INTERNATIONAL MUSICIAN

AND RECORDING WORLD ™

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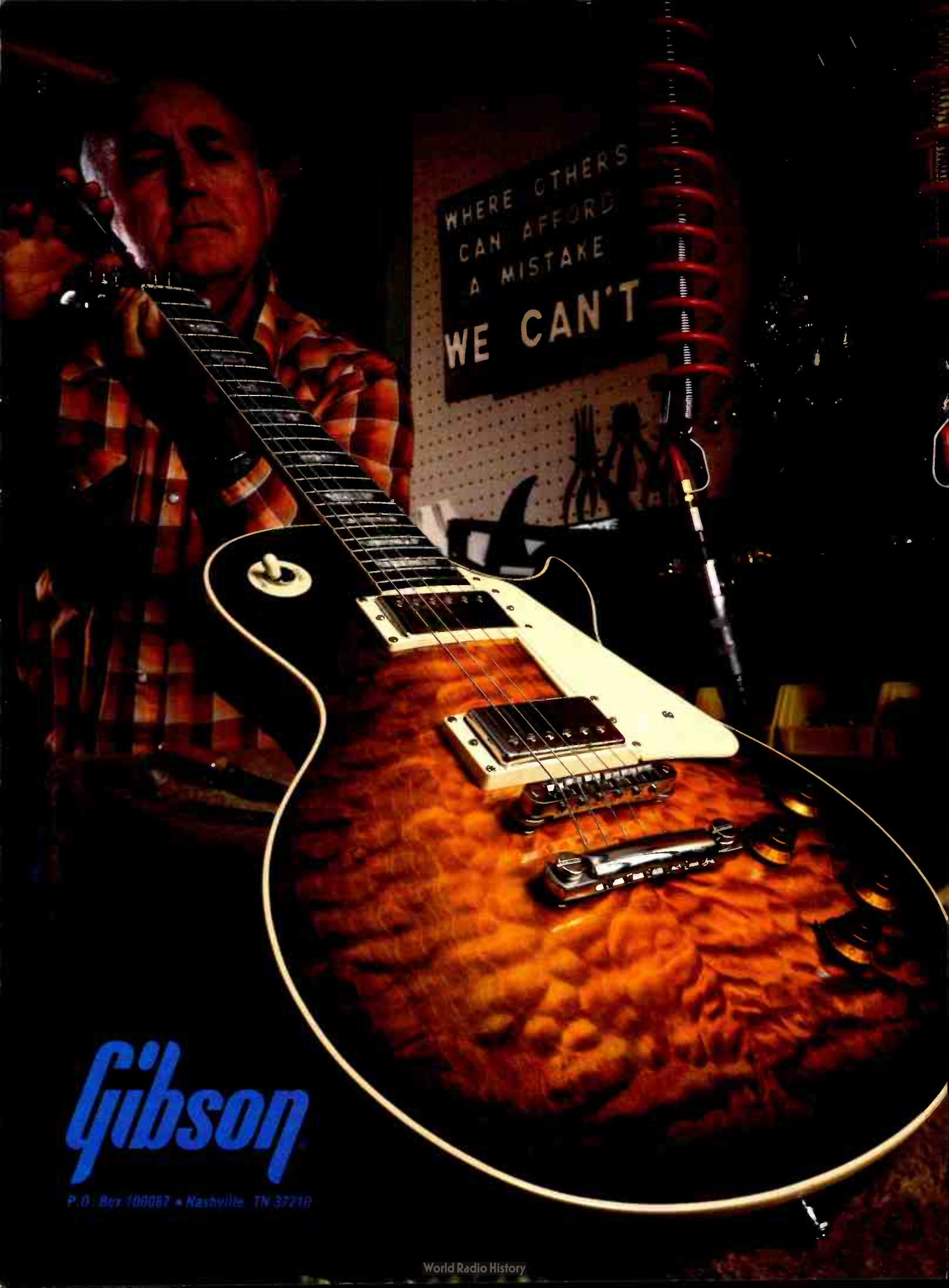
August 1981 $2.00 Canada $2.25

Guitar—HENDRIX · Brass—COLTRANE

TESTS... Adamas II Acoustic Electric Guitar □ Steinberger Bass
Kustom 88 Electronic Piano



Gibson

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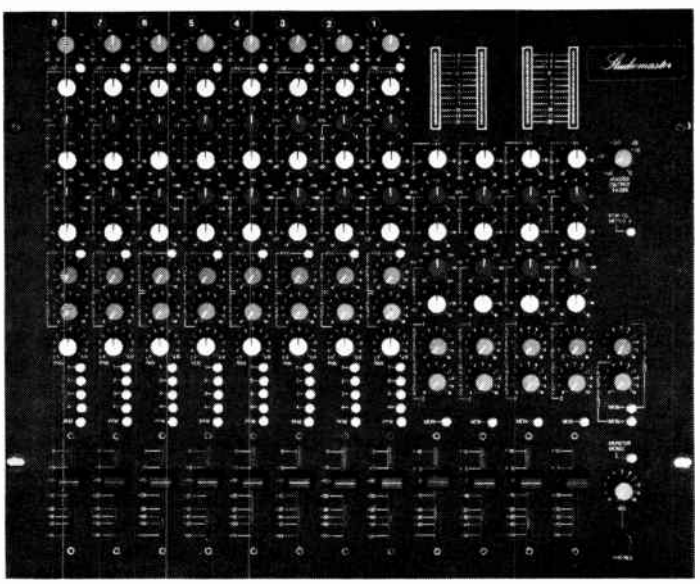
8 4 NEW! from Studiomaster

New from Studiomaster: a compact highly innovative mixing desk. The 8/4 is truly not "just another" mixer. What sets the 8/4 apart are the five most important things you must consider in purchasing a console.



1 ***Features/Benefits***

19" rack mount or free standing
8 inputs 4 discrete outs
Balanced and unbalanced inputs
Patch points on all inputs
Studiomaster's famous parametric EQ on inputs and outputs
Switchable RIAA E.Q. on channels 1 thru 4, line in on channels 5-8
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2 ***Applications (flexibility)***

Studio multi-track recording and remixing
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Monitor mixer

3 ***Specifications***

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4 ***Reliability***

State of the art components, modular construction and rugged packaging make the 8/4 ultra reliable.

5 ***Economics***

The price leaves the competition behind!

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PLEASE SEND ME ADDITIONAL INFORMATION ABOUT THE NEW 8 INTO 4 STUDIOMASTER MIXER.

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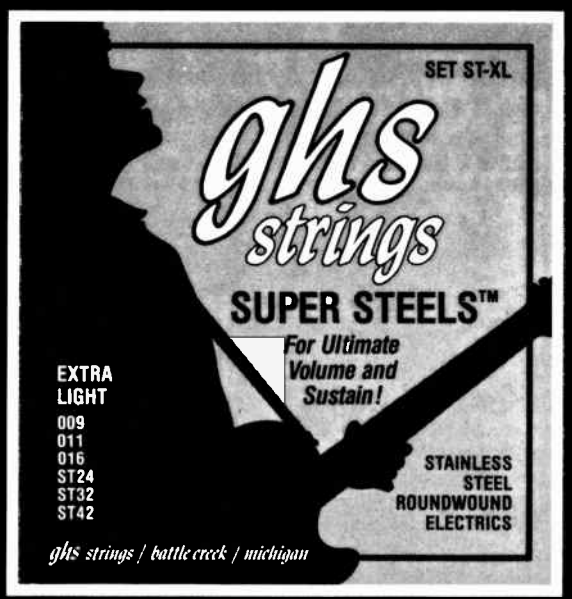
NEW

GHS Super Steels™

ELECTRIC GUITAR & BASS STRINGS



"They SCREAM SUSTAIN SCORCH STUN SIZZLE & SHOUT" (say it)

FOR GUITAR: If you're into high volume, brilliance, and screaming sustain, GHS Super Steels™ were created for you!

Not only do they give you incredible bite and power, but they hold their tone up to twice as long as other strings. They come in three different sets of rock gauges.

FOR BASS: GHS Super Steels™ are unsurpassed for brilliance and sustain, especially at high volumes.

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TECHNICAL INFO: GHS Super Steels™ are made of a special type of stainless steel, put together the GHS way. Write to us for more details on the GHS Difference.

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ghs strings
The String Specialists

Manufactured by GHS Corporation
2813 Wilber Ave., Battle Creek, MI 49015

INTERNATIONAL MUSICIAN AND RECORDING WORLD

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Contents

August 1981

Complete Advertisers List

The Complete Music Magazine

Following hard upon our editorial and graphic 'new look' initiative, the IM&RW Subscription Offer has been an outstanding success. Readers will be pleased to know that we have decided to extend this offer until August 20, 1981.

The Subscription Offer gives our readers the opportunity to purchase a year's subscription (12 issues) for only $18 including postage and packing. Enclose your $18 with the subscription coupon on p. 67 of this issue, and we will additionally send you a set of strings valued at $9.90, plus our unique Equipment Test Guide. Including postage, this means that for $18 you will receive a package worth nearly $40.

This edition of IM&RW also provides your opportunity to buy our distinctive T. shirts, sweat shirts and jackets. Until now these have been given out only to world famous musicians and to our own staff, but now our readers too will have the chance to wear them. Please turn to pages 78/79 for further details.

Talking of world famous musicians, enjoy our feature on John Coltrane this month, and we make no apologies for reviewing the Hendrix legend and examining the deep-rooted influence this great musician has on guitar styles '10 years on'. And turn to page 98 for the low-down on music and musicians way up in Canada.

Next month we will feature Debbie Harry on the front cover and include an exclusive interview with Carlos Santana. Meanwhile, thank you for all the letters and phone calls we have been receiving from all over America. It's good to hear we are providing what you need — a magazine for Musicians by Musicians.

Photo : David Redfern

When Baldwin set out to develop an electronic piano, they began with the belief that the basis for comparison should be the sound of a traditional acoustic piano. The Kustom 88 has a standard keyboard with the top 21 notes undampered, just as in a conventional piano.

The electronic tone generation system utilizes wave shaping technique in combination with inharmonic overtone additions. The resulting sound is colored with a full-bodied realism associated with a concert grand.

The keyboard action is dynamic in response, and features the timbre response of an acoustic keyboard. Plus, the Kustom 88 has a unique silver spring switching mechanism which is interfaced to the keying circuitry.

With these innovations, the Kustom 88 reacts to the pianist's touch; the harder the keys are struck, the louder the sound and the more harmonics which are produced. For the first time, there is an electronic piano which reproduces all the shadings and colorations of the musician's individual style.

KUSTOM88

The Kustom 88 is unaffected by changes in temperature and humidity, and can withstand the stress of time and handling. Digital CMOS circuitry gives the instrument locked interval tuning, so the relationship between the piano notes will stay constant. Consequently, the Kustom 88 never needs tuning.

If you've been looking for a durable, portable electronic piano capable of producing the subtle colorings and nuances of sound you expect from a conventional piano, listen to the Kustom 88. Your ears will tell you why we call it the "colorful electric."

THE COLORFUL ELECTRIC

KUSTOM88

KUSTOM/GRETSCH
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316-431-4380

16 4 2

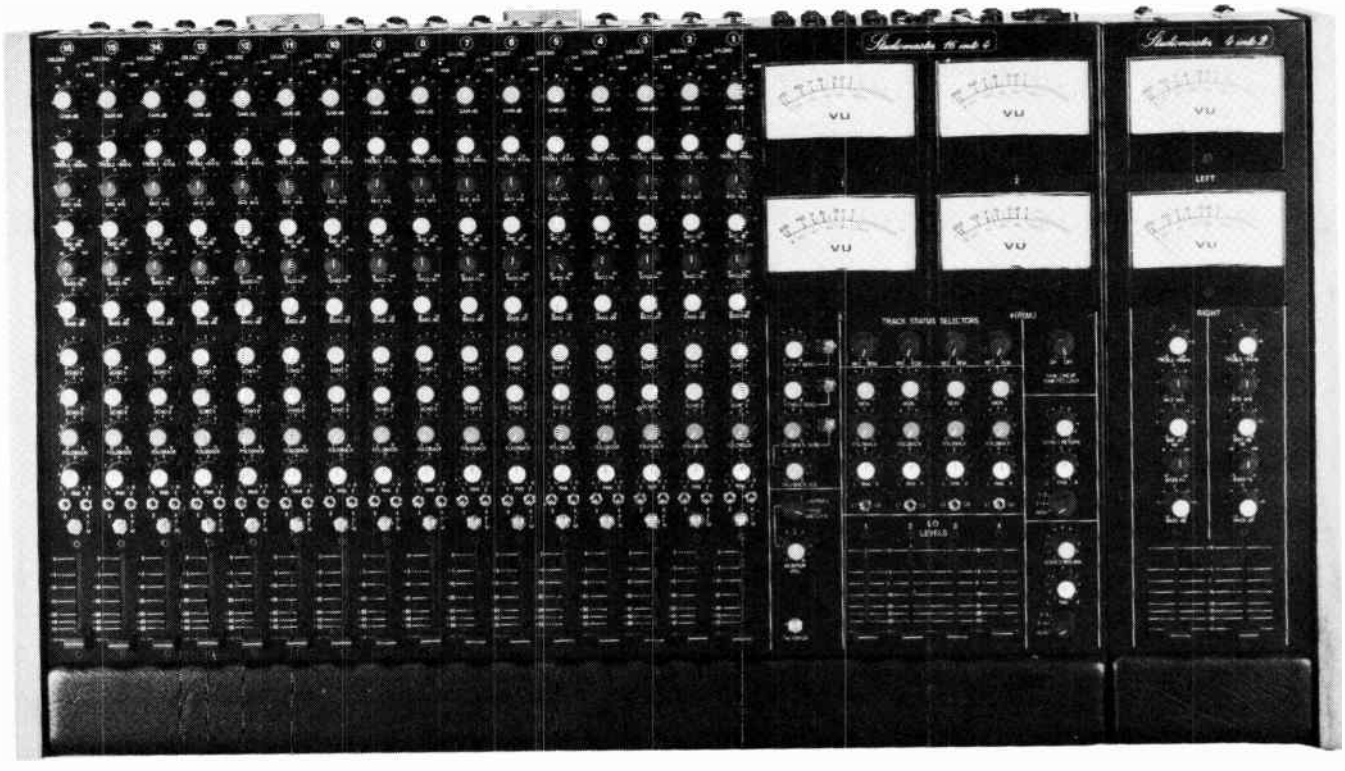
NEW! from Studiomaster

the 16 into 4 into 2 Board

In the past our 16 x 4 has been very popular with small recording studios, live sound companies and touring bands because of its expandability, unique EQ, features, functions and reliability.

Now a 16 x 4 with the new 4 into 2 becomes even more flexible than before. The 16 x 4 can now become even easier to use for live performances and for recording live *and* remixing later. Conversely, it is equally at home in a strict recording application due to its remix functions and multi-track and ping-pong abilities.

When you next consider purchasing a console for live and/or recording and you expect to go places, you really owe it to yourself to check out Studiomaster.



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New Products

Audio

SONY/PHILLIPS COMPACT DISC DIGITAL AUDIO SYSTEM
Sony and North American Phillips Corporation recently demonstrated prototypes of their revolutionary audio systems which combine digital technology and laser optics to reproduce the sonic realism of the concert hall. The disc-players and related software are due out on the American market in the Fall of 1982, and promise flat frequency response from 20-20,000 Hz, with signal to noise ratio, dynamic range and stereo channel separation in excess of 90dB! The disc itself has a diameter of 4.7 inches (metallized plastic encapsulated in a transparent plastic coating), is immune to wear and tear, and can contain 60 minutes of music per side.

Guitar

ALEMBIC, INC. DISTILLATE BASS
The Distillate Bass (and guitar) offer the same hardware and quality woodworking of the standard Alembic instruments, with new pickups and active electronics. The Distillate line will sell for one third less than the standard Alembics.

Pro-Sound

FOSTEX CORPORATION OF AMERICA MODEL 350 MIXER AND MODEL A-8 RECORDER
These two products are the top of the new Personal Multitrack line from Fostex. Designed by the same engineers who introduced the ½" 8-track format several years ago, the A-8 extends that concept further by fitting eight tracks onto ¼" tape at 15 ips. The A-8 was designed from the ground up as a multi-track machine, with three DC motors driving the IC logic-controlled, motion-sensing transport. Other features of the A-8 include digital tape counter with memory, remote punch in/punch out capability, pitch control, and built-in Dolby C™ noise reduction.

The Model 350 is the companion mixer to the A-8, with eight channels selectable for mic/line inputs. Each channel features an effects loop, parametric type EQ, and 50dB continuously variable trim control. The Model 350 has four Main and two Auxiliary output busses, four phono inputs, and two headphone output jacks for the stereo monitoring mix, and converts from recording to mix-down without repatching. The optional Model 3060 meter bridge has six VU meters.

QUAD EIGHT ELECTRONICS 248 CONSOLES
The 248 Modular Series Audio Consoles start with a basic frame which accepts building block input and output modules. Configurations from 8 to 32 inputs, with 2, 4 or 8 outputs and up to 4 auxiliary outputs for monitoring and effects sends, allowing the user to customize a 248 console for a particular application.

OTARI 5050BQ SERIES II FOUR CHANNEL TAPE RECORDER
The new 5050BQ Series II delivers four tracks on ¼" tape, with improved features such as microprocessor motion-sensing circuitry to govern the tape transport, peak reading LEDs on each channel, and selectable track headphone monitoring with automatic monitor switching. Like its predecessor, the 5050BQ offers 15" and 7½" tape speeds, plug-in head assembly, and built-in test and cue oscillator.

Drums

NORTH DRUMS
MTI reintroduces North Drums with Sonic-Curve shells for increased projection and volume. The North Drums hardware line is available for both North drums and conventional drums, along with a special marching harness.

REMO, INC. TIMPANELLO ROTOTOMS
Remo's new Timpanellos combine a standard Rototom with a rapid-tuning pitch pedal and a coppertone metal reflector. The four sizes (12", 14", 16", and 18") will produce definite pitch, tympani-like sound over a range from E below the bass clef through E above middle C.

Keyboards

DYNO MY PIANO, INC. STUDIO MODEL 4000
The Studio Model 4000 incorporates the full range of Dyno My modifications to the Fender Rhodes piano, including stereo outputs and modulation, chorusing, overdrive and EQ, as well as interfacing capabilities for connection with other instruments.

Speakers

JBL 2225H/J AND 2235H 15" LOW-FREQUENCY DRIVERS
The 2225H/J is designed for sound reinforcement applications in vented-box and horn-loaded enclosures. Both the 8 (–H) and 16 (–J) versions will handle 400 watts of continuous program power, with useable frequency response extending from 30 Hz to 2kHz. The 2235H is designed for use in custom studio monitors, and will handle 300 watts of continuous program power, with a frequency response of 20 Hz to 2kHz.

HERTZ LM-90
The Hertz LM-90 cone loaded exponential horn is specifically designed to provide smooth response and even coverage for the low-midrange bandwidth being capable of high power handling and low distortion. The LM-90 is built entirely by hand with a precision molded fiberglass horn mounted in a fiberglass wrapped cabinet and injected with acoustic damping foam. The LM-90 has an acoustic output of 127.5dB at 200 watts.

The DC200 Koa

. . . clean and warm with exceptional sustain

Sure the DC200 Koa is a good looking guitar, but it's the playability and sound that makes it even better.

- Body and neck of selected Hawaiian Koa wood for a warm sound with great sustain.
- Solid brass nut, bridge and tailpiece.
- Schaller M6mini machine heads with 14:1 ratio.
- Black ebony fingerboard with mother-of-pearl inlays.
- 24 nickel-silver frets are surfaced, crowned and polished to produce a precise feeling neck with perfect intonation.
- String height is less than 1/16" at 24th fret.
- Two super clean and powerful M22 humbuckers.
- Dual-to-single coil and phase switching.
- Stereo wiring (can also be used mono).
- Options: Maple wood with clear or black finish.
  Chrome or gold plating.
  Dot or block mother-of-pearl inlays.
- Smooth neck heel allows easy access to the 24th fret.
- Handmade at the Carvin facilities in California.

Smooth neck heel

The DC200
priced from $440 to $560
Hardshell case $60

Carvin guitars are sold direct from us on a ten day trial period. If the Carvin guitar you buy doesn't meet your high standards, we will give you a full refund, plus pay the return shipping.

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Carvin

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Letters

Dear Sir,
Having bought your magazine for some time I was interested in your coverage of the world's greatest guitar players.

Very surprised to see only a little tiny photo of Jimmy Page alongside Clapton and Beck. Now, I like Lester Bangs and his writing, which has a great sense of humor, but common sense (and I'm sure most people would agree) and my ears tell me that, except for maybe Keith Richards and Jimi Hendrix, Jimmy Page is far and above the best and probably better than all the other seven guitarists mentioned put together. I am quite serious so if you would please pass the word on to Lester Bangs I will continue to buy otherwise excellent magazine.
Yours sincerely,

David Michas
Waterloo, Vancouver

Dear Sirs,
As a professional bassist and reader of your magazine I find you seem to be lacking in any real in-depth articles concerning today's contemporary bassists, electric and string. These major players have so many valuable insights into soloing-achievement and mastery of technique; the many different paths a bass player can take to find freedom on his instrument. I don't have to tell you the leaps that the instrument has taken, and of course the information is there, but I think more direct stuff from these major sources would be very enlightening. I've listed some of the guys who show up on occasion or not at all in the major magazines. There are of course more, but these few will make the point:
Alphonse Johnson, Will Lee, Eberhard Weber, Bunny Brunel, Jaco Pastorius, Stanley Clarke, Jeff Berlin, Ron McClure, Abraham Laboriel, Anthony Jackson, Pops Powell, Miroslav Vitous, Byron Miller, John Heard, Marc Johnson, Brian Torff, John Lee, Fernando Saunders, Olsted Pederson, Sirone, Steve Swallow, Eddie Gomez, Neil Jason, Rufus Reid, Ralph Armstrong, Chuck Domanico, Tony Dumms, David Friesen, Gary Peacock.

I hope you can find the sincerity in my suggestions. I truly love the instrument and I'm only interested in my growth and other musicians looking more to understand about the subject.

Thank you,
Sal Derattele

Photo : London Features

Dear Chip Stern,
Thank you for your reply. I must tell you that I am extremely grateful for the time and effort you spent to send me the Mike Oldfield article, and also the March issue of your magazine.

Your article on Chic was truly a coup de maître. David Fricke's article on Michael Schenker was also much appreciated.

Thank you also for telling me that your magazine is available at Sam Ash. I would rather travel the short distance to buy International Musician than subscribe. I am rather fastidious about the condition of my magazines and unfortunately the postman isn't. He could make my life so much easier...

I promise to write to you my praise, as you earn it.
Your friend respectively,

Laura Wrich
Floral Park, NY

PS: Do you plan to do any articles on Alvin Lee, Al Stewart or Pink Floyd in the future?

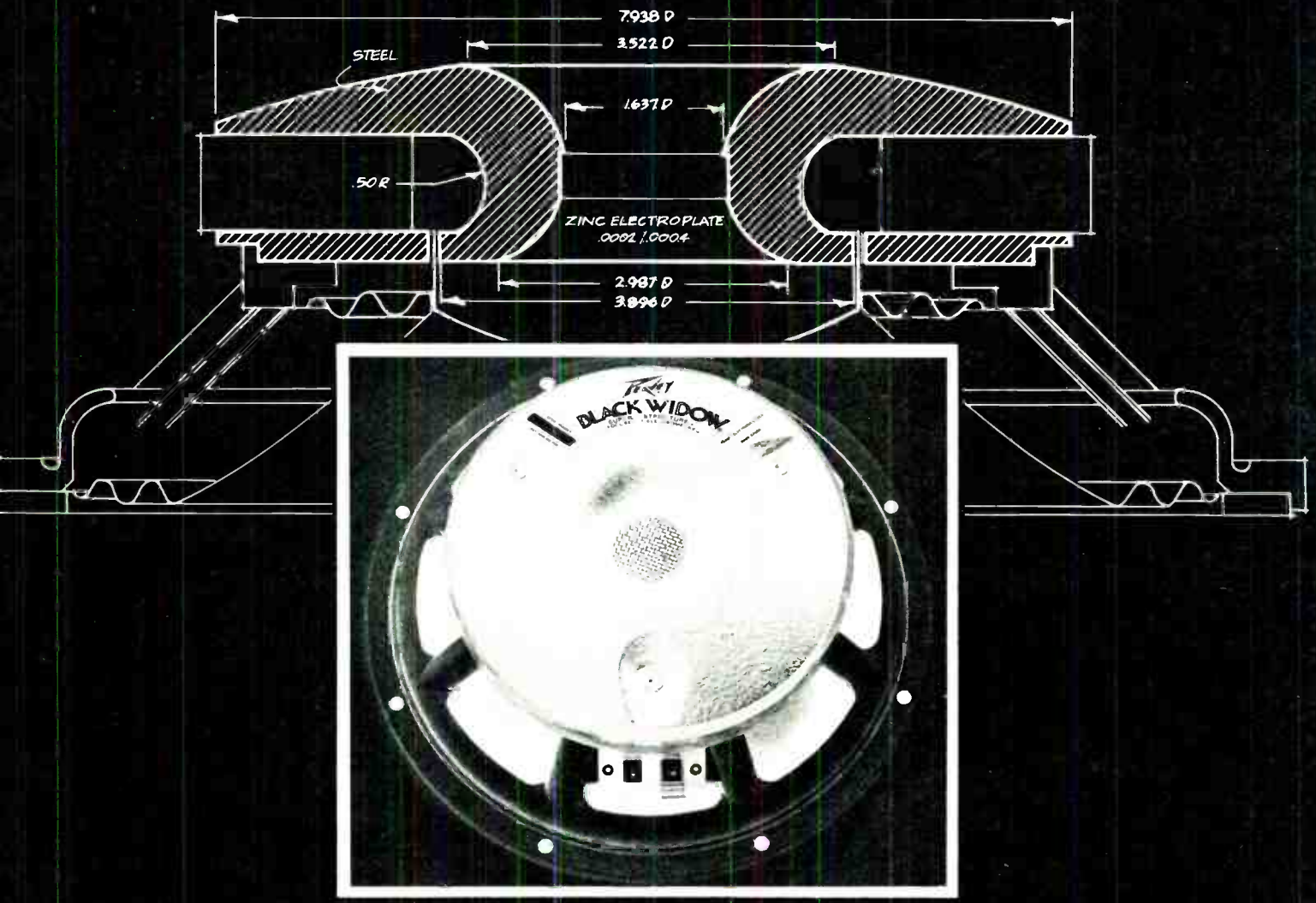
Dear Sir,
I am writing in response to Lester Bangs' article "Rock's Top Ten Guitarists — Another View". "Another View" is an inappropriate description; perhaps "distorted view" would be better. While I grant that all the guitarists are great, Jimi Hendrix should not be seventh. Have you only heard two of his albums? You don't have to ask "What if he'd lived?", because the music he made was sufficient to make it clear that he was/is the greatest guitar player ever. If Hendrix's version of "All Along the Watchtower" is so bad, why did Dylan re-record it later so that it sounded more like Hendrix's version? If you do not think Hendrix's lyrics were good, you are ignorant of both Hendrix's life and the meaning of his words. Listen to "Belly Button Window", "Castle Made of Sand", "Ezy Rider", "Highway Chile", "If 6 was 9", "Machine Gun", "Remember", to name a few, but especially "House Burning Down" if you want great, meaningful lyrics. Have you heard *Band of Gypsies, Rainbow Bridge, Cry of Love* or *War Heroes*? These have lots of fire power unlike any other guitar player. These albums contain more feel, more funk, more virtuoso guitar playing, greater lyrics, and more pouring of himself than any other artist ever. His first album was great, but if you understand Hendrix, you'd know that it is one of his *worst* not *best*.

He pushed the guitar into limits that no one has ever been able to duplicate. Most great guitarists say Hendrix was the best, and they admit that they cannot play his music. His use of wah-wah pedal, and feed back have never been surpassed. Also any blues artist would not say "Red House" especially the live version from The Isle of Wight, was overrated. Hendrix was responsible for the styles of most rock-blues guitar players. I suggest you listen, really listen to Hendrix.

Sincerely,
David Wall

It's good to hear all your comments about the Hendrix legend. You should be delighted with our cover illustration of the great man so read on for the full story from Chris Doering

PEAVEY ADVANCES TRANSDUCER TECHNOLOGY. AGAIN.



THE BLACK WIDOW® SUPER STRUCTURE™

Our Black Widow® loudspeaker program was initially conceived because we felt there was substantial room for improvement in the design and construction of premium grade loudspeakers. Since the loudspeaker is the last and typically the weakest link in the audio chain, any improvement, no matter how small, will significantly upgrade the overall performance of any system.

We developed many new design innovations (i.e., one-piece coil form/dome assembly and field replaceable basket assembly) that have helped to make the Black Widow® the choice of engineers and performers the world over.

Our ongoing research has recently developed a more sophisticated product featuring what we consider to be superlative performance! The Black Widow® now features our unique Super Structure™ magnetic assembly — a totally new concept in the optimization of magnet structure design. The development of FFG™ (Focused Field Geometry) allows for the most efficient use of magnetic energy and increases the already high efficiency of the Black Widow® by at least 2 dB, in a way that totally offsets the cost of the much larger magnet.

The Black Widow®/Super Structure™ is the most technologically advanced cone type transducer available.

PEAVEY ELECTRONICS CORP
711 A Street/Meridian, MS 39301

RECORD BUYERS' GUIDE

Photo : London Features

THE JAM
Sounds Affects
(Polydor PD-1-6315)
A strong, resonant 3-piece sound that recalls the Mersey pop of yesteryear. Therein lies the rub, because as much as I enjoy these 60s readymades, an hour later I'm hungry. Best song, "That's Entertainment."
Chip Stern

THE GAP BAND
The Gap Band III
(Mercury SRM 1-4003)
The three Wilson brothers — with a cast of thousands — cop from all the right sources. "Nothing Comes to Sleepers" is filtered Earth, Wind and Fire, "Humpin' " and "Gash Gash Gash" unprocessed P-Funk. Musical chameleons are nice pets, but I'll take my loose boogie and tight harmonies straight, thanks.
Chris Doering

MIKE NOCK
Succubus
(Sutra SUS 1005)
Serene, assured jazz that makes brilliant use of acoustic piano in tandem with the Rhodes and synthesizer, stripping away the most egregious cliches inherent in jazz-rock, arriving at a core of communication that is deceptively calm.
Chip Stern

STEVE LACY
Capers
(Hat Hut 2R14)
Available from New Music Distribution Service, 500 Broadway, New York, NY 10012.
This double album was recorded live at Soundscape in Manhattan, and makes an excellent introduction to Steve Lacy's music, since it has him playing both melodies and all the things you're not supposed to do on a soprano saxophone. Pedal tones, squeaks, squeals, groans and gronks, you name it, this man can make music out of it. Dennis Charles and Ronnie Boykins follow his erratic flight patterns perfectly on drums and bass.
Chris Doering

VAN HALEN
Fair Warning
(Warner Brothers HS 3540)
David Lee Roth's hyper-metabolic yowling notwithstanding, this is about as powerful and vital an album of metal music as you'll ever hear. A lot of guitarists use the increased velocity and raunch of overdrive electric guitar to cover up technical flaws or amplify pretensions, but Eddie Van Halen has an astonishing imagination and has almost single-handedly re-defined the space in between a Ted Nugent and a Jimi Hendrix. Listen to his storm warning and shower of harmonics that opens "Mean Street" and you'll get the idea.
Chip Stern

ROBERT FRIPP
Let the Power Fall
(EGS 110)
To quote Eric Dolphy, "When you hear music, after it's over, it's gone, in the air. You can never capture it again." This may explain why this album of Frippertronics appears without Fripp's solos, but it doesn't make me miss them less. The two-tape recorder's technology is a bit old hat in the age of digital, but makes for an interesting musical process — riffs appear and slowly fade away, creating shifting layers of slow-moving harmonic textures. Without the solos, however, the record will remain forever in the minimalist background genre, of which a little goes a long way. **Chris Doering**

RANDY CRAWFORD
Secret Combination
(Warner Bros. BSK 3541)
Randy Crawford's voice is a great instrument — I love the abandon with which she attacks her high notes, and she's the only singer I've heard who can use that machine-gun vibrato successfully. I just wish they'd give her something besides ballads to sing once in a while. The Detroit shuffle of the title tune is effective, but the record just keeps laying back until it falls over.
Mary Ellen Pedersen

CAMEO
Knights of the Sound Table
(Chocolate City CCLP 2019)
A cacophonous compilation of classic cliches, created by corporate con-men chasing the latest commercial concept. I'd give it a C.
Chris Doering

TETE MONTOLIU TRIO
I Wanna Talk About You
(SteepleChase SCS 1137)
This music is at once crystalline and monolithic, like the diamond as big as the Ritz. The Catalan bebop pianist works his way through a batch of originals and standards, with able support from George Mraz and Al Foster. You may not get the point of his stories right away, but the manner of the telling is pleasure enough.
Chris Doering

URUBAMBA
Urubamba
(Warner Brothers BSK 3553)
Remember Simon and Garfunkle's "El Condor Pasa"? How about the version of "Duncan" on *Live Rhymin'*? Urubamba is the Peruvian ensemble which gave those tracks their characteristic sound and mournful/happy felling. Now eight years after it was recorded, we have an album of Urubamba's recreation of Inca music, which you'll love, if you liked the aforementioned cuts. Why the wait? Beats me.
Chris Doering

BILL DIXON
Bill Dixon In Italy
(Soul Note SN 1008)
Somber, stately lyricism that draws as much power from the overtone series as the fundamental notes. Whereas Don Cherry opted for Miles Davis' skittering slang, Dixon seems to have drawn most heavily on the Prince of Darkness' predilection for long notes, odd sustained chromatic movement, and a rich middle and lower register tone; both trumpeters have created a style out of avoiding all the strong resolution points and playing off the beat, but while Cherry often sounds like a born-again griot, Dixon is a master orchestrator, contrasting geometric mirror-images with pools of darkness and light. This is a higher order of collective improvisation and composition.
Chip Stern

DAVID SANBORN
Voyeur
(Warner Bros BSK 3546)
Like the album title, the alto saxophonist at times seems like an outsider looking in on something titilating. Still, he sounds light years more involved than on his last album, and the funkiness of his surroundings is finally catching up with the devotional rapture of his horn. Add to said equation the usual group of suspects (Steve Gadd, Marcus Miller, Ralph MacDonald), find a girl, and commence necking.
Chip Stern

Virginia's

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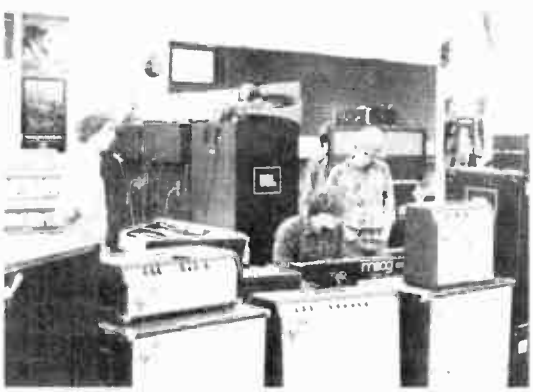

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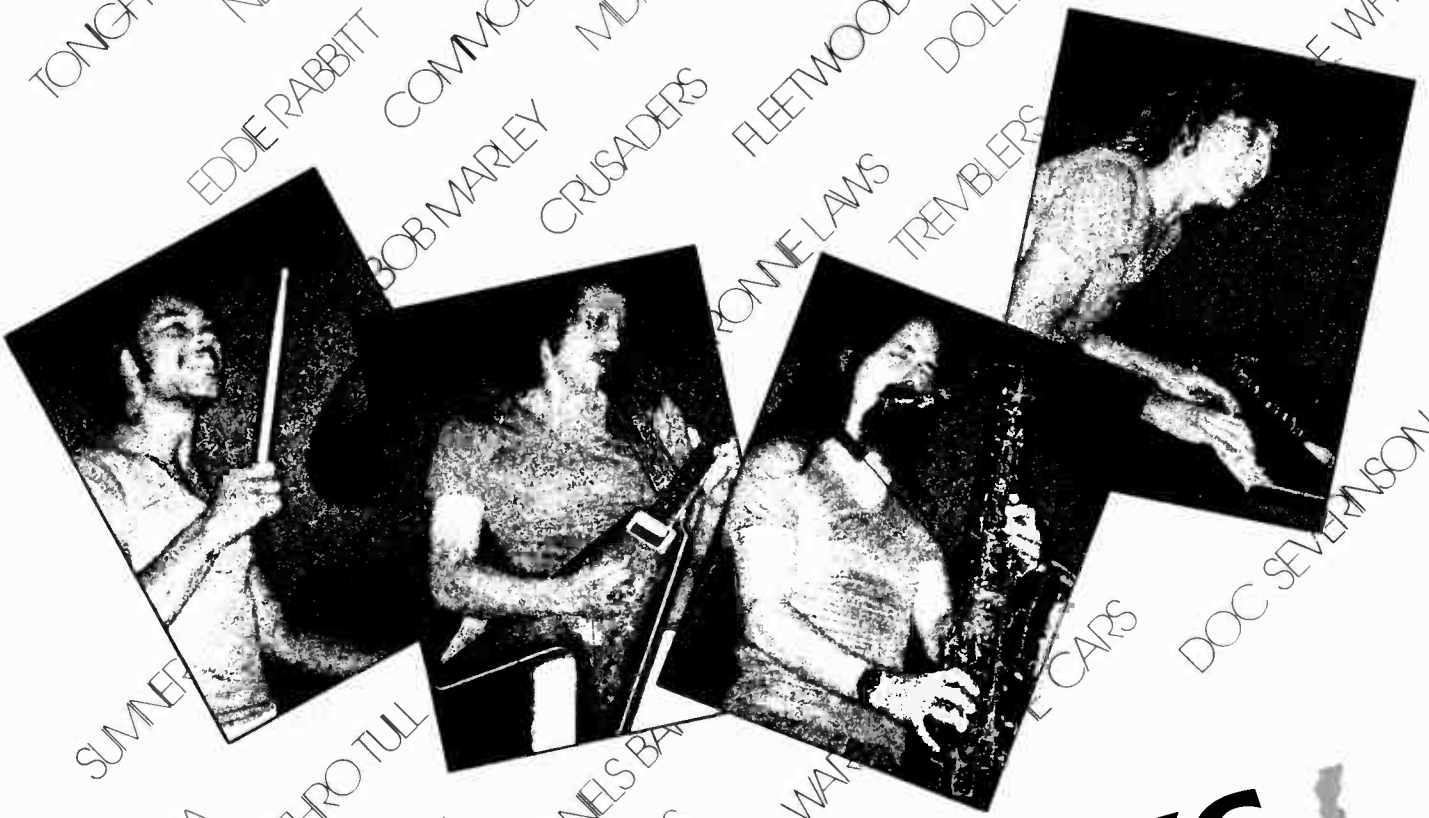

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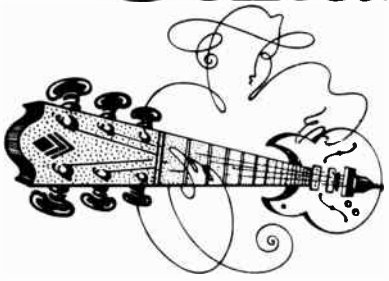

JIMI HENDRIX

Photo : London Features

"When I go home and play records, I play Hendrix and Coltrane. I like to hear that because it makes me feel a little bit more human. That kind of playing, it's *right.*"
Nile Rodgers of Chic

"Human beings die too easily."
Jimi Hendrix

The story of James Marshall Hendrix will never be told, because nobody knows it. It's impossible to find the traces of a living person in the published remembrances of the players who worked or jammed with him, and the girls who slept with him, as if those who shared his time and space were unable or unwilling to look inside that divine/demonic image and, by recognizing him, allow the man who *had* to live there a moment's freedom. After all, who would *you* rather hang out with; Jimi Hendrix, coolest human on earth, Voodoo Child incarnate, or a very confused young black man from Seattle who played bass guitar? And who would you rather tell stories about?

Perhaps that's the way it should be — the life of the image is larger and longer than that of the man around whom it crystallized. The story of the man is lost, and the stories of the image lose a little interest every time they're retold. But the music remains, nourishing and sustaining those of us who, along with Nile Rodgers, like to feel a little bit more human sometimes. The music has its own stories to tell, and unlike the image it hasn't lost its power.

Jimi Hendrix seemed to come out of nowhere in the fall of '67, but he came out of the blues tradition that leads from Robert Johnson to Charlie Christian, and the R&B that he played for Little Richard, the Isley Brothers and Curtis Knight. His stage act was an extension of Chuck Berry's duck walks and Little Richard's piano-top hysterics, but it was revolutionary because it made the sexual and aggressive drives of rock 'n roll explicit for the first time. Elvis Presley's hip wiggles were just coy and bowlderized compared to Hendrix's super-stud Staggerlee stage persona. The costumes he wore, the things he did to and with his guitar, articulated the animal impulses we tame in order to deal with each other in a social way. He showed a generation what it took to descend into the maelstrom of adolescent fantasies and walk away whole — for a while, anyway.

Instrumentally, Hendrix was the first to really unleash the awesome power of the Marshall stack. His rhythm playing, on which most of his songs are built, comes out of the R&B tradition he'd absorbed on the chitlin' circuit. There were plenty of players around at that time who knew how to play a ninth chord, or how to embellish the basic barred E formation with little-finger hammer-ons and pull-offs. These licks were originally designed to lay under the horn section and fatten up the sound while goosing the rhythm with little sixteenth-note kicks. When amplified louder than Little Richard's whole band, they took on a whole different meaning and made the horn section superfluous. On tunes like "Fire" or "Little Wing" the guitar sounds familiar and strange at once — it's a sound that had been heard subliminally in the background of R&B until Hendrix brought it to the front of the music.

But Hendrix's innovations encompassed much more than extraordinary volume levels, or the unique tone his upside-down Strat produced through the walls of Marshalls. As early as the "Manic Depression" solo you can actually hear him making music out of the garbage noise of Stratocaster electronics and an amp overdriven beyond all limits.

While his contemporaries — Clapton, Page, Beck — were trying to control that terrifying volume and get a pure sustained tone without all the hums, whistles and screams, Hendrix embraced that sonic crud as a primal substance that could be shaped and played with the aid of his tremolo bar, pickup switch, tone and volume controls, and whatever else he could reach. "Manic Depression" and "I

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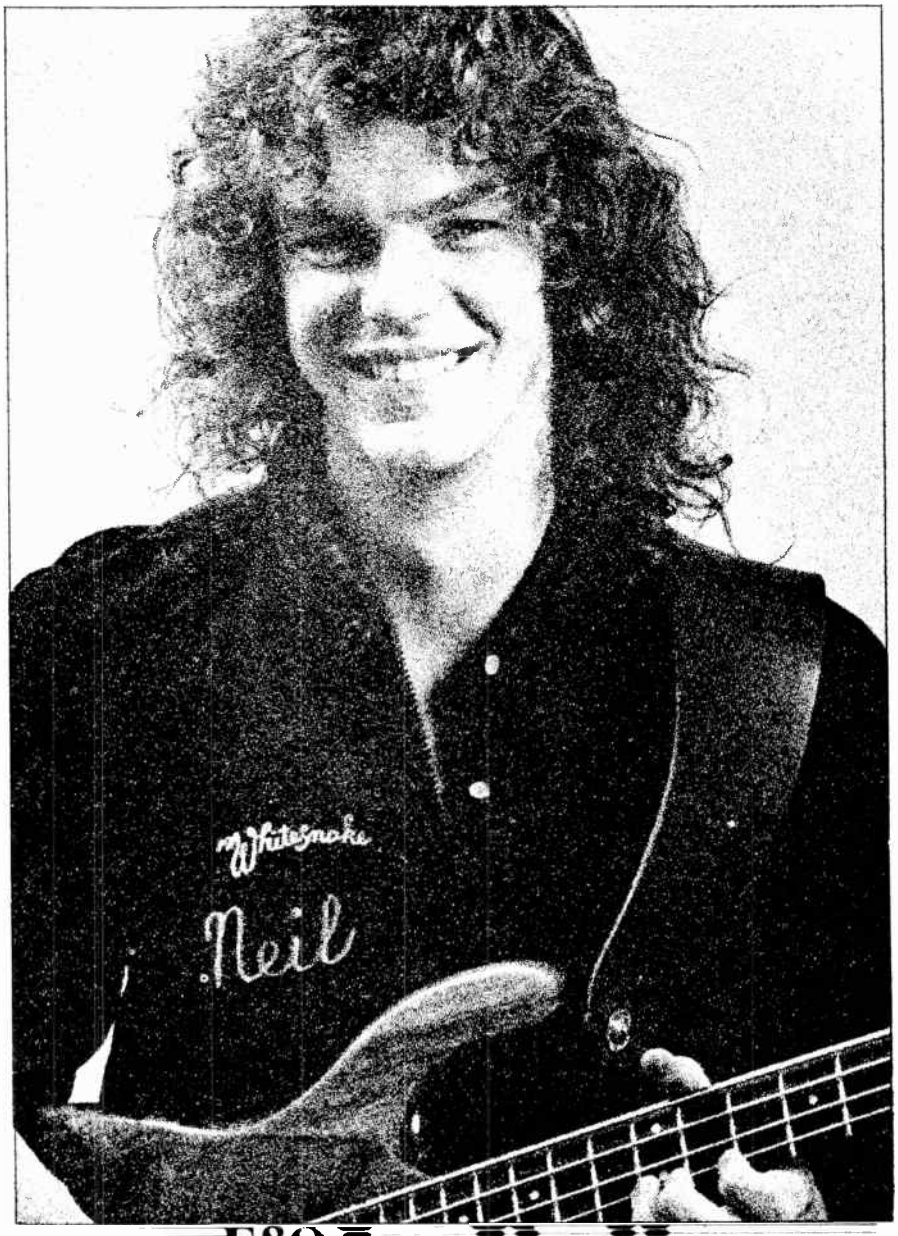
LA BELLA'S MUSICIAN of NOTE

Photo by Nancy Fischer



NEIL MURRAY

Born: August 27, 1950 in Edinburgh, Scotland.

Home: Hampstead, London, U.K.

Profession: Bass-Guitarist with the British Rock Band *Whitesnake*, which features Jon Lord, Ian Paice and David Coverdale of *Deep Purple*.

Earliest Musical Experience: Piano lessons from age 8 to 13, trombone lessons from 14 to 17, played drums from 12 to 18 in school rock bands, then took up bass while studying graphic design at college.

Major Influences: Jack Bruce, Tim Bogert, Clive Chaman, Jaco Pastorius, David Sancious, and Francis Rocco Prestia.

Latest Musical Accomplishment: Tours in U.S.A. and Europe, playing to a total of 500,000 people; latest *Whitesnake* album *Live In The Heart Of The City* and forthcoming *Whitesnake* album due out next April.

Keynotes: Played with various obscure British bands containing musicians like Allan Holdsworth, Cozy Powell, Bill Bruford, Jon Hiseman, Gary Moore, etc. But, not all at the same time! Still hunting for the perfect rock bass sound.

Today's Music: There's a huge variety of music to be found and there's no reason why it should all be played by virtuosos, as long as it's played with feeling. Musicians should try to be less narrow minded and competitive—technical ability does not always equal good music. I would like to see more originality and less copying of whatever's successful at the time.

On Strings: Though I've sometimes had difficulty finding them, I've always thought *La Bella* were the loudest, most long-lasting strings, with the best sound, and I've always recommended them to other bassists. I use medium-gauge *Quarterwounds* on my *Kramer, Aria* and *Ibanez* basses, and light gauge *Flatwounds* on my customized *Precision*. They're very lively and easy to play and they last much longer than any other brand of string. I'd rather pay for *La Bellas* than have any other strings given to me!

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JIMI HENDRIX

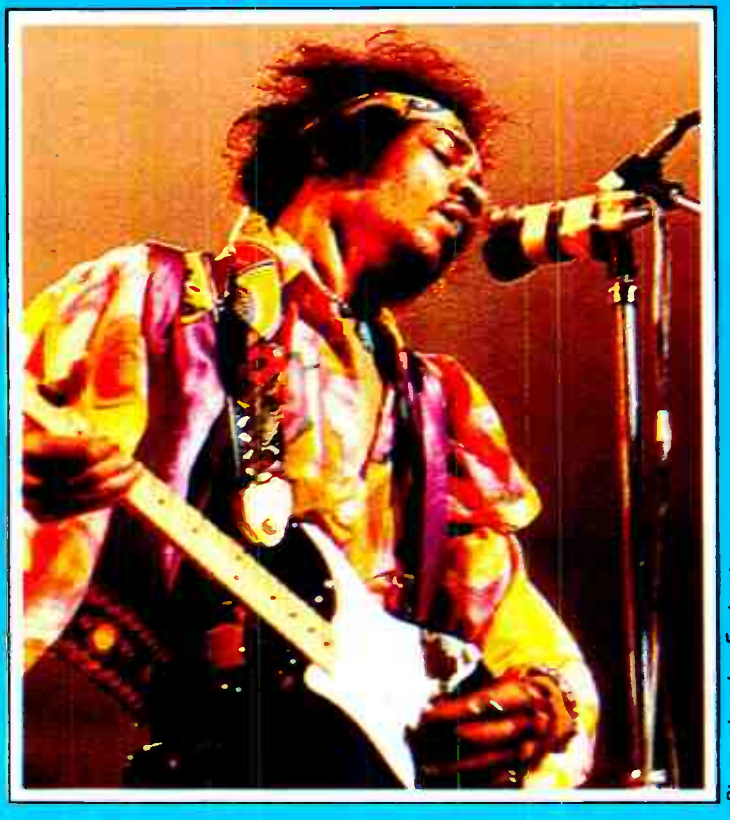

Photo: London Features

Don't Live Today" are the first songs that really articulate the revolutionary contribution of the Experience to the rock vocabulary, encompassing Noel Redding's power-riffing bass (the familiar point of reference in the dream-scape), Mitch Mitchell's obsession with the free-floating triplet pulse developed by Elvin Jones, and Jimi's incandescent free-form explorations.

The difference between the drum styles of Mitchell and Ginger Baker defined a good deal of the Experience sound. Baker's sixteenth-note chug was the power behind Cream's locomotive, while Mitchell's not-quite-polyrhythmic pulse floated the Experience balloon on clouds of cymbal gas. Redding and Mitchell never managed to suspend time the way Elvin and McCoy Tyner did for John Coltrane, but they created a similar kind of space, setting Hendrix free from the constantly kinetic riffing that became Clapton's style.

While his guitar was going totally berserk, giving everyone a preview of the trumpets of Doomsday, Jimi's dreamy talk-sing voice drifted in and out of the mix. The words really didn't matter — just hearing that rodding-out-cool tone in the middle of "Third Stone From the Sun" was like meeting Don Juan in Hell, dressed in an immaculate white suit and holding out a brandy and soda. Like Dylan, from whom he drew lyrical inspiration, Jimi devised a way around the bombastic R&B vocal style of his early employers, and turned the limitations of his singing voice into assets.

Are You Experienced?, like most maiden voyages has a special quality that sets it apart from the records that followed. *Axis. Bold As Love* shows the loss of spontaneity, layered guitars and studio effects replacing the pure energy blast of the first album. The studio version of 'Spanish Castle Magic" never escapes the confines of one-chord blues, and although it's fatter-sounding than 'Foxy Lady", it's also more cynical. But the live performances were something else. Mitchell was hitting everything in sight in a vain attempt to hear himself over the roar of seven Marshalls and about a hundred 12" speakers, while Redding's melodic bass lines defined a tonal center for Hendrix to stretch and then abandon, so he didn't have to define the roots of the chords.

Redding and Mitchell were never considered a jazz rhythm section, and Hendrix can't be considered a jazz guitarist, if only because he skipped the schooling and discipline of the swing and bop eras, going directly from the major triads and pentatonic riffs of blues and R&B to free-form, "out" playing. Nile Rodgers calls Jimi "the perfect horizontal player. No matter what tonality the music went to, Hendrix could hear it without overly defining that one tonal center. He can hear *through* the changes. He doesn't define every one, he defines the whole song.'

He could also obliterate all tonal centers with glissading buzz saw feedback, tortured guitar noise, and screaming speakers — all the things you're not supposed to do with a guitar. At the same time a number of saxophone players — Jr. Walker with Motown, John Gilmore with Sun Ra, Ornette Coleman and John Coltrane with themselves — were exploring all the things you're not supposed to do with a sax. Horn players are taught to get rid of those squeaks and squawks and to produce a "pure" tone without

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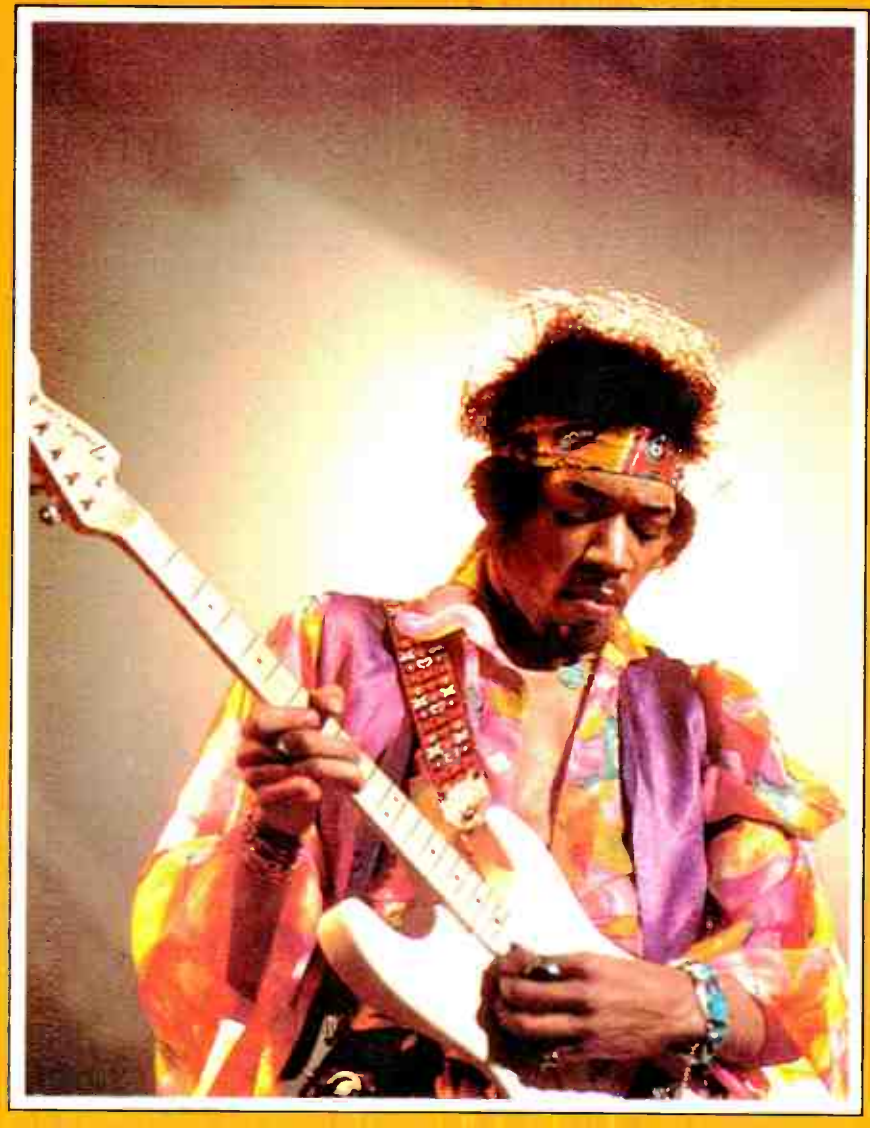
JIMI HENDRIX

all the "mistakes," just as a guitarist would be told to "turn that damn thing down" when the amp started to distort. But amplifier clipping and overblown saxophones produce the same thing — the upper harmonics — and these adventurous souls discovered that with a lot of practice you could learn to produce those sounds at will, to control them and make music out of them. One of the things that makes Hendrix's music so special is that he took off into this uncharted sonic territory without the slightest idea of what he was doing. The only things he *knew* were blues and R&B, but he was able to break all the rules because he found the courage to trust the music, to open up a part of himself which could shape that chaos. Great jazz, no matter how much training it requires, also requires that same trust and openness, so it's no wonder that players like Sam Rivers, Gil Evans, and Larry Young heard a kindred spirit in Hendrix's music.

The concepts of tuning and temperament also come into play here. Like a saxophone, which has the worst intonation of all the wind instruments, Jimi's guitar was constantly out of tune with itself. On every live recording there's at least one moment where he tries to tune up, or sneaks in a quick E chord to see just how far from the equal tempered scale his string bending and tremolo bar wanging have wrenched his instrument — it's always quite a ways. Yet somehow, as soon as he starts playing you can't tell (well, maybe on "Wild Thing", but he's only trashing the Troggs on that one anyway). Like sax players, boogie-woogie pianists (Ornette Coleman has said that the whole boogie-woogie style "has to do with playing those beat-up old pianos in tune"), or Delta bluesmen, Hendrix was able to pull, shake, or otherwise bugger the notes out the way he heard them. Modern developments like the Floyd Rose tremolo and Schaller tuners have solved the technical problems that plagued Jimi, but they've also taken the guitar out of its folk context and locked it into alignment with the European tempered scale, which means that we will probably never hear those vocal inflections, that *cry,* from a guitar again.

Which is why, eleven years after he died, Jimi's music is still alive — still being played on the radio, still selling albums, still making money for a host of lawyers, accountants and record company executives. Ed Chalpin's P.P.X. Productions contract with "Jimmy Hendrix," which netted Hendrix $1 and Chalpin a cool million, has been chronicled elsewhere. So have the unbelievably barefaced Yameta Productions scams and the byzantine machinations which installed Alan Douglass as the sole custodian and producer of posthumous Hendrix releases. The way the music business ripped him off is entirely too sordid to go into here without generating scores of libel suits. To the groupies and leeches in his entourage Hendrix may have been a golden glow, but to his "business associates" he was a golden cow which they milked for all it was worth. With the shortsightedness of "greedy people, they forgot that the image was built on a human who needed the sustenance of human contact and care, and who was all too easily consumed by the artificial creation built around him.

In many ways they simply worked him to death. The idea that anyone could visit forty cities in forty days, and play a spontaneous and incendiary show of the kind audiences expected from the Experience seems absurd today. How bizarre it must have been for him when that other part of himself opened up and took the blues to



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Ron Carter

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An avowed practitioner of the acoustic "string" bass, Carter is an important descendant of a long and noble line of pluckers, thumpers, slappers, walkers, bowers and melodic timekeepers. His musical forefathers include George "Pops" Foster, a seminal figure in the twenties (with Louis Armstrong), followed in the thirties by such as Walter Page (Count Basie) and John Kirby (Fletcher Henderson), who in turn paved the way for Jimmy Blanton (Duke Ellington, 1939-41), the genius who liberated the bass from its strict and uncreative timekeeper role by playing rich, flowing melodic lines similar to those sent forth by saxophones and trumpets. Blanton's cues were picked up by Oscar Pettiford and Ray Brown, who brought the new language of bop to the bass, then later still by Charles Mingus (who literally put the bass in the front of the band), Paul Chambers, Percy Heath, Scott LaFaro, and so many others.

Carter, who rose to prominence during his five-year, mid-sixties tenure with Miles Davis, could be considered a younger brother of this last group. Like them, he is a "traditional modernist," buttressing his work with a solid rhythmic feel while enhancing it with a keen and imaginative melodic sense. His long, thin fingers are perfectly suited for pulling strings and his bouncy, ringing tone as he slides into and over the notes, has attracted many imitators.

Born in Ferndale, Michigan, a suburb of Detroit, on May 5, 1937, Carter was one of eight children who all played a musical instrument. And even though his parents didn't play, he credits them with instilling the discipline and sense of responsibility that enabled him to keep practicing cello instead of playing baseball. "I realized that cello could take me someplace that baseball couldn't," he said.

Carter began cello lessons at ten, renting an older instrument and studying with a traveling teacher who gave group lessons at school. After a few months, the teacher felt that Ron was advancing beyond her ability to help him and advised his parents to invest in private lessons, which ran about four dollars in those days. That was a good deal of money to a family of ten but the Carters somehow managed, and Ron proved worthy of the added expense when he was selected at age fifteen for the Ferndale all-city orchestra, landing first chair.

The Carters moved to Detroit when Ron was sixteen and he studied with the first chair cellist of the Detroit Symphony. Then, quite suddenly, he switched instruments. He saw there was a shortage of bassists in the commercial realm and traded in his cello for a bass, his parents co-signing a loan with a music store. In just six months, after intensive practice of up to eight hours a day, Carter received a full, four year scholarship to the Eastman School Of Music in Rochester, New York. It was there, while working in the Eastman-Rochester Philharmonic as the ensemble's first black player, that his eyes were fully opened to the lack of opportunities that existed, and still exist, for black players in symphonic circles. "Leopold Stokowski was in town for this particular concert," Carter told Ed Williams, "and we were having a general conversation about music, just a general conductor-student chat, nothing heavy, and he said 'I've noticed your playing and I'd love to have you in my orchestra down in Houston but they're not ready for black players down there.' So that was another blow. Here I am setting aside one instrument for another for better opportunities and a major conductor of a major orchestra tells me that, as good as I play, because I'm black it won't do me any good."

But Carter refused to buy that. Undaunted and Bachelor's degree in hand he headed for New York City determined to succeed in music, whatever the field. As soon as he arrived, he entered graduate studies at the Manhattan School of Music, obtaining a Master's in 1961, and then started working with jazz bands.

In that first year, Carter worked with

Photo. Deborah Feingold

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Ron Carter

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drummer Chico Hamilton alongside reedman Eric Dolphy and guitarist Dennis Budimir, heading out on a tour of one-nighters in a package called 'Jazz For Millions,' sharing the stage with Dave Brubeck and the great vocal trio, Lambert Hendricks & Ross. Back in New York, he worked with such notables as Randy Weston, Thelonious Monk, Bobby Timmons, Art Farmer and ultimately, Miles Davis beginning in 1963. This association secured Carter's position as one of the top modern bassists and the power of Davis's influence shows itself both on Carter's many albums as leader, where such tunes as "All Blues" and "So What" have been utilized as recently as last year, and in live performance, where tunes Davis popularized like "Green Dolphin Street" are offered.

After Davis, Carter freelanced, continuing a recording career that began in 1960 with Dolphy's *Out There* (Prestige), and has included, among countless others, his own *Where* (Prestige) and *Spanish Blue* (CTI); *The Individualism of Gil Evans* (Verve); and the ten classic Miles Davis quintet sides (Columbia) that reveal Carter to be a very intuitive rhythm section member, gliding smoothly with changes in direction provided by Herbie Hancock or Tony Williams in response to the trumpeter's melodic thrusts; numerous albums with McCoy Tyner (Blue Note & Milestone) and stints as house bassist for both CTI and Milestone.

He was also bassist with the New York Jazz Quartet, with reedman Frank Wess, pianist Roland Hanna and drummer Ben Riley, in the mid-seventies; joined VSOP, with Hancock, Williams, Wayne Shorter and Freddie Hubbard for successful tours in 1976; and became a part of a recording unit known as the Great Jazz Trio, with pianist Hank Jones and drummer Williams, waxing for the Japanese East Wind label in various contexts (many of these discs are available on Inner City). And in 1976, he formed his own quartet, sitting in front of the brilliant trio of Kenny Barron, piano, Buster Williams, bass, and Riley on drums, using an instrument of his own invention, which he calls the "piccolo."

The piccolo is about three-quarters the size of a regular string bass, with the same proportionate dimensions. It's tuned like an upside down cello. The top string is C, then G, D, and a low A. As Ron has said, "a bass player would say it's tuned like a bass, only with a C-string added and an E-string taken off. For me, it's much more logical to think of a cello tuned upside-down."

Asked how he gets his very popular sound, Carter explained, "It's a combination of things. First you need a good bass. Then you have to spend hours and hours and lots of money finding the right string that fits with that bass and the sound that you hear. Third, a lot of practice to develop the sound that you hear. Talent doesn't hurt, either. Finally, the tenacity once you've found this sound, to go all out and get it at all times, not accepting anything less than the best."

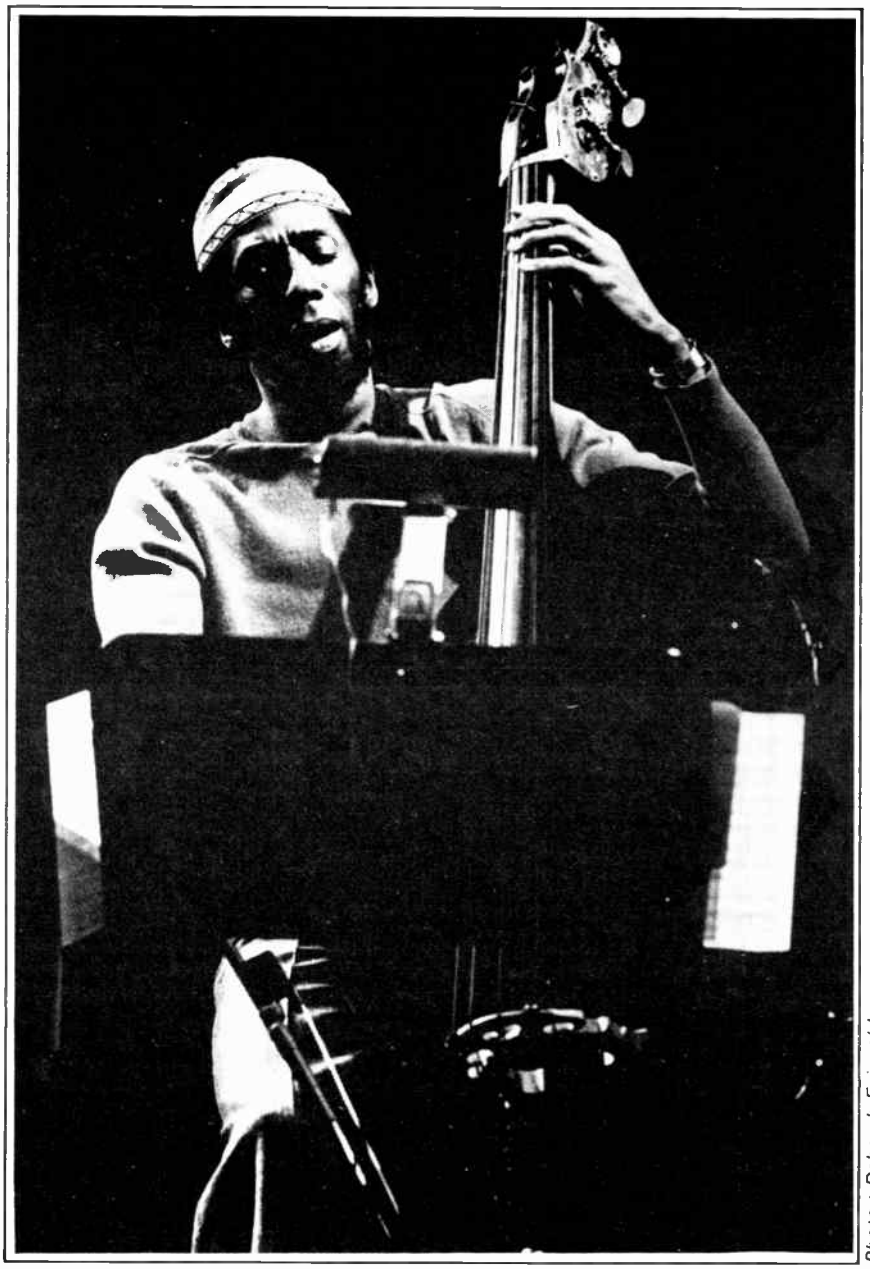

Photo : Deborah Feingold

Carter has found, after exhaustive and expensive research, that LaBella strings work best for him, and sometimes he even has trouble with those. "I'll get a few brand sets," he says, "and have to call the company and say, 'Hey, what's happening over there? These strings aren't responding'."

The response to his quartet has been excellent. After using Barron, Williams and Riley ("They're beautiful players, all of them," he adds) for four years, Carter now uses Ted Lo, Leon Malleson and Wilby Fletcher on those respective instruments. I heard this band in California recently and can vouch for its ability to please an audience, at one point playing so softly that there was total silence among a crowd of three hundred. Carter presents a wide variety of material, some straight-ahead swing, some of Spanish origin, some based on classical forms, the compositions

Continues on page 28

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Ron Carter

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being mostly his own. The music is delivered in an unhurried fashion, Carter and his piccolo bass at the front of the band, "so there's no mistaking who's in charge here. I've played in the back too long for anyone to think I'm not the featured soloist in my own band," he asserts. Yet as successful as his group has been, there are still obstacles to overcome, most of which are tied in with the group's recordings and sales.

"My record sales are substantial," says Carter, "but not in the category of a minor pop act — and I expect them to be. Say I play a club gig, sell out five nights at four hundred seats a night, well, the next week my record sales don't indicate my being there. I sell two thousand seats at seven bucks a pop and help the club owner while selling only eight albums, so I'm back at square one again."

The solution to this dilemma, Carter is convinced, lies with the jazz audience. "The jazz listeners have got to stop laying back and watching all this go down without doing anything," he advises. "If you want to keep jazz alive, you've got to do more than talk shit. You've got to buy the records, you've got to go out and support the clubs and tell the money people with this outpouring that our music is feasible. Jazz companies are only cutting down their catalogs because the records are not selling." Carter also points out correctly that jazz albums are often the cheapest on the market since they are not in the constant demand that more popular discs are.

Another unpleasant facet of encouraging record sales is taking the band on the road. "The road is tough," remarks the musician, "but I travel to make the music visible, to let people know that my band is available on records. Even though I make a sufficient income from recording other people's jazz albums to live fairly comfortably, I want to have my own band. Funny, but these days, you can't just make albums with your band, like a series of live dates.

"I was with Miles Davis for five years and we made ten records, all with the same personnel (ed. note — Wayne Shorter did replace George Coleman on tenor saxophone). The music was evolving, the band was developing both individually and collectively, and the albums reflect those changes. And they sold well. But now companies don't see that. It makes it tough to come up with a new format and, while this is happening, your image is changing so drastically that you can't build a base with your audience. A person may not want to buy the next record if the last one was radically different from a previous album.

"And a jazz album is almost a sure thing, financially. A rock album has to recoup right away, in two to three months, where as jazz album becomes part of a catalog and keeps on selling. It costs maybe ten or fifteen thousand, and in a year or so, the company's got its money back without a lot of hassle."

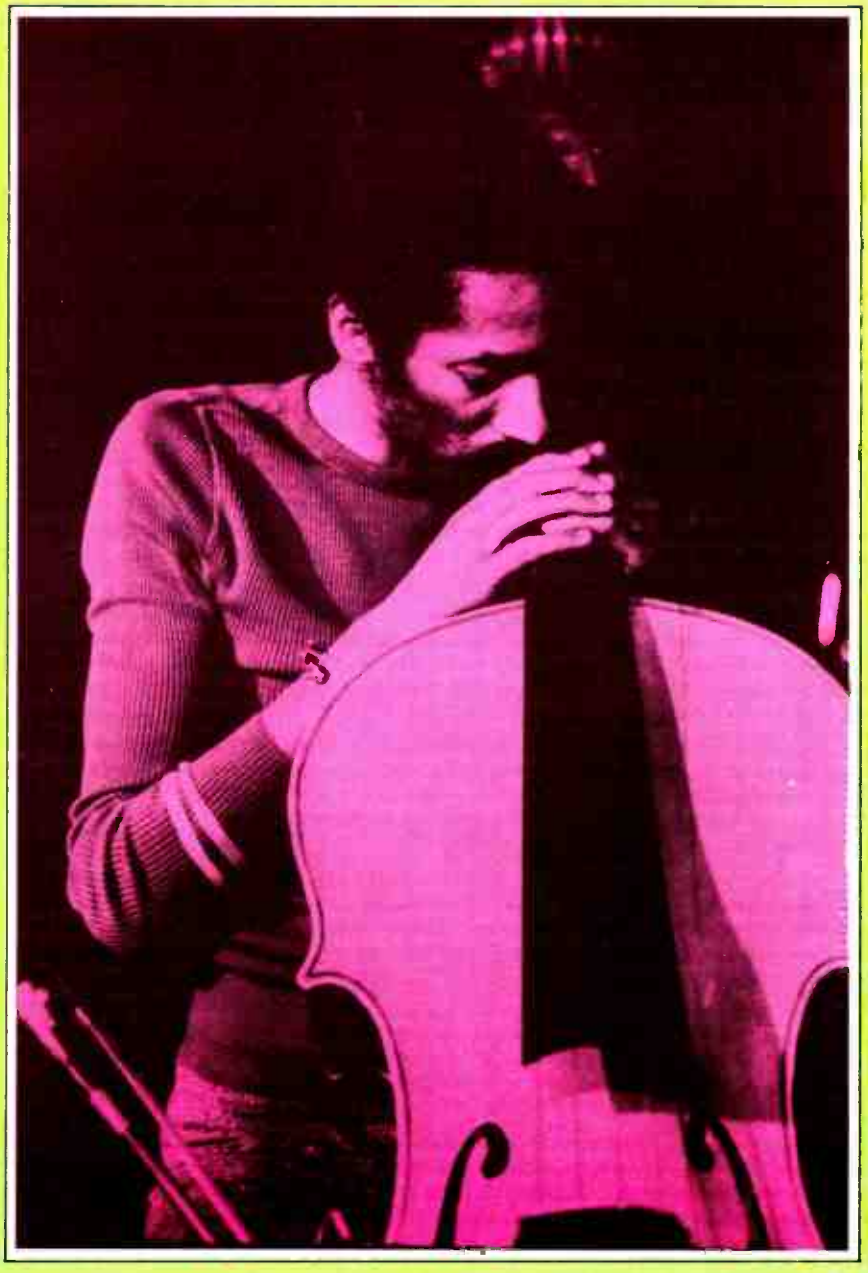

Photo: Deborah Feingold

Carter currently records for Milestone and the releases feature his bass playing, but in the variety of formats he's spoken about. *Piccolo*, a two-disc set, caught the Barron Williams Riley band "live" at Manhattan's Sweet Basil's, while *Pick 'Em* put that unit in conjunction with a small string section. *Parade* highlighted Chick Corea, Tony Williams and Joe Henderson with a horn section and the latest, *New York Slick*, allows giants J. J. Johnson, Art Farmer and old recording friend Hubert Laws to shine in an understated way. Carter has yet to record with his latest ensemble.

As for New York, where he lives with his wife and two children, he has no complaints. "Everything's available here,

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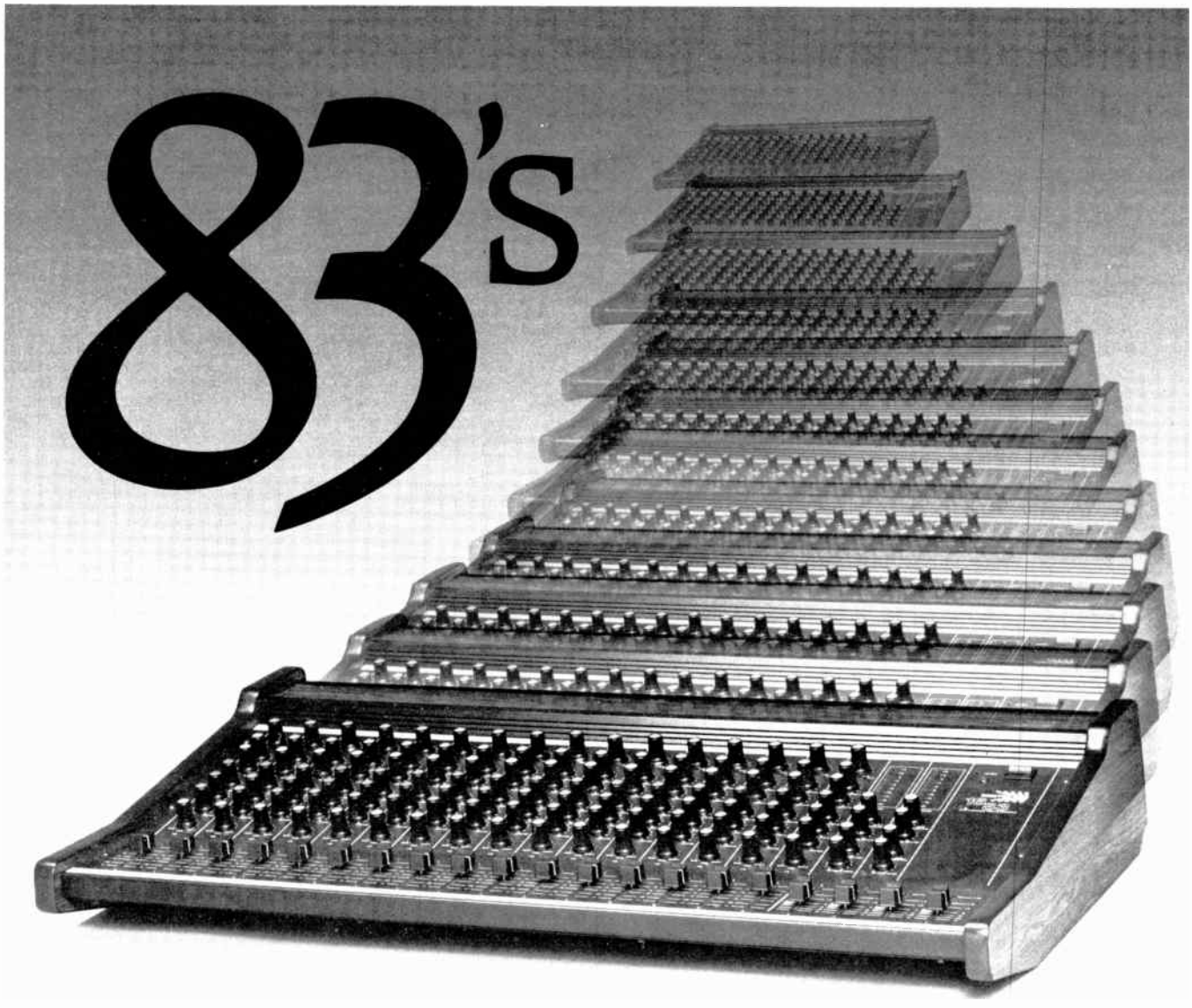

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Ron Carter

Continued from page 28

and the scene is very much improved. There are a lot of clubs and a lot of live music. People are coming out to the clubs also, maybe not buying records, but showing up. I'm doing more playing, working duos and trios without my band. I've made myself more available. I wasn't playing enough and I need to play live on the bandstand to maintain the level of musicianship I require. Practicing at home and making records is all right, but I need to play. And there are gigs in New York to be had, many kinds of gigs. I worked a duo gig with Cedar Walton the other day, then on a recent Monday, I played with Mel Lewis at the Village Vanguard when his bassist called in sick."

Along the same lines, Carter advises younger, lesser known players to hit the streets, playing anywhere they can just to get that magic exposure that may lead to brighter prospects, a club engagement or maybe a studio session.

As talented and musically excellent as he is, it is Carterr's approach to working in the studios that is the foundation of his recording success. He's said that no matter what the job is, he wants to stay at his standard of performance, his level of musical satisfaction. He's not interested in how he "gets off" on what's happening, but rather on how well he can contribute to the particular project. Obviously, if a producer or an artist has specifically called him for a session, he feels a certain pride for being chosen. He's professional, arriving on time, being prepared musically and technically to meet the demands of the situation.

The subject of the recent conversion of WRVR in New York from a jazz format to country & western elicited from Carter a final assessment on the state of affairs in jazz circles. "The jazz community can't function unless it gets its own stuff happening," he comments. "Like getting together and buying a jazz station. As with WRVR, one of the problems is that jazz has so many definitions now that anybody can step up and say they're playing jazz. And RVR played so much jazz/rock that the pure jazz audience got turned off by it. In effect, people were more upset with the way the switch was handled, just jumping, boom, from one format to another, rather than the actual change. Since there wasn't a lot of jazz on RVR anyway, it wasn't a great loss in those terms. And the reason that non-acoustic jazz has gotten such a foothold is that the acoustic jazz audience has encouraged its presence by not buying any acoustic jazz product. If you want jazz, you've got to stop paying lip service and go out and support the artists that are playing the music you like. Then maybe we'll see some positive changes." ●

Zan Stewart

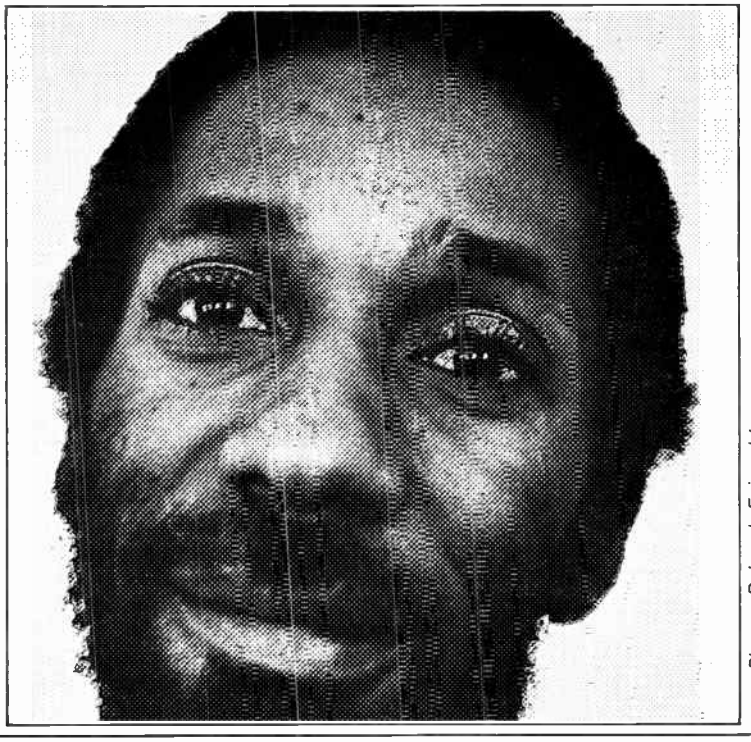
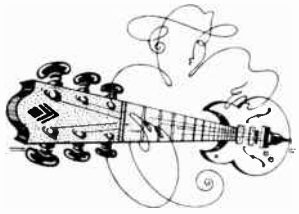
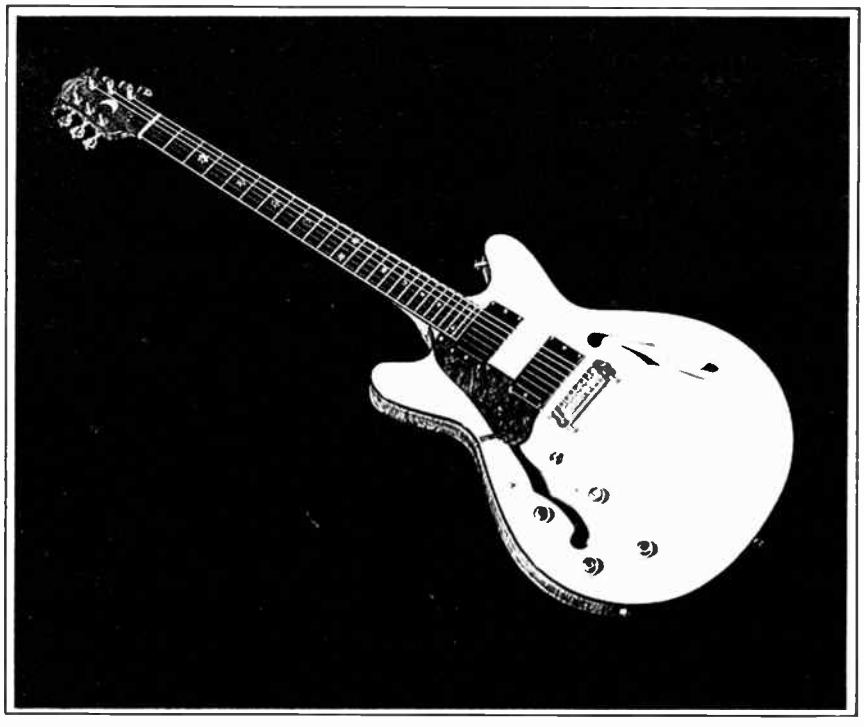


Photo : Deborah Feingold



Jazz Guitarcheck



Moonstone M80

The M-80 represents Moonstone builder Steve Helgerson's vision of a semi-hollow guitar. It's an extraordinarily beautiful instrument, but it's most interesting feature is invisible. That is the center block running through the body, which, like the top and back, is carved from a single block of wood in such a way that if fits the contour of the top and back, and allows them to breathe by being hollowed out in the center. This design allows for more of an acoustic sound than is usual with semi-hollow guitars, without sacrificing the sustain of the center-block construction.

The first impression the M-80 generates is of immaculate craftsmanship. From the hand rubbed finish, to the walnut burl headstock and abalone inlays, the workmanship is in the finest luthier's tradition. The woodwork and glue joints are as good as I've ever seen on a guitar, and place the M-80 in a class with the finest custom-made instruments. The hardware is equally fine — a gold plated Badass bridge/tail-piece, Sperzel tuners with specially designed knobs which reflect the unique Moonstone headstock configuration, brass volume and tone knobs, and pickup switches.

The M-80's standard pickups are Bartolini Beasts, wired for high clarity rather than high output, but Seymour Duncans or special combinations are available for a small additional fee. Along with the standard volume and tone controls and pickup selector switch, there is a phase reversal switch for the neck pickup.

Everyone who played this guitar remarked on the neck as soon as they picked it up. Steve Helgerson set out to capture the best qualities of the much-prized dot-neck ES-335, and he's succeeded in creating a neck that really makes you want to play — wider and shallower than most, it really invites your fingers to dance. The frets could have been rounded off a triffle on the fretboard edges, but otherwise the guitar is a joy to play, with no dead spots and perfect intonation.

The M-80 is also unusual in having a full two-octave neck, rare in a semi-hollow guitar. It's tone is the result of moving the neck pickup closer to the bridge, the upper midrange bite of the Bartolinis, and the increased acoustic resonance of the body generated by the hollow center brace. With standard round-wound strings the tone is a little unbalanced. The treble strings are warm and mellow, and have the sound of a big arch-top jazz box. As you move toward the bass strings, however, the body resonance ceases to have an effect, and the tone becomes much brighter, more of a solid-body sound. A set of flat-wounds proved to be the perfect balance for the tonal characteristics of the guitar, and vice versa — the bass strings sounded much more alive than they do on most instruments, but mellow enough to blend with the treble strings.

The M-80 is more expensive than most factory-made guitars, but as a limited-production instrument with a wide list of options and a lot of hand work involved, it straddles the line between mass production instruments and custom-made one-offs. The quality and care that Steve Helgerson has put into his instruments will amply reward your investment.

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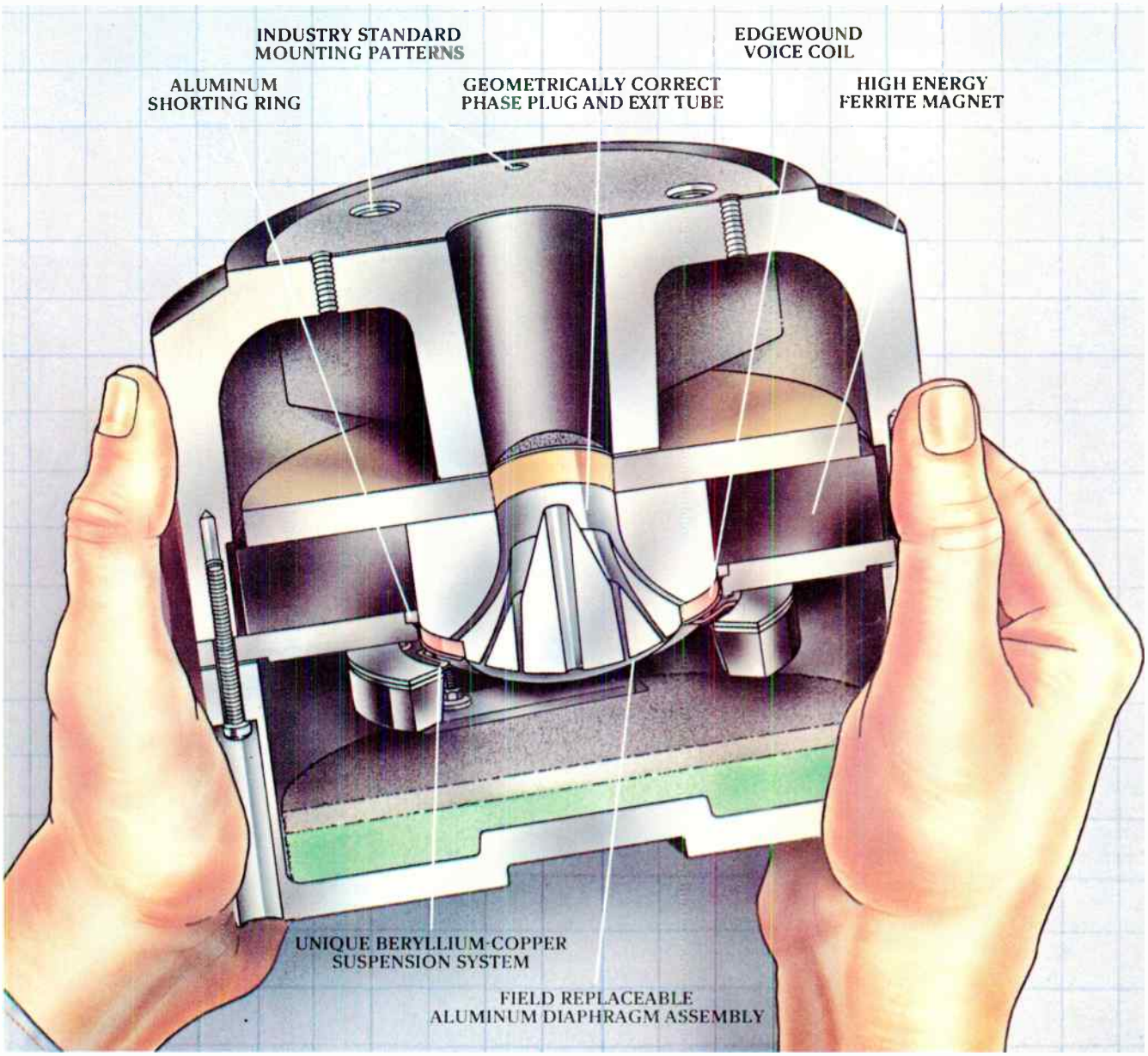

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YAMAHA

CF Martin Koa Instruments

During the early twentieth century, circa 1917, C F. Martin & Company handcrafted fretted Instruments from Hawaii's finest koa wood The instruments, however, were predominantly small body guitars and ukuleles.

Today, C. F. Martin offers koa instruments in several styles. In the D-25K and D-25K2 solid koa sides and back form a rich Dreadnought guitar. A solid koa top distinguishes the D-25K2 from its spruce top counterpart the D-25K. On the D-37K and D-37K2 models, distinctive curly koa sides and back create elegant flamed patterns highlighted by a clear gloss finish. Once again the distinguishing feature on these models is the top. The top of a D-37K utilizes select solid spruce with abalone rosette while the D-37K2 features solid flamed koa with abalone rosette.

Since C.F. Martin's experience includes small guitar construction, three small guitars are available in the koa instrument line. The 00-25K and 00-25K2 are designed in grand concert size. Both instruments are reminiscent of early koa guitars. The third small guitar in the koa line is the 7-37K. A traditional spruce top joins flamed koa backs and sides in a Baby Dreadnought design.

Regardless of size and styling, all koa instruments command the same attention to detail that has become the Martin heritage. The Martin commitment to quality has endured for a century and a half and continues with each new handcrafted instrument.

The O-28K represents a Vintage Martin koa instrument dating back to 1928. Designed with a curly koa body, including solid flamed koa top, the O-28K featured a pyramid bridge, slotted headstock, and herringbone trim around the top.

This particular O-28K is not available in the Martin line of instruments. The O-28K was photographed courtesy of John Barnard and COUNTRY MUSIC MAGAZINE.

The CF Martin Organisation
510 Sycamore Street
Nazareth. PA 18064

Grace Notes...

Continued from page 38

Adamas 2 cont.

I feel it's important to note that in bringing the Adamas sound down in price there hasn't been an appreciable downscaling of the sound or feel. Once I got my paunch aligned to the extra-deep Lyrachord bowl, I found this to be among the most balanced, responsive guitars I've ever played, with remarkable projection, clarity, detail and volume. Single lines are crisp and sparkling, and chords are perfectly balanced with the kind of depth and openness that makes arpeggios ring out. You really hear the sound of the strings more than anything else, and the Adamas II's harmonics and overtones have a lot of character; I was spacing on this when I first got the guitar, waxing romantic, when suddenly I found myself becoming nostalgic for model airplanes and battleships. A hint of glue it was, which made me wonder what kind of guitar am I playing?

I was sniffing the soundboard, which gives that Adamas II its distinctive sound. It is a sandwich of carbon graphite with a .035" birch veneer in the center, textured on both sides with a fine weave to accommodate braces and a finish; this material is bonded together and cured at 250°F. The Adamas literature goes on to explain that "the carbon is made from inorganic fibers that have been rendered infuseable by partial oxidation. They are then carbonized in an inert atmosphere at a temperature between 1000° and 2000° Centigrade. The fibers emerge with a well-oriented structure that gives them high tensile strength and modulous. The acoustical and dampening properties of the fibers are a result of the structure and modulous."

The top is ⅓ the thickness of a normal wooden guitar, and is quite stiff. Because there is no center soundhole, and because the Djangoish fretboard extension floats over the soundboard, there is nothing to impede vibrations over the entire top of the guitar. The radial pattern of the fans and bracing underneath reinforces the thin soundboard and seems to project vibrations to the front of the guitar. The sound pours out of 22 soundholes, and the effect is dry, but full, almost like a lute. The lower bass resonance is there, but not as pronounced as you might expect; this is because the treble and mid-range is significantly clearer and more powerful. There is a lot of volume (Ovation states that there is ±3dB over the entire playing range), and, best of all, it's balanced so that no strings are louder than others.

The neck is a joy. It is as straight as an arrow and we could discover no dead spots — quite an achievement. The Kaman Bar (an aluminum casting along the lines of an I-Beam) provides maximum stiffness and makes the neck resistant to warpage or creepage. Adjustment is inside the bowl at the top of the neck (Ovation claims 50% more adjustment at double the stiffness). The fretboard is black walnut, impregnated with a clear acrylic resin which makes it very dense and smooth, and impervious to moisture; frets are not too thick, and slightly squared off, which seems to help the intonation. The clover shaped maple inlays are a pleasant contrast. The neck joins the body at the 14th fret and extends up to C# (whereas the Adamas extends up to high E). The neck block is integral with the bowl and is reinforced with strut plates and a main center strut extending towards the center of the bowl to provide a rock steady mounting base. Tuning heads have a 12:1 tuning ratio, are gold-plated and relatively smooth and accurate. Oh, if I seem to have neglected the bridge, that's because I never noticed it. The string tension and action was just fine the way it came from the factory (7/64" at the bass E and 5/64" at the treble E), and the heavy phosphor bronze Adamas strings were very easy to play and tune.

The electronics are just as impressive. I've always loved the sound of an acoustic electric flat-top guitar ever since I heard John McLaughlin's *Extrapolation*. The Adamas II uses six individual piezo-electric transducers underneath each string beneath the saddle, each one with its own individual channel. They emit a signal which runs through a battery-powered FET pre-amp (which uses a 9 volt Duracell: good for approximately 1000 hours of continuous use); Ovation claims that this design reduces feedback by about 18 dB, and in truth, the combination of the pickups and the Adamas II's de-emphasis of lower bass overtones allows you to crank the guitar up loud enough to play with a drummer. The sound itself, which might seem kind of dry played in the acoustic mode, opens right up when amplified. It is crystal clear, and the wooden volume and tone knobs (mounted on top of the guitar, in the curve where your right arm lies) allow you the flexibility to create a wide spectrum of sounds, from bright and twangy, to rich, mellow jazz tones; for the optimum "acoustic" sound I found a setting of 7 on both volume and tone controls most pleasing. Oh yes, the guitar can be played in mono or stereo, and we found that a little chorus or delay in one channel made the stereo mode sound positively enormous.

In conclusion we could find little to quibble about in the Adamas II, and *second opinions* from several New York guitarists were equally enthusiastic. Our guitar columnist Jack Wilkins put it best: "It feels great, there are no dead spots, and you can play as hard as you want without the notes thinning out. The harder you pick, the louder it gets, which is unusual, because with acoustic guitars that are built to be smacked around it's usually very difficult to play, but the Adamas II was really smooth, even with those heavy strings."

Steinberger Bass

The Steinberger Bass is one of the most radical, impressive musical instruments to come out in years, a total re-think of how an electric string instrument should function. Just as the Fender Precision Bass didn't replace the acoustic bass violin, the Steinberger Bass will not supplant traditional bass guitars. It will however, make you think twice about some traditional design features you might have taken for granted.

Just for starters, where the Adamas II uses a combination of space age plastics and resin impregnated woods, the Steinberger Bass doesn't contain any wood at all. The materials used are carbon graphite, fiberglass and other phenolic materials (such as on the fretboard), as well as strips of reinforcing plastic in the neck. The bass is actually poured, in liquid form, into a mold, leaving cavities for the electronics. The material is incredibly dense and rigid, but very light. The taper is built right in during this phase

Continues on page 44

Burning Spear...

To examine the career of Burning Spear it is first crucial to understand something of the black prophet Marcus Garvey, the source of the singer's inspiration. In 1916 Garvey journeyed from Jamaica to New York where he established the Universal Negro Movement Association and a newspaper, *The Negro World,* with its maxim "One Aim, One God, One Destiny".

At the end of the First World War, Garvey founded The Black Star Line, a steamship company that was to fulfill his dream of transporting back to Africa all blacks who wanted to go. It was the first blow for repatriation. The company, however was soon declared bankrupt and Garvey jailed on charges of fraud and tax evasion and eventually he was deported to Panama.

From exile Garvey prophesized "look to Africa where a black king shall be crowned, for the day of deliverance is here." And in 1930 Ras Tafari Makonen was crowned the 111th Emperor of Ethiopia taking on the title of Haile Selassie.

Marcus Garvey, the first prophet of the Rastafarian repatriation movement, died in England of pneumonia in 1940. In 1952 he was proclaimed a national hero of Jamaica.

"So here comes Marcus Garvey, bringing civilization for hundreds and thousands and millions of black people all over the universe. Yet some don't believe, some fight without a cause, against the works and words and the administration of Marcus Garvey.

"But during the days of slavery yet some of I and I survived and Rasta still alive now. Still alive is I and I who come this day now — come and stand firm. Come to know and to know everything." Burning Spear holding court, holding firm and considering the words of Garvey which, he underlines, are for black and white.

The year is 1969 and the place is the parish of St. Ann's, a coastal village on the north side of Jamaica. A shambling fishing village, once an embarkation point for the slave traders, the birth-place of Bob Marley and just ten miles from the tourist center of Ochio Rios, where Burning Spear is later to be led down his musical path.

Burning Spear is a stone mason, who spent days chipping away at rock and granite and composing chant songs in time to the hammer. It was his close friend Marley who suggested that he travel to the island's capital of Kingston and seek out the now legendary Clement Seymour 'Coxsone' Dodd, known then through his sound system as Sir Coxsone The Downbeat. It was Coxsone who had established the Studio One label, the most influential studio and label in Jamaica. Even today any reggae disc with the magic words Studio One on it is instantly treated with reverence, care and respect: they're always great.

It's rare that a singer's very first record becomes an instant classic. But then Burning Spear is no ordinary singer, and that is exactly what happened to "Door Peeper" surfacing from the Coxsone stable on Supreme. Burning Spear was later, as with many of his finest moments from early times, to re-record the track — it is featured on the *Man In The Hills* album.

Backing Spear at Studio One were two men who later became bona fide members of Burning Spear, a vocal trio: Rupert Willington and at the turn of the decade, Delroy Hines. As time will bear out, just how important their roles were within Burning Spear, is questionable.

A new kind of reggae was born out of the relationship between Burning Spear (incidentally the name taken from the nick-name of the former Kenyan President Jomo Kenyatta) and Coxsone. And even if nobody wanted to buy their records they weren't going to compromise or turn back. For five years songs like "Rocking Time", "Foggy Road", "Creation Rebel", "This Population" and "Ethiopians Live It Out" were turned out on a variety of labels. The only Studio One disc to make the Jamaican top five was "Joe Frazier", a song that inspired toaster, Big Youth

Photo: London Features

to cut a version for Coxsone's closest rival, Joe Gibbs.

In addition to the singles, Coxsone released two Burning Spear albums, *Studio One Presents Burning Spear* and *Rocking Time*. If you get hold of them, they're monsters.

There is an affliction in reggae music that almost throttles many a musician in their early days — some never manage to free themselves from it. In present day economic jargon it's called monetarianism — or giving people a hard time. All reggae musicians will tell you the same story and this issue was central to Burning Spear's departure from Studio One in 1974.

Looking back Spear reflected "the only reason I left him was because he wouldn't treat me fair. The reason I never tried to defend my rights was that I had very little knowledge of the business, so as my knowledge increased I get to realize what I'm really entitled to.

"When he con't give me those things him and me have to break off. I man step back to St. Ann's and just hang it up for a while to do some thinking and things."

It's the end of 1974 and a certain Jack Ruby, the namesake of Lee Harvey Oswald's assassin, who operated a sound system in Ocho Rios persuaded Burning Spear to cut him a disc to play on his sound. Burning Spear obliged with a song entitled "Marcus Garvey". Ruby spun it on his system and the effect was shattering. The song exploded on to the Jamaican charts and within weeks the island was gripped with Burning Spear fever.

And is it any wonder that those "Marcus Garvey" sessions were to shape the course of roots reggae music until now? Playing on them were musicians who have in their own right become as hallowed as the tracks they performed on: Bassist Robbie Shakespear (now with partner on drums Sly Dunbar) and Aston Familyman Barret (a Wailer); drummer Leroy Horsemouth Wallace (star of the film 'Rockers'); guitarist Earl Chinna Smith (now with The Radics); organist and clavinet player Bernard Touter Harvey (latterly of Inner Circle) and trumpeter Bobby Ellis (long time friend of Burning Spear who has played on literally countless records).

Another single, "Slavery Days" followed "Marcus Garvey" to the top of the Jamaican charts, followed then by the album *Marcus Garvey*, still regarded as a reggae landmark. There isn't a bad cut on it and Burning Spear was firmly established.

He recalls: "the way I think then and the way I still think is that I wanted to deal with Marcus Garvey through music regardless of fear of who might be pleased and who might not be pleased. So I did sign that the album would step, flow and spread."

His relationship with Jack Ruby was to span four more singles and two albums. One was a dub version of the *Marcus Garvey* album called *Garvey's Ghost*, the vocals picked clean and the bass, drums, echo, reverb and phasing given a shot in the arm. The other set was *Man In The Hills*, a radical departure from the black militancy that identified his previous recordings. Cut at Harry Jay's in Kingston, it is a spacious work, Burning Spear reflecting upon Africa as a land: "*Man In The Hills* remind me of Africa — it remind me of the living in the country and of the way the poor people live all over the world."

Both *Marcus Garvey* and *Man In The Hills* were issued in the UK by Island. Although Burning Spear owed much to Jack Ruby assembling and co-ordinating those impressive early albums (*Marcus Garvey* and *Man In The Hills*) it is commonly understood that a condition Spear laid at the door of Island's Chris Blackwell was that if they got the Burning Spear gig then he was allowed total control of production: in other words he wanted Jack Ruby off the case.

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Grace Notes... Steinberger cont.

of the process to provide maximum rigidity and straightness so that there are no dead spots, at all on the neck.

The neck. Let's talk about necks, which most manufacturers have traditionally treated almost as an afterthought. How many times have we all encountered instruments with dense, weighty bodies, the hottest pickups imaginable and. . . no sustain? The problem is that many misguided instrument designers put all their attention in the wrong place because you don't play the body, you don't play the pickups — YOU PLAY THE NECK! Ideally the body, pickups and neck work together, but the neck is the most critical element.

Which is part of what makes the Steinberger Bass such a marvellous instrument. You're all familiar with neck-through body designs. Well the Steinberger Bass is a body-through neck — for all intents and purposes it is nothing but neck. One piece, from stem to stern, which — due to the materials used — eliminates the need for a truss-rod system (which Steinberger feels to be a 30 year old design experiment that doesn't work), and allows the vibrations to be transmitted all across the instrument's 24-fret, full access fingerboard and "body". As a result, Steinberger guarantees that the "neck" will never warp or bend, even under the highest string tension.

To maximize the sustain characteristics of the "neck" Steinberger has *eliminated the headstock entirely.* Steinberger explains it like this: "90% of the problem in traditional bass designs, besides the weight of the instrument, was the weight distribution of the neck. You had to have a heavy neck to balance the mass of the body, and a heavy headstock on top of that, which often contributed some very unpleasant harmonic overtones. But you had to work like this to get a comfortable playing balance. I didn't see any need for all that unnecessary weight in the body, which was just not functional. And I wasn't satisfied with the quality of gear tuning machines — they just aren't accurate enough, and they pull out of tune too easily. So I located the tuning mechanism at the bottom of the bass, which eliminated the need for the headstock and allowed me to build a perfectly balanced instrument that wouldn't give you a pain in the neck."

This locking and tuning system is the single most innovative feature on the Steinberger Bass. In place of a headstock you have a head grip to accept the ball-end of the string (LaBella has designed some special double-ball end round wound strings especially for the Steinberger) or regular strings which can be tightened securely with an Allen Screw. The solid brass tuning block and bridge are one piece. An Allen wrench loosens

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Burning Spear...

A measure of the man's powerful ego and commitment to his music can be seen in Island's compliance. With that under his belt he set about pruning away the dead wood. After a couple of singles, "Spear Burning" and "Free Black People" which were released on his own Spear label and Total Sounds respectively he terminated the employ of Willington and Hines.

The explanation: "Burning Spear usually be Winston Rodney, usually work with two brethren...but through the interests of those two individuals self — the interest wasn't enough to me.

"We should all be creative. It is not good when I create and you come and take part with no intention of giving a helping hand." At the time of the move he told a journalist in London that "it's not good to rely upon people who don't rely upon themselves. Even in rehearsal with those brethren is like I have to beg with them. Begging a man who can do something — no problem. But begging a man, and when him come you still have show him what to do is foolishness."

If Burning Spear — man and concept — was to mature and evolve there could be no constraints — no brakes applied to interfere with the course Burning Spear was following.

The impact of the departure of Willington and Hines was negligible. The main man's voice possessed such distinction, such character in an effortless three octave range that studio doctoring quickly resolved the problem of harmonies — an intrinsic part of the overall sound.

In the same way that Genesis retained much of their original sound after the departure of Peter Gabriel, so did Burning Spear. In fact the comparison can be re-drawn. Phil Collins' voice became richer, bolder, more confident of its limits and capabilities. So too did Spear's. From frail beginnings, by the end of 1976 it was taking on new perspectives.

Perhaps with such upheaval around him the first album with this arrangement *Dry And Heavy,* was in the main, reworkings of gems originally laid down during the Coxsone days. He hadn't been in the frame of mind to write many new songs, taking instead, new shots at "Creation Rebel" and "Free Again" among others.

Aswad's Brinsley Dan, Angus Gaye and George Oban were rewarded for their trojan support at The Rainbow the following year when Spear invited them to Jamaica to work with him and the regular stock of session musicians on what was to be one of the albums of that year — *Marcus Children,* for some reason renamed in the UK as *Social Living.*

Spear frequently denies that he is affected by criticisms and reviews and yet after the response to the softly softly approach to rural reggae on *Man In The Hills* he hit back with *Social Living.* "Marcus Senior", "Institution", "Mister Garvey", "Marcus Say Jah No Dead", "Civilized Reggae" (hung upon the immortal "we all need reggae" chant) and the haunting spiritualism of the opening "Marcus Children Suffer". Spear had never actually lost his grip. With the release of *Social Living* his grip had become that much tighter.

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Burning Spear...

1979 was taken up with two Burning Spear activities. Firstly he devoted much of him time to "Garvey Lawn" a community recreation center in St. Anne's that he had played a major part in establishing. What time was left to himself he spent tucked away in Bob Marley's reactivated Tuff Gong Studio, 56 Hope Road, Kingston. With his co-producer, bass guitarist with The Wailers, Aston "Familyman" Barrett, *Hail H.I.M.* (Hail His Imperial Majesty — Haile Selassie) began to take shape.

Opening with the line "Hail Jah Ta Fari," the album is an uncompromising devotion and celebration of Rastafarianism and a lesson in black culture. But the beauty of the record is in it's ability to cross cultural and ethnic barriers. His lyrics are black but the message is truth, pure and simple and communication with both black and white. All of it is set to rare, pulsating rhythms.

Released in the spring of last year it went clear, picking up favorable reviews from every quarter and topping every reggae chart within days. And the song that did it, "Christopher Columbus" — "is a damn blasted liar..."

Burning Spear explains: "The books what the kids read in school in England is not the books what England send to Jamaica for those kids to read. We taught in school that Christopher Columbus is the first man to discover Jamaica. Our teacher taught we that and that is what the teacher been taught about so he or she taught the kids the same things.

"Also the book come showing the pictures of Christopher Columbus discovering Jamaica. Now we come forward our knowledge increase and come to know fully that Christopher Columbus never discovered Jamaica. There were Arawak Indians there before him and black man and women."

And overviewing the album: "I and I don't sing to make anyone believe in Selassie or whatever I defend, I and I sing about what I know to be right. See you don't have to believe what I believe to understand the music as you know that the thing you defend is right. So you see everyone is on a separate track, but through the same music, one music and everyman can claim a part for himself."

On the second leg of a British tour earlier this year the champion of roots music considered his work: "naturalization is really what I sing about, which is reality. Reality in naturalization and naturalization in reality.

"It's Jah's work. All things come through Jah...Jah say now is the time, now is the time. Jah say rest, you rest. If you try no go against that you can't hurt yourself. We come to obey Jah and we come to take part in the things that belongs to we, and we know all the things that we should take part in...and when, why, where."

December 1980 at The Rainbow, as the horn section rattled off the introduction to "Slavery Days" the sea of black, red, green and gold cheered, the floor raised itself and we really did chant down Babylon. ●

Jon Futrell

GROOVE TUBES...

Jack Wilkins

I'm like most guitarists, in that I don't have the vaguest idea about electronics. I just plug my guitar into the amp and play (usually!). I am interested in getting the best possible sound out of my equipment, though, so I'm always asking people who do know something about electronics what to do. When I was out in California recently I asked my good friend, electronics wizard Dan Armstrong, what to do about my old Fender Twin Reverb. I was not at all happy with it at the time. The sound was breaking up and distorting, and the amp had lost a lot of power. I figured it was about shot and I would have to buy a new amp. Dan Armstrong suggested that I should try some new tubes instead, and not just any tubes, but some specially designed tubes called "Groove Tubes."

I didn't really understand why Groove Tubes were so special, but I went ahead and got a set for the Twin Reverb. After I put them in, I couldn't believe the difference in my sound. The amp was cleaner and had more power and presence than when it was new! I still don't really know how the tubes work, so I'll just quote from the Groove Tubes brochure to give you an idea:

"It's unfortunate, but most tubes made today go into short wave radios and old TVs, not music amplifiers... The kind of quality control a musician's tube needs does not happen at the factory. Many of the tubes on the market are loosely constructed, causing microphonic ring and poor harmonics; others will be noisy or thin sounding. Power tubes differ radically in output performance causing uneven sustain and harsh distortion.

Groove Tubes are a great deal more than just matched tubes. They are custom tubes for musicians... Groove Tubes power sets will deliver improved balance, sustain and punch."

This probably sounds like a lot of hype, but in this case it all happens to be true. The brochure also explains that the reason for matched tubes is the way power amps operate, with one tube or pair of tubes pushing the electric current, and the other pair pulling. The push and pull forces need to be equal in order for the tubes to work at their highest efficiency.

In addition to the improvements in sound, Groove Tubes offer an option of two different styles, "hard" or "American" style, and "soft" or "European." The hard tubes use larger components, sealed in a more complete vacuum, for longer life and a clean, tight sound. The soft tubes are smaller and lighter, with a little bit less of a vacuum, which means they don't last quite as long. They do have a unique sound, however, sweet at low volumes but easily pushed into overdrive.

Mr. Aspen Pittman, the creator of Groove Tubes, constantly checks all the tubes and maintains a high level of quality control. So don't get rid of your old tube amp. Try some Groove Tubes instead. Even if you're satisfied with the sound you're getting now, these tubes will improve it even more than a premium speaker, with no additional weight, and at a lower cost.

By now you probably think I'm sounding like a lot of hype, but I just can't recommend these tubes highly enough. Put them in your amp, and I think you'll be as amazed as I was. ●

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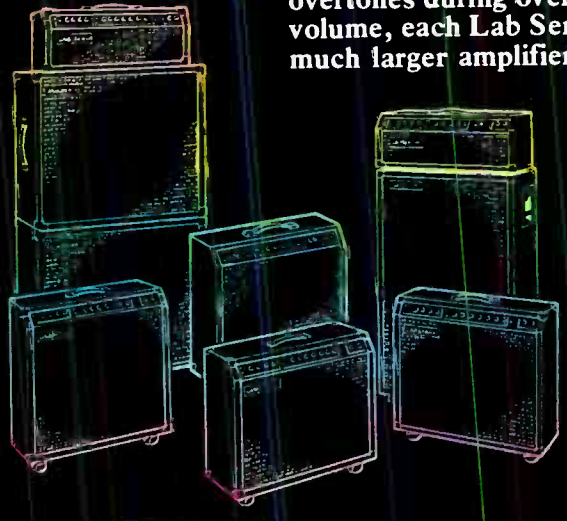

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MESA ENGINEERING

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JIMI HENDRIX

Our International Sales Director, Alan Marcuson, seen with Jimi Hendrix in 1967.

places they have never been before. And how frustrating and terrifying when he found out that the muse was a fickle and capricious lady, and liable to desert him in mid-solo with 10,000 hungry fans in front of him. No wonder he turned to ideas of reincarnation and voodoo possession to explain to himself what was going on. No wonder he turned to drugs to try and keep the creative energy flowing. From an artistic standpoint the mechanical routines and elaborate packaging of '70s arena-rock may be deplorable, but they are undoubtedly life-preserving. Chemicals can't replace natural energy and enthusiasm, but they can mask its absence while allowing the performer to drain himself even further. A BBC interviewer asked Jimi about his plans after the Isle of Wight festival. He replied "I'm just gonna do what I feel, but I can't feel anything right now." A month later he was dead, spontaneously murdered by inept ambulance attendants who allowed him to suffocate on his own vomit.

Now that the man is gone, the image is of little importance, except to those who are still making money off of it. The music is still here, but the supply is sorely limited — Warner Bros. deleted *Cry of Love, Rainbow Bridge,* and all of the live Hendrix albums from its domestic catalog, so pathetic, jive-ass Douglas productions like *Crash Landing, Midnight Lightning* and *Nine to the Universe* could have a sure shot at the market. The justification for this is that the deleted albums are "inferior," "non-representative" product (as if the overdubbed, tape-spliced abortions Douglass has foisted on a hungry public could ever be representative). The bulk of the unreleased deleted material consists of unfinished tapes or live bootlegs, but so what. Signal-to-noise ratios and technical perfection have no place in an evaluation of Jimi's music — one of its many graces is the way in which it transcends such narrow considerations. And it's one of the many tragedies of his story that music like the Randall's Island version of "Red House" or the Stockholm version of "Spanish Castle Magic" (truly a "pantonal blues" if there ever was one) is available only to a small circle of tape-traders and bootleggers. Good Hendrix is a lot harder to come by than good hash these days, and often more expensive.

So until Alan Douglass releases his egotistical stranglehold on the tapes in the Hendrix estate (rumors of a couble-live album and a TV special are circulating, but don't hold your breath) we'll keep on going back to the music that's left, because, as Jimi said to, of all people, Dick Cavett, "it doesn't actually hit through the eardrums...We're playing for our sound to go inside the soul of the person and awaken some kind of thing in their minds, because there are so many sleeping people out there."

IM & RW would like to thank Bill Natopi of the Jimi Hendrix Archives (P.O. Box 967/Pearl River, New York 10965/914-623-8237) for his invaluable assistance in preparing this article. Those wishing to trade photos, tapes or any other materials relating to Jimi Hendrix should contact him.

Chris Doering

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Keyboard·Pro Sound

Section Index

Tribute to Bud Powell

Chip Stern

Your name is Bud Powell. You grew up in Harlem surrounded by music. Grandfather was a flamenco guitarist. Father was a stride pianist, and your brothers William Jr. and Richie both played. By the time you were 7 you were already a virtuoso pianist and the leading jazz players come around the house to take you on the town and show you off. "There's never been anything like this child", they say to each other admiringly.

By the time you are in high school you have mastered the lessons of Teddy Wilson and Art Tatum (poise, elegance and harmonic brinkmanship), as well as a major portion of the classical piano literature. You are considered something of a scholar around Dewitt Clinton High School. You quit school at 15 and began playing around Coney Island, meeting Max Roach, who will go on to become your most inspired collaborator. Thelonious Monk takes and leaving and indelible mark on your style.

By the time you are 21 it has all

Photo : Chuck Stewart

crystallized: the deft left-handed punctuations, the quicksilver exclamations in the right hand, the horn-like phrasing, the galvanizing intensity and unusual harmonies. People have begun to take notice of you in Cootie Williams' big band. It's all looking up.

Too bad you weren't born white, you know. Then maybe the Philadelphia police wouldn't have busted you for disorderly conduct, and beaten you upside your head so badly that you end up in a mental institution. Too bad.

In and out. In and out of institutions, in and out of focus. Sometimes lucid, sometimes trancing. But somehow the musical spirit prevails, exploding like a runaway train. Every pianist for the next 30 years is influenced by both your rhythmic and ballad styles, including people like Chick Corea, Herbie Hancock, Walter David Jr., Walter Bishop Jr., Barry Harris, Bill Evans and Cecil Taylor. It is now impossible to play jazz piano without using some of your stylistic innovations. What Bird and Diz were to the horn players, you are to pianists.

You escape to Europe for a while, returning to America in 1964, but your health is failing badly, and the mind is clouded, sequestered behind an invisible cage. You die at 41 on August 1, 1966 — the diagnosis was tuberculosis, alcoholism and malnutrition. Towards the end, a writer visits you in the hospital and finds you banging away at a drawing of piano keys you've made on the wall. "Listen," you exclaim to the writer, "what do you think of these chords?"

What was the name of that song?

Grace Notes... Steinberger cont.

Continued from page 44

the set screws for the individual bridge pieces so that you can achieve the desired action and intonation, and in place of a gear tuning system, Steinberger devised a straight-pull locking system. By loosening the tuning mechanism with radial-type screws, you release a little locking device from under the tailpiece which is a perfect fit for the ball end of the string. Because this is a straight pull screw that means one turn equals one movement, unlike a gear system. Since there are 40 threads to an inch, that means the tuning ratio is an incredible 40:1. So you can tune the bass perfectly without any beat tones, and what's more the Steinberger will maintain its tuning even under heavy duress.

What all this means to you as a musician is that there is nothing to impede string vibrations, which are so bright and pure you can *feel* them across a room even without being plugged in. The "body" is small and rectangular, with no unnecessary weight or embellishments. If you want to play it sitting down, you clip in a little curved leg rest. If you want to play it standing up, the Steinberger employs a strap support plate in the back which gives you a perfect center of gravity, letting you freely pivot the neck away from the body and into any playing position that you like, from waist high to upright. There is nothing to distract you from playing the "neck".

The combination of materials and construction gives you incredible consistency, brilliant harmonics and overtones, and a sustaining quality that is extra-long and clear, *more like the bass strings in an acoustic piano* than a bass guitar. The low impedance active EMG pickups accentuate the clarity and brightness of the Steinberger Bass. The EMGs are very clean and smooth, and on the model we tested there were two of them, one in the bridge position, one just off of the neck by a few inches. The pots are very smooth and allow you to tune in as much treble or bass sound as you like without any sudden peaks. A tone control contours the sound from rich and mellow, to a biting, funky attack.

So how does it sound? Unlike any other bass you've ever played. The combination of dense material and clean pickups gives you a very natural "electric" bass sound. It is not a "woody" sound, although you can get a wide variety of "dark" sounds with different pickup combinations. The Steinberger Bass has more "cut" than any other electric bass I've played, which is precisely what you need in performance situations where the bass tends to bottom out in the mix. I found that because of the Steinberger's sustain characteristics you have to drive the amp a little bit harder to make it penetrate, as its sound tends to *blend* in with other instruments. But once I figured out how to EQ the volume and tone settings on my amp I discovered that I could not only *feel* the notes, but I could *hear* the pitch — precisely. The Steinberger's edge let me get *my sound* happening on the bottom, as well as projecting it front and center in the mix.

All of this praise may leave you a bit incredulous, and for many people the sound and feel may be a bit strange at first; also like the Adamas II, it ain't cheap ($1400.00 for the 2 EMG pickup model I tested). But what you are paying for in the Adamas II and the Steinberger Bass are instruments that are designed to last a lifetime with totally unique sounds. ●

Chip Stern

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- Built in microphone for acoustic guitars.
- Large, easy to read meter.
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- Light (6.4 oz.) and compact (pocket-sized) for easy, one-hand use.
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Keyboardcheck

Kustom 88 Electric Piano $1800

As the 18th Century got underway something new was in the air. Music, which had heretofore been the province of the Church, was beginning to take on new meaning to an increasingly sophisticated audience who were interested in its secular possibilities.

So music began to shift from the Church to the salon, and as the ends to which music was put began to change, so did the means for achieving it. There were numerous keyboards available at the turn of the 18th Century, the main performing and composing instruments being the clavichord, harpsichord and organ. But as the grand counterpoint style of Bach gave way to more straightforward melodic invention, keyboardists grew envious of the timbral nuances of solo instruments like the violin and the human voice.

In 1709 an Italian harpsichord maker named *Bartolemmo Cristofori* invented a device which he called *gravicembalo Col piano e forte*, a keyboard that could be played both loudly and softly. He devised an escapement device based on a separate hinging of the key and hammer. By depressing a key you caused its butt-end to rise like a seesaw, and this tossed a hammer against the string. The movement of the butt caused it to slide out automatically from under the hammer, which was then free to fall back as soon as it struck the string. But the hammer recoiled from the string so forcefully that it tended to bounce off its rest and strike the string again and again. To solve this problem Cristofori invented a catch-back mechanism. And to keep the strings from ringing away uncontrollably Cirstofori devised dampers of felt to rest against the string and prevent it from sounding until it was released. The *piano* was thus born, a keyboard instrument capable of expressive orchestral effects.

Still, even though the new instrument had more dynamic range than any other keyboards at that time, the piano was not the instrument we have become accustomed to today. There was just no way to stabilize all of that incredible string tension, and it wasn't until the onset of the Industrial Revolution and the development of the cast iron string block, that pianos began to take on the sound character and playing action we take for granted in the 20th Century.

This lengthy preamble is meant to provide readers with some perspective on the development of the acoustic piano. It took over 300 years for it to reach its present state of refinement, and to this day piano builders are developing new methods of stabilizing the string tension, improving the soundboard and balancing the action and dynamic response.

Electric keyboards, on the other hand, are in their infancy, as are the techniques for playing them. The electric organ was developed in the 1930s and electric pianos began to appear in the 1950s. The need for a good electronic piano is obvious. Many club pianos are in dangerous states of disrepair, and if you've grown accustomed to playing with drummers it is very frustrating to have to pound away feverishly and still be inaudible even to yourself.

KUSTOM 88

The people at Baldwin have obviously put a lot of time and thought into the Kustom 88 Electronic Piano, and with good reason.

Their goal was to create a stable, roadworthy electronic piano with a sound and feel that would approximate as closely as possible that of an acoustic piano. How well did they succeed? The ultimate judgement must take into account the purposes you envision for the Kustom 88, because when all is said and done, this is not a concert instrument, but a combo piano. Viewed as such, it is a major

Continues on page 60

Continued from page 58

step forward in the art of electronic pianos, and considering its tone, feel, consistency, reliability and *price point*, it simply leaves its competition in the dust.

The Kustom 88 weights 170lb, including its roadcase, and the initial impression is that of robustness and simplicity. The roadcase is an anvil-styles design that provided maximum protection when we transported the keyboard around. The roadcase is integral with the keyboard and breaks down to provide a stable, flush-mounted stand.When you unfasten the four latches on the case and remove the cover, all of the legs, fluted knobs (6), the sustain pedal and stabilizer rod are neatly tucked away. Picking up the Kustom 88 and raising it into a vertical position with its keys facing upwards, you position the case cover so that its metal disks lay flush against the disks on the piano. Using two of the six knobs, you screw the cover to the bottom of the piano, then you attach the two front legs using the remaining four knobs, and install the stabilizer rod between the legs. Now you are ready to raise the piano upright and clamp on the sustain pedal: total set-up time, less than 10 minutes.

Looking at the Kustom 88's back panel you will find an AC receptable, a one amp fuse, a balanced line output, a Hi Z output jack for use with a ¼" phone jack output to drive Hi Z microphone inputs of mixers or PA amplifiers, an RCA jack for the pedal, and a tuning shaft. The shaft allows small adjustments of the pitch of the entire piano in order to tune the Kustom 88 to other instruments. It may also be used to approximate the sound of honky-tonk pianos.

The most notable feature of the Kustom 88, is that it doesn't require any warm up time, and that it remains in tune regardless of temperature changes or constant moving. This is because the Kustom 88 is all solid-state, and it's sound is the result of electronic contact, not pickups and strings. The keys and switching mechanism are the only moving parts. Digital CMOS circuitry gives the Kustom 88 locked interval tuning. A signal is fed to a single oscillator, which is broken up by dividers into the different frequencies, and then amplified to line level. Kustom then adds another circuit board which gives the keyboard a wider variety of tone control, and to a certain extent suggests piano harmonics. This design is similar to that of electric organs.

The keyboard uses 88 keys, and they are real, wooden piano keys, not just a weighted action. The top 21 notes are undamped, just like a real piano. The action is very fast and smooth, perhaps even a little too fast. A little bit of resistance (*not* stiffness) is a good thing on a piano, but the playing action is still a vast improvement over most electric pianos, which tend to be very sluggish. As a result, pianists are encouraged to employ a very clean attack, as any slight brush with a key will produce a sound. The action is consistently sensitive throughout the entire range, and those players coming over from other electric pianos will be pleased to discover that there are no dead notes, sticking keys or barking duck tones anywhere.

So how does it sound? Excellent to these ears and those of the many keyboardists who have played it. There is a wide range of dynamic nuance, and because the instrument is touch sensitive you can articulate the inner voices of chords, gradually build tremolos to full volume, and generally transfer your technique as developed on a "real" piano. Because you are dealing with a signal and not strings, the one aspect of touch that doesn't quite come out is that of the *quality* of your touch (as opposed to the speed with which you strike the keys), the way you color the notes and control the overtones. This is a difficult thing to express, and in no way reflects a perjorative evaluation of the Kustom 88, but if you are, as my wife is, a classical pianist, you will notice that contrapuntal composers like Bach translate relatively well, while rich chordal works like those of Brahms don't quite make it.

Which is to say that the Kustom 88 plays like a piano, feels like a piano, sounds like a piano — but is not a piano. For jazz, rock and funk players this distinction will not be as critical as it is for classical players dealing with an established literature. What the Kustom 88 gives you is a degree of control and a quality of sound that is life-like, brilliant and clear. The treble range of the Kustom 88 is crystalline, bell-like in character, and perfectly balanced. The midrange is also very articulate, with no notes louder than any others, and excellent separation between the notes so that chords don't come out muddy. The lower you go on the Kustom 88 the more the bass range begins to resemble that of a bass guitar or an organ. It doesn't quite have the string sound of a big grand piano, but there is enough of an edge to it that all the notes are well-defined and smooth; not quite perfect, not quite *concert*, but a lot more musical and precise than any other 88 key electrics I've played. And seeing as how pianists in electric bands would tend to use the left hand more for punctuation rather than fully chorded passages, only classical pianists had any real trouble with this aspect of the instrument.

And the bottom line on the overall sound is this. Walk a few feet away from the piano, move across stage or out into the audience and you will have a great deal of difficulty differentiating the Kustom 88 from a (here's that word again) "real piano." The main thing that impressed me about the Kustom 88's sound was that you could crank it up to very high levels (high enough to kick a drummers ass — how's that for a switch) and the sound never broke up and became shrill or distorted. It sounded like a "real" piano amplified to super-human levels. There is a volume slider on the front panel to adjust the relative degree of softness or loudness, and a pair of treble and bass sliders which are activated by a controls-on switch. This enables you to switch from the basic piano sound of the Kustom (which is very midrangey in character) to a slightly thinner sound which may then be equalized to bring out more brightness, bassiness, or a cleaner sound for high volumes where you want to roll off some frequencies. Another control-on switch which activates the tremolo controls (sliders that control the intensity and speed of the (tremolo). The tremolo is remarkably deep and smooth, and it adds a very pleasing resonance to the basic piano sound without making things swampy.

All in all, the Kustom 88 is a very significant advance in the art of the electronic keyboard. It allows you to have a consistent *piano sound* to take on the road, without having to worry about tuning or the bumps and bruises of mean-spirited and clumsy roadies. ●

Chip Stern

Roland

Understanding Technology Series

Subject: Design Features of the 09 Series Keyboards

RS-09

Roland's 09 Series is a group of keyboard instruments specifically designed to be interfaced into a multi-keyboard set-up. Their basic design revolves around four fundamental premises:

Performance

We don't think one instrument should try to be everything, but it's got to be the best at what it does. The RS-09 does it with the most realistic string sounds you can find. The solo String voices can also become a string section with a touch of the Ensemble switch which adds Roland's own Chorus effect. The RS-09 lets you use both huge Organ voices by themselves or mixed with the Strings

Interface

The Output section of the RS-09 was designed around the concept of interface. Beyond the Mono and Stereo Outputs, the Raw Organ sound can be taken out for processing through for example, the VCF section of our SH-09 Synth (which coincidentally was designed to receive it). A Gate out Jack can trigger the envelope generator of the Synth simultaneously for unbelievable brass sounds

Compactness

The RS-09 measures 26" X 12" X 4" and weighs just 16 lbs. You'll appreciate those specs when you pack up after your next gig. The RS-09 can easily fit on top of another keyboard instrument, and its low profile keeps its keyboard and controls in easy reach

Low Cost

All the 09 Series products are designed to be reasonably priced, as an add-on instrument should be. In fact, one of our most important design parameters is designing a cost you'll like.

The Roland 09 Series: RS-09 Organ/Strings, SA-09 Saturn, CSQ-100 Digital Sequencer, SH-09 Synthesizer, and the new EP-09 Electronic Piano.

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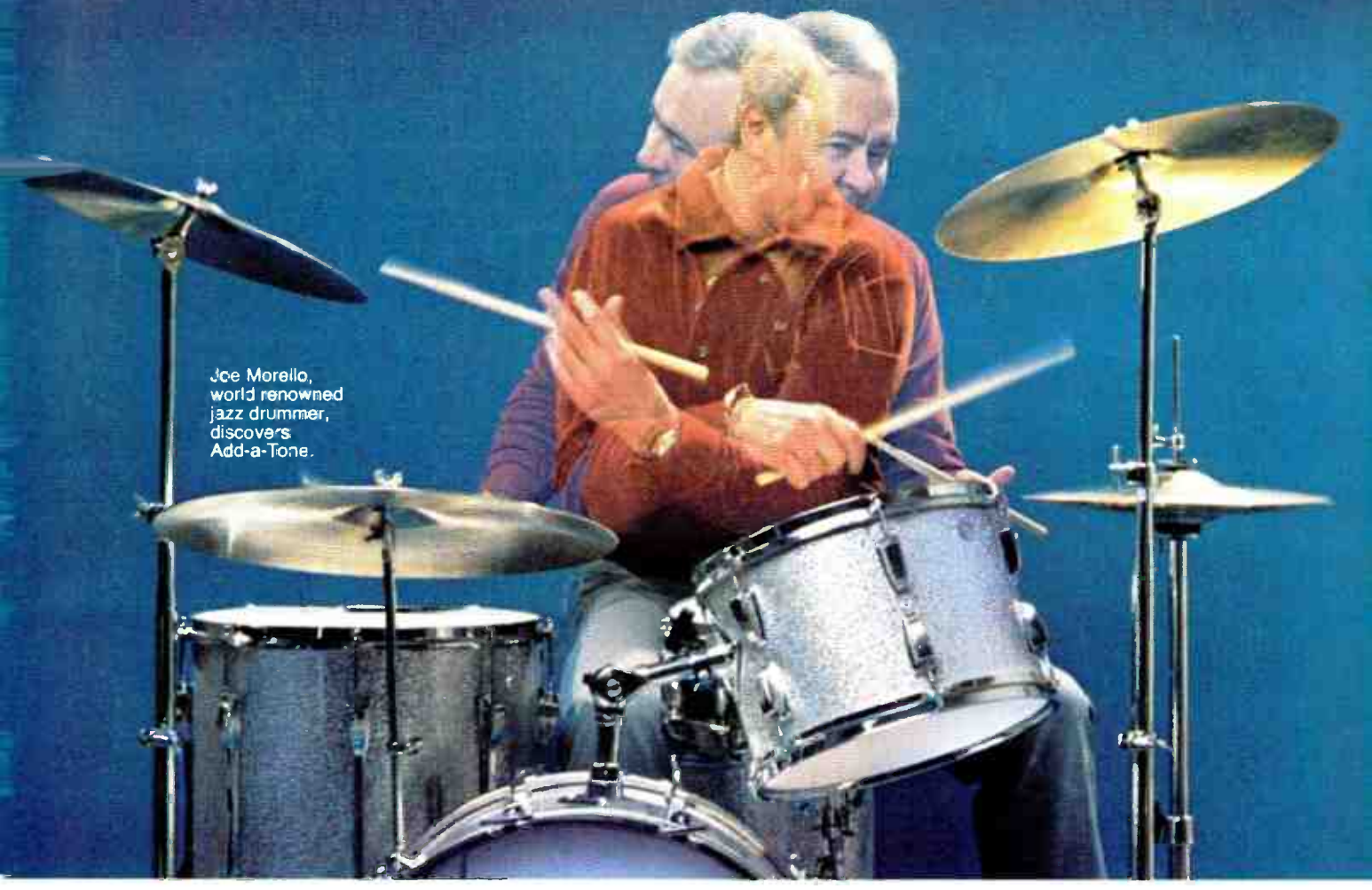

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BERNIE WORRELL

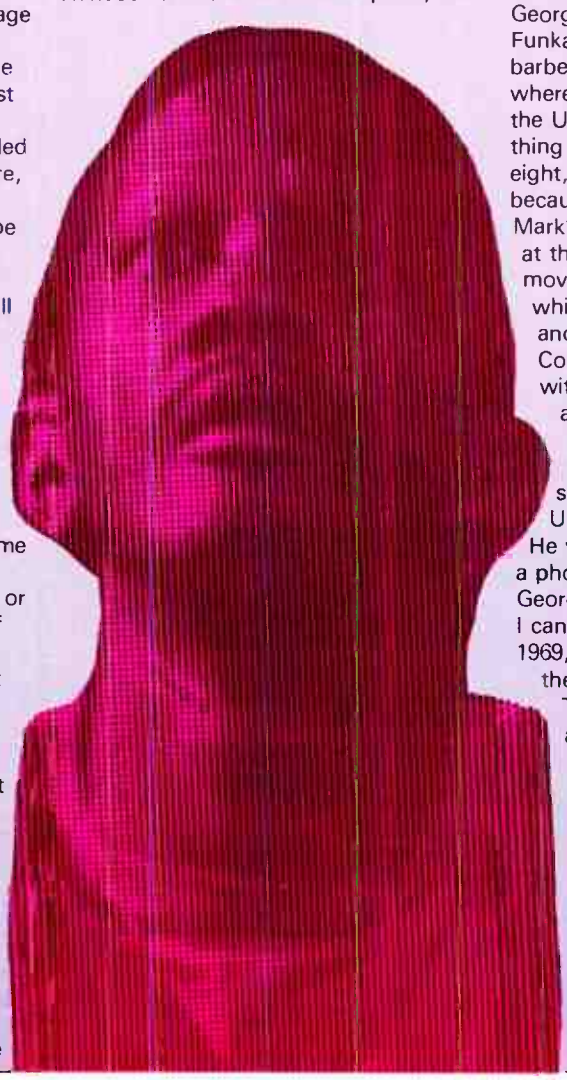
When Bernie Worrell was just eight years old, he was working as the organist at St. Mark's Episcopal Church in Plainfield, New Jersey. He was ten when he performed Mozart and Mendelssohn piano concertos with the Plainfield and Washington D.C. symphony orchestras. By the time he dropped out of New England Conservatory, a semester short of graduation, he had accompanied instrumentalists and opera singers at auditions and degree recitals; played a summer's worth of cocktail piano in Cape Cod; worked as rehearsal pianist for a professor of ballet and Spanish dance; played behind a Jewish men's choir; led the house trio at Boston's Basin Street South, backing up travelling R&B acts. With that sort of resume, it seems obvious in hindsight that Worrell would eventually find the only gigs around that would encourage him to use everything he knew and more: as keyboardist/arranger for the Parliament-Funkadelic empire—a post he's held for the past decade—and, more recently, as part of the expanded Talking Heads. Without much fanfare, Worrell has had more than a little to do with funk—indeed, with the shape of all pop—as we know it.

The way Worrell explains it, his style came easy. "Music is all one, all related," he says. "You just have to know how to make it mix. You can go from a polka to P-Funk to Quincy Jones to Oscar Peterson to Rachmaninoff, and you can make it fit if you choose the right passages. I just took in everything, and when I got to the point of recording and composing, it just came out."

But Worrell isn't just a copycat or a pastiche artist. There are plenty of "versatile" musicians around who know enough styles of music to put the standard cliches in the standard places; they're the ones who give studio players and career sidesmen such a bad name. Worrell does a lot more than just fill in the blanks. In his work with P-Funk and Talking Heads, he comes up with juxtapositions and crosstalk that don't seem to make any sense—until you hear them.

Worrell's arrangements for P-Funk—including horn and stringparts as well as his own polymorphous keyboards—make the difference between a rut and a groove. He'll make the horns sound like they came marching in from another song, or set up so many chattery keyboard riffs that it sounds like he got his tracks by wiretapping three computer networks at once. Worrell doesn't simply "sweeten" the basic tracks—he transforms them, layering on extra levels of percussive dialogue. "I play like a drummer," he admits. "I'm not really linear—I've always admired people who could run a long solo, but I like to go in and out. And I like to use sounds themselves as solos."

Over the years he's spent with P-Funk, Worrell has invented sounds that other bands have turned into cliches. The scrunched-up sound he gets from a clarinet hooked into a wah-wah pedal has given Herbie Hancock and Stevie Wonder plenty of extra rhythm; the synthesized bassline he played on Parliament's "Flash Light" has been showing up all over the disco repertoire.



Worrell's been trying styles ever since he was 3½ years old. His godmother gave him his first lesson at age four, and his first concert consisted of 40 pieces from John Thompson's piano method, that same year. After his family moved from Long Beach, New Jersey, to Plainfield when Bernie was eight, his serious lessons began: he studied piano with Fay Barnaby Kent, who'd been a student of Edward MacDowell, and theory and harmony from Dr. John F. Noge. Young Bernie also began a symphony, but didn't finish it; "I still have the manuscript," he says, "and I think I'll bring it back to life pretty soon."

Bernie met P-Funk ringleader George Clinton and the other "pre-Funkateers" while hanging around the barbershop in Plainfield. "That was where you'd get your hair processed; the Ultra Wave is just the same thing coming around again. I was only eight, but they knew about me because I was the organist at St. Mark's." Clinton and his crew—known at that time as the Parliaments—moved to Detroit in the mid 60s, while Bernie completed high school and went on to the New England Conservatory, where he studied with Miklos Schwab and played the astonishing variety of gigs described above. After NEC, Worrell went on the road with singer Maxine Brown, touring the U.S. three times.

He was in Bermuda with Brown when a phone call came through from George Clinton: "Come join the band. I can afford to pay you." That was in 1969, soon after the Parliaments had their first big hit with "I Just Wanna Testify", and just as they were about to enter the contract hassles that led Clinton to invent Funkadelic. Although Worrell didn't play on the album, his photo appears on the first Funkadelic LP, and he's been part of the P-Funk mob ever since.

P-Funk's early days were heady ones. Clinton, Worrell, guitarist Eddie Hazel and the other core musicians were about to radicalize soul

Continues on page 65

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BERNIE WORRELL

Continued from page 63

music—to de-regiment it and bring in all sorts of extraneous sounds and ideas.

"When we played the Twenty Grand, Stevie Wonder would always come and sit out front with his tape recorder; sometimes he'd play. Norman Whitfield (the Motown producer who psychedelicized the Temptations) and everybody would come in and look and say, 'What is this?' They were always trying to get the musician part of it, so they'd get the sound; a couple of times, when the group broke up, some guys would go work for Norman. "Shakey Ground" (by the Temptations), that's Billy Nelson and Eddie Hazel—I guess it helped spread it, in a way.

"For us, recording-wise, the patterns were very simple: a groove, or a vamp, maybe a turnaround or a key change and back. All the colorings were on top—the keyboards and all, and the rock-psychedelic guitar. Later, I started arranging strings and horns. I never studied arranging, but I knew all the clefs and things.

"People used to say that I made an electric keyboard sound like a snythesizer before they came out. I had am RMI; Stevie Wonder got the first one in Detroit, and I got the second one. It had a split keyboard, with piano, detuner, harpsichord, A and B electric guitar, percussion, 8-and 16-foot stops, a mixer and a sustain pedal, and I got the sounds with variations on those and a Crybaby wah. Later, I switched to a Morley power-Wah, because I started using a different kind of attack.

"George wrote parable-type lyrics —he still does—and sometimes the lingo didn't get across. We had a pretty big following, after a while, but we were still hungry and there was pressure and whatnot. My knowledge helped out when we got into more pop ideas and feelings. I was doing more and more arranging and experimenting and trying and blending until we came up with something. That was "Flash Light"; the whole record was me except for guitar, drums and vocals. I didn't think it was gonna be a hit, 'cause we'd tried to make hits before, but they told us this was the one."

It was in 1978 that "Flash Light" established, once and for all, that P-Funk was commercially viable, and Clinton proceeded to expand his operations to encompass projects by Bootsy Collins, Parlet, the Brides of Funkenstein, Zapp, and other acts, many of whom had Worrell's assistance. The current state of his keyboard arsenal tells the story: "My Minimoog and my OBX were stolen recently, from a van parked at the Record Plant in New York. The Yamaha CS-80 is in Dallas, because there's money owed on it. The ARP 2600 is in Detroit, in the studio. Bootsy has the ARP string ensemble. The ARP soloist—I don't known where that is, or the Yamaha electric grand. At my house, I have an old clavinet, built to look like an authentic clavichord—the black keys are white and the white keys are black, it's got a built-in speaker, and it sounds different from a Hohner. I've also got a Hohner clavinet, and the first model of a Wurlitzer electric piano, made of real rosewood. And in the basement, there's a pump organ.

Meanwhile, between P-Funk tours, Worrell covered the U.S., Europe and Japan as part of Talking Heads, and has also been working with the band in the studio. "Talking Heads and P-Funk were so close, that's why I enjoyed it," he says. "In both bands, each individual's voice came out. On the first day of rehearsal, Jerry Harrison would show each instrument certain parts of the tunes—they were relearning the songs themselves, because they hadn't played together in a while and they'd never had so many more players. On the second day, David Byrne came in, and we got used to the vocals—we had the structure down. Then, besides the parts I was asked to play, I just did me: different accents, different colorings.

"All I used on the Talking Heads tour was a clavinet and the Prophet 5 —I could get everything out of there that I needed. It might be nice to have an electric piano like the Wurlitzer CP3, which has a split keyboard, and maybe something portable so the keyboardist can move around like a guitarist, and possibly a vocoder—but to each his own."

Along with P-Funk—"in my heart, I'll always be there"—and Talking Heads, Worrell is currently working on a solo album deal, since he's not under contract with either band. His demo includes both lowdown funk and galloping, Heads-influenced rock, both laced with polyphonic tangents. Worrell says, "I'd like to work with all kinds of musicians, all kinds of instruments, whether they be Polish, African, Indian—everything. A conglomerate sounds and of different styles, messing them together so people can hear it differently. All I can say it, don't pin me down."●

John Pareles

MICROPHONES Part 5

Connectors

There can be no doubt at all that by far the most reliable type of microphone connector, the most robust, and the one used almost exclusively by the professionals in studios or on the road, is the Cannon XLR/3.

These XLR connectors have different type numbers peculiar to each manufacturer and each have their strength and weaknesses. For example, the ITT-Cannon types have by far the most durable mounting system for the contacts as these are set in rubber to prevent shattering and to ensure good alignment. However, the shell assembly employs many small screws and other parts and is therefore fiddly to assemble and you often end up loosing some of the parts.

Versions by Switchcraft and Amphenol however, have solid plastic inserts which do tend to shatter when abused, but have much more simple shell assemblies that are much easier to put together.

One important feature which is common to all makes is that a good, sound cable clamp is incorporated into the design to ensure that there is no mechanical strain on the soldered termination. The XLR system is such that the signal coming out of microphones, mixers, tape recorders, etc. appear on pin contacts and that signal inputs into equipment—mixer, tape recorder, power amplifier etc., are terminated at socket contacts. Therefore all cables will have a free socket at one end and a free plug at the other, thus permitting cables to be linked end-to-end when long lead lengths are required.

Most makes of microphone intended for professional or semi-professional use are now available with the male XLR connectors incorporated into the body shell and cost little, if any more, than the versions fitted with the more delicate DIN type connectors. The pin connections to XLR type connectors have been standardized as follows:

Contact 1 —	*Screen.*	
Contact 2 —	*Signal or Phase connection*	*Balanced circuits*
Contact 3 —	*Return or Anti-phase connection*	
Contact 1 —	*Screen/Return*	
Contact 2 —	*Signal or Phase connection*	*Un-balanced circuits*
Contact 3 —	*No connection*	

If an unbalanced microphone (or other signal source) is to be connected to a balanced input, then Contact 1 is linked to Contact 2, which then shorts out one half of the input transformer winding. Similarly, if a balanced microphone is to be fed into an unbalanced input, the wire that would otherwise go to Contact 3 in the balanced mode is instead commoned with the screen on Contact 1.

It should be noted that some manufacturers have not yet adopted the IEC standard wiring and are still using an old studio system whereby the use of contacts 2 and 3 are reversed, with the screen remaining on contact 1. When using balanced circuits, and providing that the entire system is working through the same mixer, the only problem is that the mikes are out of phase—but as they are in phase with each other, this does not matter much. What does matter is that when unbalanced circuits are used, the system does not work at all and the connectors all have to be re-wired.

DIN Connectors

This is the other main group of connectors to be found on microphones . Microphones are usually fitted with the standard three contact connector with the pin contact half incorporated into the microphone body.

Although these connectors employ the same contact inserts as do the DIN connectors used on domestic hi fi equipment, the types used on microphones have a screw-locking ring-retaining system.

The most common connectors are the balanced and unbalanced configurations listed below:—

Contact 1 —	*Signal or Phase connection*	*Balanced Circuits*
Contact 2 —	*Screen*	
Contact 3 —	*Return or Anti-phase connection*	
Contact 1 —	*Signal or Phase connection*	*Un-balanced circuits*
Contact 2 —	*Screen/Return*	
Contact 3 —	*No connection*	

As with the XLR/3 type of connector, a balanced input fitted with DIN connectors can be unbalanced by linking together contacts 2 and 3, while to feed a balanced mike into an unbalanced input, the return or anti-phase wire is commoned with the screen on contact 2 and no connection is made to contact 3. However, in live performance sound systems, or in studios, there is very little equipment fitted with DIN type connectors and it will only be on rare occasions that these wiring configurations will be used. Even when microphones are used which have DIN connectors built-in, the lead is usually terminated in an XLR/3 or a jack.

Amphenol MC4M (Shure Unidyne 3 and Unisphere 1)

There is no standard method of use or connection for these connectors and they are used only by a single manufacturer to my knowledge. However, there are probably as many microphones in use on the road fitted with this type of connector as there are fitted with XLR/3's and so we must include the details. The MC4M is the familiar four pin connector that has been fitted by Shure Bros Inc. to the Unidyne 3 types 545 and 545S and to the Unisphere 1 types 565 and 565S for more years than I care to remember

Continues on page 69

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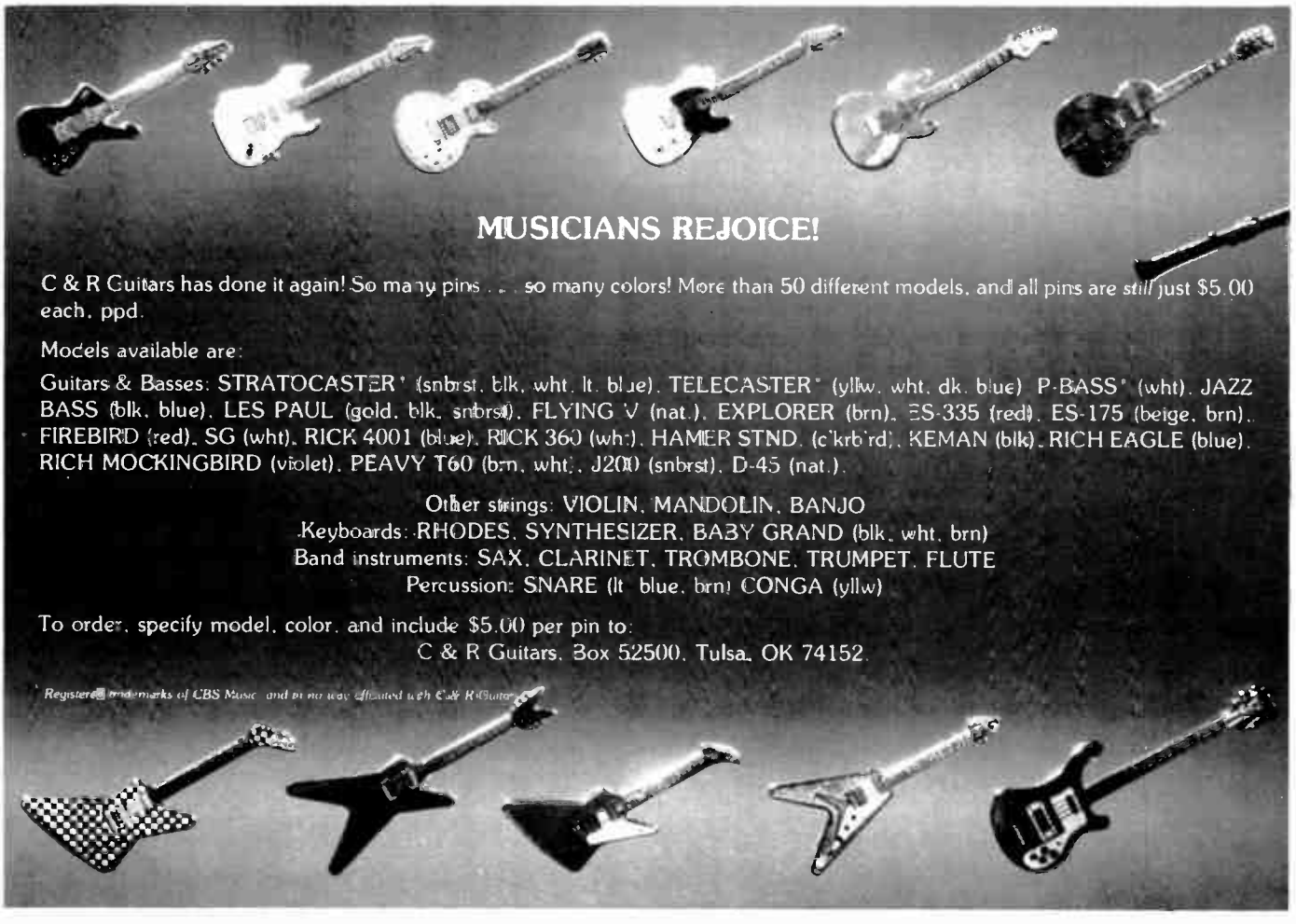

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Guitars & Basses: STRATOCASTER* (snbrst, blk, wht, lt. blue). TELECASTER* (yllw, wht, dk. blue) P-BASS* (wht). JAZZ BASS (blk, blue). LES PAUL (gold, blk, snbrst). FLYING V (nat.). EXPLORER (brn). ES-335 (red). ES-175 (beige, brn). FIREBIRD (red). SG (wht). RICK 4001 (blue). RICK 360 (wht). HAMER STND. (c'krb'rd). KEMAN (blk). RICH EAGLE (blue). RICH MOCKINGBIRD (violet). PEAVY T60 (brn, wht). J200 (snbrst). D-45 (nat.).

Other strings: VIOLIN, MANDOLIN, BANJO
Keyboards: RHODES, SYNTHESIZER, BABY GRAND (blk, wht, brn)
Band instruments: SAX, CLARINET, TROMBONE, TRUMPET, FLUTE
Percussion: SNARE (lt blue, brn) CONGA (yllw)

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MICROPHONES Part 5

Continued from page 66

and is used to make both low and high impedances provided by a tapped transformer within the microphone available at a common connector.

The wiring is as follows:—

Contact 1 —	*Screen and plug body (via metal cable grip)*
Contact 2 —	*High impedance signal or phase (Red)*
Contact 3 —	*Low impedance return or anti-phase (Black)*
Contact 4 —	*Low impedance signal or phase (White)*

The colors refer to the color coding used on the special three-core screen cable as fitted by Shure to this connector. The possible wiring arrangements available are given below assuming the use of jack or XLR/3 input connectors:

(a) High impedance
Red wire to "tip" contact or two pole jack plug and screen to "sleeve" contact. On XLR/3 wire red to contact 2 and screen to contact 1. White and black wires are not used.

(b) Low impedance Balanced
White wire to 'tip' contact of three pole jack plug, black wire to 'ring' contact and screen to 'sleeve' contact. On XLR/3 wire white to contact 2, black to contact 3 and screen to contact 1. Red wire is not used.

(c) Low impedance Unblanaced
White wire to 'tip' contact or two pole jack plug, and black and screen commoned to 'sleeve' contact. On XLR/3 wire white to contact 2 and black and screen commoned to contact 2. The red wire, and contact 3 on the XLR/3 connector are unused.

Other Connectors

There are a number of other types of connector in general use, but either the wiring arrangements are so obvious as to require no explanation, or else, they are so few and far between that the space required in these pages to cover them all is not justified. These include the single pole screw-on connectors similar to the Amphenol MC1F as used on some of the lower priced Shure mikes as well as on a host of cheap Japanese products, the Amphenol MC3M as fitted by Shure to a special low impedance only version of the 545, the European Tuchel connectors as used by Sennheiser on certain of their models, and the XLR/5, as used on some earlier AKG microphones to provide selectable output impedances of 50, 200, 600, and 60K ohms all on the same connector!

Another oddity to watch out for is the Calree 600 series of capacitor microphones where a standard screw-locking three-pole DIN connector is used, but instead of being phantom powered, contact 1 is signal, contact 2 is screen/return and contact 3 carries about 40 volts DC to power the microphone's electronics. There are also a small number of these mikes in use which have an XLR/3 connector wired with screen on contact 1, signal on contact 2 and 40v DC on contact 3. Obviously, great care must be taken to ensure that conventional balanced or unbalanced mikes are not inadvertently plugged into connectors wired for this type of mike or you can expect trouble!

Jack Plugs

Before we leave connectors, a word or two about jack plugs might not go amiss. Badly designed, difficult to wire, fragile jacks have been responsible for more sound system faults than any other individual cause. Obviously, the reliability of a cheap jack can be improved by particularly careful wiring and by not subjecting the plug to abuse — but on the road, this sort of care and attention just is not on.

There are a number of infinitely superior jack plugs available, which apart from being easier to assemble and of an altogether more satisfactory design, are far more robust and much better suited to use on the road. These do cost quite a lot more than the standard cheap varieties, but the hassle they save is well worth the extra cash. All these plugs have brass or steel body shells, sensible terminals and adequate cable clamping arrangements and are generally able to accommodate heavier grades of cable.

Cables

As with jack plugs, there are many different types and grades of screened cables which would seem on the surface at least, to be suitable for use as microphones leads. However, there are a number of factors which in effect, make one type far better than another. As we have seen in the last installment of this series the capacitance between the conductors and screen or between conductors in a twin screened cable can have a serious detrimental effect upon the performance of a microphone by attenuating the higher frequencies and causing amplifier instability. It therefore follows that cable should be selected with as low a capacitance value per metre as can be obtained.

As an example, cheap lightweight single screened cable can have a capacitance approaching 400pF/metre, while specially designed low noise cables have a capacitance of less than a quarter of that figure. For cables of any length on a high impedance microphone, the effect of the capacitance can be considerable and the additional cost of the low noise type of cable is more than justified. However, at low to medium impedances, the matter is less critical and capacitances of 200 or even 300pF/metre are acceptable.

You should select a cable type that has at least 14 strands of wire in each conductor to ensure adequate flexibility as the popular seven strand lightweight cables, and cables with solid wire conductors will fracture in use. Also, cables with a proper braided screen are far more serviceable and electrically superior to the lapped screens normally used on less expensive cables.

The other main area of concern is that of mechanical durability and the heavy duty cables of the type normally supplied with the professional microphones from the Shure range, or some of the Belden microphone cables are particularly good, if a little on the costly side, while at a more reasonable cost and usually more readily available.

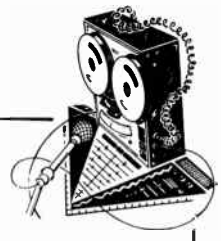
Be warned, *good quality* connectors and cables cost money—up to three times the cost of the indifferent items you normally find in stores, so find out the prices first!

After this practical digression, next month we return to the more theoretical aspect of microphones and consider microphone specifications. ●

Ken Dibble

HI BIAS

Tape Machine Alignment



Now on to the tape machine alignment procedure. The most important factor for quality of recording is the physical alignment of the record and playback heads. The record and playback heads in the head stack have five physical adjustments; azimuth, height, zenith, rack and wrap. Azimuth is the only adjustment that should be checked every session, the rest should be adjusted frequently if the machine is used heavily and especially if it is moved around. Height is the first adjustment to make. Reasonable accuracy of height adjustment can be obtained visually by setting the record and playback head so that the top edge of the tape just covers the top edge of the top track on the head. A more precise height adjustment requires a special test tape and adjusting the head for maximum output from the head. The record height is adjusted in a similar manner with the machine switch into the sel-sync mode.

Zenith, sometimes called tilt, is checked by covering the center of the heads with colored grease pencil and playing a piece of tape (but not the test tape) to see where the grease pencil wears off. The wear pattern should have parallel sides. If the pattern is narrower at the top than at the bottom or vice versa the head is tilted and not contacting the tape evenly across the width of the tape. Consult the service manual to locate the adjustments for correcting improper zenith.

Wrap is checked at the same time by making sure that the wear pattern is centered around the gap. Proper rack adjustment is indicated when the width of the wear pattern is the same on the record and playback head.

Adjustment of head azimuth requires the use of the test tape. The azimuth alignment tone on the Ampex test tape is 60 seconds at 15KHz tone recorded 10dB below operating level. Other test tapes may use 10KHz or 16KHz. The procedure is to adjust the playback head for maximum output. You should connect the output of two of the tracks to an oscilloscope set up to produce a Lissajou pattern. If the signal from the two tracks creates a 45 degree line slanting to the right the head alignment is in phase and azimuth is correct.

If a scope is not available connect the two channels together and adjust for maximum signal output. Always be sure to turn the azimuth adjustment screws several turns counter clockwise and back to make sure you achieve the proper peak. At closer tape speeds you may encounter a false recording peak and the above routine ensures that you avoid it. The phase and azimuth of the record head is checked by putting the machine in the rel-sync mode and repeating the procedure.

Once you're confident that the head stack is in proper physical alignment you can proceed to the electronic adjustments. At this point you will decide what operating level you want to use. This is largely a matter of personal taste on the engineer's part. Ampex standard operating level is based upon a recorded (on the test tape) flux level of 185nWb/m. Standard level of 185nWb/m has a relative signal level of 0 VU at a frequency of 700Hz to 500Hz. Test tapes are also made that are recorded at elevated operating levels of +3dB at 26−nWb/m and +6dB at 370nWb/m. When setting the operating level using a 185nWb/m test tape, signal level should be set at 0 VU on the meters while 260nWb/m and 370nWb/m test tapes require operating levels set at −3dB and −6dB respectively. The difference in operating levels reflects the increased capabilities of the new high energy tapes.

When using Ampex 456 and Scotch 250 for example, it is recommended that an operating level of 370nWb/m is used. This level will provide the lowest distortion and adequate headroom prior to tape saturation. Use of the high output/low noise tape with a lower operating level will degrade the signal to noise ratio but will lower distortion and increase headroom. While other types of tapes and other operating levels may be preferable. For example, when using 406 or 206 tape, levels of not more than 260nBw/m are recommended.

After you have set the operating level, the playback amplified gain should be set so that the O VU level represents a signal output of +4dB. High frequency equalization is set by using the 100KHz tone on the test tape.

Now that the playback electronics is set up you can proceed to align the record electronics. The most important adjustment in the record alignment is the bias level. The bias alignment frequency varies from one machine manufacturer to another. Many use 1KHz as the bias alignment frequency on their machines (Ampex suggests 20KHz for 30ips and for 15ips).

In most cases the manufacturer will state an alignment frequency for his machine and give the amount of overbias required for different types of tapes. "Overbias" is the amount the signal drops after reaching peak output. For example Ampex 450 has an overbias value of 2.75dB. This means you turn the bias control fully counter clockwise to zero, then turn the control clockwise until the recorded signal level reaches a peak on the VU meters. (To make these adjustments record the proper alignment frequency and monitor with the meters in the tape position.) Continue to turn the bias control clockwise until the signal level drops by the desired overbias value, in this case the signal should drop to −2.75VU.

Once you have adjusted the bias on all of the record channels of the machine you must calibrate the record level. To do this set the machine on input or source and adjust the line input levels for a recording of 0 VU on the meters. Now set the machine in record and switch the monitor function to tape or output. Adjust the record level adjustments for 0 VU reading.

Now set the signal source to 10KHz and record at a level of at least −10dB and fine tune the azimuth adjustment of the record head.

Your machine is now properly aligned and ready to give you every last bit of performance it is capable of. Good luck. ●

Harry Kolbe

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ON SAX

Tenor Talk

The music that was created during the bebop era has had a profound influence on all of western music.

Dizzy Gillespie and Charlie Parker, along with a handful of percussionists (Max Roach, Kenny Clarke, Roy Haynes, Art Blakey, Philly Joe Jones), pianists (Thelonious Monk, Bud Powell), bassists (Oscar Pettiford, Ray Brown, Charles Mingus) and whoever else, changed the direction of improvisation as it had been played in the earlier years. So we must ask ourselves, what were the definitive changes that took place during these trying years of American history.

First of all, it didn't happen overnight. It probably happened over a duration of months or years, or maybe even seconds. Music—American music—as it is played is a cumulative experience which evolves as the concepts of Groups and Individuals DEVELOP. This is a socio-musical climate in which innovations are realized. Bird and Diz have become symbols of the new musical freedoms achieved during the 40s, but they were as much a product of change as they were instigators.

There are many different ways to get to one place, and what I'm talking about is a harmonic breakthrough.

The music became emancipated simply by utilizing a more linear approach to improvisation in accordance with a fixed set of harmonic changes. And when you change the concept in terms of improvisation, naturally your rhythmic concept changes, too.

Musicians prior to the late 30s and early 40s improvised mainly through the use of arpeggios and diatonic scales. Dizzy Gillespie and Charlie Parker had a thorough understanding of traditional harmony, and they were able to influence a whole new style of improvisation based on the application of a new scale, which in effect, became the cornerstone for this new music.

Well I guess by now you're wondering, "what is this new scale which changed the course of modern improvisation?"

It's very basic. It's the dominant seventh scale! Think of the evolution of transportation, from feet, to the invention of the wheel, to the car and the space shuttle. The analogy is that the dominant seventh scale gets you where you where you want to go harmonically faster and much more efficiently than the conventional harmonic approach of improvising vertically on the changes. You might say that the dominant seventh scale and dominant chords are the square root of harmony.

The inception of this concept, the springboard for bebop, was pioneered by tenorist Lester Young in the Count Basie band of the 30s. His tenor improvisations were a total departure from those of the first modern tenorist Coleman Hawkins, whose use of arpeggios and scales often remind me of the way Bach or Beethoven would compose. Lester Young had a profound understanding of passing tones and leading tones. Prior to Coleman Hawkins' evolution of the tenor saxophone, the instrument was considered merely a functional part of the marching band, and later the big band (though not the symphony orchestra—to this day the saxophone is still not considered part of the woodwind family in some of our most prestigious musical institutions).

The music that Coleman Hawkins played was fairly basic harmonically; he was the first tenor saxophonist to use augmented chords in his improvisations, as well as double and multiple arpeggios. Lester Young, on the other hand, used less arpeggios, concentrating on single tone rhythmic phrases, long tones and diatonic scales. More significantly, whereas Hawk would play every chord change in a vertical manner, Prez would make the changes, but his use of passing and leading tones was based on a linear approach, which meant that a single line instrument didn't have to play whole chords to imply the harmony; instead of three or four chords, all he had to play was one scale. An by introducing added 6th and 9th chords into his improvisations, and making unique use of pentatonic materials (in a manner quite unlike the Asian, African and East Indian pentatonic scales. . .the most common international scales deployed in the evolution of global music) Lester Young laid the groundwork for the innovations of Dizzy Gillespie, Charlie Parker and the generations to come.●

Ricky Ford

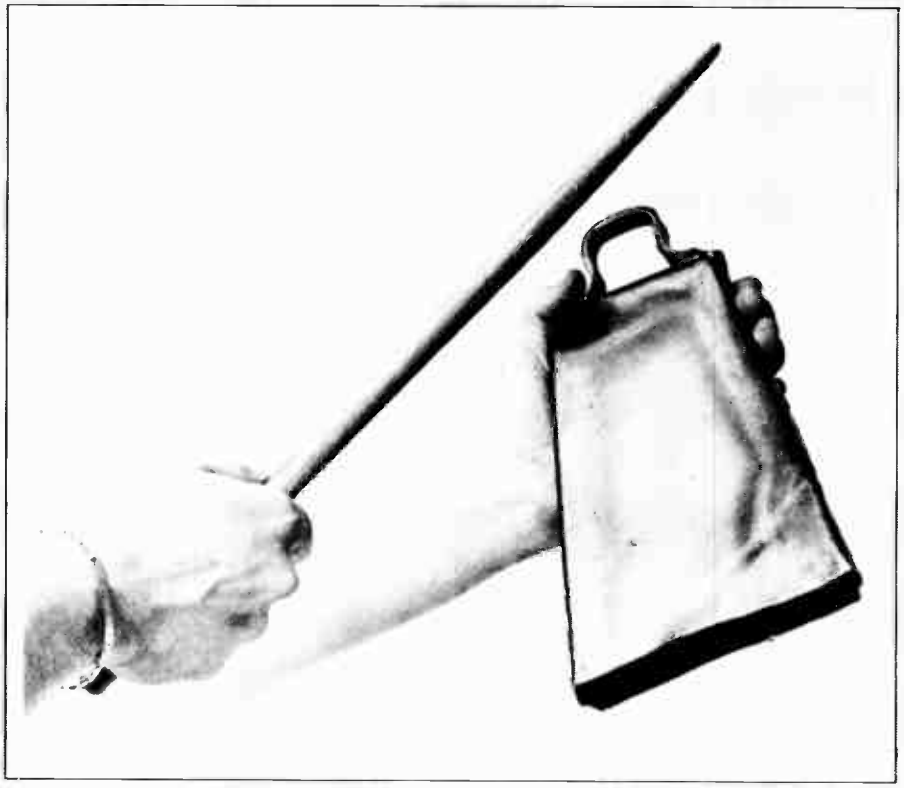
Jazz, Percussion

Section Index

FLA

The Jopa Cowbells:

The Panqué



The panqué is used in the music of Trinidad, Haiti and Brazil, and sounds like a cousin to the steel drums of calypso music. Like the steel drums it is a "found instrument." Just as the steel drums came to be made from left over oil drums, the panqué is meant to simulate the sound of an automobile brake drum. Obviously that would be very cumbersome to carry around in "the Carnevale", so a cowbell takes its place.

This is a very funky sounding cowbell, which looks as if it were run over by a truck. The panqué is fairly thin, about a finger deep, with a pronounced diagonal bend in the left corner of the mouth. As a result, you can manipulate the sound like an *agogo* (sets of two, three or more tuned bells with different pitches). The panqué sounds like a hoe hitting a flat rock, a cold, cutting, steel on steel accent.

When you strike the bell on the mouth there is a very deep elongated bell sound with an even decay; hitting the bent heel and the welded side gives you two different brake drum sounds, with a lot of overtones and a fairly quick decay. Hitting it in the center gives you the tone of the mouth, but with more overtones and a higher pitch. When you jump through the panqué's intervals the notes are roughly (very roughly, because you can't really notate such pitches) D-F-A# which is a bittersweet kind of color.

But because this bell is in tune with itself, all those different overtones don't clash. The materials and construction have a lot to do with that. Craftsman Joe Daddiego builds his JOPA cowbells from a selection of cold rolled and hot rolled steel; he wouldn't say which kind he used on any of his specific cowbells, but he did confide that one type retains its basic sound, while the other gradually goes dead as it is broken in. He builds his cowbells the way they might have in Cuba 200 years ago; there is no spot welding, electric welding or braising according to Daddiego — instead, the steel is welded to itself with an acetylene torch.

To tune the bell, he heats the top and bottom with the torch, which gives JOPA cowbells their distinctive rainbow effect; then, if he wants to *raise* the pitch, Daddiego tosses the bell immediately into water; to *lower* the pitch he lets it sit for 24 hours, applies the torch, and repeats the process until the sound is right. This tempers the bell so that it won't warp or crack.

As a result, JOPA cowbells, particularly this impolite panqué, are very lively sounding, with a lot of cutting power. This particular bell might be something of a speciality sound, but I found it quite a welcome addition to a set of traps (if not overplayed, as it tends to dominate). Percussionists looking for authentic, heavy metal cowbell sounds are advised to check out the full line of JOPA cowbells — they are very musical.

MS

Remo Fiberskin 2

Years ago, before the invention of the mylar drumhead, drummers had to rely on natural materials; probably the most common was calfskin. The sound was warm, dark and resonant, full of subtle little nuances; for brush work it had a lot of character, and with mallets it had a well rounded, rich sound.

The only problem with calfskin was that it was very susceptible to changes in the climate. In order to use calfskin to its best advantage, you had to be very careful with your tuning, and after each performance you had to de-tune all your drums or else run the risk of the heads cracking if the weather was particularly hot; in damp weather they would drop in pitch. Very tricky to work with. A cat like Dave Tough used to dampen his bass drum slightly to flatten out the sound, and conga drummer Chano Pozo used to heat his heads with an oil lamp to raise the pitch (in lieu of tuning pegs). There are still a few drummers who use calfskin today, like Mel Lewis and Papa Jo Jones (who uses a thin calfskin tympani head on his bass drum), but by and large, drummers have found plastic heads to be a lot more consistent and hassle-free for performance purposes.

The people at Remo remember the sounds of yesteryear with some fondness. The Fiberskyn 2 represents an improvement on the original Fiberskin series; and in its current form, the Fiberskyn 2 series has been improved along the lines that professional drummers suggested. Remo tells us that they have improved the longevity of the head by doubling the chemical meltdown process for a better bond between the mylar head and the polyfiber top film; they also doubled the coating on the polyfiber for increased durability.

The results are most pleasing, and for myself, out of all the drumheads that Remo makes, the Fiberskyn 2 series has the best sound and feel. The Fiberskyns come in Thin, Medium and the new Super weight variety. It is difficult to describe the sound, but they really do suggest the deep, mellow tonal color of calfskin. Fiberskyns have a relatively flat sound, with a dark, controlled resonance that is tight without being wet or dead. This is because the mylar used is only a single ply, not a double-ply or a hydraulic. The reason I originally bought Fiberskyn 2 heads was so that I could have one drum in a funk set on which I could get a tight, low sound with a good brush surface. Brushes may see a bit out of place in funk, but, well, that's a sound I like to hear, and the Fiberskyn 2 brush sound is just exquisite — crisp, without being coarse or grainy, and very clear and lively.

As these heads are a little thicker than standard mylar heads, I found that for my ears the best sound came from using a lighter head on the bottom with a Fiberskyn on top. For a snare drum, the Thin on top and a Diplomat on the bottom gave the kind of fast response I like to hear — the Mediums were just a bit too heavy, although those looking for an extra-flat sound should probably try a medium on top and bottom. For me the Mediums really shined on the bass drum. I fitted a pair to an old 3-ply Slingerland 20" wood shell, and I was able to get a tight, round sound without any muffle, which is rather eccentric I know, but I've always liked the sound of a wide-open drum; on bass drum this isn't always desirable, so the Medium Fiberskyn 2 is a perfect compromise. On my tom-toms I found the new Super weight heads allow me to get roughly the same sound as the Mediums, maybe a tad darker, but they respond better to a heavy hitter. Again, I found that by using a lighter head on the bottom I was able to get a good attack sound and a nice even decay. Using two Fiberskyns the same weight will flatten out the sound considerably for drummers who want to close-mic their tubs, but again, this is a matter of personal taste. One quirky little tuning that worked for me was using a Super weight Fiberskyn on the bottom of a 16" x 16" floor tom, with an Ambassador on top. This enabled me to get a very funky kettle drum kind of decay by damping the bottom-most resonances.

Everybody has their own tuning signature, so my comments are purely subjective. But I think the heads are just great. Fiberskyns have just a little bit of give to them, so it never feels like you are playing a board, and I think it's important to have the membrane just a little slack. Makes it feel more like a drum. Anyway, the Fiberskyn 2 series of drumheads is a perfect compromise between the warmth of calfskin and the consistency of plastic drumheads, and I think rock and funk drummers, as well as jazz drummers will find a lot of use for them. ●

Chip Stern

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JOHN COLTRANE

go ahead john....

The first time I heard John Coltrane, the first time most serious jazz fans my age heard him, was on an album whose title seemed to be *Miles*. At least, that was what it said on the cover: MILES, in white, over a green-washed photograph of a bleak, blasted, country landscape. The more explicit title on the back, *The New Miles Davis Quintet,* explains why I took the first copy out of the box that arrived at the record store where I was working at the time, and played it as soon as I got home that night.

It was Miles' new record, and if he blew in your ear, you would follow him anywhere. But after I'd heard the album through once — Miles' new working band! — I didn't know if I was willing to follow him quite that far. Nor did the friends I talked to over the next few days.

Miles had this new tenor player, and it wasn't so much that his ideas seemed jumbled and incoherent, but that he was obviously out of tune.

It might be worth noting that this album was recorded on November 16, 1955. Charlie Parker had been dead eight months.

The next time the tenor player impinged on the consciousness of my circle of acquaintances came with the release of the first Columbia album by that same Miles Davis quintet, called *Round About Midnight*. This is not the place to talk about why and how Miles switched from the hippest jazz label there was, Prestige, to the biggest, Columbia, to whom jazz apparently meant Dave Brubeck, but the album astonished us all. It was neat, clean, corporate, and the best record we had heard in years. And not only because of Miles. The piano player — he said he was a piano player, I had never heard him play — who would talk to me when he came in on his lunch hour, agreed with me about what was so good about the new Columbia. "Coltrane's what you hear on *that* record," said the piano player, whose name was Cecil Taylor.

The release dates of the Prestige and Columbia albums were wide apart, for contractual reasons, but the recordings dates weren't. September 16, 1956, for the Columbia. Coltrane was growing as fast as a malignant plant in a horror movie.

A few years and a few jobs after that, I was asked to write the liner notes for a Coltrane album on Prestige. When I was still at the record store, I had been asked to write a few reviews for the catalogue the store was putting out in opposition to Schwann's, and a few articles, one of which had been about the records Coltrane had been making under his own name for Prestige.

Photo :Valerie Wilmer

So I wrote those notes, for an album called *Lush Life,* and it changed my life in several ways, not the least of which is that I met John during the course of writing them.

By that time, I had invested a great deal of my thoughts about the music in Coltrane, and wasn't going to be too easily dissuaded if he didn't agree with them. I revered him, therefore I wanted him to agree with me. Still, he taught me a couple of things.

One side of the LP had Coltrane with only a bass player and drummer, Earl May and Arthur Taylor. No piano player. I pondered about that a lot, and decided that there had to be one of two reasons for it. The first was that Ornette Coleman had recently appeared on the scene, pianoless, and was taking the resulting lack of a chordal plan into areas Gerry Mulligan had never dreamed of. The other was that Sonny Rollins had made some pianoless trio records, and perhaps Coltrane wanted to challenge Sonny on his own turf. There would have been good reason for it. Most people, including myself, thought, by this time, that Coltrane was the best tenor man *after* Rollins, and were suspicious of his place in the Davis band. As all my friends and I knew, God had intended Miles Davis and Sonny Rollins to play together. So my first question to John was about the reason for the trio side.

"The piano player didn't show up," he told me.

Well, that wasn't exactly the answer I wanted, or even one I was especially happy to have, but I would have to make do with it. Right now, all these years later, I could do an extensive gloss on the remark, a long tap dance about art-as-accident or art-and-necessity, but the point I wanted to make is that every time John talked to me about music, and there were several times after that, it was always on that level: more or less the way a carpenter might talk about a house he was helping to build, whether the building turned out to be Chartres Cathedral or not. He was always the honest craftsman; never the theoretician, and certainly never the saint.

Photo : Valerie Wilmer

That might simply have been his reaction to me, but when I went to his home on Long Island, and saw it decorated with the kind of ceramic bas-reliefs of mariachi players that you expect to find on the walls of Southwestern motels, I began to think that Coltrane was sophisticated only in his music, and that the other aspects of his personality were lagging far behind, and might not be up to coping with the new world in which he was going to find himself.

I made just such a remark one night to the ultra-sophisticated Cecil Taylor, whose answer was swift and pointed: "A lot of 'literary' people say that. I always feel good about being with John *after* I've talked to him." So maybe the fault was mine.

Anyway, the people at Prestige like what I had written about *Lush Life* so much that they offered me the job of Publicity Director (house liner-writer, really), and it was far preferable to the job I had, so I jumped at it. Because of

Continues on page 83

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JOHN COLTRANE

Continued from page 81

Photo : Charles Stewart

Coltrane, I was in the jazz life full-time. And because of him I got out of it, as we shall see.

But before we do that, let's talk about what made John so unusual, so startling. First of all, there was his tone, which sounded hollow, scooped out, a sound with the top cut off, even in his highest register. This is why, when first heard, he sounded out of key. In the middle fifties, those tenor players who weren't doing a Getz-derived version of Lester Young, soft and fuzzy, were playing balls-out, on-the-bottom, Sonny Rollins. John did neither one. His sound encompassed what bluesmen call "the cry" more than any player I have heard, before or since. He often sounded like back-country guitar. He was a superb blues player, and on several pickup sessions he made at the time for either Prestige or Blue Note, as a member of hastily-arranged blowing sessions, his first chorus on a blues would turn out to be the one little minute you kept the album for. He had his own idea of implied passing tones, by which I mean that he got from A to B by a different route than the other guys. That means he heard the music differently. On some of those same pickup records, he displayed a superb feeling for ballads. You could have danced to those choruses easier than to Lester Lanin.

And the reason why is easily seen: he had played with black roadhouse and blues bands. Joe Web, whose vocalist was Big Maybelle, King Kolax, Eddie Vinson, Earl Bostic, Johnny Hodges, whom Bird used to call 'Lily Pons,' for his singing tone, and Gay Cross, who had worked with the quintessential roadhouse bandleader, Louis Jordon, revered by such disparate figures as Ray Charles and Sonny Rollins. And finally, just before Miles, with Dizzy Gillespie. As the phrase has it, "I see where you're comin' from."

Jazz writers, as always, were looking for the *Next Thing*. Martin Williams and Nat Hentoff, co-editors of the influential *Jazz Review,* thought it was going to be Ornette Coleman, and they had a consortium made up of Atlantic Records, John Lewis, Gunther Schuller, and the Lenox School of Music to back them up. I thought it was going to be my friend Cecil Taylor. But it turned out to be John, after all.

He left Miles in the summer of 1957, to go into the Five Spot in New York with a quartet led by Thelonious Monk, who had only recently regained permission to carry a Cabaret Card, which at that time, because of medieval laws irrelevent to the main discussion here, was necessary if one was to play music in a place in New York City where liquor was sold. The quartet stayed there all summer, and it was magic; it was the best jazz I, and most of the others who came to the club, had ever heard. And it taught Coltrane a great deal.

At the conclusion of his engagement with Monk, John returned to Miles, who now had a sextet including Cannonball Adderley and Bill Evans, and made an album called *Kind of Blue,* on April 22, 1959. Miles had by then decided that it was easier and more productive to play on modes than chord progressions, and the pieces on that album – "So What" most notably — pointed the next important direction Coltrane was to follow. The nightly challenge of Monk's tunes had given John some new things to play, and the offbeat accents and unique chords that Monk used forced him to get past patterns into pure melody, as well as providing him with the absolute musical authority to play anything he heard. On his excellent "All Blues" solo from *Kind of Blue* there is one low note, that to the best of my knowledge, doesn't exist on the tenor saxophone. But John wanted to hear it, so he played it.

John's contract as a leader was up with Prestige by that time, and he went with Atlantic. One of the things that John did when he got over there was to unleash his secret weapon, the soprano saxophone. In modern times, only Steve Lacy, in Cecil Taylor's band, had played the soprano; prior to that, it was the exclusive property of the great New Orleans master, Sidney Bechet.

John found a song to play that was beautifully suited to the things he wanted to do with the soprano saxophone. It was called "My Favorite Things". Once his recording of it came out, it became extremely difficult to convince New York hipsters that the song was written for Mary Martin to sing in a musical Rodgers and Hammerstein had written about the Trapp Family Singers. They thought it was an Indian raga, or something.

He was a leader now, both in clubs and on records. Both of us had left Prestige. I was given an Atlantic record of his to write notes for, and was unable to reach him in time. A blues track on soprano — the album was released as *Coltrane Plays the Blues* — untitled, as was

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JOHN COLTRANE

Continued from page 83

everything else, reminded me so much of Bechet that I said so. When the recording was released, and I saw that the track was titled "Blues to Bechet," I was very proud, and remain so.

Miles Davis now had Hank Mobley in his band, but on an album called *Someday My Prince Will Come,* John returned — "sneaked down," he said — to record two solos, one on the title track, the other on a number obviously derived from the *Sketches of Spain* album, called "Teo". The "Teo" solo is perhaps John's finest, right up there with the European bootleg with Miles on "So What," and the other is not far behind. Modal, Third World, screaming, crying, but utterly disciplined, in a way that the recordings issued under his own name often were not.

It wasn't long after that that John went over the edge the year was 1965. John was never meant to be a bandleader. He made great records as a bandleader — *Olé,* for one, derived from a Spanish Civil War song that he didn't know was that until I played him the Pete Seeger-Woody Guthrie record I knew it from, and on which you could easily tell, during the ten-minute stretch he doesn't play on, whose band it is — and he brought in Eric Dolphy and Elvin Jones, and great bass players like Art Davis, Reggie Workman and Jimmy Garrison, but I don't think he was meant to be a leader.

And then he broke through. You couldn't whistle his solos any more. There is a philosophical proposition that says if everything is permitted, nothing is possible, and I think that is what happened. He would sit on one chord all night, playing a vamp, running one small melodic motif over and over, proving, as Martin Williams once wrote, that "one man's incantation may turn out to be another man's monotony." The seeds of that tendency can be heard as far back as 1961, in what may be Coltrane's most influential recording, "Chasin' the Trane." And they came to full flower in the 1965 recording called *Ascension.*

Ascension was the place I couldn't follow him to, and couldn't follow him beyond. A thickly-textured, multi-instrumental piece obviously patterned after Ornette Coleman's *Free Jazz,* it simply hurt my ears, as did most of the work that followed it. John was playing with two drummers, three saxophonists, his wife, seemingly anyone who wanted to get up on the stand with him. His double and triple tones were no longer accents used for effect, but had become the whole piece. Likewise, a superb cadenza such as used to end "I Want To Talk About You" had become the entire performance.

I used to wonder what he had heard when he was growing up, because he continually said that he didn't know why such a fuss was being made about him, that he wasn't playing anything all that different. And I'm sure he meant it. He was a deeply modest man, but he wasn't a fool.

He died in July of 1967, a few days more than two years after he recorded *Ascension.* And I do not think that most of the "live" recordings and alternate masters that have proliferated since his death have served his memory well. *Ascension,* though, was enough to make me quit writing about jazz for ten years. ●

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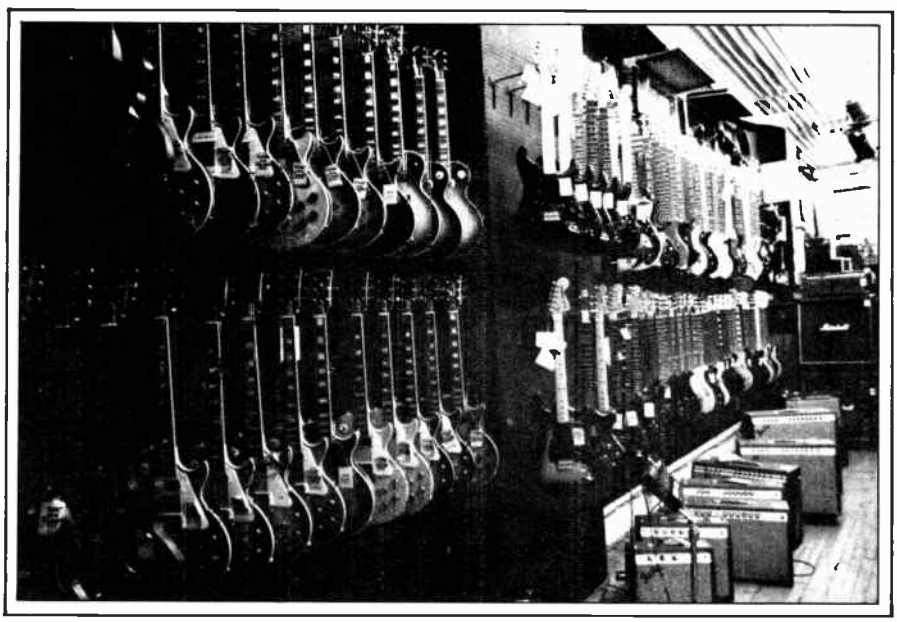

STEVE'S MUSIC

Steve's Music opened for business in 1965 with a small store front in Montreal. The operation rapidly grew into the city's "music department store" and now occupies five stores abreast of the original location. In 1977, Jeff Sazant and his assistant Jerry Markman opened a second Steve's in Toronto. The acceptance of the store by Canada's busiest music center was immediate, and after only two days in business they had to begin adding to the staff.

In the past four years, Steve's in Toronto has grown to 23 full-time employees, and from the original 4,500 sq. ft. of floor space to 14,000 sq. ft. This expansion is the result of a consumer-oriented philosophy that emphasizes a huge inventory, extensive display facilities, and a knowledgeable professional staff. The guitar department, for example, has 400 guitars and basses on the wall (including 30 Les Pauls in different models and colors), all with suggested retail and Steve's discount prices clearly marked. Customers can check out any instrument, with no time limits — a policy that often results in spontaneous jam sessions.

The drum department is housed on the second floor, with scores of complete kits set up and ready to play. Keyboards and pro-sound equipment have their own soundproof display areas, and a keyboard mixer and audio-style patch bay allow instant comparison of any of the large selection of goodies Steve's has on display.

With so much equipment at the customer's fingertips, a professional staff is essential, and the people at Steve's are just that. Each area of the store has its own permanent staff, and with prices clearly marked on the equipment, the salespeople are free to act as consultants, not just order clerks. Specialists at Steve's deal with areas such as customizing and building a guitar with replacement parts from Schechter and Mighty Mite, component systems for bass amplification; and sound reinforcement equipment. The drum and keyboard staffers are just as expert in their fields. A typical keyboard demonstration at Steve's Music will include a healthy dose on the theory of synthesizers, along with a hands-on demonstration of a particular instrument.

Steve's concern for the musician doesn't end with the actual sale, either. The store has three full-time technicians in-house, and full repair facilities for all the products they sell. Manager Jeff Sazant makes sure that schematic diagrams and service manuals come with all electronic equipment. In fact, Steve's won't sell equipment that they can't repair themselves.

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Eastern Sound

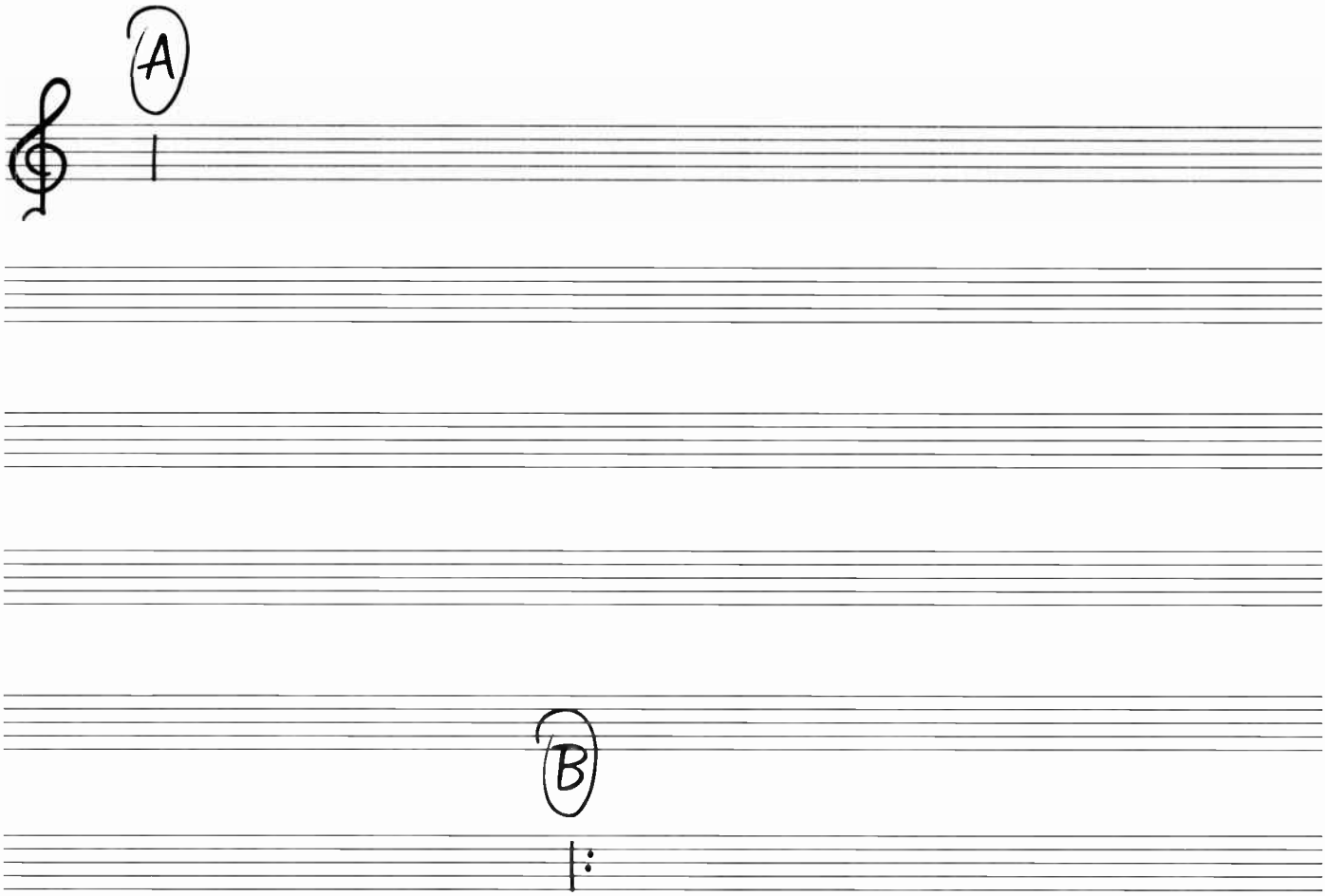
Toronto is Canada's busiest music center, and nestled right in the heart of downtown is one of the main reasons for that city's preeminence, Eastern Sound. From its humble beginnings as a mono operation in 1959, Eastern Sound has mushroomed into a multi-media center occupying half of a city block, and including two complete sound stages which are linked to the three recording studios by audio and video tie-lines.

Eastern Sound's Studio I, the "big room", is where internationally known recording artists like Anne Murray, Bruce Cockburn and Pat Travers lay down tracks. Studio I houses a 24-track Neve mixing console with Necam automated mixing, and uses Studer tape decks for both tracking and mixdown. Studio II is a slightly smaller 24-track room, with the same equipment as Studio I except for the Necam automation, while Studio III is the baby of the bunch, with a Neve/Studer 8-track set-up. JBL 4250 monitors and Dolby noise reduction are used in all three studios.

As you would expect from a major-league studio, Eastern Sound has a complement of microphones and outboard signal processors that would require an entire magazine to list, including the latest state-of-the-art equipment. Some of their most requested items, however, can only be found in studios with histories as long (and maintenance staffs as experts) as Eastern Sounds'. These special items include an EMT 140 plate reverb system, Urei tube limiters, and Neumann U-67 and U-47 tube microphones.

The video equipment is a recent addition to the studio's operations and is based on the Studer TLS-2000 lock system. A JVC 3/4" video recorder occupies Studio I, with Ampex 3/4" and 2" systems in the other two rooms. The eight-track studio is used for TV commercials and audio post-production work, while video programs for rack groups utilize one of the sound stages and either Studio I or Studio II.

Sound recording for jingles and albums is still the major income-producer at Eastern Sound, but the film and TV work is rapidly gaining ground since the video installation was completed last year. The studio does almost no advertising, since its longevity and the professionalism of the entire staff have developed a strong word-of-mouth reputation which keeps clients coming in steadily. Operations manager Peter Holcomb feels that the studio's reputation — and repeat business — is built on a combination of good sound and a relaxed atmosphere. The lounges, with color and video playback, not to mention the ubiquitous pinball machines, are decidedly secondary to the business at hand. "Recording is a bit like getting on an airplane," Holcomb told IM&RW, "it can be a nervous experience." He tries to ensure the privacy of Eastern Sound's clients, so that the trip from set-up to finished master will be as smooth as possible. The long list of clients who keep coming back to Eastern Sound reflects the success of their endeavors. ●



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Continued from page 14

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(Warner Bros. BSK 3536)
These albums represent the blossoming of third world collective principles in a western pop/rock amalgam. They represent a primal creativity that transcends chopsmanship or the lack thereof. They both substitute anarchic interplay in the studio for the tradition of deliberate craftsmanship that has long been the hallmark of western thought — with very pleasing results.

Call it ethnic chic, and you'd be correct, but this isn't just a pose — these musicians/poets believe in the power of ethnic music and have figured a way of wedding it to technology. Still, one has to admit that there is a certain amount of calculated dislocation between these artists and their audience which is what differentiates it from real ethnic music. In Eno's case we're talking about a capricious, Godlike need to meddle, to experiment with cause and effect. For Byrne, the systems analyst/catalyst, the master of internal dialog, it's a question of taking things apart to determine how they work (and putting them back together a different way). In Lydon's case, we're dealing with a Wagnerian, officious posture that belies the revelation and renewal of his primal scream, and distances his message from the rock mainstream (and the polluted stream that often comprises the rock audience). His multi-instrumentalist partner Keith Levene has a micro-chip on his shoulder, creating otherworldly textures with his free form guitar and Prophet Synthesizer over a galloping, trans-continental drum pulse (shades of Ginger Baker).

Byrne and Eno's music is more of a pastiche, less deeply felt, but no less interesting. By transposing a variety of Arabic songs and evangelist preachers over a gumbo of electronic bleeps and acoustic percussion, they create strange new worlds of polyphony. Public Image's roiling, raging drumbeats and electronic textures is more of a renegade dub — they mean it, *man*! Turn 'em up loud and get ready for the 90s.
Chip Stern

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Chris Doering

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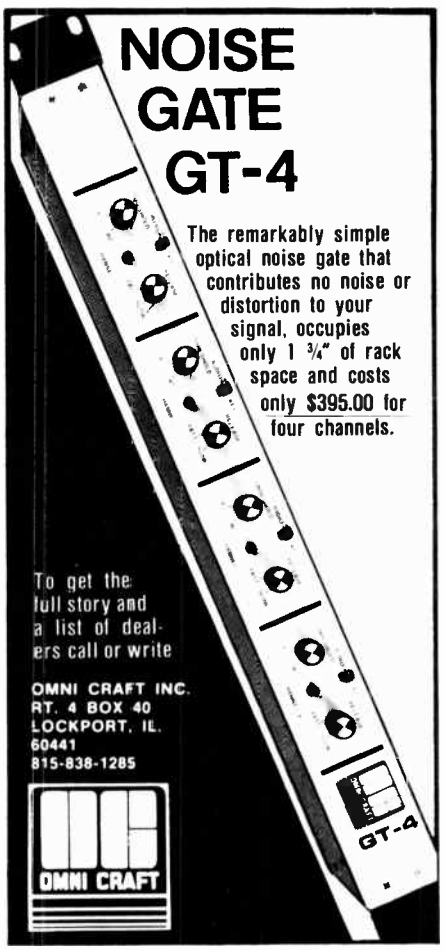

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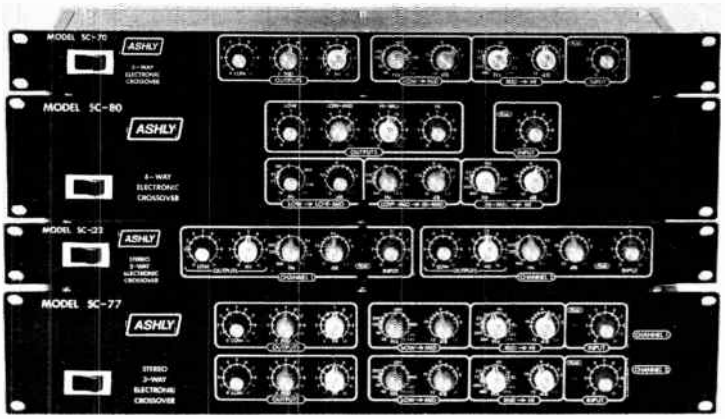

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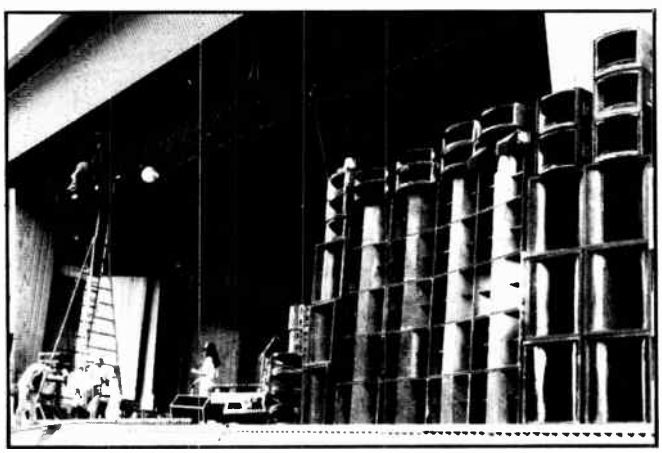

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MT/R 4-8-16-24. MD 2-4. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. CW. UE.
Laxicon, Dolby. JBL. Otari. MCI.

DELAWARE

SOUND BOARD
331 Newark Shopping Ctr,
Newark, DE 19711
(302) 737-4350
MC. SP. MS. FP/SYS. PS/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA.
Tapco, Electro-voice, Custom, Audio Technical, Roland, Shure.

WONDER SOUND STUDIOS
3501 Philadelphia Pike,
Claymont, DE 19703
(302) 798-0505
MT/R 2-4-8-16-24. MD. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. CW. UE. V.
Community Light & Sound, Crwon, JBL, TAD, Soundcraft.

FLORIDA

DISCOUNT MUSIC CENTER
456 North Orange Avenue,
Orlando, FLA 32801
(305) 843-2025
MT/R 2-4-8-16-24. MD. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. CW. UE. V.
TEAC, Crown, JBL, Yamaha, Klipsch.

ILLINOIS

AUDIO TRACK RECORDING
1025 West State Street
Rockford, IL 61102
(815) 968-2902
MT/R. MD. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. V.
BGW, Tapco, Furman, Stanley Screamer, Eventide.

BRIDGEWATER CUSTOM SOUND
(Proi Audio Showroom)
160th & Halstead,
Harvey, IL 60426
(312) 596-0309
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. JBL. Crown, BGW, Bose Pro, Neuman

GREAT AMERICAN MUSIC CO.
403 North Broadway
Urbana, IL 61801
(217) 367-6615
MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. V.
MusicMan, BGW, Marshall, Gauss, Electro-Voice.

INDIANA

IRC AUDIO (Division of IRC Music)
5911 East 82nd Street, Indianapolis,
Indiana 46250
(317) 849-7965
MT/R 4-8. MD. MC. SP. MS. PA/SYS. PA/SP. TP ¼" 2". P/AM. M. DR. EA. CW. UE.
JBL, Crown, TEAC, Tascam, Community Light & Sound, Biamp.

MASSACHUSETTS

DISCTRONICS SOUND & LIGHTING
101 Bigelow Avenue,
Watertown, MA 02172
(617) 926-1919
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. V. L.
Urei, DeltaLab, Community Light & Sound, Bryston, AB Systems.

MICHIGAN

ARNOLDT WILLIAMS MUSIC INC.
5701 Canton Center Road,
Canton, Michigan 48187
(313) 453-6586
MT/R 4-8. MD 2-4. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½". P/AM. DR. EA. CW. UE.
TAD, Otari, Deltalab, UREI, Community Light & Sound.

AUDIOLIGHT
32239 West 8 Mile Road,
Livonia, MICH 48152
(313) 477-5900
MT/R, MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. V.
Studiomaster, MBW, Electro-Voice Tapco, McUley, Ashford

FERGUSON SOUND SYSTEMS & CO.
PRECISION AUDIO
1619 W. Atherton Road
Flint, Mich 48507
(313) 238-6322
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R.
Electro-Voice, dbx, Kelsey, Tapco, AB Systems.

NEBRASKA

SOUND SHOW
6066 Maple Street,
Omaha, Nebraska 68104
(402) 553-3434
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. V.
Crest, Electro-Voice, Tapco, NEI, Mill City Systems

NEW HAMPSHIRE

EAR CRAFT
14 Fourth Street, Dovar, NH 03820
(603) 749-3138
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R. V.
Gauss, Audio-Arts, Electro-Voice, GBW, DeltaLab, Crest

NEW JERSEY

SOUND ENVIRONMENT INC.
50 Park Avenue, Lakewood, NJ 08710
(201) 364-3044
MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. CW. UE. V.
Crown, Electro-voice, JBL Professional, TAD, UREI.

TD AUDIO INC.
7 Oak Place,
Montclair, NJ 07042
(201) 746-1233
MC. SP. MS. PA/SYS. PA/SP. P/AM. M. DR. EA. CW. UE. V.
Crown, Community Light & Sound, TAD, JBL, Ashly.

LOU ROSE MUSIC CENTER
1627 Route 27
Edison, NJ 08817
(201) 985-3333
MT/R. MC. SP. MS. PA/SYS. TP. P/AM. M. DR. EA. CW. UE. R.
Ashly, JBL, Biamp, BGW, Studiomaster

NEW MEXICO

BLAKELY PRO-AUDIO
3103 Central North East,
Albuquerque, NM 87106
(505) 266-0296
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. V. A-B Systems, Altec Pro, Crown-PZM, Gauss, JBL Pro.

NEW YORK CITY

A.S.T. SOUND
11 Ave. of Americas,
New York, NY 10013
(212) 925-8149/375-1700
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. V. A-B Systems, Altec Pro, Crown-PZM, Gauss, JBL Pro.

NEW YORK STATE

GRACINS PRO SOUND
42a North Franklin,
Hempstead, NY 11550
(516) 483-6160
MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE. R.

NORTH CAROLINA

STUDIO WORKS
1018 Central Avenue,
Charlotte, NC 28204
(704) 377-4596
MT/R 4-8-16-24. MD. MC. SP. MS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. AKG. Otari, MCI, Lexicon, JBL.

OHIO

AUDIO-VIDEO EMPORIUM
110 North Main,
Fostoria, OH 44830
(419) 435-8432/435-7305
MT/R. MD. MC. SP. MS. PA/SYS. PA/SP. TP. P/AM. M. DR. EA. CW. UE R. V.
Home of Moseka Recording w/16 tracks

HEY DAY SOUND
1456 Sylvania Ave.,
Toledo, OH 43612
(419) 476-3835
MT/R 4-8, MD 2-4. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA.
Electro-voice, Tapco, BGW, JBL, Ashly, UREI.

PI CORP
13329 Pearl Road,
Cleveland, Ohio 44136
(216) 238-0644
MT/R 4-8. MD 2-4. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM M. DR. EA.
Otari, BGW, Deltalab, AKG, Tapco.

SWALLEN'S AUDIO
3700 Red Band Road,
Cincinnati, Ohio 45227
(513) 272-3222
MT/R 4-8. MD 2-4. MC. SP. MS. PA/SP. PA/SYS, TP ¼" ½" 1" 2". P/AM M. DR. EA.
2nd branch at:
4563 East Main Street,
Columbus, Ohio 43213
(614) 864-5675

PENNSYLVANIA

RO-CEL ELECTRONICS INC.
731 Butler Street, Pittsburgh, PA 15223
(412) 781-2326
MT/R 2-4-8-16. MD. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. CW. UE. V.
TEAC, Tascam, Crown, JBL, Biamp, Cerwin-Vega.

TENNESSEE

CREATIVE AUDIO
112 Space Park Drive,
Nashville, TN 37211
(615) 331-3247
MT/R 4-8-16-24. MD 2-4. MC. SP. MS. PA/SYS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. DR. EA. V.
Tascam 85-16, Sound Workshop, Otari, Easter Acoustic, Tangent.

TEXAS

ASI PROFESSIONAL AUDIO
PO Box 6520,
San Antonio, TX 78209
(512) 824-8781
MT/R 4-8-16-24. MD MC. SP. MS. PA/SYS. TP ¼" ½" 1" 2". P/AM. M. DR. EA. CW. UE. V.
TEAC, JBL, Crown, Altec, Soundcraft.

RECORDER CENTER INC.
2003 North Handerson, Dallas, TX 75206
(214) 826-8700
MT/R 4-8-16. MD. MC. SP. MS. PA/SP. TP ¼" ½" 1" 2". P/AM. M. EA. CW. UE.
Tascam, Revox dbx, Community Light & Sound, Lexicon.

VERMONT

THE MIXING BOARD
65 Main Street,
Burlington, VT 05401
(802) 658-4793
MT/R 4-8. MD 2-4. MC. SP. MS. PA/SYS. PA/SP. P/AM. M. DR. EA.
TEAC, Tascam, Electro-voice, Tapco, Eastern Acoustic Works, AKG, AB Systems.

Dealer Buyers' Guide

KEY FOR DEALER GUIDE

A	Amplifiers
B	Brass
BF	Books & Folios
D	Drums
E	Effects
EK	Electric Keyboards
ER	Electric Repairs
G	Guitars
IN	Instruction
IR	Instrument Rental
K	Keyboard
M	Mikes
O	Organs
P	Parts
RE	Recording Equipment
RS	Repair Services
S	String (for Guitar)
S/H	Second Hand
SL	Stage Lighting
SM	Sheet Music
SR	Sound Reinforcement
SYN	Synthesizers
TC	Travel Cases
W	Woodwind

ALASKA

DOWN HOME GUITAR
2917 Spenard Rd.
Anchorage, AL 99503
(907) 278-1545
A. BF. D. E. ER. G. IN. IR. M. P. RS. S. S/H. SM. SR. SYN. TC.

ARIZONA

INSALACO'S MUSIC
297 N. Broad St.
Globe, AZ 85501
(602) 425-7057
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. P. RS. S. S/H. SM. SR. W.

CALIFORNIA

CALIFORNIA MUSICAL INSTRUMENTS
1019 E. Vermont Ave
Anaheim, CA 92805
(714) 533-8610
A. B. D. E. EK. ER. G. IR. K. M. O. P. RE. RS. S. S/H. SL. SR. SYN. TC. W.

GOODMAN MUSIC CO.
Topanga Plaza Shopping Center,
Canoga Park, CA 91309
(213) 340-9100
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC. W.
Also at:
5311 Lankershim Boulevard,
North Hollywood, CA 91601
(213) 760-4430

K. KALIE
2100 W. Lincoln
Anaheim, CA 92801
(714) 778-2011
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SM. SR. SYN. TC. W.

ACME MUSIC
3715 Mac Arthur Blvd.
Oakland, CA 94619
(415) 530-7234
A. B. BF. E. ER. G. IN. IR. K. M. P. RS. S. S/H. SM. W.

MAGIC MUSIC MACHINES
1207 Howard St.
San Francisco, CA 94103
(415) 864-3300
ER. K. P. RS. S/H. SR. SYN.

PEOPLES MUSIC
132 N. Main St.
Sebastopol, CA 95472
(707) 823-7664
A. B. BF. D. E. ER. G. IN. IR. M. P. RE. RS. S. S/H. SM. SYN. W.

MUSIC WORLD
1420 E. Los Angeles Ave.
Simi Valley, CA 93065
(805) 526-9351
A. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SL. SM. SR. SYN. TC.

COLORADO

GUITAR CENTRE CUSTOM GUITAR
344 North Avenue, Grand Junction,
CO 81501
(303) 242-4208
A. BF. E. G. IN. IR. M. P. RS. S. S/H. SM. TC.

SOLID SOUND INC.
1638 Pearl St.
Boulder, CO 80302
(303) 444-1731
A. D. E. EK. ER. G. IN. IR. K. M. P. RE. RS. S. S/H. SR. SYN. TC.

COLFAX MUSIC
563 E. Colfax Ave.
Denver, CO 80203
(303) 832-6526
A. D. E. EK. ER. G. IR. M. P. RE. S. S/H. SL. SR. SYN. TC.

PRO SOUND MUSIC CENTER
2432 South Colorado Blvd.
Denver, CO 80222
(303) 759-4455
A. D. E. EK. ER. G. IR. M. O. P. RE. RS. S. S/H. SM. SR. SYN. TC.

PRO SOUND MUSIC CENTER
3520 N. Academy Blvd.
Colorado Springs, CO 80907
(303) 597-9962
A. D. E. EK. ER. G. IR. M. O. P. RE. RS. S. S/H. SM. SR. SYN. TC.

CONNECTICUT

BANKO'S MUSIC
360 E. Main St.
Ansonia, CT 06401
(203) 734-0461
A. B. D. E. EK. ER. G. K. M. P. RS. S. S/H. SM. SR. SYN. TC. W.

CUSTOM GUITAR WORKSHOP
438 N. Colony Road
Wallingford, CT
(203) 265-3830
A. BF. E. EK. ER. G. M. P. RS. S. S/H SM. SR. W.

DANBURY ELECTRONIC MUSIC CENTER
84 Federal Rd.
Danbury, CT 06810
(203) 792-2794
A. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SR. SYN. TC.
(See Dutchess Electronics in N.Y. State)

MUSIC GUILD
276 Main St.
Danbury, CT 06810
(203) 792-6760
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC. W.

THE SOUND STORE
136 Park St.
New Haven, CT 06511
(203) 787-4880
ER. IR. P. RS. S/H. SR.

DELAWARE

SOUNDBOARD
1707 Concord Pike
Wilmington, DE 19803
(302) 655-9599/737-4350
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SM. SR. SYN. TC. W.

FLORIDA

GREEN SHIFT MUSIC & ELECTRONICS
6500 N. Florida Ave,
Tampa, Florida 33604
(813) 238-4177
A. BF. E. EK. ER. G. IN. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC.

MODERN MUSIC
320 E. Oakland Park Blvd.
Ft. Lauderdale, FL 33334
(305) 565-1671/473-0936
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC. W.

AESOP MUSIC CENTER
5223 Park Blvd.
Pinellas Park, FL 33565
(813) 541-2697
A. BF. D. E. EK. ER. G. IR. M. P. RS. S. S/H. SM. SR. SYN. TC.

THOROUGHBRED MUSIC
12311 Nebraska Ave.
Tampa, FL 33612
(813) 971-5822
A. D. E. EK. ER. G. IR. K. M. P. RE. RS. S. S/H. SL. SR. SYN. TC.

GEORGIA

BAKER MUSIC SHOP
1820 Midtown Dr.
Columbus, GA 31906
(404) 563-7924
A. B. BF. D. E. EK. G. IN. R. K. M. P. RS. S. S/H. SM. SR. TC. W

ILLINOIS

BARTLETT PLAZA MUSIC CENTER
152 E. Bartlett Plaza Center
Bartlett, IL 60103
(312) 830-4210
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. P. RS. S. S/H. SL. SM. SR. SYN. TC. W.

CHICAGO MUSIC CO.
3530 N. Lincoln Ave
Chicago, IL 60657
(312) 472 1023
A. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SL. SM. SR. SYN. TC.

HALPIN
2720 Corner Court,
Alton, ILL 62002
(618) 462-0666
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. TC. W.

MC DERMITH MUSIC CENTER
2026 Mt. Zion
Decatur, IL 62521
(217) 864-5022
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. P. RS. S. S/H. SM. SR. SYN. TC. W.

ROGUES GALLERY OF MUSIC
Oak & Elwood St., Grainery Shopping Mall,
Frankfort, IL 60423
(815) 835-2980
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SM. SR. SYN. TC. W.

MR. MUSIC
4871 E. State St.
Rockford, IL 61108
(815) 229-0438
A. D. E. EK. G. IN. M. S. S/H. SR. SYN.

JACK MOORE MUSIC CENTER
1029 E. Golf Rd.
Schaumburg, IL 60195
(312) 882-1434
A. B. BF. D. E. ER. G. IN. K. M. P. RS. S. S/H. SM. SR. W.

YE OLDE MUSIC SHOP
315 N. Main St.
Marissa, IL 62257
(618) 295-2083
A. D. E. EK. ER. G. IR. K. M. O. P. RE RS. S. S/H. SR. SYN. TC.

INDIANA

TAULBEE MUSIC CENTER
5010 Old Decatur Rd.
Fort Wayne, IN 46806
(219) 745-3876
A. E. EK. ER. G. IN. K. M. P. RS. S. S H. SR. TC.

MARGHEE'S MUSIC MART
6637 Kennedy Ave.
Hammond, IN 46323
(219) 845-9560
A. B. BF. O. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC. W.

WAGONER'S MUSIC SHOP
611 E. Jefferson St.
Plymouth, IN 46563
(219) 936-8714
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SL. SM. SR. SYN. TC. W.

IOWA

DES MOINES MUSIC HOUSE
5801 Franklin
Des Moines, IA 50322
(515) 274-1556
A. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC.

KANSAS

LITTLE APPLE MUSIC
413 Poyntz
Manhattan, KS 66502
(913) 539-1926
A. D. E. G. IN. K. M. O. P. RE. RS. S. S/H. SR. TC.

STEAM MUSIC
125 SW. Gage Blvd.
Topeka, KS 66606
(913) 273-3334
A. BF. D. E. EK. ER. G. IN. K. M. O. P. RS. S. S/H. SM. SR. SYN. TC.

LOUISIANA

GUITAR MASTER
713A S. Lewis
New Iberia, LA 70560
(318) 367-2318
A. BF. D. E. EK. ER. G. K. M. P. RS. S. S/H. SM. SR. SYN. TC. W.

MAINE

CRAZY ED'S MUSIC CENTER, INC.
610 Congress St.
Portland, ME 04101
(207) 774-7592
A. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SL. SR. SYN. TC.

EZZY'S MUSIC/DUTY FREE TO CAN.
110 Main St.
Van Buren, ME 04785
(207) 868-2838
A. B. BF. D. E. EK. ER. G. IN. K. M. O. P. RS. S. S/H. SM. SR. SYN. TC. W.

MARYLAND

GORDON MILLER MUSIC
8805 Orchard Tree Lane,
Towson, MD 21204
(301) 825-2558
A. B. D. E. EK. ER. G. M. P. RE. RS. S. S/H. SL. SR. SYN. TC. W.

CHUCK LEVIN'S WASHINGTON MUSIC CENTER
11151 Viers Mill Rd.
Wheaton, MD 20902
(301) 946-2300
A. B. BF. D. E. EK. ER. G. IR. K. M. O. P. RE. RS. S. SL. SR. SYN. TC. W.

VENEMAN MUSIC CO.
1150 Rockville Pike
Rockville, MD 20852
(301) 762-5100
A. B. D. E. EK. ER. G. M. P. RE. RS. S. S/H. SL. SR. SYN. TC. W.

ALEXANDERS HOUSE OF MUSIC
Route 50 Shoppers World
Salisbury, MD 21801
(301) 749-6372
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SM. SR. SYN. TC. W

MASSACHUSETTS

THE MUSIC GALLERY
104 Russell St.,
Hadley, MA 01035
(413) 586-6228
A. O. E. EK. ER. G. K. M. O. P. RE. RS. S. S/H. SL. SR. SYN. TC.

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Dealer Buyers' Guide

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MISTER MUSIC INC.
128-132 Harvard Ave.
Boston, MA 02134
(617) 783-1609
A. BF. D. E. EK. G. IN. K. M. P. RE. RS. S. S/H. SR. SYN. TC.

BARNSTORM MUSIC
167 Main St.
Milford, MA 01757
(617) 473-9802
A. BF. D. E. EK. ER. G. IN. IR. K. M. P. RS. S. S/H. SM. SR. SYN. TC.

STEVE'S QUALITY INSTRUMENTS
14 Water St.
Danvers, MA 01923
(617) 777-3221
A. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC. W.

MICHIGAN

ANN ARBOR MUSIC MART
336 S. State St.
Ann Arbor, MI 48104
(313) 769-4980
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC. W.

BRUCE WINCH MUSIC SHOP
3404 S. Oort Highway,
Flint, Mich 48507
(313) 742-2131
A. BF. D. E. EK. ER. O. IN. IR. K. M. O. P. RE. RS. S. S/H. SL. SM. SR. SYN. TC.

J. RUPPEL INSTRUMENT CO.
2580 Oixie Highway,
Pontiac, MI 48055
(313) 674-1493
A. B. D. E. ER. G. IN. M. RS. S. S/H. SYN. TC.

MUSIC CITY
29478 Ford Rd.
Garden City, MI 48135
(313) 427-2270
A. B. BF. D. E. ER. G. IN. IR. M. P. RS. S. S/H. SR. TC. W.

MIDDLETON MUSIC STUDIO
1415 Plainfield NE,
Grand Rapids, MI 49505
(616) 458-3751
A. B. BF. D. E. EK. ER. G. IN. IR. M. P. RS. S. S/H. SL. SM. SR. SYN. TC. W.

MARSHALL MUSIC
540 Frandor Shopping Center
Lansing, MI 48912
(517) 337-9700
A. B. BF. D. E. EK. ER. G. IN. IR. K. M. O. P. RS. S. S/H. SM. SR. SYN. TC. W.

WATERMELON SUGAR INSTRUMENTS
12 S. Hamilton St.
Sagina, MI 48062
(517) 793-7600
A. BF. D. E. EK. ER. G. IN. IR. M. P. RE. RS. S. S/H. SL. SR. SYN. TC.

PETERSON MUSIC
11755 15 Mile Rd.
Sterling Heights, MI 48077
(313) 979-8780
A. B. BF. D. E. ER. G. IN. IR. M. P. RS. S. S/H. SM. SR. TC. W.

GOOD NEWS GUITAR SHOP
140 E. Front St.
Traverse City, MI 49684
(616) 946-1230
A. BF. D. E. EK. ER. G. IN. IR. M. P. RS. S. S/H. SL. SM. SR. SYN. TC.

JACKSON-PRATT MUSIC CO.
2964 Biddle Ave.
Wyandotte, MI 48192
(313)-283 7959
A. D. E. ER. G. IN. M. P. RS. S. S/H. SR.

MINNESOTA

SHOW PRO
2132 West 3rd,
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Studio Guide

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KEY FOR STUDIO GUIDE

T	Track
P/H	Per Hour
P/D	Per Day
OTC	Overtime Charge
NR	Noise Reduction
TF	Transfer Facilities
R/R	Reel to Reel
ST	Studios
CP	Copying
RH	Rehearsal
ED	Editing
BR	Bulk Rate
R/C	Reel to Cassette
MIX	Mixing Facilities
R/CR	Reel to Cartridge
MST	Mastering
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T 24. P/H $85. P/D 20% discount. NR. TF. R/R. ST. CP. ED. BR. R/C. MIX R/CR. MST. COMP MIX. D/T. M. S. VS. SM. DUP. Accommodation available 14 acres.

NEW JERSEY

DRIFTING STAR RECORDING STUDIO
1790 Black Horse Pike,
McKee City (nr. Atlantic City),
NJ 08232
(609) 641-4910
T 2-4-8-16. P/H $60. OTC. NR. TF. R/R. ST. CP. RH. ED. BR. R/C. MIX. R/CR. MST. COMP MIX. D/T. M. S. SM. DUP. Also remote 4 & 8 track.

HOUSE OF THE RISING SUN
Keyport, NJ
(201) 264-8868
T 8. P/H $10. NR. TF. R/R. ST. CP. RH. ED. R/C. MIX. R/CR. MST. M. S. SM. DUP.

TWAIN RECORDING
18 Hiawatha Path
West Milford, NJ 07480
(201) 697-7540
T. 16/24 P/H. $50/75 NR. TF. R/R. ST. CP. ED. BR. R/C. MIX. R/CR. D/T. M. S. SM.

NEW YORK CITY

CANNINGS RECORDING STUDIO
244 W. 49th Street,
New York, NY 10019
(212) 581-0120
8 T. P/H $35. N/R. TR. R/R. STUDIOS – 1 RH. ED. BR. 10hrs $330. CP. R/C. MIX. D/T. M. S. VS. SM.
Atlantic Recording group available $250 complete.

ADR STUDIOS
1780 Broadway
New York, NY 10019
(212) 582-4141
T. 2/4/8 P/H. $30/$35/$40 NR. TF. R/R. ST. 2 CP. ED. BR. 10 HR-$50 DISCOUNT R/C. MIX. R/CR. MST. D/T. S. SM. DUP.

UNIQUE RECORDING
701 7th Ave. (Ent. on 47th St.)
New York, NY 10036
(212) 398-0574
T. 24-16-8 P/H. $80/$60/$40 NR. TF. R/R. ST. CP. ED. BR. 16T/Call for 10hr deals. R/C. MIX. D/T. M. S. SM. DUP.

ROCK-BITE REHEARSAL & RECORDING STUDIO
146 W. 29th St.
New York, NY 10001
(212) 695-1787 or (212) 685-3120
T. 4 P/H. $12.50 NR. TF. R/R. ST. RH. $7 TO $15 PER HR ED. BR. 10 HR $100. R/C. MIX. R/CR. M. S. VS. SM.

SABELLA RECORDING STUDIOS
49 Oakdale Road, Roslyn Heights, NY 11577
(516) 484-0862
T 8. P/H $35. NR. TF. R/R. ST 1. CP. RH. ED. BR. R/C. MIX. R/CR. MST. COMP MIX. D/T. M S. VS. SM. DUP. Full range Outboard, Studio designed by Frank Comentale (Hit Factory).

SHUSTER SOUND STUDIOS
29 Burt Court,
Valley Stream, NY 11581
T 2-4-8. P/H $20/25. NR. TF. R/R. ST. CP. RH. ED. BR. R/C. MIX. R/CR. MST. COMP MIX. D/T. M. S. VS. DUP.

T & T MANAGEMENT & RECORDING STUDIO
701 7th Ave. (10th Fl.)
New York, NY 10036
(212) 921-2797
T. 4/8 P/H. $15/$25 TF. R/R. ST. CP. RH. $10 PER HR ED. BR. M. S. SM.

MULTI-SOUND
28-11 215th St.
Bayside, NY 11360
(212) 229-2987
T. 4 P/H. $20 TF. R/R. ST. CP. RH. $10 PER HR ED. BR. R/C MIX. MST. D/T. M. S. SM. DUP.

NEW YORK STATE

NEW AGE SOUND RECORDING
309 Main St.
Port Washington, NY 11050
(516) 883-8913
T. 8 P/H. $20 NR. TF. R/R. ST. CP. ED. BR. R/C. MIX. MST. D/T. M. S. SM. DUP.

NORTH CAROLINA

REFLECTION SOUND STUDIOS
1018 Central Avenue,
Charlotte, NC 28204
(704) 377-4596
T 2-4-8-16-24. P/H. NR. TF. R/R. 3-ST. CP. RH. ED. BR. R/C. MIX. R/CR. MST. COMP MIX. M. S. SM. DUP.

WILDWOOD STUDIO
Route 1 Box 157,
Pineville, NC 28134
(704) 588-2324
T16. P/H $50. P/D Negotiable. NR. TF. R/R. ST. CP. RH. ED. BR. R/C. MIX. R/CR. MST. COMP MIX. D/T. M. S. SM. DUP.

PENNSYLVANIA

KAJEM RECORDING STUDIOS
1400 Mill Creek Road,
Gladwyne, PA 19035
(215) 649-3277
T. 16-24. NR. TF. R/R. ST. CP. BR. (Call for prices) R/C. MIX. MST. P/T. M. S. DUP. SM.

RHODE ISLAND

NORMANDY SOUND
25 Market Street, Warren, RI 02885
(401) 247-0218
T 24. P/H $90. NR. TF. R/R. ST 1. CP. ED. BR. R/C. MIX. R/CR. M ST. D/T. M. S. SM. DUP.

TEXAS

RAMPART STUDIOS
6105 Jessamine, Houston,
(713) 772-6939
T 16. P/H $50. OTC. NR. TF. R/R. ST 1. CP. ED. BR. Negotiable. R/C. MIX. R/CR. MST. D/T.M. S. VS. SM. DUP.

TENNESSEE

PYRAMID EYE RECORDING STUDIO
P.O. Box 331,
Lookout Mountain, Chattanooga, TN 37350
(404) 820-2356
T 24. P/H Negotiable. P/D $1000. NR. TF. R/R. ST 1. CP. RH. ED. BR. R/C. MIX. R/CR. MST. D/T. M. S. VS. SM. DUP. Accommodation Available.

VERMONT

Sharon
SUNTRADER STUDIOS
Vermont 05065
(802) 763-7714
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Percussion Dealer Directory

KEY FOR DRUM DIRECTORY

AP	Assorted Percussion
CU	Customizing
CY	Cymbals
DR	Drums
BR	Brushes
G	Gongs
H	Heads
HD	Hand Drums
MA	Mallets
MO	Mail Order
MU	Mutes
PS	Percussion Syn
RC	Road Cases
RP	Repairs
RT	Rental
ST	Sticks
TB	Timbales
TI	Trade-Ins
TP	Tipani
S/H	Second Hand Equipment
PD	Pedals
IN	Information
BF	Books & Folios

CALIFORNIA

ORANGE COUNTY DRUM CENTER
3456-D West Orange Ave.
Anaheim, CA 92804
(714) 527-5151
AP. CY. DR. BR. G. H. HD. RC. MA. ST. TB. TI. TP. S/H. PD.

MASSACHUSETTS

HARVEY SIMON DRUM SHOP
295 Huntington St., Suite 214
Boston, MA 02115
(617) 536-9307
AP. CU. CY. DR. BR. G. H. HD. MA. MO. MU. RC. RP. RT. ST. TB. TI. TP. S/H. PD. IN. BF.

MONTANA

DROSTES DRUM DEN
18 N. 29th St.
Billings, MT 59101
(406) 248-5930
AP. CU. CY. DR. BR. G. H. MA. MO. PS. RC. RP. ST. TB. TI. TP. S/H. PD. IN. BF.

OHIO

ZAMPINO'S DRUM SHOP
PO 2481-A
North Canton, OH 44720
(216) 499-1198
AP. CY. DR. BR. G. H. HD. MA. MO. MU. PS. RC. RP. RT. ST. TB. TP. PD. IN. BF.

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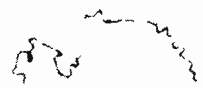
Focus on Canada



Canada, the "sleeping giant of the North", is becoming increasingly important to the American music industry. Canadian stars like Anne Murray, Gordon Lightfoot and Pat Travers are bringing their music to audiences all over the world. At home, the music scene is just as vital and exciting. Southern Ontario is a particularly sophisticated area, which has broken acts like the Police and Supertramp ahead of the U.S. audience. And in the opinion of Paul Robson, drummer, author of the widely used Paul Robson Percussion Series and head of the Ontario College of Percussion, Toronto ranks with New York and Los Angeles in the quality of its top musicians. Jimi Hall and the late Paul Desmond are two Americans who evidently share Mr Robson's views, since both have recorded with Toronto-based players such as Terry Clarke, Don Thompson and Ed Bickert.

Unfortunately, according to Don Barber and Dave Bennett of Westbury Sound and Lighting, which provides (you guessed it) sound and lights for rock concerts in southern Ontario, many American acts are missing out on this potentially lucrative market, due to the transportation expenses, immigration formalities, and the large bonds which must be posted with Canadian Customs when bringing musical equipment across the border. The bonds are designed to discourage those trying to avoid customs duties and import taxes on musical equipment. Messrs. Barber and Bennett feel that too few American musicians realize the level of equipment and expertise possessed by Canadian sound companies, who offer in addition greater familiarity with the specific halls used by concert promoters in southern Ontario, and added experience dealing with union stage crews. All these advantages would enable many American artists who are presently passing up markets such as southern Ontario, to tour with a sound man and a lighting director, and save quite a bit of money.

American musicians may have a certain lack of awareness of the potential of Canadian audiences, but no American manufacturer is ignoring a market that includes stores like Paul Robson's Drum World or Joseph Truglia's Continental Music in Ottawa which has grown in sales from 150,000 to 1.5 million since moving into its present 80,000 sq. ft. location in 1979. Because of the border and several other factors, however, Canada is a very unique marketing area. With the same area as the U.S., but only one-tenth the population, Canadian marketing presents transportation problems. Regional markets such as French-speaking Quebec (where records can go double-platinum without being heard in any part of Canada) are another unusual aspect. The border and its attendant duties and taxes, as well as the 20% exchange rate between Canada and American dollars, adds a cost factor of 1.5 to the price of American-made instruments sold in Canada. Although many manufacturers sell their products directly to retailers, the majority prefer to use Canadian distributors, such as Peate Musical Supplies, who take on the manufacturer's role in offering credit, service and user support to the store and the customer.

Richard Peate, who heads Peate Musical Supplies, points out that his company offers the kind of personal contact and support which U.S. manufacturers find it hard to offer on the retail level. For example, they check and set up all the guitars coming through their warehouse, sending any defective instruments back to the manufacturer. As a full line distributor, with exclusive Canadian representation of Randall amps, Mapes strings and, in the East, Ludwig drums, Peate Musical Supplies can adapt and react to market trends with greater flexibility than the typical manufacturer. Bob Kowalski of Ludwig agrees that the distributors are a good thing for the Canadian market, and feels that both the store and the consumer benefit by having the distributor take care of the customs costs and paperwork.

Some of Canada's most active markets, such as southern Ontario and Vancouver, are near enough to American cities such as Buffalo and Seattle that musicians can try 'importing' instruments for their own use. When the costs of driving, duties and taxes are added onto the price of the instruments in an American store, the proposition is usually a losing one, but the possibility, along with the fact that many Canadian players read U.S. publications (like IM&RW!) adds to their awareness of the price difference between the American and Canadian markets and prevents Canada from becoming a true export situation.

Of course there is traffic out of Canada as well, and many companies deal in both import and export. Peate Musical Supplies, for instance, exports the Neary Drum Torque and Odyssey Guitars through Charles Alden & Co., their American distributors. Paul Robson of the Ontario College of Percussion exports his drum method books through his publishing company, and his musical expertise through the many American musicians who travel North to study at the College of Percussion.

The key to success in the Canadian market is cooperation. While the Canadian economy is a bit sluggish at the moment (as Richard Peate says, "We tend to import American problems six months later") the Canadian music scene is both broad-based and fast-moving, with a great future for those who recognize its special requirements.

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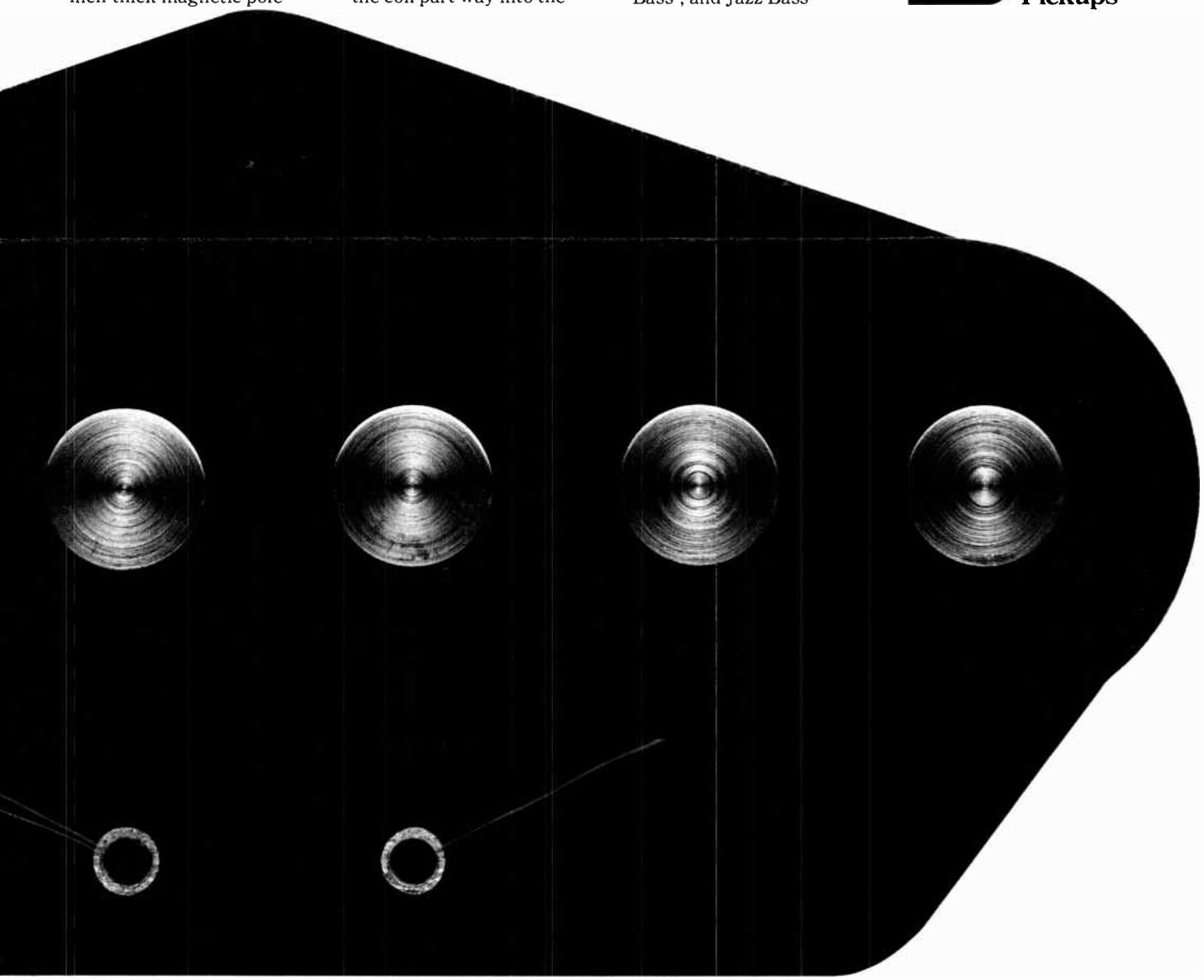

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