system. During the treatment, the high pressure of the compression chamber forces oxygen into areas of the body that are inaccessible at normal atmospheric pressure. It's not a dangerous treatment—safe doses have been administered for decades because compression chambers have many other medical applications—but it remains somewhat controversial, and it hasn't received the full approval of the Multiple Sclerosis Society in this country or Great Britain, mostly, it seems, because no one is exactly sure how or why it works. It's not a cure—the disease is incurable—and it's a lifelong treatment, but statistics suggest that it does work for a sizable proportion of MS victims.

"It doesn't kill people outright," Lane remarked of the disease. "It's not like cancer, and so it doesn't get the attention that cancer gets. It's overlooked. It's a second-class disease. If I'd known about hyperbaric oxygen treatment seven years ago, when I was first diagnosed, I wouldn't be in this condition. Before I found out about this treatment, there was no hope whatsoever. We couldn't even have this conversation."

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Music Video

When MTV signed on the air on August 1, 1981 with the video clip of "Video Killed The Radio Star," little did we know just how far reaching its effects would be. In less than two years, Music Television, along with an ever-increasing number of video outlets, has turned the record industry (and a fair chunk of American culture) upside down.

For the most part, the impact of music video has been positive. Almost single-handedly, MTV has brought the record industry out of a devastating slump and at the same time given exposure to hundreds of new, unsigned and less commercial acts that American radio had previously ignored.

And while more and more outlets for music video pop up each day, greatly increasing the realm of exposure, not everyone in the business is pleased with the direction things are heading. There are those who argue the emphasis in the music business has shifted from the ear to the eye. Great records, some feel, have been transformed into bogus TV commercials that we can dance to. Musicians, who used to just worry about their music, now have to be actors and actresses, as well. In short, the video music revolution has taken the free spirit that was rock and roll, and thrown it into the lap of Hollywood, which in turn, has wrapped its arms around it tightly.

There's no doubt that music video has been the single most important aspect of the record business for the last two years or so, but just how important will it remain in the future? How has the advent of music video changed the way records are made or how they are going to be made? Will music video indeed overshadow the audio recording and become the industry's most important product?

These are some of the questions that have been raised recently and discussed at such gatherings as the New Music Seminar, Rock America's 1st Annual Music Video Seminar, and a music video convention sponsored by *Billboard* in Los Angeles.

"The video is like an album sleeve", said Midge Ure, guitarist for the British techno-group Ultravox. "It's



Mick Fleetwood (r) as Ivan the Terrible in the ambitious video for "I Want You Back."

by Bruce C. Pilato

a visual image that just enhances the music."

Ure, like many other artists recently, is looking at the music video issue and trying to define its usefulness, while at the same time accepting it as always a secondary item to the music itself.

"Basically, they're promos. They're just there to help sell the record and change someone's mind who's not into music. But with any promotional tool," Ure insists, "there are two ways of doing it—you can do it badly or you can do it with taste."

"We never saw it as a promotional tool," counters Jerry Casale of Devo. "We saw it from the beginning as an entity all its own. The powerful blending of image and music seems like the only thing to do in the 20th century. But, that's Devo—other artists don't feel that way."

Necessity, we've been told, is the mother of invention, and so back in

the mid 1960s, when Brian Epstein needed a way of getting his non-touring Beatles seen in foreign markets, he decided to develop "ready made" television clips of the Fab Four's singles. Although he knew it would never take the place of a live appearance on *The Ed Sullivan Show*, he figured it would be a close second. Hence, the birth of what eventually became the modern day music video. (In fact, looking back on some of The Beatles' earliest clips, such as "Strawberry Fields Forever" and "Penny Lane" (not to mention *Magical Mystery Tour*, perhaps the first longform video) it is amazing to see how ahead of their time they were when it comes to conceptual video.)

Through the late '60s and the entire 1970s, rock videos for the most part remained pretty much a luxury promotional item for big artists after international exposure. Outlets for these videos, until recently, could be counted on one hand, with *Ed Sullivan*, *American Bandstand*, *Midnight Special* and a few British TV shows being the extent of it.

However, with the advent of MTV, the markets for music video have increased faster than rabbits multiply. In addition to Music Television and *American Bandstand*, there is now: USA's *Night-Flight* and *FM-TV*, *Solid*

at a Crossroads

Gold, NBC's *Friday Night Videos*, WTBS's *Night Tracks*, Casey Kasem's *America's Top Ten*, Don Cornelius' *Soul Train*, HBO's *Video Juke Box*, Cinemax's *Pop Shots* and *Album Flash*, Playboy's *Hot Rock*, MCA-TV's *Pop 'N' Rocker Show*, *Music Magazine*, *Radio 1990*, the soon to be launched *Atlanta Video Music Channel*, as well as scores of regional shows such as LA's *MV 3*, San Francisco's *TV 20 Dance Party* and New York City's *Hot Tracks*. Then, of course, there are hundreds of clubs playing music videos nightly, video jukeboxes, theatrical outlets, and a huge home video market which includes video discs and tape.

Many of the best selling artists of last year can be directly linked to extensive media exposure via music videos, and MTV in particular. There is hardly anyone with the slightest interest in contemporary music who hasn't been reached at some point by a music video.

With so much at stake, has music video changed the way records are now made? Do artists and producers consider a song first as a video before making it into a record?

Apparently not. At least, few are willing to admit such a thing.

"Absolutely never!" according

to producer Steve Lillywhite. Lillywhite, who has received critical and commercial success with his studio work of such artists as U2, Peter Gabriel, Big Country, Joan Armatrading and Marshall Crenshaw, says that the idea of video never even comes into the picture until long after the record is completed. "It never crosses your mind", he said recently in New York, "When you're making a record, you're making a record and when it comes to the video, that is a completely different thing."

"Nope, not one single bit", echoed John Elefante, lead vocalist for Kansas, a group that has been on MTV's heavy rotation list with their last two videos. "The music should stay the most important thing. I don't think you should write a song with the pretense of video. I think the video should be formed around the song, it should never be visa versa."

"We thought nothing about the videos while doing the album first, although we did listen to material later and say, 'Gee, that would make a great video.'"

Michael Sadler of Saga, another group turning out some of the more innovative videos of late, says the same goes for his band, however, he is quick to point the finger at others.

"The thing that bothers me is the fact that there are bands now who sit and write a song completely involved in the fact that it's going to look neat on video. I think Duran Duran and the Human League do that to a certain extent. The bottom line is to be creative, and when you have to sit there and say 'Let's trim this song because it won't be good on video', well, that's bullshit."

At the New Music Seminar in New York City, legendary British Blues vocalist (and catalyst for the Rolling Stones) Alexis Korner, had similar views: "Now, I can see songs that are being written for video! Do you *really* want to write songs for a video?"

Although no one seems to want to step forward, some artists are indeed shaping their videos first. Olivia Newton-John, for example, has just commissioned ace music video director Brian Grant to shoot her upcoming longform video project, whereby the story and scenes have been worked out already and the songs have yet to be either written or found.

"What I think is going to happen", says Joe Jackson's producer and former vice president for A&M Records David Kershbaum, "is you're going to see artists signed specifically to make videos in the very near future, if it con-

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tinues that way. There will be that consideration; you're going to have to approach it from the video as well as the audio."

One of the first of these artists was Toni Basil, a choreographer who scored a Top Ten hit last year with "Mickey." "I was the first music artist to be signed as a video recording artist, whereas in my record deal I was to make a video of every song. And that was in 1979, before MTV; before we ever knew where we were going to put these music videos," she said.

Another of these video artists is Thomas Dolby, whose clip of "She Blinded Me With Science" helped the song become one of the bigger FM hits of 1983. "Video is an important medium for conveying your musical ideas to a lot of people. It's a way of drawing people in." Dolby, aside from producing his own records and those of others, is also a staff director for England's Limelight, one of the leading music video production companies currently on the scene.

Among the first *true* rock video artists were Devo. Since 1977, they have used film and video as an integral part of their entire design and concept. Not only for exposure on television, but as a part of their live show, as well, Devo has consistently produced some of rock's finest videos.

"For some," said Casale recently, "it's a promotional tool. For some it's baby pictures for the record company. But for people like Devo, it's a form we respect and explore to see what can be done with it. And that is done from a true interest."

"Visual presentation synched up to music is *the* most important entertainment thing that's happened in the 20th century. Unfortunately in most cases, the bands end up being 'chimps on parade.' Videos are made because they're needed."

"Chimps on parade" is putting it mildly. Although some musicians such as Devo, David Bowie, and Peter Gabriel adapt well to video, it's clear that many others have no conception of what they're doing in front of a camera.

Groups with great songs, such as Big Country or Marshall Crenshaw are forced to awkwardly sing, dance and act in settings that don't even remotely relate to their songs. Even Dolby, who is among the leading creators in music video, admits that the medium isn't right for everyone. "Ludwig Beethoven never had to sing and dance," he said, referring to the many musical acts that have been caught unprepared by the video onslaught. "He only had to create music."

"A lot of the videos are not what songs are about," complained Kansas' Elefante. "Most musicians don't

play a very big role in their videos, and I don't mean in terms of their acting, but in terms of the script."

Some musicians, fearing their music may be misconstrued by heavy-handed directors, have taken matters into their own hands. In addition to Dolby, other artists such as Talking Heads, The Eurythmics, and of course, Devo, insist on supervising their own videos. Not all groups, when the videos are being financed by record companies, have that kind of artistic freedom however.

For Devo, in fact, it was a tough battle. "We experienced all kinds of resistance," said Casale, "because we were forward thinkers. We direct our own videos because we don't want be dressed up by Mom and Dad."

Artists today do indeed have to go through some fairly awful and occasionally degrading experiences when they make their videos. For the video of "Catwalk," Saga's Michael Sadler was suspended ten stories in the air and chased on a rooftop by a leopard. "Here I was hanging ten stories over Picadilly Circus in London and down below were all these British punkers yelling 'Jump, man, jump!'"

The compromise comes when an artist can find someone else to act out the video for them, as Paul McCartney did with John Hurt (from *The Elephant Man*) in his video of "Take It Away," and Kansas did with a professional actor in "Fight Fire With Fire," (Don Shor of *Tron*).

"We decided to hire an established actor, as opposed to having me or someone else in the band be actors, which we're not," said Elefante. "We're not actors, even though I think it would be a gas to do and I'd like to try my hand at it someday. But mainly, we decided to use actors because we knew it would come off better. In our two new videos, we just do cameo roles."

Another element to consider in the wave of music video is the spiralling cost that is now involved with making an average clip. Ace director Bob Giraldi, a former TV advertising producer for McDonald's and Dr. Pepper, has put out some of the hottest videos in the last year, including "Beat It," "Say Say Say," "Pieces of Ice," and "Thriller", all of which have cost over \$100,000 and the last of which cost close to a million dollars.

Other directors, such as Bob Grant ("Shock The Monkey," "She Works Hard For Her Money") and ex-10cc members Godley & Creme ("Rock It," "Girls On Film," "Kiss The Bride" and all three Police videos from *Synchronicity*) seem to be able to turn out extremely high calibre work with considerably smaller budgets.

Not all of the blame for extra-

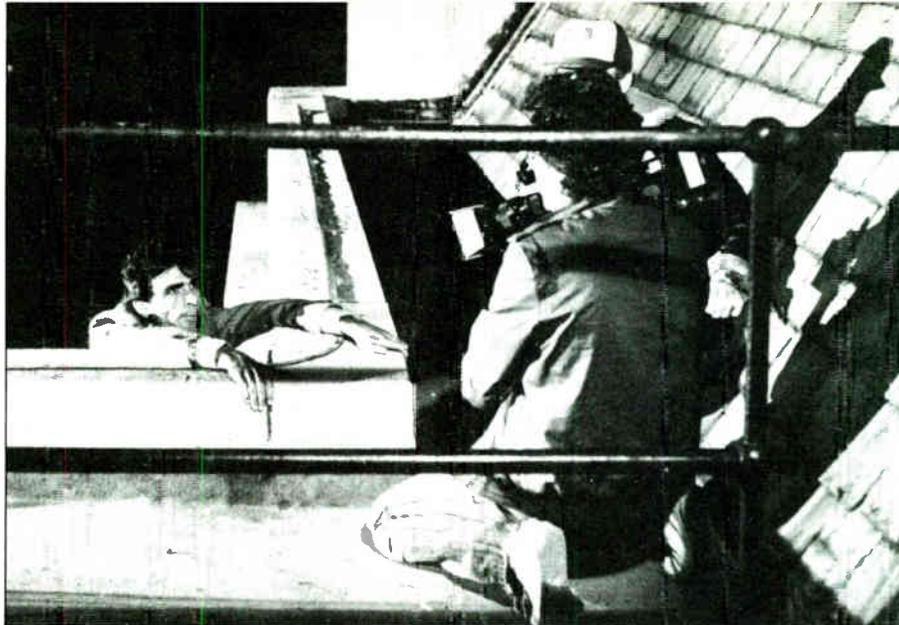
vagance should be placed on the directors, however. Stevie Nicks reportedly scrapped an elaborate *Gone With The Wind* inspired video of "Stand Back" from her last album because when she saw the final cut she thought she looked slightly overweight: Mick Fleetwood's video of his solo hit "I Want You Back" was a last minute effort that ambitiously attempted to recreate the entire story of *Ivan The Terrible* in a whopping three minutes and five seconds.

"What we don't realize," says Carl Grasso, who handles the *IRS—The Cutting Edge* show monthly for MTV, "is that there is so much *bad* video. We have to get through all the muck and get down to the purpose of making a video, which is a promotional, educational item and doesn't have to be a four-minute version of *Heaven's Gate!* That doesn't enhance the music, it blows right over it."

Another problem is more political in nature. At present, MTV is being deluged with big budget videos. With a no-frills video costing upwards of \$30,000 and a slightly elaborate one at nearly \$75,000, the new groups on major labels or anyone on an independent is having a tough time competing. Groups that have more money get to make better videos, and that usually means more exposure.

"The sad thing," says Sadler of Saga, "is that you can make a really good album today, but if you don't have a good video, you're screwed. The thing that scares me is that the video is going to take over and control the actual selling of the record."

Michael Cotten of The Tubes



Michael Sadler of Saga risks life and limb for a video.

also reels that the video may have become *too* important "The problem which may occur is that there's a lot of just plain good music that won't get to our ears because of the music business' idea of marketing. It's like the advent of the talkies over the silent film"

Most of the blame for this sort of thing is, perhaps unfairly, being put on MTV. They've also been labeled "racist" for rejecting most clips of black artists because they don't fit in with the channel's rock and roll format. But with the addition of "Beat It," "Billie Jean" and Prince's "1999" and "Little Red Corvette," MTV opened the floodgates for gray-area crossover hits.

Has MTV's programming

policies affected the types of songs non-rock and roll artists record? Probably not, but certain hardcore R&B acts such as Shalamar ("Dead Giveaway") and Earth, Wind & Fire ("Magnetic") have cut songs for videos that are in a straight rock and roll format. Were their musical styles altered simply in order to grab MTV's wide spread exposure? Only these artists can answer that, however EWF's Maurice White roundly criticized MTV's policies after several of their videos were rejected.

A former employee of CBS Records, who has asked to remain nameless, admitted that members of the MTV staff reviewed rough mixes of Ellen Foley's last album and suggested to her and her management which songs should be shot as videos. John Sykes, a vice president of MTV and its program director, says that although MTV doesn't try to "play God" with artists, they are often consulted by record companies before a major video goes into production. This consultation is usually done, he says, so that a record company doesn't go ahead and spend thousands of dollars on a potentially offensive or overtly sexual video which MTV will be forced to reject.

Despite the myriad problems, most artists view the music video revolution as a positive force in the music industry. There is a small handful of musicians who have so far resisted the trend; it remains to be seen whether they can compete in the musical marketplace without a video when their next records are released.

"The bottom line that we at MTV stress is the music," said Sykes. "Remember, a good video can't make a bad song good, but a good video can make a good song great."

But who's to decide what's bad, what's good and what's great? ■



Kansas' "Fight Fire with Fire" video is based on a fever dream brought on by malaria.

UNSIGNED BANDS

leaders, Jean Fineberg and Ellen Seeling, pay their musicians for rehearsal time, cab fare, and when applicable, pension and welfare to the musicians union. A following is a necessity in the New York jazz scene; in order for a club to hire you, they want to sure you'll bring in an audience so they can meet *their* expenses. Therefore, Deuce maintains a huge mailing list that must be continually maintained. Some postage cost is underwritten by the Universal Jazz Coalition. But overall promotion (posters, flyers, publicity packets) is not. Therefore Deuce's next investment will probably be a computer to keep track of the mailing—and the

PHOTO: IRENE YOUNG

by Rosanne Soifer

Not too long ago the term "garage band" might have conjured the image of five guys huddled under a low ceiling with Fender guitars, drums and a Farfisa organ, plugged into a few modest instrument amps and a utility grade PA package (stage monitors were out of the question) with a battered reel-to-reel tape deck for logging those jam sessions that just might plant the inspired seed for a hit record.

Garage bands are still the accepted entry level, if not the operating status of much of the musical talent

working today. Times have changed though, and we thought it might be interesting to check in with a few of the up and comers to hear what's happening inside of those melifluous car barns. We tracked down some East Coast outfits and are happy to report that the inspiration level is still high and that "garage bands" are certainly changing with the times. Herewith are some of the specifics we uncovered, with the help of our Genie garage door opener.

Deuce

Personnel: Jean Fineberg (reeds); Ellen Seeling (trumpet); Julie Homi (piano); Nadia Liberty Mata (percussion), various guitar, bass and drum side musicians.

Venues: Original jazz clubs, outdoor concerts

Home base: New York City

Management: self-managed (212) 736-3284

Equipment: provided by clubs and sponsors

"Every gig is a gamble!"...and Deuce, even if they play with a full deck (sorry) know this all too well. Original jazz groups in New York normally work for the door, if that. Out of this, Deuce's



"Deuce"

money. They're also shopping a cassette of original material recorded at Planet Studios.

Dish

Personnel: Dorothy Rickus (lead vocals, guitar); Maggie Lange (keyboards, vocals); Lea Doran (bass vocals); Claire Daly (sax, flute, vocals); Mike D'Angelo (drums)

Venues: Original and cover clubs, the road, 45 rpm

Home base: Boston area

Management: Paul M. Haidak c/o

"Dish"



There's no traditional ladder to climb anymore. There's no such thing as a mid-size act anymore. You're either playing for beer and 20 bucks or you're a superstar."

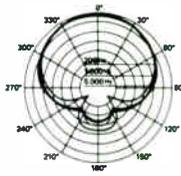
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"The more we do, the more behind we get. Our expenses are growing at a faster rate than both our music *and* our cash intake!"

Dish, whose original new wave/rock tunes have earned them a good local following as well as a session in L.A. with Davey Johnstone of the Elton John Band, know of what they speak. Unlike most of the other bands in this article, Dish keeps busy playing cover clubs, doing everything from Stevie Wonder to The Motels. Now, however, they are at the point where their originals comprise a major portion of the show. The drawbacks to this route are constant road work, traveling in two vans and a station wagon (for the sound tech, light tech, and stage manager). Since their road operation is ex-

Home base: Northern New Jersey
Management: Manolande Productions (516) 352-2519; (201) 482-1221

Equipment: Acoustic bass amp with E.U.M. bottom, homemade Marshall head from Marshall Schematic (German made), four 12 Eminence speakers, set of Slingerland drums

"We play every weekend, and have won three battles of the bands this year alone. My father can't understand why we haven't made any money! Sometimes I can't either," Jimi remarked.

A hard driving rock trio, Jimi and his group play original rooms in New Jersey and New York, and recently beat out 150 other bands in a battle sponsored by radio station WZZO. They also beat out nine other groups on Manolande Production's *Music Beat* on Manhattan cable TV, with their song "Jerrilyn". Jimi Gear has no sound or light equipment, and is dependent on the clubs to provide same. Note the irony; original music clubs will pay only a percentage of the door (maybe). If



Michael Levine of "No Guitars"



"Nude Ants"

panding, they are saving for a truck as well as more lights, and more bottoms for the p.a. so they can work bigger rooms. The money outlay is continuous.

Jimi Gear

Personnel: Jimi Gear (lead vocals, lead guitar); Bob Bailey (bass, vocals); Steve Schlatman (drums)

Venues: Original clubs, cable TV

Jimi and god-knows-how-many other groups were decently paid for these gigs, they could afford good equipment. However, according to some local club owners, if a group brings in its own sound, they usually want more money, and thus the club owners won't hire them.

Any extra money Jimi Gear makes goes to Fox Studios, where they are finishing up a 4-song EP. Any extra

time the group has will be divided between shipping the EP and looking for a backer. More on the latter later.

No Guitars

Personnel: Michael Levine (lead vocals, piano, electric violin); Michael Blair (drums); Tomi Pile (synthesizer); Michael Rudetsky (bass)

Venues: No more live shows

Home base: New York City

Management: Claire Nelson (212) 354-4125

Equipment: Acoustic 134, EAW extension cabinet, Roland space echo, Custom made fuzz box (all for Mark Wood electric violin); road sound provided by Charlie Watts of Soundstage. Drum kit includes a chinese theatre gong and trash cymbal

"You can't do anything without money!" says Claire Nelson, manager of No Guitars. However, you can do plenty without guitars, as the group's first album ably demonstrates. (The jacket art includes a photo of a mutilated guitar on the back cover.)

No Guitars, for economic reasons, is no longer a "live" band. A costly tour last spring proved that the road was no place to introduce original music, especially on a limited budget. According to group founder and leader Michael Levine, they are now locking to sell the Ford Supervan they bought

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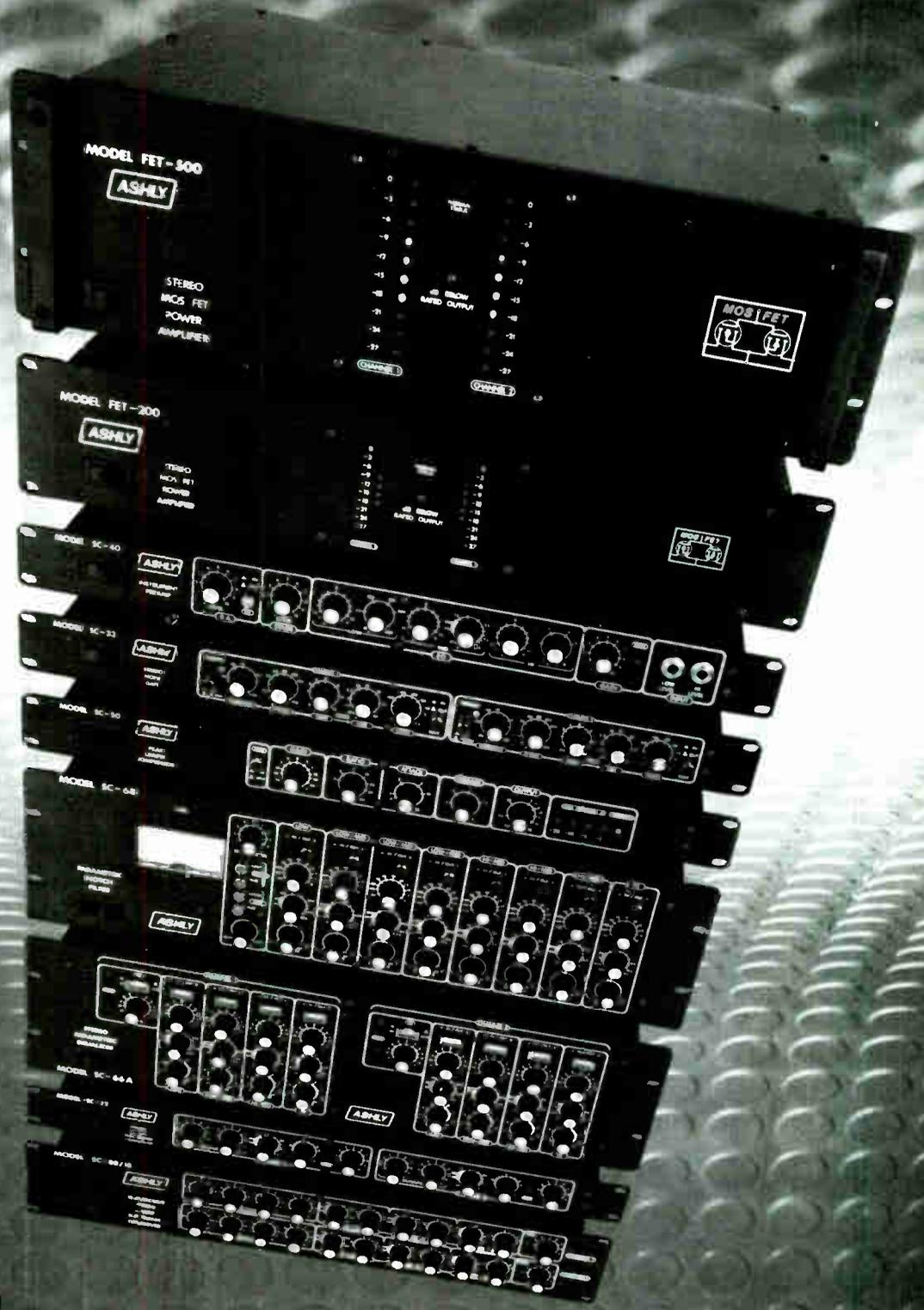
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(call their manager if you're interested) and use *that* money to set up an 8-track home studio in Levine's loft.

Although their first independent album was an Album Pick by *Billboard* (virtually unheard of for an "unsigned" group), they've been featured on college and major radio stations, and have their own organization (CMI Music, Inc.). No Guitars has not yet been picked up by a major label. Michael Levine points out that anyone who got signed in the past year did it by tapes and video. Live appearances come later. For that reason, No Guitars are reversing their original strategy,

and are now concentrating on a new album.

Nude Ants

Personnel: George Post (keyboards, vocals); Glen Dubose (bass, keyboards, vocals); Peter Denenberg (guitar, vocals); Flip Loguidice (guitar, vocals); Rowen Caplan (percussion)

Venues: clubs, album

Home base: Westchester County, New York

Management: Simon Nathan c/o New Deal Management (914) 632-2132; (914) 381-5205

Equipment: "In the Red" recording

studio equipment includes Ampex 2" 24-track w/dbx, Lexicon digital reverb, JBL L200 monitors, UA Tube Limiter, Kepex, Gain Brain, dry ice machine (for gigs)

"Any band that invests in a p.a. and a van for gigs ought to have their collective heads examined!" claim the Nude Ants. And they should know. Two of them, along with several other people, started out as a local sound company, and decided to form a studio. They sold a homemade p.a., bought an 8-track TEAC, remodeled a burned-out taxi stand, and In The Red Recording Studios was born. (They are still trying to sell the schoolbus they bought for gigs. Call *their* manager if you're interested.) The money they make from renting out the studio to others is going towards a new sound board, hopefully a Neve. Along with their first album "Search for Tornado Victims", which encompasses new wave and rap/dance tunes, come buttons and bumper stickers.

Treble Boys

Personnel: Richard Younger (guitar, vocals); Robert Pizzo (guitars, vocals); "G" (bass, keyboards, vocals); Dave Taub (drums)

Venues: clubs, 45 r.p.m.

Home base: New York City

Management: Randy Adler c/o Firstake Records (914) 698-0918

Equipment: Amps: Fender, Roland (for guitars); Crown with JBL components and T.D. audio (for bass and keyboard). Monitors by T.D. Audio with JBL components. Board: Customized Yamaha monitor mixer, Alembic pre-amp, two Lexicon digital delays, Roland phase shifter, Crown crossover, two Crown Power amps, Roland Jupiter synthesizer. Also Yamaha drum machine, Roland echos on both guitars (always run through compressors). Drum apparatus also includes Simmons digital electrical drum kit and Ibanez digital delay.

"There's no 'middle class' any more in the music business!"—an opinion of the Treble Boys shared by many. While this group has definitely surpassed some of their contemporaries in that they can afford not to play cover clubs, and can afford two roadies for live gigs, they are not stars. Neither are they just another local bar band. They recently released a 45 "Julie-Anne" b/w "The Way You Do The Things You Do", which was favorably reviewed by the local New York rock press, and picked by *Billboard* as a top single. Unlike No Guitars, they perform live as much as possible, and are saving up for a German-made P.P.G. wave synthesizer.

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	1000W	into 2, per channel
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	300W	into 8, per channel
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	1500W	into 2, per channel
	800W	into 4, per channel
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"Jimi Gear"

Do these groups have anything in common? Perhaps. They're all unsigned and struggling to some degree. They're all obviously promoting themselves in different ways, and have different priorities. However, they all (1) want a major label recording contract, and (2) feel monetarily stymied by the sheer cost of musical necessities such as equipment, tape copying, and transportation.

Each group was queried as to how they felt their problems in the 1980s were similar or different to bands in previous decades.

Lea Doran of Dish: "If we were doing this even 15 years ago, we'd at least have a *chance* to become mega-stars. Someone, somewhere at a record company *might* have wanted to spend money on us. Our problem now is getting the Boston rock press to take us seriously. Since we started out as a cover band and still play a lot of cover to get along, we've had a hard time getting accepted as an original band. This has made our promotion difficult, and good promotion makes a band."

Jean Fineberg of Deuce: "The record companies used to underwrite live appearances and tours for a group just starting out, in order to help them get and keep a live audience. We might have had a better chance in the '50s and '60s simply because new acts were

being signed in greater numbers than now."

Jimi Gear: "There seem to be fewer record company scouts who are actively going out and looking for talent. And the club scene is the pits—the pay is nothing, and we have to play copy material in order to stay alive. It's also a question of supply and demand; New York is teeming with musicians who are all crawling to the A&R types by way of expensive videos. But what happens to those of us who don't have the money to make one?"

Michael Levine of No Guitars: "The 1980s record market is very closed.

Everything has to sound alike. It's nearly impossible for a group to make a 45, get local airplay, gain a regional following, and hope for it to break nationally. And because of the economy, no company is really willing to totally underwrite an unknown group. What's worse is that there also seems to be no such thing as a 'demo' anymore. It all has to be state-of-the-art technology for anyone to listen to you, so an unknown group is forced to spend thousands of dollars producing a finished product before their 'career' even really starts."

Nude Ants: "There's no traditional ladder to climb any more—starting out lo-

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cally, making a demo, getting local airplay, doing the road, etc. There's no such thing as a mid-size act anymore. You're either playing for beer and 20 bucks, or you're a superstar. The mid-size Greenwich Village-type of clubs are all gone (or they're discos), at least around New York. So we formed our own studio, our own company, and put out our own record. Now we've just gotten a distributor for New York and L.A. 'Pounding the pavement' is the same as before. Only we have to keep pounding up through the final product."

Treble Boys: "Playing live is the biggest problem. Why should we have to sound like everybody else? In the 1960s there was a much greater diversity in the direction music could take, and radio stations had much bigger playlists. Check the difference between a Top 10 list in 1967 and now. What ever happened to variety? This lack of diversity is caused by the industrialization of the business, and the resultant love affair with high technology, so what you get is pure homogenized corporate rock. Because of this, making a simple demo and shopping it is impossible; the record companies can only deal with a finished product."

ibility and great choice in buying equipment and taking gigs. Deuce and No Guitars are made up of full-time freelance musicians, and the Nude Ants do recording engineering work for others. Jimi Gear, on the other hand, represents the majority of young musicians

flow problems was that he had trouble attracting rich and titled people as patrons.) Bands today seem to be looking for independent investors, and even place ads in local rock papers to that effect, because most bands have given up on finding a major record company

"Treble Boys"



Working 9 to 5

There were several divergent opinions on this admittedly sticky topic, which, in my view, has never been adequately investigated. What do you do if you're not making enough musically? Dish made a conscious decision to work music full time, and still play a lot of

who must work 9 to 5, dislike it, and resent having to lead double lives.

Investors and Patrons

The idea of a patron is fairly unknown in today's popular music world, although it still exists somewhat in the classical field in the form of fellow-

to finance them, at least early in the game. Investors, however, expect at some point to be paid back. Having a manager/investor, as Dish and the Treble Boys do, seems to be a reasonable compromise.

Conclusions

All the groups surveyed were justifiably discouraged at the no or low pay policy of most clubs, and the fact that music technology has reached such heights that keeping up with it is nearly financially impossible. Many groups use the barter system in order to get what they need, be it equipment, studio time, or publicity material.

The "do it on your own" credo is still quite evident. The Nude Ants have a studio, a manager, a publishing company, and an album. No Guitars is building a home studio, have released an album, and is working on another. Okay, almost anyone can release their own record. But when the enterprise has mushroomed to as expensive an operation as some of these have, to dismiss it all as vanity undertakings is not really fair or accurate.

If and when any of these groups make it, they'd all be entitled to adopt "I Did It My Way" as their individual and collective theme song. ■

There seem to be fewer record company scouts who are actively going out and looking for talent. And the club scene is the pits—the pay is nothing, and we have to play copy material to survive."

cover material in order to work steadily. Treble Boys rejected this route entirely, preferring the relative monetary security of a 9 to 5, so they don't feel pressured about their music. Having steady outside incomes gives them flex-

ships, grants, arts councils, and competitions that guarantee big bucks and a number of concerts. There are also rich people who like to donate money to the fields of classical music and dance. (One reason Mozart had chronic cash

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SOUND ON STAGE

Chicago Kool Jazz Festival Features Electro-Voice

Representing the largest and most complex application of the EV all-horn-loaded concert sound system to date, the system designed by Jim Long of Electro-Voice and Doug Jones of Chicago-based Bridgewater Custom Sound served the standing-room-only crowd of 80,000 at the recent Kool Jazz Festival in Chicago's Grant Park. The goal of the system was to provide, using stacks on either side of the stage, coverage as uniform as possible to the greatest possible audience. The music demanded sound that was wide-range, natural, and free from coloration—all qualities associated with the best fixed-installation systems in concert halls and auditoriums. At the same time, the needs for higher-than-concert-hall SPL's and good, solid bass response down to 40 Hz for bass guitar and kick drum had to be met.

To meet these goals, the frequency range was divided into three parts, instead of the two parts common to traditional fixed installations, with crossover frequencies at approximately 200 Hz and 1000 Hz. In addition, all transducers were fully horn-loaded for maximum conversion efficiencies. This horn loading included four-stacks of TL4025 subwoofers aimed straight ahead. Their hyperbolic-exponential flare rate provides full horn loading to just above the 40-Hz cutoff frequency.

Coverage between 200 Hz and 1000 Hz was supplied by four-stacks of TL1225 midbass horns. These provided a nearly constant horizontal coverage angle of 80 degrees and were supplemented by a vertical stack of four 12-inch direct radiators angled down and in to provide midrange front fill.

The Chicago Kool system also boasted an especially sophisticated array of EV high-frequency, constant-directivity horns. Placed 25 feet above the front row, these were configured so as to serve several different audience areas. Four HR4020A 40° x 20° horns, each equipped with a DH1506 driver capable of response to 20,000 Hz, covered the last rows of seats and 100 feet into the grassy standing area with an 80° x 10° coverage angle. The 80-degree horizontal angle was produced by putting two HR4020A's side-by-side with their axes angled apart 40 degrees. To produce the 10-degree vertical angle, a second pair of HR4020A's was stacked atop the first. A third pair of side-by-side HR4020A's—for an 80° x 20° pattern—was hung below the long-throw set and angled down to cover from the middle of the seating to just before the last rows. A single HR9040A 90° x 40° horn was aimed to cover the front half of the audience; and an HR6040A 60° x 40° horn covered the center front seating.

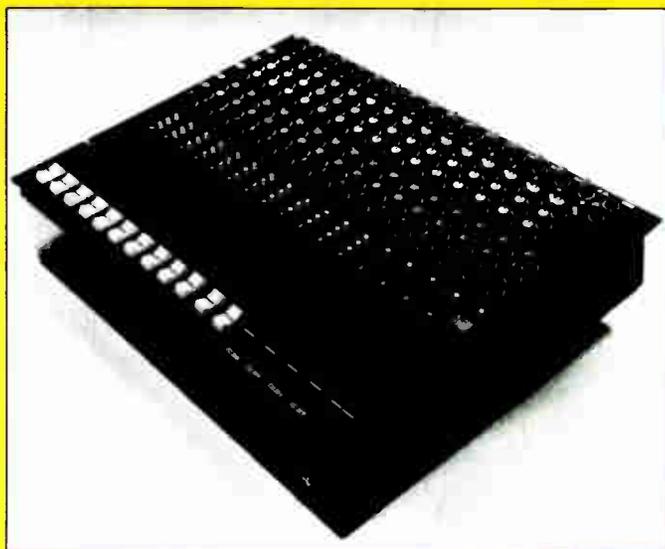
Those remote areas not reached by the on-stage stacks were covered by two-way systems on five towers, each appropriately delayed with respect to the stage system. The high-frequency horns were HR9040A's or SM120's, both providing horizontal and vertical coverage angles of 90 and 40 degrees or more. The low-frequency systems were columnar arrays of 8-inch speakers, with special baffling to reduce the acoustic output to the rear of the enclosure, too much of which would result in the delayed towers being audible on stage.

JBL Introduces Frequency Dividing Networks:

James B. Lansing Sounds, Inc. introduces three new Professional Series Frequency Dividing Networks: Models 3110A, 3115A and 3120A. Each is equipped with a unique three-position high frequency equalization boost switch which compensates for power response roll-off, a design which allows the networks to be utilized in systems incorporating JBL's exclusive line of Bi-Radial Constant Coverage Horns. The switch may also be used for tailoring of the high frequency response contour to individual program requirements.

In addition, the new line of networks features the highest quality electronic components, including noninductive, nonpolarized capacitors, individually calibrated low-loss inductors, and oversize switches and resistors. High-frequency attenuation is accomplished with tapped autotransformers rather than conventional resistive losses. Ideally suited for use in high-powered sound reinforcement applications, each of the three new products handles 300 watts of continuous program power.

Circle #094 on Reader Service Card



New Mixer from Hill

Hill Audio Inc. has announced the release of the MULTIMIX, a 19" rack mountable, non modular mixing console. Using a unique design feature that allows inputs to be used as subgroups of inputs, the MULTIMIX can operate as a 16:4:2, a 12:4:2:1 and a 26:4:2:1 all from the same console. The board features 90mm smooth action faders, 5532 op-amps throughout, ribbon cable connections, 2 aux sends, individual phantom power on each input, mic/line inputs, RIAA equalized inputs, 3 band EQ, teak end cheeks for table top use. Level: 21 dBm, Headroom: 35dB, Noise: -126dB (A) EIN. Suggested retail is \$1599.

Circle #095 on Reader Service Card

Harbinger Intros Stage Monitor

The newest addition to Harbinger Audio's line of concert standard monitors, the Harbinger 514, is a compact floor wedge featuring a proprietary horn for a 2" compression driver and a 15" speaker. The use of a premium 2" driver provides smoothness as well as the add-

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- B 1330-E Horn-loaded Bass Bottom w EVM-15L Electro-Voice Spk — \$279
- C 980-E Pro Radial Horn/Bass System w all Electro-Voice Spks — \$419
- D 750-M Pro 12" Stage Monitor w high powered MagnaLab spks — \$169
- E MX1644 Modular Recording board w 16ch x 4 sub groupings, L&R assign, 4 buss sends, 4 band EQ, four 9 band Graphics, Reverb — \$1895
- F DCA800 800W (bridged) Stereo Amp — \$549. DCA300 300W — \$399
- G DCM301 300W Amp w 9 Band EQ — \$369. DCM151 150W — \$299
- H EQ2029 29 Band 1/3 Octave Equalizer w Hi & Lo Pass Filters — \$279
- I XC1000 Stereo Electronic Crossover for Bi & Tri Amping — \$279
- J DC200 Solid body guitar — \$479. With Kahler tremolo — \$629
- K XV112E Tube X-Amp with EVM-12L — \$629. X-60 w Celestion — \$399
- L B215M MagnaLab 15" Bass Reflex — \$249. B215E w EVM-15L's — \$369
- M PB150 Bass Head w Compressor, Parametric, & Crossover — \$399
- N V412M Guitar speaker system with 4 G12M-70 Celestion spks — \$399
- O X100B British 100W X-Amp head — \$499. X60B X-Amp head — \$419

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ed headroom needed for clarity at high levels. With a choice of 15" speakers, the monitor can be used as a drum monitor or for vocal monitoring.

The 514 is furnished for bi-amp applications, and can also be purchased with a passive crossover. The 514 is compact (22" x 22" x 16.5") and can handle 400 watts continuous power with average SPL of 126dB and peaks over 130dB.

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R-42 PRO PLUS Wireless-Microphone Receiver

Cetec Vega's new Model R-42 PRO PLUS wireless-microphone receiver features "infinite gain" technology, ultralow noise, true dual-receiver diversity, and switch-selectable DYNEX® II, an advanced new audio processing technique. System dynamic range with



DYNEX II is typically 108 dB, A-weighted (maximum deviation to noise floor). Even with DYNEX II switched out, the ULNR (ultralow-noise receiver) has a 92-dB (A-weighted) signal-to-noise ratio. Highest adjacent-channel rejection is achieved with 16 poles of IF filtering. The preselector is a true four-pole helical-resonator filter (silver-plated). Mu-Metal shielding for the power transformer and other critical circuitry eliminates hum and powerline noise. The R-42 diversity (or R-41 nondiversity) PRO PLUS receiver provides excellent performance when combined with the 77 DYNEX II bodypack transmitter or the Model 80, 81, or 82 hand-held transmitter.

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NEI Introduces Two Mixers

NEI announces that the 626 and 826 Sound Reinforcement Mixers are now available for immediate delivery. Some of the features found on these 6 or 8 input

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The newest most advanced evolution in mixing console technology is represented in Biamp's incredible BIMIX Series 80.

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SPECIFICATIONS

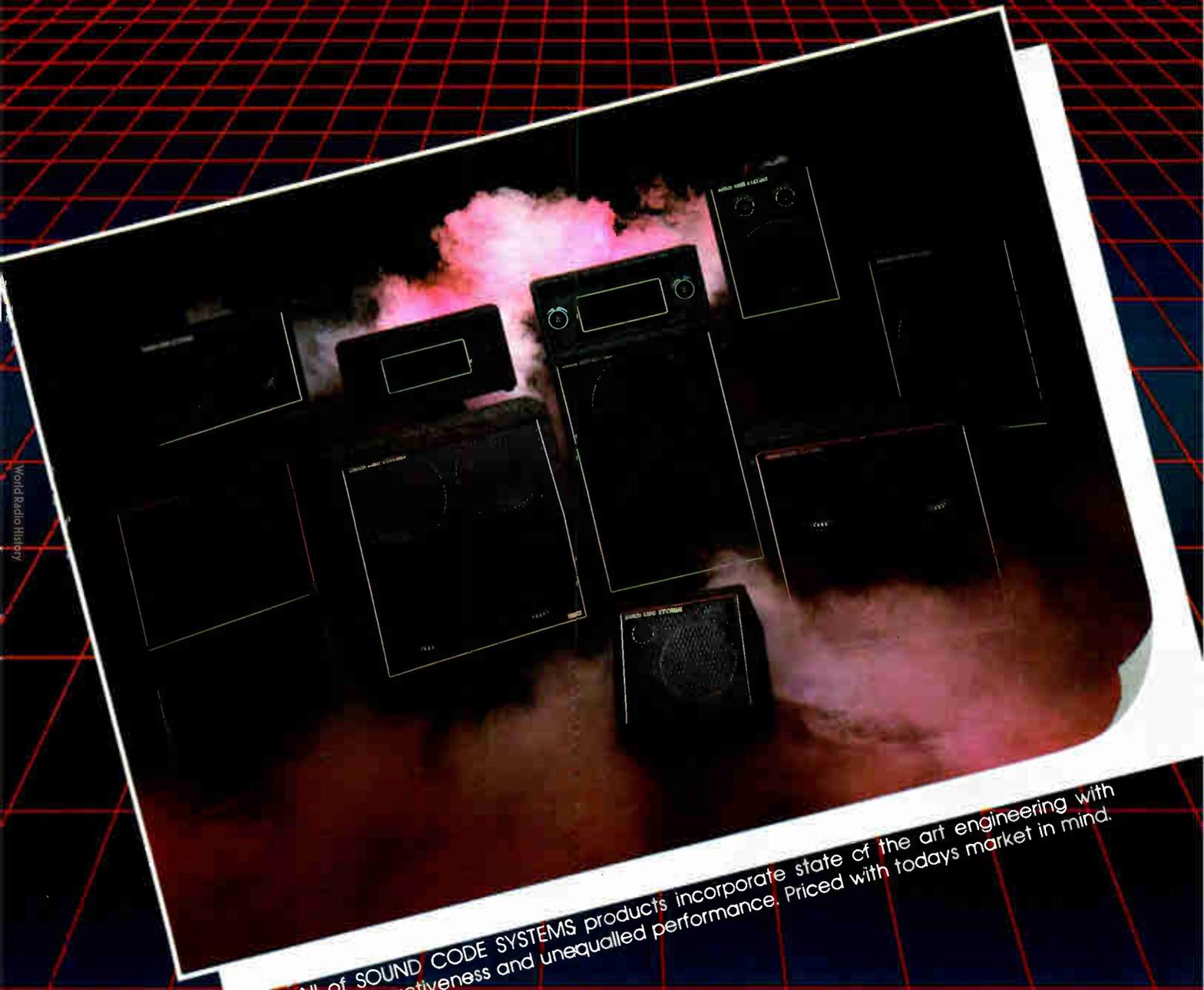
DYNAMIC RANGE	115 dB @ 20Hz to 20kHz
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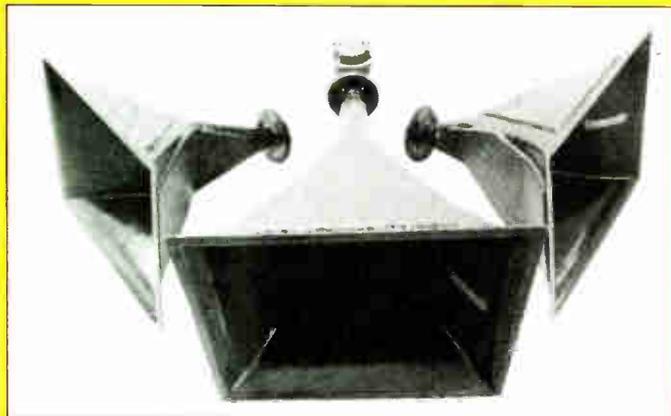
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channel units include: (Input Channels) electronically balanced mix inputs (D3F), line level inputs (1/4" phone), Monitor and Reverb/Effects sends, High and Low input channel equalizer, gain control and pan control. The rear panel features a channel output jack for use with external signal processing devices. Master control features and functions include 1/4" phone line level inputs and outputs for left/right mains, monitor and effects.

The 626/826 comes in an attractive steel chassis with formica protected wood sides. Optional 220V, 50Hz line voltage is available from the factory.

Circle #101 on Reader Service Card



New Horns from Community

Three new pattern, or directivity control horns from Community Light & Sound, Inc. (Chester, PA USA) provide uniform horizontal and vertical coverage throughout their operation range. The PC294 (90° x 40°) PC264 (60° x 40°) and PC242 (40° x 20°) horns take a two inch throat, four bolt driver, such as the JBL 2441 or TAD 4001. On and off axis frequency response of these horns is consistent from 500 Hz to 16kHz. These black fiberglass horns are smaller than most available constant directivity horns, making them extremely useful in installations of limited space.

Circle #102 on Reader Service Card



Biamp Introduces Model 44 Keyboard Mixer

Biamp Systems has introduced its new Model 44 Keyboard Mixer, a moderately priced, compact four-channel board featuring low noise, high slew rates and low distortions without overload.

Designed primarily to help the keyboard artist achieve problem-free sound mixing and monitoring, the 44 also incorporates a high quality microphone mixer for

sound reinforcement.

Each of the four channels on the 44 has two high gain instrument inputs, designed to prevent overload, plus a microphone input. A special Rhodes input on channel four is specially designed to balance the complete scale range without use of an external graphic equalizer.

All channels feature master effects send, independent effects patch in/out jacks, monitor send, three-band equalization, output level, and input overload LED.

The returns section includes auxiliary input level to main, effects return to monitor, effects return to main, and tape inputs to main/monitor. The monitor system is wired post-EQ, pre-level, for use as both keyboard and microphone monitor mix. Outputs are main level, master monitor level, and master effects level.

Circle #103 on Reader Service Card

Calzone Introduces Pro-Line II Series Cases

Joseph Calzone, President of Calzone Case Co., has announced the introduction of Pro-Line II Series Cases. Similar in features and construction to the Calzone Escort (A.T.A. approved) case, the Pro-Line II case features a trimmed down design to provide a less expensive and lighter weight alternative.

Calzone Pro-Line II cases feature Double-Angle construction, 1/4" plywood with high-impact formica laminate and a compartment lined with custom pre-cut high-density foam. The Pro-Line II Series of cases is available for equipment ranging from amp racks to tape decks, mixing boards, microphones or accessories.

Circle #104 on Reader Service Card



New Randall Powered P.A.'s

Randall's new line of six, eight and twelve channel powered P.A. systems contain two separate power amplifiers each rated at 120 watts RMS.

The mechanical construction of these P.A.s is extremely rugged and both front and back panels are made of heavy gauge aluminum to minimize ground loops and hum. Each individual channel and all master and monitor sections are on separate printed circuit boards. These are all interconnected by a daisy chain and plug assembly and any individual board can be removed and replaced or repaired in a matter of a few minutes should this ever become necessary. All components are selected to give long life and satisfactory service.

The noise level is on the order -90 dB. Frequency response is essentially flat from 20 to 20kHz when bypassing the low frequency filter. A stereo headphone jack is

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To complete the perfect monitor system, Peavey offers the finest monitor enclosures available. The 1245™, 1545™ and 2445™ feature Peavey's famous Black Widow® Super Structure™ speakers, built-in biamp capabilities and a rugged road case. Another addition to this huge line of monitor systems is the all new 112CN™ and 115CN™ Coaxial transducer system. An exciting breakthrough, the 112CN™ and 115CN™ offer a dual angle (30° or 60°) in a compact enclosure with biamp abilities.

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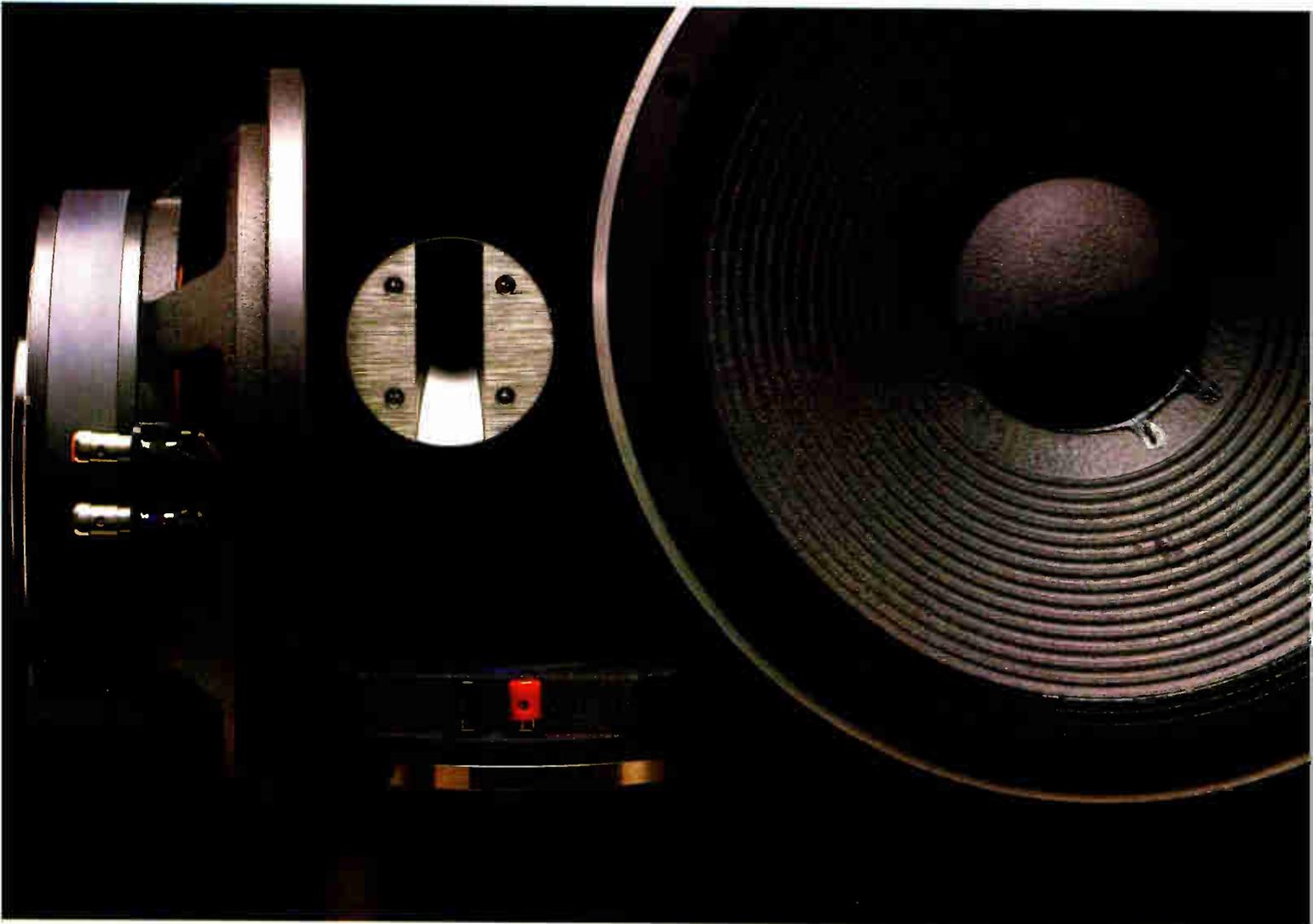
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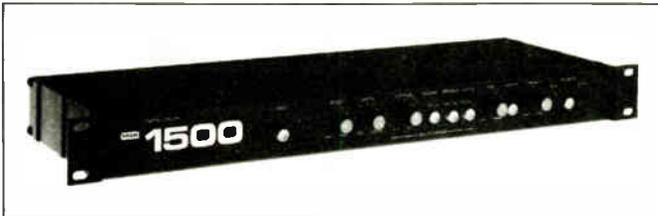
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provided which provides stereo output monitoring plus it may be switched to monitor either power amplifier separately.

Other features include: three effects loops, two ten LED bar graphs plus two seven band active equalizers as well as three EQ controls for each channel.

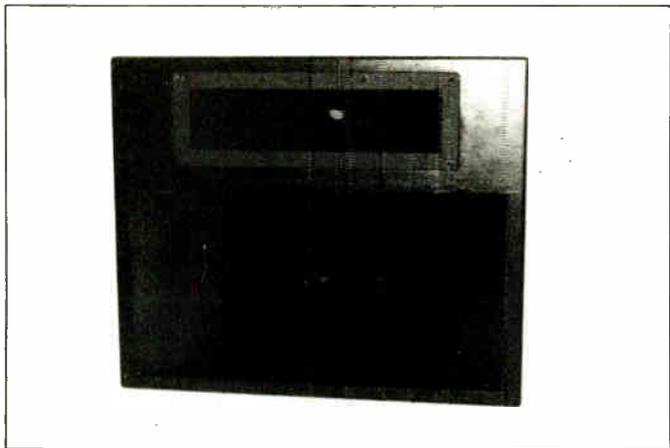
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10:1. The capabilities on the delay range from a minimum of .10 ms. to a maximum of 1500 ms., with the effects of Flange, Chorus, Double and Echo.

The new 1500 Digital Delay measures 1 3/4" high x 6 1/4" deep, and is a standard 19" EIA rack width. The delay is covered by the exclusive MXR one year full warranty, and has a suggested retail selling price of \$500.00.

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EAW Announces New Mid/High Frequency Horn

A new compact high-output horn loaded loudspeaker system, operating over the 250 Hz to 18,000 Hz band, providing 129 dB sound pressure level at 1 meter, is now available from Eastern Acoustic Works, Inc. The new system is designed to complement a bass horn in critical high output sound reproduction applications including live concert sound reinforcement, motion picture, central cluster installations and dance playback systems.

Smooth response and low distortion is maintained through the critical midband by the use of a Forsythe designed, constant horizontal coverage, cone-driven lower midrange reproducer. A center displacement plug integral to the lower midrange horn maintains the exponential expansion throughout the throat region, providing extended flat power response.

The Model MH-110 high frequency horn boasts constant horizontal coverage and flush baffle mounting, minimizing reradiated high frequency energy. System horizontal coverage of 100 degrees is maintained to beyond 12,000 Hz.

The MH-110 incorporates the latest generation RCF drivers including the N-480 high technology compression driver with more power handling and bandwidth than older designs. The New L10/539F 10 inch mid-bass driver incorporates a poly laminated diaphragm/surround assembly and precision high flux magnetic circuit specifically designed for horn loaded lower midrange reproduction.

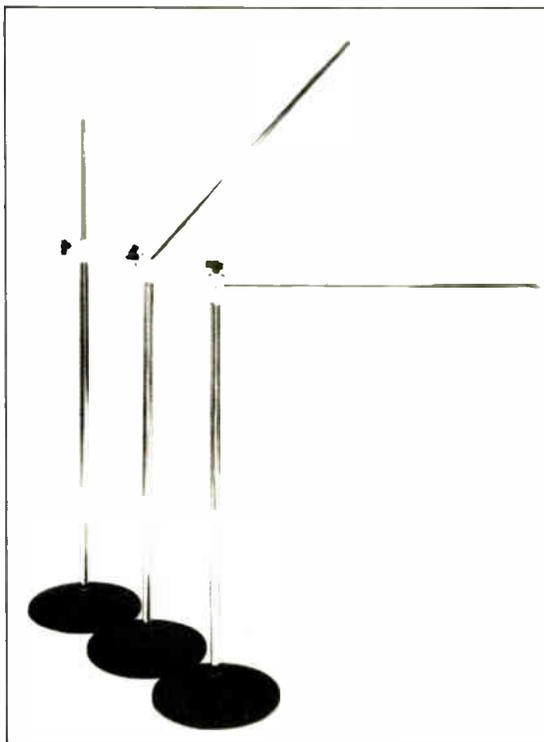
Packaging of the MH-110 includes polyurethane reinforced cross-grain-laminated hardwood construction, recessed hand-holds, and easily accessible connector panel.

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MXR 1500 Digital Delay

MXR Innovations, Inc. has announced the addition of the 1500 Digital Delay to their line of Professional Products.

The 1500 Digital Delay features a full 20kHz bandwidth at full 1.5 sec delay, along with a sweep ratio of



"Two-in-One" Microphone Stands from Atlas

Atlas Sound has announced a unique new product which incorporates the features of both a vertical microphone stand and a horizontal boom in one device.

The MSB-21 is vertically adjustable in the standard height range—42" to 70"—of a conventional microphone stand. In addition, it easily converts into a 42" high floor stand with a 30" long horizontal boom by simply extending it to full height and repositioning the star-knob on the patented "Adjust-a-Clutch" swivel. Because this is an integrated device, it requires no assembly or mechanical handling prior to use.

Tube assemblies are cold-rolled steel, heavily chrome plated to assure long lasting appearance. The upper tube is terminated in a 5/8" x 27 thread for all U.S.-standard microphone holders.

For extra stability, the MSB-21 is supplied with a one-piece, 12" diameter, extra-weight cast base equipped with anti-tip stabilizers and self-leveling shock absorbing pads. For consistent appearance, the low silhouette base is finished in textured black, baked epoxy.

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by Iain Blair

Even if you don't know the name, you know his work—that is unless you've been hiding out in the jungle someplace, or had your head very firmly in the sand. For if you've seen any music videos at all in recent years, chances are you've seen something shot and directed by Russell Mulcahy, perhaps the preeminent director working in the field today. Responsible for such highly acclaimed classics as Kim Carnes' "Betty Davis Eyes," Billy Joel's "Pressure" and "Allentown," Rod Stewart's "Young Turks" and Duran Duran's "Hungry Like The Wolf," Mulcahy and his strong personal style—notable for its use of exotic locales, fancy art-direction and recurring images of water ("I admit I love to shoot water" he comments) have almost single-handedly forged a video language and look that has subsequently influenced everything from the way in which some bands have actually started to conceive both their music and image, to jeans and car commercials.

Predictably, this all-pervasive look and style has even been somewhat adopted by Hollywood to help sell its movies—*Flashdance*, one of last year's biggest films, owes more than a little to Mulcahy, with its blatant video promo gloss and marketing strategy. Mulcahy himself has now entered the world of features, and is currently working in Australia editing his debut picture entitled *Razorback*. This move has been widely reported as signalling the end of his illustrious career as a video director. "Not so," insists the director, who was in Hollywood recently to preview a rough-cut of his film for studio executives. "I'll be back directing videos just as soon as I'm finished with the movie, because I love doing them. Unfortunately, because of my commitments with *Razorback* I've had to turn down The Rolling Stones, Culture Club, and Rod Stewart & Elton John. But in the meantime, I can at least promise you that the film has nothing in common with *Flashdance* or *Staying Alive*. It's actually a horror-thriller, set in the outback of Australia."

In fact, although most people associate Mulcahy with the British video invasion of the late '70s, he was originally born and raised in the tiny seaside town of Wollongong, some 50 miles south of Sydney, in Australia, and that's where our conversation started.

Mix: What sort of childhood did you have?

Mulcahy: Quite happy, really. I grew up like a gypsy—Dad left when I was about 12—and I used to play a lot of

fantasy games. I think I was a bit of an oddball in my teens. I went through every form of religion, and then I got into black magic, but there were a couple of herbs we couldn't get in Australia, so the spells never really worked.

I was always very into films and visuals, but there wasn't a lot of opportunity for filmmaking there, so eventually I moved to Sydney when I was 18, and managed to bluff my way into a job as a film editor with Channel 7 TV. I had absolutely no experience apart from shooting my own crazy 8mm films which I'd spliced together with paperclips and glue. In fact, I'd never even seen 16mm before!

Mix: Were you caught?

Mulcahy: Well, this guy took me under his wing, and I ended up staying there for two years, learning and watching, and gradually getting more involved in rock and roll.

Mix: When did you shoot your first video?

idea called *Delicious Dreams*. It was financed by Channel 7, unknown to them, thanks to their film stock, and it won first prize at the Sydney Film Festival in '75. I think the judges read all this symbolism into it—it's quite an odd fantasy about a day in the life of this man who ends up eating this dog—although there wasn't any. The main thing is that it's one of the few film festivals with cash prizes. So I took the money—it was all of \$2,000—and immediately left Channel 7 to go independent!

Mix: How did you make the move to Britain?

Mulcahy: It was all luck really. After a couple of years making local videos, this record company sent me to England to film this punk band, and the move totally changed my life because I went for a couple of weeks and ended up staying for five years!

Mix: What happened?

Mulcahy: Well, I'd never really been abroad before, and to land straight into

“People are always saying that [rock video] has peaked, it's over, but I don't agree at all. I do think that when everything seems to be going right, people get paranoid.”

Mulcahy: It was around '73. I was given \$80 to shoot this local band by a guy who realized no one else was doing it then, and that was the start. After that, we used to rattle around town in a clapped-out van with a camera and a tripod, and gradually built up some sort of reputation. At the same time, I was working on my own projects and a film

the middle of the punk scene was quite a change, believe me! I arrived on April Fool's Day of '78, it was freezing cold, and all these punks were spitting and slam-dancing, and I just thought "I want to go home." I'd just come over for a short visit, and I still had my own film project to finish, and my cats to feed, etc. But at the same time it was

Russell

A Rock Video Pioneer



Mulcahy

Looks Ahead

very exciting and new, and there was also the whole appeal of visiting Europe and expanding my horizons. Plus, I got conned. I happened to meet this producer, John Roseman, who offered me \$75 a week to shoot all these bands. So I mailed the first shoot back to Australia, moved into a squat, because I couldn't afford an apartment, and started working. I was very naive, I suppose, so it was really no one's fault but my own. But I lived like that for the next two years while directing a lot of videos that I'm sure made quite a profit.

Mix: When you look back now, does it make you bitter or angry?

Mulcahy: Not really . . . it's more amusing. It was a wonderful time for me in many ways, as I was learning so much, and the music was really happening. I shot a lot of acts for Virgin Records, and there were all these new bands forming every week, following in the footsteps of the Sex Pistols. If one didn't happen, everyone would just move on to the next one. It was really incredible, all the energy.

Anyway, in the end, I split from Roseman, and formed a company with David Mallet [who did all Bowie's videos] and producer Alexie Godfrey, which we called MGM naturally enough! We did a lot of work, especially in America, but again it wasn't a totally pleasing situation, and there were a lot of heavy politics involved. Eventually, David and I left, dut to "artistic differences," and joined forces with Scott Millaney and Brian Grant to form MGMM. [MGMM has subsequently become one of the most successful and influential music video production companies in the entire industry, having produced hundreds of clips for everyone from The Rolling Stones to Barry Manilow.]

Mix: It sounds as if those early days were very freewheeling...

Mulcahy: They were! The thing that always excited me about video was the total freedom, although it took a while to attain. When I started, there was a lot of record company overseeing—they wanted you to explain every bloody shot! But as time went on, I basically got carte blanche, maybe because of the successes I'd had. So they gave me a free hand, and I either succeeded or failed, but at least it was all down to me.

Mix: Do you think that freedom is still there?

Mulcahy: Absolutely! In fact I'd say that video is one of the few areas of filmmaking left these days with that freedom, and it's an important new area where young directors can come out and express themselves. Obviously they'll get small budgets to start with, but they will get paid to do it, and that's what counts. I was talking to a French

producer last night, and he was saying that the only way a French filmmaker can start out is by doing cinema shorts, and those don't happen anymore. I think that soon, videos will become the new cinema shorts, with four or five linked together."

Mix: Several video directors have been saying that the form has peaked. Do you think it still has a lot to offer?

Mulcahy: People are always saying that it's peaked, it's over, but I don't agree at all. I do think that when everything seems to be going right, people get paranoid. I remember when I was in Australia, everyone was saying that the Australian film industry had peaked, and yet when you see their new films that haven't even been released yet, you realize that it's better than ever. It's the same with video—I think it only collapses when the interest is lost, and I can't see that happening for quite a while.

Mix: Do you think there's been a more realistic attitude towards music videos recently, especially in terms of criticism?

Mulcahy: There's definitely a lot more realistic criticism coming out now, which is a good thing, as every artform needs it. For the first few years, naturally everything we did was "fantastic," and you could put out the most incredible shit and get away with it because people were just razzle-dazzled by the image. Now, they've begun to demand quality on a commercial level, and of course budgets are going up. I've noticed that some critics have begun to attack my "love of water images," and maybe there's an anti-Mulcahy feeling. I know I just read a piece which criticized my use of all the torsos in "Allentown," as if I just haphazardly throw in nude males wherever possible! But I know my use of water influenced the makers of *Flashdance*, because they apparently told Adrian Lynne [the director] to sit down and watch them all. And to be fair, what he did with the film looks great. I just think that it's silly to examine videos too closely for symbols and hidden meanings, as if they're films by Bunuel or Hitchcock. Most of them are just fun.

Mix: With videos like "Beat It" and "Thriller," there seems to be a trend towards music videos as short films, with huge budgets to match—apparently "Thriller" cost close to a million dollars. Do you feel the need to justify the enormous cost of some of the video extravaganzas?

Mulcahy: It's not usually the director's fault! For instance, people attack me for taking bands like Duran Duran and flying around the world to exotic locations like Sri Lanka or Antigua, but it was their manager's idea, not mine! Ob-

“I think it's silly to examine video too closely for hidden meanings, as if they're films by Bunuel or Hitchcock. Most of them are just fun.”

viously they were great locations to shoot, but the point is that apart from that band writing great pop songs, a lot of their success was down to their charisma, and their "look" and presentation of that look. I did their first video, and they were one of the few bands that came to me during that period who were totally aware of where they wanted to go visually. It was very conscious, and I found that very clever, because these days a rock star *has* to be very careful of his visual presentation. Now, that doesn't mean you should contrive it—it has to be fairly honest, or it doesn't work. Unfortunately, it locks you in to that look, and now Duran are in that situation where they have to keep topping their last spectacular. That's why they're off to Hong Kong and China next.

Mix: How do you feel about the success of MTV and similar music video outlets?

Mulcahy: I think it's fantastic, and it's obviously helped enormously. Before it all took off, the video business was a cliquey, rather small, home industry in a way, and you could count the number of directors shooting videos on any great level on both hands. But MTV changed all that, and now there are hundreds.

Mix: Who do you personally rate highly in terms of directors?

Mulcahy: I really think Godley & Creme, who did The Police and "Rock-it" for Herbie Hancock with all those robots, are very hot. They're really talented and creative. I think Bob Giral-di, who directed "Beat It" for Michael Jackson, is also very good, and of course I'd include my partners Brian Grant—I loved what he did with "Shock the Monkey" for Peter Gabriel—and David Mallet.

Mix: Having worked with virtually every successful band around, do you still have ambitions in the video world?

Mulcahy: Of course. There are several

artists I'd love to work with in the future, such as Michael Jackson and Prince—that would be very exciting.

Mix: Are you choosy about who you do work with now?

Mulcahy: Very. You have to be, really. In the beginning, I'd do anything I was offered, but now I'm very choosy, because what happens is that if you don't like a band and their music, you don't do a good video and it shows, because your heart's not there. The great thing is that there are always these good new bands coming up, like Eurythmics and Culture Club.

Mix: Have you ever had any problems with an artist on a shoot?

Mulcahy: Not really, although I had a huge argument with Bonnie Tyler on the set of "Total Eclipse of the Heart." She got well out of order, and I'd never speak to her again. But anyway, I guess you're bound to have an argument once in a while. It's partly the nature of the business, with all the egos and pressure involved. On the other hand, I do have a lot of funny stories, but most of them are unprintable!

Mix: You mentioned earlier that the video field is now full of "hundreds of directors." Is that one reason you wanted to move on to feature films?

Mulcahy: Not really. I actually wanted to do a movie a while back, and I was looking around for the right script, but all I got offered were pretty terrible musicals or video-game type sci-fi films which I didn't like at all. It wasn't until *Razorback* appeared that I got serious about it.

Mix: What attracted you to *Razorback*?

Mulcahy: It's a horror/thriller, and I've always been a big fan of horror films. In fact, I grew up with my mother reading horror stories to me at breakfast, and when I was nine, she ran out of stories so I just started reading anything gothic or horror. I find the genre to be very healthy—it's great to have a theater full

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of people all screaming their heads off. It's good therapy!

Anyway, it's the story of a brash, American woman who visits Australia and the outback to make a documentary about kangaroos, and disappears. Her husband then comes over to find out what's become of her, so it's about his search and the development of his character when he's suddenly subject to a hostile land and people, when previously his greatest danger was burning the pizza. But of course the real hero/villain of the film is the killer boar, or Razorback.

Mix: It sounds pretty far removed from the average rock and roll video.

Mulcahy: It is! I think most people expected me to go off and make something like *Flashdance*, or at least not a film about a pig! When I decided this was the project I was definitely going to do, I was in Britain with Duran Duran, and they all said, "No, don't do it. A movie about a pig is ridiculous!" And even now, studio executives are coming to me and saying "What's the idea of a film about a killer pig? It's crazy! We don't believe it—now it means we can ask directors to shoot any bizarre project we wish." Of course there's far more to it than just a "Jaws with tusks" angle. There are many levels to the

story. But if it flops, I can already see the critics' predictable response...

"Mulcahy's giant boar," etc!
Mix: Why did you choose to shoot it in Australia?

Mulcahy: Well, it's set in the Australian outback, although it could equally well be Arizona, or Africa, and I just thought it seemed right to go back there and do it, because I wanted to convey the agoraphobia of those huge, lonely landscapes. I also wanted to visually convey a bastardized view—I didn't want the usual pictorial views of Australia. There are lots of beautiful locations, but not necessarily beautiful scenes. It's either a landscape of dead trees, or a flat plane with one house on it and nothing else for 30 miles to the horizon. It seems to me that most films give you a very claustrophobic feel, and I really wanted to get away from that, and show the horror of being totally exposed, with nowhere to hide. I mean, if something attacks you out there, where the hell do you run to?

Mix: Do you think your video background was a help or a hindrance in dealing with a full-length feature film?

Mulcahy: I think it basically helped. For a start, there's the discipline of telling a story and making it short

and to the point, i.e. you have three minutes, and that's your lot. But there's the difference for me in that on a video shoot, I'm working for my own company, so if I want two more hours, I take them, while on a movie, you don't have that luxury. There's also the difference in size of crew, etc. It was like a travelling circus of 80 people, living, working and socializing together for the two months it took to shoot, and I'd never experienced that before, as on a video you just hire freelancers and ten or twelve hours later it's "good-bye and thanks very much." But the crew I had was fantastic—in fact, I used my regular video cameraman and designer, and I think I managed to infuse a few of the video techniques I've learned.

Mix: Did you find it difficult adjusting to a much larger budget?

Mulcahy: We got \$5 million, and I was actually surprised at how quickly it went! After shooting videos for \$75,000 and even \$100,000, it was quite a shock. But I did keep it on schedule, and I brought it in on budget—I thought that would be wise for my debut picture! In fact, *Razorback* features quite a few firsts. It was also the art director's first film, and the first soundtrack by Ivor Davies, from the Australian group Ice House. It's an unusual, and very original type of soundtrack that really complements the story. He's come up with very primitive and strong sounds, and we're using the Fairlight computer a lot to compose on, as well as for a lot of special sound effects. It's quite an amazing machine, because it allows you to create virtually any sound imaginable, either natural or synthetic—so it's ideal for a film score.

Mix: Do you have more film projects lined up?

Mulcahy: Well, I'm looking at a number of scripts right now, and I have about three lined up—we're in the middle of negotiations.

Mix: It sounds as if your days as a video director really are numbered.

Mulcahy: Unless *Razorback* bombs, in which case I'll be back quicker than you expect! But as I said before, I really do love shooting videos, and I love the music, and I certainly wouldn't have done them for so long if I didn't get off on it. And compared with all the pressures and problems of making a movie, they're relatively fast to do and quite exhilarating. In fact, after doing the feature, I'm really looking forward to doing another video. I think it'll be like coming home in a way. ■

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VIDEO NEWS

by Mia Amato

JACKSON SWEEPS VIDEO AWARDS . . . OSCAR NEXT?

Award winners at *Billboard's* 5th Video Music Conference came as no surprise. *Billy Joel's* "Pressure" (Best Special Effects) and *Michael Jackson's* "Beat It" (Overall Best Video, Best Choreography, Best Male Performance) will be standards for video clip production—and expense—long after the albums they tout find their way into the cut-out bins. We were pleased to see *Herbie Hancock's* funk video for "Rockit" pick up Most Innovative Video; amused that Best Use Of Animation proved a tie between *Donald Fagen's* "New Frontiers" (animation by *Cucumber Studios*) and *George Clinton's* "Atomic Dog" (computer graphics by *John Leach* and *Overton Lloyd*). And we were distressed to find no award category for Best Direction, although director's credits did appear in the Awards ceremony program.

The 1983 conference was undoubtedly the best run and best-organized of the past five years. Among the many familiar faces in the crowd of attendees were those of a new group: club owners, managers, and VJs, attesting to the vitality of clubs as both market and outlet for promo in cassette forms.

What else? Most visible person at the show was certainly *Will Powers* and the many other personas of *Lynn Goldsmith*, well known as a rock photographer, now a performer. Changing outfits several times each day, using a voice modulator as the masculine Will, Goldsmith seemed to

be everywhere; introducing panels, providing the keynote address, and figuring prominently in the awards ceremony that was ably hosted by *Fee Waybill* of the visually active *Tubes*. Videotapes for her album, "Dancing for Mental Health," showed eye-popping, sophisticated video graphics, produced by *Rebecca Allen* and associates at *New York Institute of Technology*.

Director *Joe Dea* ("Jeopardy," "Backstabber") made the local papers by demonstrating, on a panel addressing creativity, the proper way to achieve inspiration in video direction: sniff glue. *Barbara Gronbeck* and *Mark Allen* of Pilot Productions, in between suite screenings of "California Images," premiered their most recent joint venture, week-old baby girl *Ellery*.

More video people . . . *Bob Getz*, producer of the soap opera *Search for Tomorrow*, has completed production of four half-hour jazz shows featuring brother *Stan Getz* and his quartet. The programs were videotaped as part of a concert series at the Robert Mondavi Winery. *Gerry Mulligan*, *Max Roach*, and *Dizzy Gillespie* join the roster of jazz artists who have released stereo "video singles" (short performances under 20 min.) through Sony's software arm. A film made by *Dan Halperin* while he was a student at UCLA Film School is making the rounds as "intermission programming" for Spotlight, Wometco, and local cable channels. "Rocket to Stardom" is a ten-minute musical short, the story of a group of aliens who land on earth to make a hit record. Halperin currently directs rock videos in LA as

part of *Flattery, Halperin, Cole*.

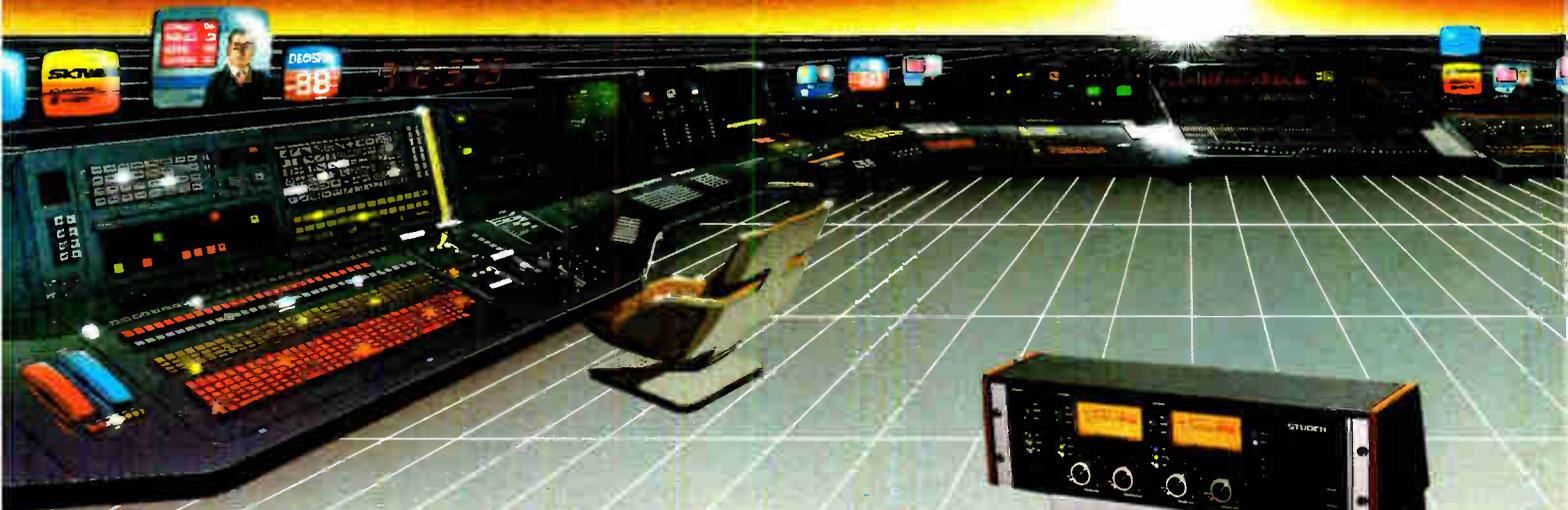
Peter Frampton, E-Street drummer *Max Weinberg* and former New York Doll *David Johansen* perform live in a 60-minute video tribute to *The Ventures*. *Walk, Don't Run* is the title of the program, destined for cable and broadcast airings this year. It was produced by *Rosenberg/Fraker* at National Video (NY) and also includes footage gleaned from more than 20 years of performances by one of the '60s most influential instrumental groups. . . . The three new videos for *AD/DC*, produced during the band's recent U.S. tour, were edited by *Jayne Morris-Paul* at *Alcon Video* (SF).

Radio format czar *Lee Abrams* appears as a host for *Inside Rock*, a pilot for a weekly TV show produced by *Somach/Nelson*. The latter's current coproduction with *E.J. Stewart Video* (Philadelphia), the club concert series *Hot Spots*, is now running six days a week on USA's cable network. That series is hosted by *Elizabeth Rollins*.

CABLE: WELCOME BACK, HENDERSON-CROWE

Back when MTV was but a gleam in Bob Pittman's eye, cable systems in all 50 states could, for a few hours a day, tune in videomusic clips supplied by a satellite service known as *Video Concert Hall*. Launched in 1979 by *Jerry Crowe* and *Charles Henderson*, the fledgling feed shared a transponder with then-struggling Showtime. Telecasting intermittently until 1981, Henderson-Crowe eventually dropped the project, a victim of

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STUDER

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record company resistance, undercapitalization, and a concept that was just ahead of its time.

Video Concert Hall returned to the airwaves late last year, with new investors and renewed attention from labels looking for MTV-like outlets for their promotional clips. Crowe estimates the initial reach of the service, on for just a few hours each day, to be four million homes. He characterizes the programming as "popular," and is specifically avoiding clips with "violent" themes.

Video Concert Hall is produced in Atlanta and sent by landlines to a satellite link in Lexington, KY, which zaps it up to Satcom FIII's Transponder 16. VCH shares the space with Home Theatre Network and The Learning Channel.

Crowe says the company is operating "with a lean staff. We have a lot of experience in video music, and we know what we're doing. We are using all the TV and computer technology available to us—from touch screens to satellites."

Henderson-Crowe has expanded its studio for video production in one-inch format. For video music production, the studio can interface with 48-track audio from two adjacent

24-track studios operated by Atlanta's **Crescendo Audio Inc.** The company has also added a New York office and staffer **John Montgomery**, formerly of Sire Records. For more information on programming and submission of clips, call the Atlanta office at (408) 223-0021.

IN THE STUDIOS . . .

Sports fans take note: **Ardent Teleproductions** (Memphis) produced that series of :30 spots for Schiltz beer which incorporates live footage from **ZZ Top's** recent tour. The TV ads have been running on MTV as well as nationally televised football and hockey events. **CCR Video** (NY) announced it has become bicoastal with the acquisition of Prime Time Post in Hollywood. **Ken Miller** was named president of CCR's new western division, which included two video mobile units. . . . **Communications Concepts** down in Cape Canaveral, FL, has added a Quantel DPE-5000 digital effects unit to its post-production suite.

A new company in New York is **Teeman/Sleppin Enterprises**, launching with what it agrees is "just a very bold ploy to get some video music on our reel." According to **Stu Sleppin**, the firm will produce a promo clip

for any act at cost, with no fees for above-the-line or below-the-line crew. Principals have various credits in commercial and documentary production; best-known staffer may be **George Corsillo**, graphics designer of album covers for **Bob Dylan**, **Dolly Parton**, and **Jefferson Starship**.

BeeJay Recording Studios in Orlando now has an arrangement with local video house **Visual Impact** to produce promo clips for clients cutting records or demos in-house.

HOME VIDEO: "RAIDERS" TOPS THE CHARTS

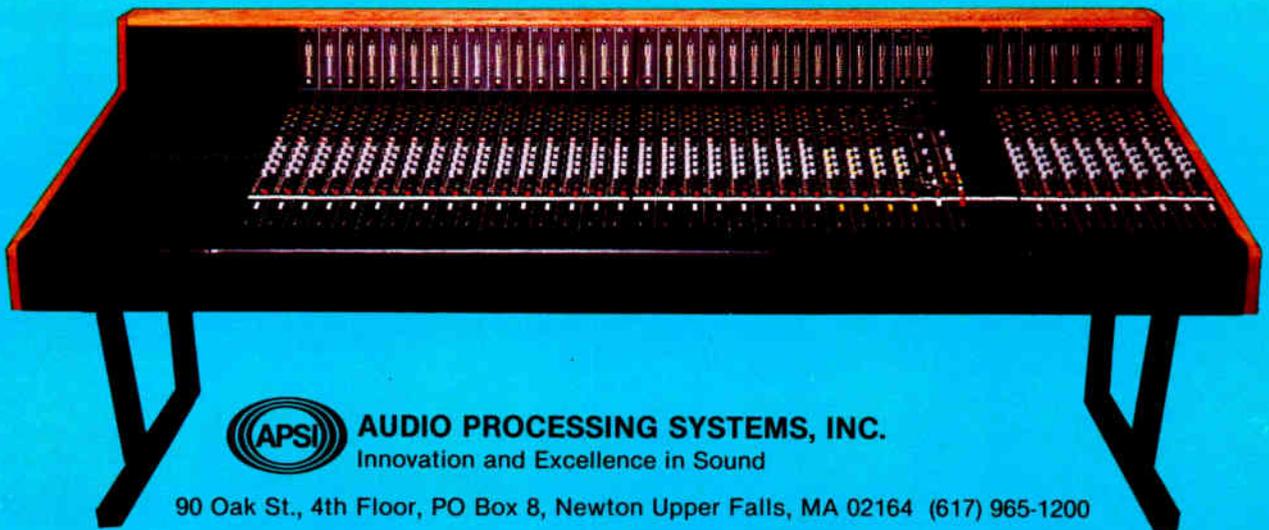
The Electronic Industries Association reports that sales of videocassette recorders reached the 3-million mark in 1983, nearly double the sales of 1982. That brings the total population of VCR in the U.S. to about 9 million units, roughly ten percent of all U.S. TV households (tabbed at 80-90 million). The big software hit of 1983 was "Raiders of the Lost Ark," shipping 500,000 units by Christmas. "Flashdance" and "Jane Fonda's Workout" were also mega-sellers. Industry experts say the drop in cassette price to a more affordable \$39 helped spur what had been a sluggish public response in the past. ■

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World Radio History

Award Winning Music Videos

An Interview with Antony Payne

by Lou CasaBianca

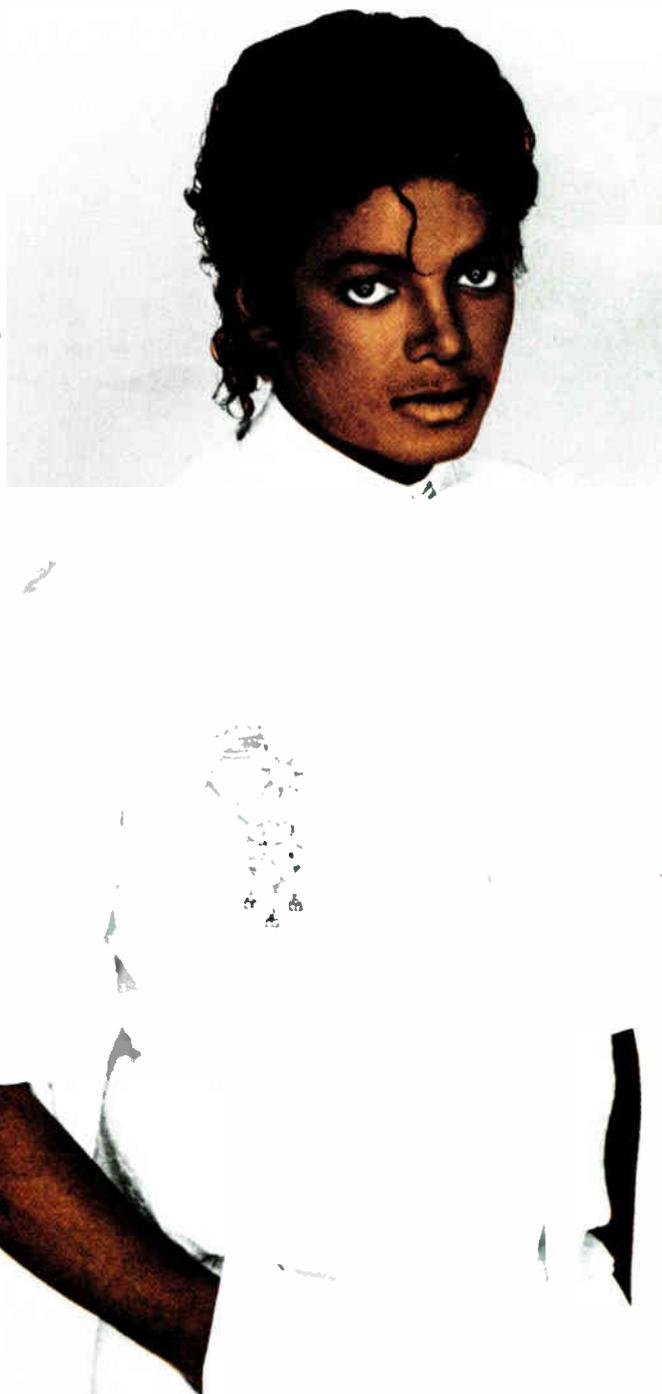
Bob Giraldi and Antony-Payne are the dynamic music video production team behind award winning music videos by Michael Jackson, Diana Ross, Pat Benatar, Paul McCartney, Barry Manilow, and Lionel Richie.

Background

Antony Payne began his involvement with music video in 1976, with Trilion Television, the video production wing of Trident studios in London. While at Trilion he worked with Jon Roseman (producer) and Bruce Gowers (director) on what he considers to be one of the all time greatest rock clips, "Bohemian Rhapsody" by Queen. (See *Mix* October '83 MVP: "Origins Of Music Video). He was instrumental in setting up one of the first European cable systems in Amsterdam, Netherlands. After a move to New York, he worked with Billy Joel in developing the production concepts for two videos he would later executive produce with MGMM—Milaney, Grant, Mallet & Mulcahy, "Pressure" and "Allentown." Directed by Russell Mulcahy, both pieces were among the most highly budgeted music videos of their time, at about \$200,000 the pair. (Payne says, "To do those videos today the cost could run as high as \$500,000 each, even with favors.")

Bob Giraldi is the Clio award winning director of TV commercials for McDonald's, Dr. Pepper, Miller Lite Beer, and *Evita*. They're all spectacular productions, with stratospheric budgets

MICHAEL
JACKSON



and non-stop breath-taking effects and lots of people eating or drinking, dancing and singing.

The first music video ever directed by Giraldi was Michael Jackson's "Beat It", followed in chronological order by videos for Diana Ross ("Pieces of Ice"), Pat Benatar ("Love is a Battlefield"), Paul McCartney & Michael Jackson ("Say, Say, Say"), Barry Manilow ("Read 'em and Weep"), and Lionel Richie ("Running with the Night"). All were made with Antony Payne as producer or executive producer.

Giraldi has very definite opinions about the medium, saying that music videos "aren't just four-minute advertisements for the song. They can be miniature works of art, a new short story form for youth. I never once worry about selling a record when I make these videos." He reminded the members of the record industry and the fledgling music video biz attending a recent national conference "to appreciate the opportunity that music video represents and to nourish this budding new art form."

The Advertising Game

On occasion, the world of the prime time commercial director is one of high-stress big-budget projects run by committee decision, operating against constantly changing and impossible deadlines. A major commercial can cost from \$300,000 to \$500,000 or more for a 30-second "spot." With the future of a new product or company on the line, not to mention a few jobs, usually no expense is spared in testing for and creating the "killer spot." As an alternative, the opportunity to work with some of the most creative musical artists of our time, without having to deal with the kind of high anxiety-low tech advice and consent of the arche-

typical ad agency partner-in-charge, or creative director, is like a creative magnet drawing more and more successful commercial producers and directors into music video. Of course, there are limitations, and the record/music video business is populated by its own cast of characters. The writers, producers and directors of music video working in collaboration with the artist, engineers, and producers of recorded music can now draw on an incredible range of creative tools and a greater opportunity to capture an expectant international audience.

But What About the Budget?

The hypothetical industry average cost for a rock video is currently about \$35,000—deduct accordingly for non-rock music video budgets. At \$300,000 for a prime time network 30 second spot, a production company is averaging \$10,000 a running finished second. "Beat It" which runs about 4 minutes at \$180,000, averages out to \$750 a finished second, a difference in production value of over ten-to-one. ("Thriller", the world's most expensive music video to date, directed by John Landis for Michael Jackson at \$1,000,000 for 15 minutes, has to be considered a short film. It was screened in 1983 in order to be eligible for Academy Award nomination, and its cost will be recovered by vigorous theatrical and home video sales.)

Recently we met with producer Antony Payne to discuss his widely acclaimed professional collaboration with director Bob Giraldi and to review from the producer's point of view some of the key creative and technical elements of a few of their most recent projects.

Mix: Would you review in general the photographic and technical set-up you

use for music video production?

Payne: On the equipment side we shoot pretty much like a 35mm feature film—Panavision cameras, Titan cranes. All of our videos have been shot on 35mm film. It all varies a lot with the



PHOTO RONALD A. CHAPMAN

Rank Cintel Mk 111C telecine with remote desk (fitted with Amigo) and FeRRIT sound-follower.

scenario. If you're shooting travelling shots like in "Say, Say, Say," we'll require a special truck with camera mounts for the follow shots, for example.

Mix: How do you handle the transfer to film and postproduction?

Payne: Postproduction is interesting because as you might say "in the mix," in nearly every case we've altered the soundtrack to fit the video. In the case of "Beat It," we added sound effects, the doors opening, footsteps. We added sound effects to fit the picture. Most videos up until "Beat It" were basically the record down on tape with pictures edited to the record. So the soundtrack is exactly what you can buy on the streets, the sound you hear is the record. Film isn't quite like that you know. If you see someone running down an alleyway and he trips over a garbage can you would expect to hear it in the world of movies. "Beat It" was the first video to bring in full sound effects in the opening 18 seconds, and later we use spot effects. In the case of "Say, Say, Say," I think we were the first people to introduce dialogue. If you remember, the opening minute is like a

"The 'silent' era is over. I think we're going to see the straight forward song with visuals enhanced or replaced. No longer does a video story line have to be restricted by the limitations of the vocals or the length of the song."

mini-musical. Before we even shot the video we changed the soundtrack. The 7" single on "Say, Say, Say" ends with a long instrumental, which would mean we wouldn't be able to come back to the vocals at the end, so we added an extra chorus to the end of the existing single. In the video at the end you see Paul and Michael singing again on the truck. In "Love Is a Battlefield" we stretched the instrumental part so there was more room for dancing.

Mix: Could you describe the technical chain of events once you get into post?

Payne: We work more like the traditional film approach. We print up dailies on 35mm film, study them and edit them together. So all our off-line editing, as it's known in computer terms, is done in interlock sound and picture running together. All our creative decisions are made using a KEM flatbed or Moviola, or some other film editing system. Normally, people transfer everything they shoot to videotape, but we pull the negative and transfer only the material we're using on the Rank Cintel to tape and do the final on-line editing on broadcast tape. Once that's all done, we then go back and cut the negative together and make 35mm prints for cinema release. So there's quite a lot of work at the back end.

Mix: How many people do you usually work with and do you work with the same key crew members?

Payne: We use more or less the normal 35mm film crew. Bob Giraldi writes and directs all of our videos. "Beat It" was photographed by Danny Quinn, and Danny has worked on all the videos that Bob has directed. We usually pick up our crews where we're shooting. In postproduction we have worked with everybody, Pacific Video, Editel and Red Car Editing in Los Angeles. In fact, Red Car did the editing on "Beat It." Pablo Ferro was the supervising editor, and it was cut by Larry Bridges.

Mix: Recognizing that you're working with larger than average budgets, how would you describe, in general, the budget considerations on your recent productions?

Payne: I doubt that we will ever accept a low budget project, because when you do, corners must be cut and profits passed up in favor of production values and living up to your previous standards. It ends up being a labor of love because you get favors from the people [crew and suppliers] you work with regularly; the challenge of music video inspires a better rate. Our first two videos were made at cost. The biggest problem is one of budget. We're not trying to make a lot of money, but if the industry is to develop, you need to be able to produce videos without favors and pinching and borrowing.

Mix: What is the special quality that makes a music video magical, and able to stay fresh: even with repeated viewing?

Payne: You could shoot Michael Jackson against a white wall and there would be millions of people waiting in line to see it. With "Beat It," we had the world's hottest singer and what turned out to be the most popular video ever played on MTV. We knew we were on to something when we wanted to shoot in downtown L.A. at night and the police advised us against it. When we told them that we were going to be shooting with extras composed of members of opposing L.A. street gangs, the police really thought we were mad.

As is turned out, the authenticity of the gang members portrayal and the fact that they did have to come to terms with each other during the shoot, added an edge to the entire project. There were two teams of 24 composed of two groups of twelve members from each gang. This reduced the tension of a possible "real" confrontation and helped everybody to get to know each other better. At first they were kind of amused and not taking the dancers seriously. But as Michael Jackson, Michael Peters, the choreographer, and the other dancers, who had had one day's prior rehearsal, began to work out, the gang members really focused on what the dancers were doing with a greater level of attention and respect. It was really a great experience.

Mix: What was the source of the inspiration for the screenplay concept of "Say, Say, Say?"

Payne: Well, with "Say, Say, Say" we received a copy of the track here and had to work out a concept and fly to London to present it to Paul and Linda [McCartney]. In listening to the track, Bob was reminded of a concept that he had saved for just such an opportunity, Butch Cassidy & the Sundance Kid would ride again as "Mac & Jac" in a travelling medicine show. Fortunately, they loved the idea.

Mix: In retrospect what do you think was the most unexpected element of the finished production of "Beat It," compared to your pre-visualization of the piece?

Payne: I think one of the most interesting things about "Beat It" was that we could feel while we were shooting and then later while editing, that we had something special. It was a combination of things: the song, the artist, the choreography. What's really amazing is that "Beat It" was written, planned and preproduced in three days, shot in two, and edited in five. It was ten days start to finish.

Mix: You mentioned that you felt that contrary to their blue jeaned exterior, many record company and music industry executives are very traditional and conservative in their attitudes when it comes to the selection of music video production companies. Could you explain further?

Payne: Well, when we first talked with the record companies we showed them this incredible reel of commercials that Bob had done and the response was "What music videos have you done lately?" or "When you get one done, come back and talk to us." So you can imagine how it felt to be editing "Beat It," knowing how strong it was and working with the hottest recording artist in the world. And then we spoke with some of those same record executives and told them, "By the way, we have something new on our reel we'd like to show you."

Mix: What are some of the new directions in music video production?

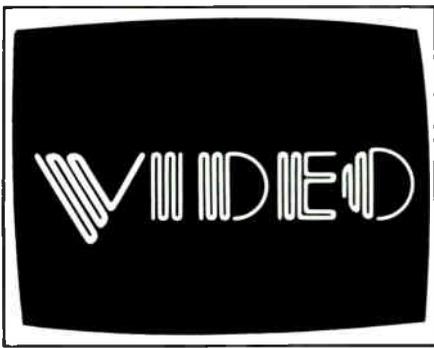
Payne: The "silent" era is over. I think we're going to see the straightforward song with visuals enhanced or replaced. No longer does a video story line have to be restricted by the limitations of the vocals or the length of the song. In "Love Is a Battlefield," and "Say, Say, Say," we have increased the emotional content by adding a story line. We added a prologue, with dialogue, sound effects and dramatic action before the song starts. Both songs were also lengthened by a verse to accommodate the script. This becomes more like traditional filmmaking and is going to require more coordination and planning, particularly in the area of audio for film and video.

Mix: What are some of the new projects coming up for you and Bob Giraldi?

Payne: Since we're only going to do six or seven a year, they might as well be great songs with great people. We really enjoyed working with Barry Manilow and his people. And it was a great pleasure to work with Lionel Richie. There's some film studio interest and things are still developing.

• • •

That special vision that translates as a series of magical moments on film or tape only comes about as a result of inspired teamwork and dedicated skills. Bob Giraldi and Antony Payne are filmmakers committed to creating and recording sound and picture images that we can re-experience and appreciate again and again, as an artful marriage of the imagination with sound and picture. In next month's *Mix* we will continue our exploration of the music video producer/director working relationship. ■



INTERFACE

BUDGET VIDEO

PART ONE

by Neil Weinstock

"Genius, Bill, give us genius. We can't afford anything else," is the way director Bill Sattelmeyer describes his standard operating instructions. He directs commercials and documentaries and music videos, and makes money on the former two categories. For the time being, there are low budget music videos, and there are lower budget music videos. At the top of the scale, there are actually decently budgeted music videos. There are no high budget music videos.

What's that? you say. What of the reputed \$220,000 budget on "Beat It"? Well, rumor has a way of inflating things. According to director Bob Giraldi, "Beat It" cost \$120,000. It lasts almost six minutes, took two days to shoot, and several week of pre- and post-production. Giraldi, one of the top commercial directors in the world, normally works with the same \$120,000 budget, or *more*, to do a 30 second spot in a day of shooting, a week of pre-production, and no post-production. For Giraldi, music video is art for art's sake, not money's.

All right, if nobody is making money on music video, how come they're being made? Obviously, in hopes of hyping record sales. There are some hopes in the home video area, but essentially this is a round-about way to make a buck. "It can work but it doesn't necessarily—even if the video is popular, there's no guarantee it will sell albums," says Tim Newman, a director of commercials and music videos.

"There's quite a bit of evidence that videos sell albums," he says. "Duran Duran, Adam Ant, the Stray Cats... they've all had successes largely

credited to the video. When this thing with Randy [Newman, Tim's cousin] came along, I thought that maybe I could help him that way. Despite the fact that he's made a lot of albums over the years, there hadn't been one in four years. He was almost a new artist, or its equivalent, to most of the audience. Anyway, the album got great reviews, but sales were worse than anybody thought they would be. The video ["I Love L.A."] was quite talked about, MTV ran it in 'heavy rotation,' but it just didn't sell any records."

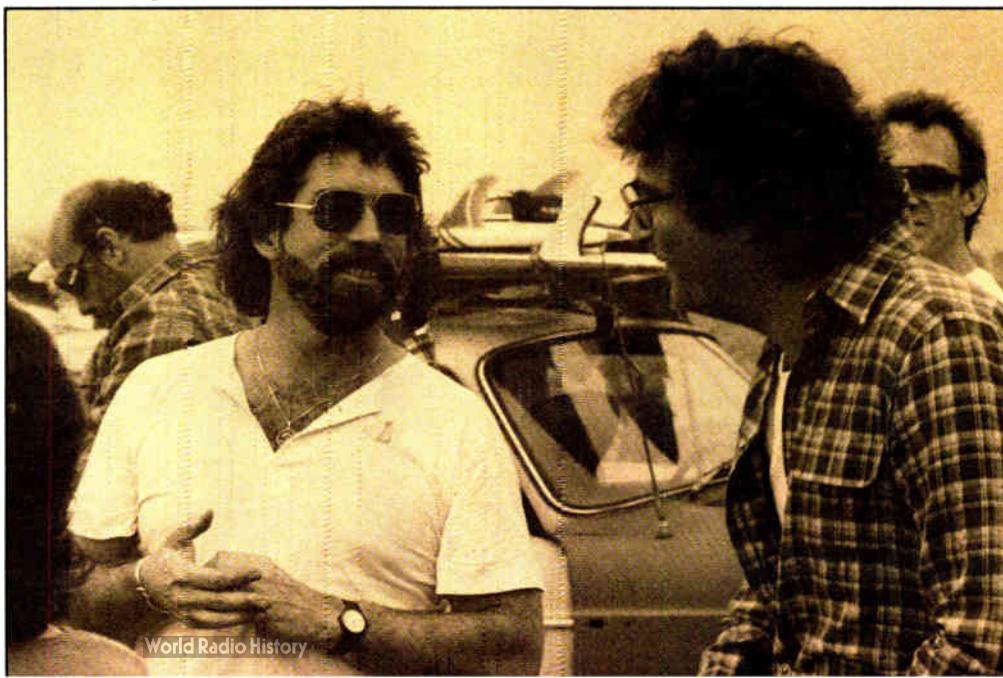
Despite disappointing record sales, "the video did a lot of good," Newman says. "Certain opportunities came my way by way of the exposure." The director of a couple of ZZ Top's best efforts, too, Newman considers music video a long-term investment because he hasn't yet made any money on the making of them. To make a video with a budget of \$20,000 to \$30,000, with the same production values as an \$80,000 commercial, "I beat the shit out of several friends." To do many more videos, says Newman, "I'll have to get a whole new set of friends."

There are corners to be cut

that Newman did not ever think of cutting, of course. But each corner has its price, in terms of quality that is directly related to marketability. For example, many of the lowest budget, down-and-dirty videos are shot on three-quarter inch, or even home half-inch tape. By definition, these are not going to air on MTV. Local cable is as far as they'll go, and a "marketing strategy" for a band that can only afford such exposure ought not to plan on it doing very much good.

Similarly, even a video shot on the current broadcast standard videotape system, one-inch Type C, has limited "legs," or continue playability. Yes, it can run on any TV distribution medium of the present, but it can't be used, (a) as a theater promo, as is common outside the U.S. and as might well become common again here—sages are now talking about music video spurring a rebirth of the short subject film; (b) digital component or analog component TV is perhaps five years down the road—that may sound like a while, but hopes are by that time music video may also have an established pay-off beyond hyping record sales. The only way to

Tim & Randy Newman



prepare for both of these eventualities is to shoot on 35mm film.

Most quick and easy, down and dirty videos employ a lot of trendy video effects straight out of the ADO, Quantel, etc. "What really caught your attention two years ago, you wouldn't look at twice today," warns video animator Kelly Ray. Using the easy, trendy machines to spiff up a plain concert video can easily make that video look even plainer—since there's every indication that computer animation will continue to advance in capabilities and fad fashion.

So, instead of glitzy effects, you shoot on location. And your budget is whatever you can get, most likely. "If you have good, strong images, you don't need effects," says producer-director Ed Steinberg. "It's like recording audio—if you get it right on one take, you don't want to mess around with it."

Steinberg says he "used to do a lot of video effects when I was shooting on video at much lower budgets," to jazz up an inadequate image. Now he shoots mostly on 35mm film, at budgets of \$18,000 to \$25,000. On a \$25,000 job, his production cost is typically \$24,000, more than half of that being for camera, film, and crew. "You know you can't just go out with a camera and tripod," he says. "You need dollies and grips and lighting directors, and good competent make-up people. These people are all professionals, and if they're not, it shows."

Steinberg has made upwards of 80 music videos (his company is Soft Focus Productions), including many at much lower budgets. But he says he doesn't want to do those quickies anymore—even though "I make more money on them, because people have such low expectations." Working faster and keeping more as profit has attraction, but not in comparison with pride in his work. Steinberg's classier videos include efforts such as "AEIOU" with Eban Ozen, Randy Frederick's "The Hunch" and Madonna. Sometimes the artists employ him directly; more often he is hired by EMI, Warners, or another label.

Those quickie videos are much less saleable now, anyway. Time was, Steinberg found himself arguing with the MTV folks that the public would get easily bored with straight concert tapes. MTV wanted them, he remembers. "And now they're finally doing what they said they've always done, which is run surveys to find out that kids don't really like that stuff. They're boring. You see one and you've seen it."

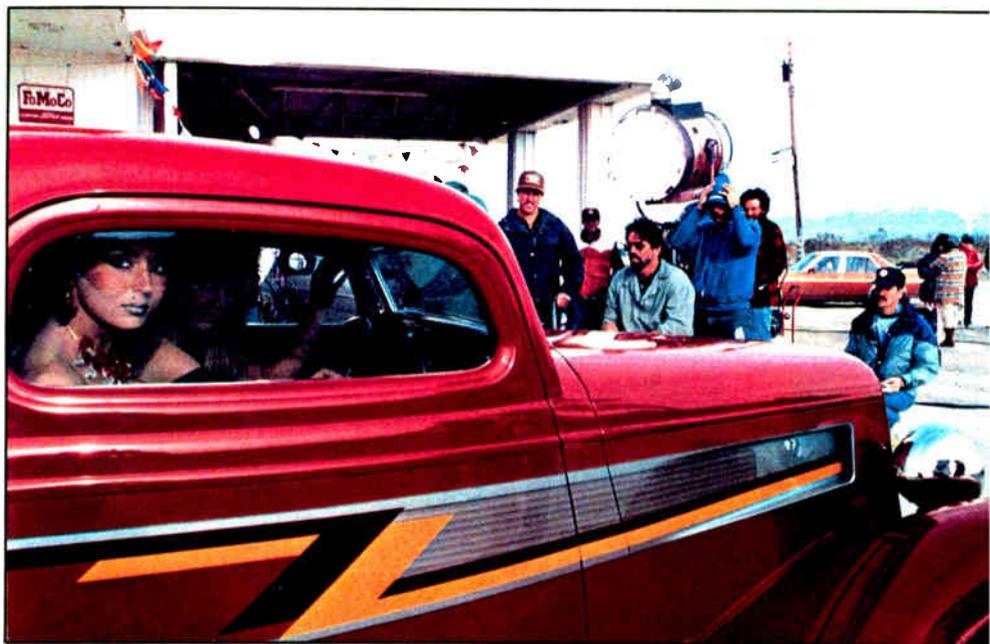
All right, we've been sounding pretty discouraging this time around. Maybe things can be livened up with a few tips on just how to stretch that low

budget to do a quality tape. For one, costing begins in the concept and scripting. Ideas that can be shot in easily accessible locations, in daylight not greatly affected by changeable weather—that's a real beginning which has worked for undercapitalized filmmakers since the beginning of Hollywood. Planning for strong visuals that don't have to be created in a studio is smart both budget-wise and aesthetically. Check out "I Love L.A." again: mostly daylight, no video effects—a result of production timed for L.A.'s air-clearing Santa Ana winds. This writer admits to certain partialities, not only to the film look, but to the Newman's effort as one of the very best videos ever.

But here comes more advice that Tim Newman might disagree with: go with Super 16mm film instead of 35,

this seemingly obvious concept is necessary. In music video, there are lots of guys with "experience" in the down and dirty. Newman, Giraldi, Steinberg—in fact every director of fairly classy music video product—speak of the end of this Phase One of the business. In other words, music video is slowly becoming a real business. Record companies may not be putting up high enough budgets to make real money on, but they are high enough budgets to put the old schlock stuff to shame. The guys who have had experience exclusively in schlock are not, shall we say, positioned well for the future.

If you are an artist or producer just getting into video, how will you be able to tell the experienced down and dirties from either the experienced or inexperienced up and comings? Well, up



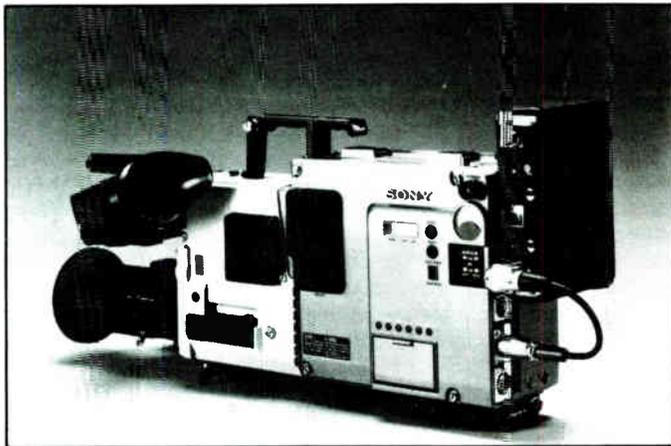
Tim Newman (under the light) directing the ZZ Top video.

if costs are critical. Shooting fine grain Super 16 (that is, shooting slow film with a lot of light) has served Robert Altman well on several films (among many other cost-conscious filmmakers). Transferred to video, it looks as good as 35mm (that is, better than original video), and it can look good on the Silver Screen if it's been in the hands of the right cinematographer.

The Right Stuff: as Ed Steinberg says, "You've got to use the pros." A full crew that knows what it's doing, and experienced cameramen and editors who are *more* than craftsmen (and women too) will save a production money in the not-so-very long run. Then you can go cheap on what your experienced people tell you can go cheap on.

Maybe a little elaboration of

and comings will most likely *not* herd you quickly before an industrial video camera and a U-matic recorder under three lights in an audio studio, to shoot a whole video in a few hours with no pre-production whatsoever. If a schlockmaster's promise of almost zero cost—say, a couple of hundred bucks—for this kind of service sounds too good to pass up, try asking yourself how much good your video will do you playing on cable or UHF at 2 a.m.? Most likely, fewer people will ever see your "cheap" waste of \$200 than read this column each month. But unlike a magazine's guarantee to advertisers that it is read by the "right" people, unless one goes to the right people to make a video, there's a virtual guarantee it will only be seen by the wrong people. ■



Sony Wireless Base Unit and Betacam Adapter

Sony Professional Audio Products has expanded its wireless microphone system with the addition of a portable base unit that accommodates six UHF diversity tuners and an adapter for the Sony Betacam camera/recorder.

The PB-36 Portable Base Unit constitutes a powerful six channel diversity tuner system when combined with WRR-37 type diversity tuners. It includes a built-in antenna divider and AC power supply. Tuner units can be plugged into the main frame for simplified handling and maintenance, and the PB-36 is capable of distributing two antenna outputs to each of the six tuners for diversity reception.

The WRR-27 portable UHF receiver weighs only 1 3/4 pounds including batteries. Included in the BTA-27 kit are an ENG leather case for the WRR-27, hardware for mounting the WRR-27 directly on the Betacam, camera connector cable and an antenna adapter to reorient the WRR-27's antenna position for the camera-mount application.

Circle #114 on Reader Service Card



Rank Amigo Telecine Programmer

The Rank-Cintel Amigo is the only available programming system able to control all the functions of the MK II flying-spot telecine, among which are variable speed, secondary color correction and X-Y Zoom. Its control panel is designed around nine "soft" keys, which can be re-assigned to different functions and re-labeled accordingly on the integral display screen. This allows for powerful editing on three levels, without the penalty of a complicated control layout. The disk-

based software can be adapted to suit individual requirements.

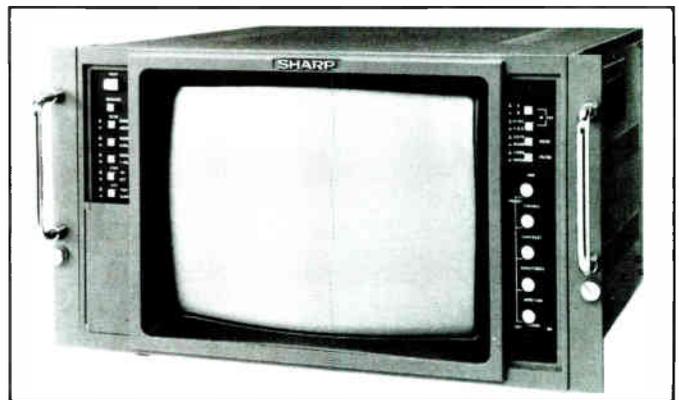
Also, RCA's Broadcast Systems Division and Rank Cintel Limited have announced that RCA plans to play a major role in marketing the revolutionary ADS 1 solid-state broadcast telecine manufactured by Rank Cintel.

The agreement gives RCA's Broadcast Systems Division non-exclusive rights to market NTSC, PAL and SECAM versions of the telecine world-wide as the RCA TKS 100. RCA will sell the unit through its sales representatives and will then provide warranty coverage, installation, servicing, spare parts and training. Rank Cintel will market the ADS 1 telecine through its own outlets world-wide, including Rank Precision Industries, Inc. in the USA.

The new telecine enables up to three film transports to be controlled by one electronics cubicle. Each mechanism is switchable between 16mm and 35mm operation and has its own control panel to allow independent operation as well as multiplexing. Another advantage for the broadcaster is an automatic dirt and scratch concealment system, which uses a fourth CCD sensor to detect the infra-red drop-out caused by blemishes on the film.

The telecine also features full monitoring facilities, continuously variable speed, automatic color correction and will convert wide-screen as well as normal film to the electronic medium for television.

Circle #115 on Reader Service Card



Sharp High Resolution Color Monitor

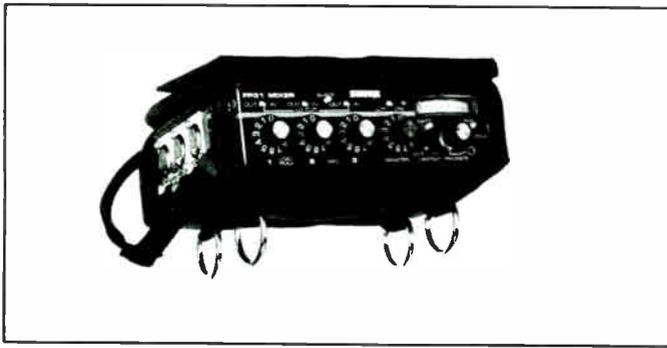
The new 13-inch rackmount professional color monitor, priced under \$3000, from Sharp Electronics provides a high resolution picture with accurate color reproduction for use in studio or EFP.

Sharp's new XM-1300 monitor with 0.31mm dot pitch offers more than 600 lines of resolution at center screen. Standard U.S. controlled phosphors assure accurate color reproduction and matching with other high quality studio monitors.

The monitor accepts two video inputs as well as direct RGB input from an analog-video source or TTL. Fast (0.5ms) or slow (7ms) AFC time constants are provided to permit optimal viewing of uncorrected VTR signals, in addition to signals with a stable time base.

Normal and underscanned picture modes are provided, as are H-delay and V-delay functions for a pulse cross display. An automatic/manual degauss circuit neutralizes the XM-1300 from the effects of magnetic fields.

Circle #116 on Reader Service Card



Shure Audio Mixer for Field Production

Shure Brothers has introduced the FP31, a compact, portable microphone mixer. The FP31 is specially designed for electronic newsgathering (ENG) and electronic field production (EFP) use, including film, video, and remote broadcast applications.

The mixer features 3 balanced line XLR inputs, a high quality VU meter, meter lamp switch, overload/limited (LED) indicator, low-cut filter switches, built-in slate microphone, limiter in/out switch, power switch, battery check switch, tone oscillator switch, and both 1/4" and mini stereo headphone outputs with level control.

The FP 31 offers phantom powering for condenser microphones, and the unit can be operated by 12 VDC external power or internally via three standard nine volt batteries.

Circle #117 on Reader Service Card



DeSisti HMI Softlights and Location Kits

DeSisti Lighting, with offices in Hoboken, NJ and in Italy, has unveiled a new line of lighting products for video and film, including 575/1200/2500 watt HMI softlights and location lighting kits. The softlights are complete with 120 or 220/240 volt ballasts and are available with 3200°K or 5600°K lamps. The lighting kits are available with 650, 1000 or 2000 watt instruments. A 1000 watt Minilight, with a thermoplastic back for cool touch operation, has also been introduced.

Circle #118 on Reader Service Card

BTX Softouch™ Brochure Available

The BTX Corporation, of Bedford, MA has released a new brochure describing their Softouch editing system for time code, synchronization and control of multiple ATRs, VTRs, and film transports. Included are operating features, specifications, and a configuration diagram.

Circle #119 on Reader Service Card

Sony BVH-2500 Delta Time VTR

The Sony BVH-2500 introduces a highly refined form of time lapse recording known as delta time VTR recording in addition to functioning as a standard VTR. This new technology provides variable recording speeds from normal to single-frame recording while still maintaining a standard type "C" format "footprint" on tape.

"The BVH-2500 will have immediate applications in computer graphics, video animation and videodisc mastering industries," according to Steve Sarafian, product manager for one-inch VTRs, Sony Broadcast Products Company. Still frame recording is sequential, requiring no pre-roll, no forward/backward motion or re-synchronization. A single 1 1/2-inch diameter reel of tape provides storage for up to 200,000 frames or, if required, 400,000 fields.

Circle #120 on Reader Service Card



Fuji H521 BR U-Matic Cassette

The 3/4-inch H521 BR videocassette from Fuji Photo Film U.S.A. features a low dropout rate, with dropouts measured at no more than 4 per minute and a boosted video and color S/N ratio up to +2 dB over its highly-acclaimed H521.

According to John Dale, Fuji vice president and general manager of the Magnetic Products Division, "Fuji is strongly committed to providing U-Matic users with a professional tape to satisfy their needs. We have worked on the two areas that are most important to them: dropout rate and S/N level, and we are giving them the absolute minimum rate that is now technically possible—less than 4 dropouts per minute." The tape is also extremely durable, and can be kept in the stop-motion mode for as long as 180 minutes.

Circle #121 on Reader Service Card

Monster Cable Interlink 2 and Video Adapters

Monster Cable offers a unique line of cable and connector accessories for home video systems: Interlink 2 and Monster video adapters. These products are ideal for use with video recorders, televisions, and computer monitors, and allow for extra flexibility of same-cable use with video as well as audio components.

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Circle #122 on Reader Service Card

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FOR SALE: MCI JH416-20 20x24 console. Also MCI JH114-16 w/ALII. Package price \$30,000. Call Jam Productions (214) 526-7080. Dallas, TX.

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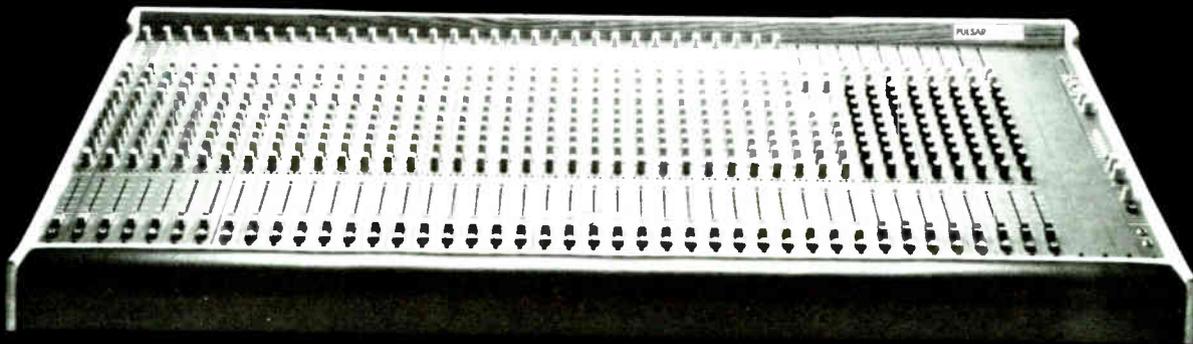
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NOW AVAILABLE WITH
5-BAND SWEEP EQ



80 SERIES SPECIFICATIONS & FEATURES

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Stereo 1/4" balanced line in
Line/mic switch
Phase reverse switch
High pass filter
EQ in/out switch
Mute switch
Variable gain (45 dB)
Two monitor sends
Two effects sends
Direct out (1/4")

Access in & out (1/4")

3 level 3 LED
Cue send
100 mm fader

EFFECTS

Two individual effects modules
5 band EQ dual peak reading meters (effects & monitors)
Access in/out on effects & monitors

Cue send

100 mm fader
Effects may be switched into the matrix
LED metering on effects & monitors

TALKBACK

Priority interrupt cue system
48 volt phantom power
Dual stereo headphone jacks
LED dual peak reading meter on cue

Extensive headphone monitoring

FEATURES

Totally modular - no point to point wiring
Active gain stages for low noise and extended dynamic range
5 band graphic or parametric EQ
Total patching through access in/out on all modules
Solid oak frame/steel sub-frame

Optional on board signal processing, such as comp-limiters, etc.

Frequency response 20 KHZ + or -.5dB
EIN 20 - 20 KHZ - 129 dBV
Distortion - less than .02%
Crosstalk - 74 dB (odd pairs)
Max. mic gain - 105 dB
Max. line gain - 74 dB
Max. output +26 dBV balanced
Max. output +18 dBV unbalanced

PULSAR LABORATORIES, INC. 3200 GILCHRIST RD. MOGADORE, OHIO 44260 216/784-8022

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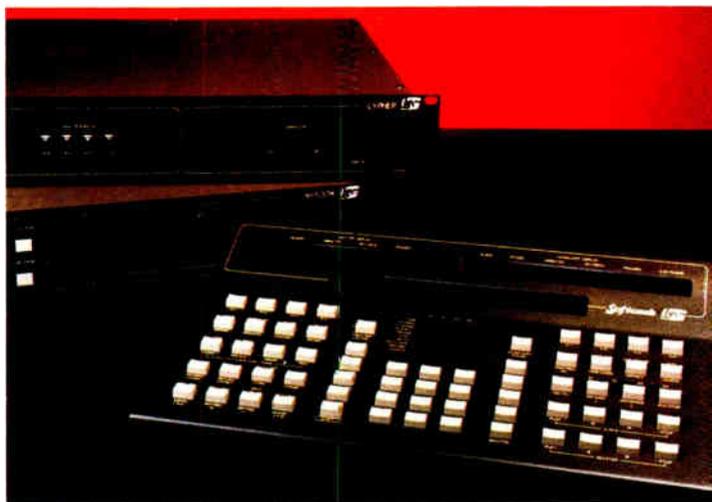
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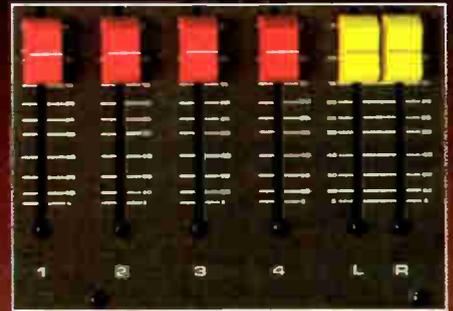
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Clear accurate VU's



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