NEW VHS "SUPER VIDEO" SYSTEM

NOVEMBER 1985

\$1.95 USA

AUDIO VIDED TEST REPORTS MUSIC AN & CLEAN! ERS

86

C/4li

4 Models Tested

EXCLUSIVE! What's Next in High-Tech

Jule

NC 28138 KOCKMELL NC 28 60 BOX 964 WK DVAID KOBEKIZON CK3 XA IH I ZICA SECON OTA A CONCOLOR OF CONCOLOR

ALLISON

FYOU COULDHEAR THISTAPE,



YOU'D BUY THIS AD.

Introducing The Memorex CDX II. You've Got To Hear It To Believe It.

Without a doubt, the new Memorex® CDX II is in a very special class. Consider these points • The CDX II is a metal tape that can be recorded and played at the high bias setting.



This metal particle produces the highest magnetic moment of any tape we tested. Nearly twice as high as any conventional high bias tape-even

higher than pure metal, until now the industry champ (see Graph III). To you, that translates into more head room. Which means you can accurately reproduce even the most sudden bursts of high energy sound that comes with the most demanding music sources.



magnetic moment.

A Tape This Good Demanded A Superior Cassette.

So, we spent two years designing our new five-screw cassette from the ground up. This precision-engineered system assures that the CDX II works as great as it sounds. In fact, we guarantee it for life.

It Unlimits Your Limitations.

The Memorex CDX II can record critically demanding music substantially better than the best conventional high

IS IT LIVE OR IS IT MEMOR

bias tapes. At critical high frequencies, Memorex CDX II can faithfully repro-



duce music without saturating at a 3-5 dB higher input level (see Graph IV).

Now you can record at higher levels to minimize hiss, and still capture the loud passages, the peaks, the crescendos-without distortion or loss of high notes. In fact, you can almost capture the fantastic imaging digital discs have become famous for. But you can do it on tape. And do it with ease. Loud and clear. All at the high bias setting.

Compare The CDX II. You'll Find There's No Comparison.

We urge you to put loyalty aside and compare CDX II to the tape you're sold on now. Or, to any other tape you think can beat it. We're convinced you'll hear a difference.

And now that you've heard what we've had to say in this ad, there's no reason you shouldn't buy our tape.

And when you do, you'll wish you'd listened to us a long time ago.

*Comparison of CDX II performance versus Compact Disc containing high-energy electronic music. Data based on independent laboratory tests and examinations.

 The CDX II comes extremely close to matching (see Graph I) the capability of today's most challenging sound source -the Compact Disc.

 The CDX II outperforms leading high bias tapes hands down. Fact is, we compared (see Graph II) the CDX II to TDK SA-X and Maxell XLII-S. The result? When it comes to high energy recording, no one can match our levels. That's right. No one.



What Makes The Memorex CDX II So Special?

A bona fide breakthrough in metal chemistry. The development of a super alloy. One which lets us turn iron, the most magnetic material there is, into a super-small particle only 12 millionths of an inch long.



FEEL THE BASS

With Radio Shack's Digital-Ready Mach Two.

Our finest speaker system towers above the competition. Its massive 15" woofer delivers a dramatic sonic impact that smaller speakers can't match. Whether you're listening to heavy metal or watching Discovery thunder off the pad, you can actually feel the bass! Ideal for digital audio, the Mach Two handles Send Me a FREE Radio Shack Catalog New Termon Sheet, Control C 160 watts of power, and liquid cooling protects the midrange and tweeter voice colls. And for great looks, the 28" high enclosure has a real walnut finish. Only 219.95 each including 5-year limited warranty. Come in and hear what you've been missing. As little as \$21 monthly on Radio Shack/CitiLine credit buys a pair.

Radio Shaek The Technology Store"

A DIVISION OF TANDY CORPORATION

Prices apply at participating Aarlo Shack stores and dealers. Clitt, he is an open-ended credit plan from Clithank. Actual payment may vary depending on balance. Mash Two shown with gritte removed.

Volume 35 Number 11 November 1985 HIGH FIDELITY

VIDEO **13 Currents**



8

UDIO

New products; Touring Denon's CD facilities; "Digital ready" car speakers

29 Super Beta: How Does It Work?

by Peter W. Mitchell A close look at the newest improvements in home VCR picture quality

39 Strictly Speaking

by Michael Riggs

First-hand report on the latest from two leading British speaker manufacturers

KEF 104/2 loudspeaker 43

- 45 Allison CD-6 loudspeaker
- 46 **Bose** 501 Series IV loudspeaker
- 47 Velodyne ULD-15 subwoofer system
- 49 Audiosource AV-One audio-video processor

MUSIC

PORTS

Classical

52 CD Means Compact Delight

by Irving Kolodin A noted critic evaluates several titles on the new medium.

64 1985—A Banner Year in Music: Schütz

by Michael Fleming Another in our series of basic libraries of recordings

66 Notes from Underground

by Bálint András Varga Hungarian Record Weeks celebrate anniversaries of this year and next.

Popular/Backbeat

67 Guess Who's Coming to Dinner

by John Piccarella The punks in Liquid Sky, Repo Man, Smithereens, and Stranger Than Paradise don't play music. In fact, they barely listen to it.

EPARTMENTS

4 **Editor's Page**

- 7 Letters
- Crosstalk 20
- 22 **Basically Speaking**
- 25 **The Autophile**
- 51 Medley
- **Classical Reviews** 54
- **Critics' Choice** 58
- 69 **Popular Reviews**
- **Jazz Reviews** 73
- 80 Advertising Index

High FigeLity (ISN 0018-1455) is published monthly at 825 7th Ave., New York, N.Y. 10019, by ABC Leisure Magazines, Inc., a subsidiary of American Broadcasting Companies, Inc. Copy. International of the outer housing substantiation in the design and contents are fully protected by copyright and must not be reproduced in any manter. Second class postage paid at New York, N., and at additional malling offices. Authorized as second-class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Yearly subscription in the U.S.A. and Pos-sessions \$13,95; elsewhere \$20,95. Single copies \$1,95. Subscriptions, inquiries, and address changes to HiGH FIDELITY, P.O. Box 10759. Des Moines, lowa 50340. Change of address: Give oid and new addre es, including ZIP codes. Enclose address label from last issue and allow five weeks for change to become effective. POSTMASTER: Send change of address to HIGH FIGELITY, P.O. Box 10759, Des Moines, 1A 50340.



67

39

Cover Design: Robin Pelkki

Cover Photo: David Arky

On the Cover, KEF 104/2 loudspeaker (center), Allison CD-6 loudspeakers (left and right)

HIGH FIDE

Publisher Steven I. Rosenbaum Editor-in-Chief/Associate Publisher William Tynan Editor, Musical America Shirley Fleming Senior Editor Michael Riggs Senior Copy Editor Ken Richardson Copy Editor Patricia Reilly Administrative Assistant Darlene D. Edwards

TECHNICAL DEPARTMENT

Technical Editor David Ranada Consulting Technical Editors Edward J. Foster. Robert Long Contributing Editor Jay C. Taylor Editorial Assistants Sandra C. Foster, Andrea K. Otanez

MUSIC

DEPARTMENT

Classical Music Editor Theodore W. Libbey, Jr. Popular Music Editor Georgia Christgau Assistant Editor Mildred Camacho Assistant Mark I. Garrison Contributing Editors Vince Aletti, Robert E. Benson, R. D. Darrell, The Reverend Thomas L. Dixon, Steve Futterman, Edward Greenfield, Thomas Hathaway, Paul Hume, Joyce Millman, Paul Moor, John Morthland, Jeff Nesin, Thomas W. Russell III, RJ Smith, David Patrick Stearns, Noah André Trudeau, James Wierzbicki, John S. Wilson

ART DEPARTMENT

Art Associate Robin Pelkki Technical Art Roy Lindstrom, Nina Wallace

PRODUCTION

Director of Production Angelo Puleo Managing Editor Kathleen Green Advertising Production Manager Janet Cermak Editorial Production (Annuals) Paula Ballan Production Associate Jonathan Tesser Atex System Manager Karen Walsh Asher

CIRCULATION

Vice President, Circulation Stephen J. Bernard Circulation Director/V.P., Newsstand Marketing Dominic Mustello National Sales Manager/Newsstand Michael Gerardo **Circulation Director/Subscriptions Lillian Gmitruk** Circulation Subscription Staff Mary Beth Colucci, Barbara Donlon, Timothy Farrell, William Johnson, Janice Raiford Customer Service Mary Losi

> ABC LEISURE MAGAZINES, INC. James A. Casella, Vice President, Operations

ONE OF THE ABC PUBLISHING S COMPANIES Robert G. Burton, President

1330 Avenue of the Americas, N.Y., N.Y. 10019

HIGH FIDELITY and HIGH FIDELITY/MUSICAL AMERICA are published monthly by ABC Leisure Magazines, Inc., a division of ABC Publishing, Inc., and a subsidiary of American Broadcasting Companies, Inc. (© 1985 ABC Leisure Magazines, Inc. Member Audit Bureau of Circulation, Indexed in Reader's Guide to Periodical Utertuine Current and back copies of High Phototry and High Figury Ministeat. AveRica are available on microfilm from University Microfilms, Ann Arbor, Mich, 48106. Microfiche copies (1973 forward) are available through Bell & Howell Micro Photo Dw. Old Manfeld Rd., Wooster, Ohio 44691. ADVERTISING OFFICES

New York: ABC Leisure Magazines, Inc., 825 7th Ave., 8th Floor, New York, N.Y. New York: ABC Lessue Magaznes. Inc. 825 7th Ave. Bth Floor, New York, NY. 10019. Tel. (212) 265-8360. Rehvid J. Marone, Advertising Durento: Michael H. Goldberg, Eastern Advertising Manager; Janes R. McCallum, Record Advertising Manager: Canada Advertising Manager: Canada Advertising Manager. Biologia Advertising Manager. Canada Advertising Manager. Biologia Advertising Manager. Biologia Advertising Manager. Canada Advertising Manager. Canada Advertising Manager. Biologia Advertising Manager. Los Angeles: ABC Lessue Magazines, Inc., 2020 Avenue of the Stars, Suite 245, Century City, Calif. 90067. Tel.; (213) 557-6482. Rita Weitzen. Western Advertising Manager.

Editorial correspondence should be addressed to The Editor, HiGH FloELITY, 825 7th Ave., New York, N.Y. 10019, Editorial contributions will be welcomed, and payment for articles accepted will be arranged prior to publication. Submissions must be accompanied by return postage and will be handled with reasonable care however, the publisher assumes no responsibility for return of unsolicited photo-graphs or manuscripts.

> MΛ Magazine Publishers Association

4



EDITOR'S PAGE

by William Tynan



Behind the scenes

One of the best parts of being an editor in the home electronics field is the constant opportunity to go behind the scenes and see how products are made. Most of us in this business have lost count of the white smocks and the shoe-socks we've worn, the pellets of mysterious compounds we've held, and the stacks of raw parts we've seen ready to be assembled. Although these memories tend to merge after a time, the insight into the technologies involved does not.

Advancements in recent years in home audio componentry-especially amplifiers-have pushed the frontiers of further sound improvements out to the ends of the reproduction chain: the program source and the loudspeakers. With the advent of the Compact Disc, more emphasis has been placed on the latter. And while the search for the "perfect" speaker continues, today's state-of-the-art models are designed with a combination of technology and subjectivity. In June we focused on several unique speakers, all of American design. This month we take you to England for a peek into the factories and research headquarters of two of that country's leading manufacturers: B&W and Celestion. Senior Editor Michael Riggs visited both and is back with a report on British speaker technology.

We also take a look behind closed doors on the other side of the world. Classical Music Editor Theodore W. Libbey, Jr., recently returned from Denon's Compact Disc facility in Japan. His piece in "Currents" tells of the company's updated plans for standard CD production and describes what's ahead in CD ROM and CD graphics.

On the video front, regular contributor Peter W. Mitchell explores the Super Beta format, explaining how it works and pointing out what improvement you really can see. In an accompanying article, Technical Editor David Ranada amplifies on what you can expect in enhanced video from the new generation of "High Quality" VHS VCRs, which we first reported on in September's "Currents."

This month's test reports concentrate on loudspeakers of all shapes and designs, from the traditional-looking Bose 501 to the distinctive Allison CD-6. And in "Currents" we cover new car-stereo models, many of which are being touted as "digital ready."

In CLASSICAL MUSIC, venerable critic Irving Kolodin gives his thoughts on some recent titles on Compact Disc, the newest of many recording innovations he has witnessed in his long career. And in BACKBEAT, feature writer John Piccarella examines four popular midnight movies that have been released on videocassette, movies that mimic the style and stance of punk rock but say little about the music itself.

A slight improvement on perfection.

Technics compact disc players.

Technics compact disc players. And the digital compact disc. Together they've given you what no conventional audio system can: the perfection of musical reality.

So with Technics, what you hear is not just a reproduction of a performance, but a re-creation of it.

But occasionally even the musical perfection of a compact disc can be marred by fingerprints, dust or scratches. So the Technics SL-P2 compact disc player has improvements like an COMPACT advanced error correction system, designed to



Realmas

Compensate for those imperfections. To help ensure that the sound you hear is still completely flawless.

You also get sophisticated, convenient controls. Such as 15-step random access programming so you can play any selection. In any order. And all of this can be controlled from across the room with Technics wireless remote control. The digital revolution continues at Technics. Perfectly.



ណៃរំ អេរី អេរី

	RESET STATION	0 - 17 - 17 - 18 - 18							and a second	
t 2		4		100 101 10 1 U 0	69 and a	- 10-	1JG 406			
5 6		8		[₽] ~ <i>98,50</i>			IAR MORE			1.
CONTRACTOR OF A CONTRACTOR A	PRESET SCAN		SIGNAL	แปลเพิ่มแก้งเกิน ³ โบทยอ 🤐						
NING MODE FM IF BAND	PM INTERES AN	METER RANGE	AUDIO VIDEO :	STEREO RECEIVER S-X1130			K BALANCED AN	IP SYSTEM		
AM STEPED	¥CNO	- 10 \$ 6 4 2 0	24880+	MIDRANCE	B. VRED RELECTOR TRERIF 1 0 0 4 2 0 2 4 0 +	MM 42	NCR-A VCR-B	rondmente Afor	RALANC	
POINKA	IS OFF A	B				IM	AM			TAPL :
·····										
							S-X1	130 Audio/	Video/Stereo Re	ceiver

Introducing one brilliant idea

on top of another.

Unmatched FM Stereo/AM Stereo reception and video control makes them fantastic. X-Balanced circuitry makes them phenomenal. Sansui's 130 watt S-X1130 and 100 watt S-X1100 Quartz PLL Audio/Video receivers are so far advanced, they even have a special decoder that lets you receive broadcasts of all AM stereo systems. What's more, their unique X-Balanced circuitry cancels out external distortion and decisively eliminates IHM, for the purest all-around listening pleasure.

for the purest all-around listening pleasure. But the advantages don't stop there. Both receivers are complete Audio/Video control centers that are radically different—and significantly more versatile—than any others on the market. The S-X1130 delivers all the highly advanced audio and video performance of the S-X1100, with the added bonus of sharpness and fader controls for enhanced video art functions. And both units offer additional audio dexterity with "multidimension" for expanded stereo or simulated stereo, plus sound mixing capabilities. For more brilliant, innovative ideas, check out our full line of superior receivers. You'll know why we're first, the second you hear us. There's more worth hearing and seeing from Sansui. Write: Consumer Service Dept., Sansui Electronics Corp., Lyndhurst, NJ 07071; Carson, CA 90746; Sansui Electric Co., Ltd., Tokyo, Japan.

Electric Co., Ltd., Tokyo, Japan.



LETTERS

CD PECCADILLOS

In your June "Letters," a reader complains about the lack of an output level control on his Compact Disc player ["CD Overload"]. In late 1983, I bought a (now outdated) Akai CD-D1 player; it was 35 percent cheaper than my turntable and only five times as expensive as my tonearm, and the sound definitely was better than what my system had been capable of before.

Since then, my CD collection has risen to 85, and though this number is small in comparison to the number of records I own, it is the CDs that I play all the time. It is sad to see audio enthusiasts so quick to search for minor faults and to condemn this wonderful new music source.

Sutjahjo Ngaserin

Singapore

I am writing in wonderment of one of your June "Letters," in which a reader complains that he bought a Compact Disc with liner notes printed in Japanese instead of English ["Translation Needed"]. The same thing happened to me a year and a half ago when I bought Pink Floyd's *Dark Side of the Moon* on EMI. It's one of the best CDs I own. And until U.S. manufacturers start pressing more CDs, I'll buy them anywhere I can even on the gray market. The labels can be in Russian. for all I care. I just want good, clean playback.

Christian Cain

Kokoma, Ind

REDISCOVERING GERSHWIN

As one who has studied the life, times, and work of George Gershwin for some decades now, I was most interested in David Patrick Stearns's article "Discovering Gershwin" [June]. There are, however, a few slips in the piece that I should like to touch upon.

First, the two larger works, chronologically:

Of the *Rhapsody in Blue*, Mr. Stearns writes: "Gershwin had so little formal training at age twenty-five that [Ferde] Grofé was put in charge of the orchestration; it's not surprising that the piece seemed to careen out of the composer's control...." At twenty-five, Gershwin had about as much formal training in orchestration as he would ever get, and at age twenty-six/twentyseven he orchestrated the Concerto in F. This was accomplished without any formal

7

training in the interim. Nor did the Rhapsody "careen" out of Gershwin's control. His manuscript and Paul Whiteman's conductor's copy would bear this out. That he did not reorchestrate it is evidently a compliment to Grofé.

Concerning the Second Rhapsody, I do not understand where Mr. Stearns got the idea that Gershwin "never wanted it published" and that he "allowed only limited performances until he could get back to it" [in order to expand it]. In fact, he *did* begin expanding it. (The original *Manhattan Rhapsody*, from the film *Delicious*, includes all of the major themes and is about half the length of the final version.) He did not hold back performances; it was a bit difficult to [find] an interested conductor. Toscanini, for example, admired Gershwin but was not interested in tackling the *Second Rhapsody*.

The claim is that Michael Tilson Thomas's new recording of the work is the first in

Save up to \$25[∞] on the quickest stereo improvement you can make.

Shure's Holiday Savings Rebate on Cartridges and Styli.

A new Shure phono cartridge on the end of your tonearm is the best investment you can make to improve the sound of your stereo system.

And from now through December 31, 1985, you can receive a cash rebate on a variety of Shure's most sought after cartridges — like the world-acclaimed V15 Type V-MR.

If you already own a Shure cartridge, you can "tune it up" with a genuine Shure replacement — or upgrade stylus, and earn a rebate too.

Whether it's a gift to yourself or someone you love, a new Shure cartridge or replacement stylus can really bring the sounds of the season alive. For the name of your Shure Dealer, call (312) 866-2553.

Cartridge and Stylus Savings							
\$25 REBATE	\$10 REBATE						
V15Type V-MR	M111HE Cartridge						
Cartridge	M110HE Cartridge						
\$20 REBĂTE	VN5MR Stylus						
V15 Type V-B	VN5HE Stylus						
Cartridge	\$5 REBATE						
V15 Type V-P	VN45MR Stylus						
Cartridge	VN35MR Stylus						
\$15 REBĂTE	N97HE Stylus						
ML140HE	N95HE Stylus						
Cartridge	N95ED Stylus						
ML120HE	N91ED Stylus						
Cartridge	-						



the composer's original orchestration. Not so. Shortly after completing the piece, Gershwin hired a hall and an orchestra and ran through it, and a performance was recorded by RCA-intended not for commercial release, but as a reference copy for Gershwin. This rather rough performance was released some years ago on the Mark 56 label in a set entitled Gershwin by Gershwin. And in the late '40s, Columbia issued an authentic (i.e., original) orchestration on 78s. with Oscar Levant at the piano and Morton Gould conducting; needless to say, it is excellent. I must add that I admire Mr. Thomas's performance, too, though in fact it is a third. not a first.

There are allusions in the article to the many unpublished pieces, some of which are included in the first disc of Mr. Thomas's all-Gershwin project. There are hints of things to come, possibly even undiscovered piano and orchestral compositions.

The sole orchestral work that remained unperformed for years was Gershwin's own arrangement of Porgy and Bess (retitled Catfish Row by Ira Gershwin to distinguish it from the suite by Robert Russell Bennett). This was found c. 1957 in the Gershwin Archive, Beverly Hills, by Lawrence D. Stewart and recorded soon after by the Utah Symphony for Westminster.

The numbered Gershwin melodies in the Archive (beginning, curiously, with No. 17, "Sleepless Night") consist of songs and of works that might be considered piano pieces, but are in fact, like No. 17, songs. They were written for, but not used in, shows, or simply discarded before being considered for a show or a film. It would be fine if more of these songs could be heard (several are complete-some even with lyrics, good ones like "Ain't It Romantic" and "My Honor Was at Stake"), but only if they are played as written. There are fragments as well, and we have no idea how Gershwin might have "realized" them had he the chance. I am not convinced by Mr. Thomas's rendering of "For Lily Pons," though it comes off better without the orchestra that was used when he performed it in Chicago.

Besides the numbered material in the Gershwin Archive (Nos. 17 to 106), there are more pieces in Gershwin's tune books at the Library of Congress, and contrary to Mr. Stearns's assertion that Gershwin did not put ideas down on paper "until they were fully hatched," the books contain quite a few sketches. One of the earliest volumes dates from 1921. In its more than 40 pages, there are no complete songs-only melody lines and a few harmonies. Interestingly, at least two songs conceived in 1921 were finally used in 1924: "Isn't It Wonderful" in Primrose and "We're Here Because" in Lady, Be Good!

I've gone on so because of the various legends befogging Gershwin and his work. I can understand the urge to be first, and I am happy that Mr. Thomas is going back to the manuscripts (others have thought of this, but he is indeed the first to do it). Yet these manuscripts have been available for years; it's just that no one got around to taking the trouble until now.

Edward Jablonski

New York, N.Y.

David Patrick Stearns replies: I am pleased to hear of the existence of other Second Rhapsody recordings in the original orchestration, and I look forward to hearing them. Mr. Jablonski's letter raises a number of points that I can't confirm or deny, other than to say that I have obviously been given information to the contrary. Though I don't doubt Mr. Jablonski's credibility, I also don't doubt the credibility of my sources-who, for the most part, were Michael Tilson Thomas and Wayne Shirley of the Library of Congress-and my own observations of the Gershwin holdings in the Library. Such contradictions have been typical of my experience in Gershwin research. When I am unable to resolve them in time to meet my deadlines, I am forced to weigh down my writing with qualifiers such as "appears to," "seems to," and that old favorite, "perhaps." Yes. this is the confused state of Gershwin scholarship, amid which I can only put forth my sincere effort and hope for the best.

WHO'S WHO, DURAN DURANIES?

Let me applaud Havelock Nelson on his excellent review of The Power Station [August]. In an era of supergroups, this one is unique, getting together not in the interest of fame or money, but to make good music. Many people have lambasted the group because of the two "pretty boy" members, John and Andy Taylor. Thank you, Mr. Nelson, for listening with your ears, not your eyes.... Finally, though, get your facts



AUTHORIZED DEALERS

NORTHEAST CANADA Call Evolution Technology for nearest dealer 416/335-4422

Dealer 410/330-4422 CONNECTICUT Greenwich, Hartford: Al-Frankin's Musical World - New Haven: Audi Den - Fairfield: Audio Design - Norwalit Audio/ronics - Avon, Newington: Hi Fi Stere House - Groton, New London: Robert's The

MAINE Camden: Harbor Audio Video -

Bangor: Sound Source MASSACHUSETTS N. Dartmouth: Creative Sound Systems - Gloucester: Glass Sailboat -Waltham (Boston): Waltham Camera & NEW HAMPSHIRE Concord, Laconia: Au

w England - Salem: Cuomo's - New North Star Electronics London

NEW JERSEY Raritan: AC Audio & Video • East Brunswick: Atlantic Stereo • Mapte Shade: Bryn Mawr Stereo • Franklin Lakes: eq · Shrewsbury: M Montclair, West Caldwell: Perdue Radio . Toms River: Rands Cam ding Board Ridgew

NEW YORK Buffalo: Absolute Sound - New York City, Huntington, Manhasset: A intington, menu-is - Glens Falls: Autho Genesis -Clark Music - New York Albany, Syracuse: Clark Mi ty: Electronic Workshop • vestal: mart En-rics • Rochester: JB Sound • Scarsdale stening Room • Newburgh, Wappingers Itis: Randzin's Electronics • Fredonia, ic Workshop . Vestal: Ha

PENNSYLVANIA Philadelphia area, Bryn PENNSYLVANIA Philadelphia area. Bryn Maw, Jenkinow, Frazer. Montgomerynille, Ouakarlown, Allen-town, Camp Hill: Bryn Maw Sterco -Lancaster, Reading: Gin T Stewe - Blakely, Kingston: Hart Electronics - Windber: Pho Jando - Williamsport: Robert M. Sides -Altoona, Indiana: Sound Concepts -Altoona, Indiana: Sound Concepts -Natora Heights: Steetc Land. Selina-grove: Sterco Shoo - Erie: Studio One RHODE ISLAND N. Providence:

VERMONT Burlington: Audio Den

SOUTHEAST ALABAMA Birmingham/Homewood: Audition - Huntsville: Campbell's Audio Video - Mobile: Fidler Hi Fi - Tuscaloosa: Gayler's -Montgomery: The Record Shop DISTRICT OF COLUMBIA Myer Emco FLORIDA Miami: Audio By Caruso • Ft. Lauderdale: Audio Insight • Ft. Walton Beach: Audio International • Attamonte Beach: Audo International - Atlampoite Springs, Drinado: Audo Sectimor - Jack-sonville, Orange Park: Audo Tech - Tampa: Audo Vision - Boca Ration, FL Lauderatale, Mianti: Caut Vieloe - W. Palm Beach: Bectionic Connection - Pensacola: Fider M Fr: Clearwater Pyramid Audo: - F. Pierce, Lakeworth: Sound Shake - Melbourne, Merritt Stantis: Souther Audo: - Tallahas-see: Stere Store - Daytona Beach, Holly Mill: Sereotypes - Miami: Symoathelic Ear -Granger Leh Electronics

Gainesyttas, rest Exceeded Warehouse GEORGIA Savannah; Audio Warehouse - Augusta; Stereo City - Allanta, Duluth, Morrow, Smyrna, Tucker; Stereo Village KENTUCKY Owensboro: FM High Fidelity Louisville: Hi Fi Buys - Lexington: Stereo

MARYLAND Frederick: Evergreen Audio Rockville: Myer Emco • Baltimore: Sound scape • Annapolis; Soaceways Sound MISSISSIPPI Gultport, Pascagoula: NORTH CAROLINA Raleigh: Audio Buys • Asheville: Mr. Toad's Stereo Video • Jack sonville, Wilmington: Sou ntheastern Po Video - Chapel Hill, Greensboro, Raleigh, Winston

SOUTH CAROLINA Anderson: John Brookshire's - Greenwood, Spartansburg, imhia TENNESSEE Chattanooga: College Hi FI -Nashville, S. Madison; Hi Fi Buys -Knosville: Lindsey Ward - Johnson City, Kingsport: Mr Toads Stereo Video -Memohis: Cous II

Memphis: Opus II VIRGINIA Roanoke: Audiotronics - Virg Beach: Digital Sound - Leesburg: Everg Audio - Richmond: Garys Stereo - Rich-mond: Lindisey Ward - Bristol : Mr Toadi Stereo Video - Fails Church: Myer Emoc Charlottesville: Sound Machine • Virginia Martonesville: Sound Machine WEST VIRGINIA Barboursville, Beckley, Juntington: Pied Piper - Morgantown, Princeton: Sound Post - Wheeling: Wheeling

Hunlington: Princeton: S NORTH CENTRAL

NORTH CENTRAL LILINDIS Biominiquale, Northbrook. Shaumberg, Vernon Hillis, Waukegan: Aans Creative Stere - Moline: Audio Dimen-sions - DeKalb: Audio Pilus - Buttalo Grove Highland Park, Rochtort: Columba Audio Wideo - Champalagn, Normal: Gienn Poots Willi Park: Highlidis - Sterling: Michest Hi Fi - Crystal Lake: Northwess Audio Video

• ML Prospect: Simply Stereo • River-date: Stereo Designs • Springfield: Sundown One • Peorla: Team Electronics Sundown Dne · Februa; Hann Exemplois NDIANA South Bend: Classic Stereo · Slufton: Eley TV & Stereo · Greenwood, ndianapolis, Latayette, Muncie; H: Fl Suys · Terre Haute, Bloomington; Hoosie IOWA Duad Cities: Audio Dimensions -Sioux City: Audio Emporium - Des Molnes:

KANSAS Overland Park: Audio Electronics

Junction City: Audio Junction • Wichita: Audio Visions • Emporia, Topeka: Nelson's MICHIGAN Ann Arbor, Royal Dak: Absolut Sound - Birmingham, Dearborn, Farm-ingion Hills: Almas # Fi - Saginaw: Audio · Saginaw Room · Petoskey: Putt's · Iron Mountain und North - Grand Rapids, Por Sound Room . Lansing, Traverse City:

MINNESOTA Brooklyn Center, Burnsville, Edina, Minnetonka, Minneapolls, Roseille: Audio King - Duluth: Mei's TV & Audio Alexandria, Detroit Lakes; Sound Shoo Mankalo, Bochester So nd World MISSOURI Columbia: D&M Sound - St. Louis: ral - Cane Gira

NEBRASKA Lincoln, Omaha: Stereo West

NORTH DAKOTA Minot: Midwest Audio -Bismarck: Pacific Sound OHID Cleveland, Fairlawn, Findlay, May-field Heights, Toledo, Westlake: Audio Craft - Lima: Classic Stereo - Toledo: Jamieant • Lima: Classic Stereo • Toledo: Jamie-on's • Dayton: Micro Computer Center • Incinnati, Columbus: Stereo SOUTH OAKOTA Sloux Falls: Sound World -Banid City Te m Electronic WISCONSIN Rhinelander: Audio Broker -Milwaukée: Audio Emporium - Madison: Happy Medium - Marinette: Sound Seller -Appleton, Green Bay, Lacrosse: Sound

SOUTH CENTRAL

ARKANSAS Little Bock: Leisure Electronics -Searcy: Sound Ro LOUISIANA Shreveport: Audio Fidelity -West Monroe: Audio West - Lafayette, Opelousas: Sound Electronics - Baton Rouge, Gretna, Metairie, New Orleans

OKLAHDMA Tulsa; Audio Advice - Lawton: n . Stillwater S Hi Fi Shop - Stillwater: Sound Advice TEXAS Dallas, Garland: Anold & Morgan + Austin: Audio One - Temple, Waco: Audio Tech - Longview: Audio Techniques - College Station: Audio Vince - Beaumant: Brock Audio - Wichita Falls: Hamilton Bryan -Galveston: Istand Audio - Houston: Shertied Audio - Tetarkana: Sound Tome - El Paso: Soundousto, Libechel Utter Gene en Sou Galvesion: Is est · Lubbock: Ultra Elect · San Angelo: Walker Audio

WESTERN ALASKA Fairbanks: Hoilt's Music

Anchorage: Shimek's ARIZONA Tucson: Audio Emporium • Mesa: Hi Fi Sales • Flagstaff: Sound Pro • Tucson:

CALIFORNIA Drange: Absolute Audio - Ar-

cata: Arcata Audio - Los Angeles: Beverly Stereo - Fairfield: C&M Stereo Unlimited -Santa Barbara, Santa Maria, Thousand Jame wirder a sente mare, Housaho Dass, Venturz, Craenie Stero, Redding: Cryde's Home Enterlamment - Walnut Creek High Fuelly Shope - Sant Brouck, Woor Land Hills: Shelley's Stero - Bakerstield: Sound Advice - San Diego: Sound Company Nage: Sound Connection - Campbell: Sound Cools - Berteler Soundro Board - Chico: Sounds by Dave - San Francisco: Steres Sound Shop - San Francisco: Steres Sounds by Dave • San F Slore • Santa Cruz: Sle n · Redondo Beach: Systems Design Group -Fresno, Visalia: Valley Stereo - Davis, Sacramento: World Electronics - Mill Valley, San Francisco: World of Sound

COLORADO Arvada, Aurora, Boulder, Danver, Littleton: Soundirack - Colorado Denver, Littleton: Soundirack - Colorado Springs, Pueblo: Sunshine Audio - Boulder:

HAWAII Honolulu: Stereo Station IDAHO Twin Fails: Audio Warehouse - Sand-point: Electracrafi - Boise: Stereo Shoppe MONTANA Great Falls: Rocky Mountain Hi Fr • Missoula: Spectrum • Bozeman: histy Fa

NEVADA Reno: The Audio Authority - Las

NEW MEXICO Carlsbad: Beason's - Santa Fe: Candy Man High Fidelity Shop

Fe: Dandy Main myn Fradiny Stag OREGON Eugene: Bradiords High Fidel Pendleton: Royal Mobile Sound - Klama Falls: Sound Chamber - Beaverton, Po Fails: Sou

UTAH Salt Lake City: Broadway Music -Vernal: Dirk Labrum Co. • Logan store only:

Stokes promers WASHINGTON Seattle: Definitive Audio -Spokane: Electractatt (Hal's) - Bellingham, Mt, Vernon, Oak Harbor; QC Stereo Center Bellevue: Lynnwood, Seattle, Tutkwila: Northwest Audio Video - Richland: Tim Ear

WYOMING Riverton: Sound Room -

8



"The Genius of Matthew Polk Creates Better Sounding Loudspeakers."

Hear for yourself why Polk is #1

atthew Polk's speakers have won the Audio Video Grand Prix for the 4th year in a row and Polk has been voted the #1 loudspeaker manufacturer overall for the last 2 years. What is the secret? Polk speakers sound better! Polk builds each and every loudspeaker with the same world class standard of construction, quality and uncompromised performance accuracy. Open, boxless, three-dimensional sonic imaging in combination with their remarkable clarity and high definition reproduction has made Polk speakers the choice of experts around the world.



"Our advice is not to buy speakers until you have heard the Polks"

Musician Magazine

If you're looking for lifelike musical sound quality, world class state of the art technology and unexcelled value, Polk loudspeakers are your obvious choice. You'll always be glad you bought the best. Audition the revolutionary TRUE STEREO SDAs, remarkable Monitors and the other extraordinary Polks today. High Fidelity Magazine says, "You owe it to yourself."

The Speaker Specialists

1915 Annapolis Rd. Baltimore, Md 21230

REDEFINITION

THE CARVER RECEIVER: Redefines your expectations of receiver performance with the power you need for Digital Audio Discs plus virtually noise-free stereo FM reception. A receiver with astonishing performance incorporating two highly significant technological breakthroughs: Bob Carver's Magnetic Field Power Amplifer and his Asymmetrical Charge Coupled FM Detector.

ESSENTIAL POWER: Your system needs an abundance of power to reproduce, without distortion, the dynamic range of music on Digital Audio Discs and fine analog recordings

The Magnetic Field Amplifier in the CARVER Receiver gives you 130 watts per channel* of pure, clean power with superbly defined, high fidelity reproduction.

The Magnetic Field Amplifier produces large amounts of power (absolutely necessary for the accurate reproduction of music at realistic listening levels) without the need for heavy heat sinks, massive transformers, and enormous power capacitors required by conventional amplifier design

Unlike conventional amplifiers which produce a constant, high voltage level at all times, irrespective of the demands of the ever-changing audio signal (Even when there is no audio signal in the circuit at all!), the Magnetic Field Amplifier's power supply is signal responsive. Highly efficient, it produces *exactly and only* the power needed to carry the signal with complete accuracy and fidelity. The 130 watts-per-channel* CARVER Receiver is about the same size and

weight of conventional receivers having merely 30 watts per channel!

NOISE-FREE RECEPTION: The AM-FM CARVER Receiver gives you FM stereo performance unmatched by that of any other receiver.

As it is transmitted from the station, the stereo FM signal is extremely vulnerable to distortion, noise, hiss and multipath interference. However, when you engage CARVER's Asymmetrical Charge Coupled FM

Detector circuit, the stereo signal arrives at your ears virtually noise-free. You hear fully separated stereo with space, depth and ambience!

"This receiver combines the best elements of Carver's separate tuner and amplifier... The Carver Receiver is, without question, one of the finest products of its kind I have ever tested and used. Bob Carver is definitely an audio and r.f. genius." Leonard Feldman, Audio Magazine, June 1984

"I consider the Carver Receiver to be the "most" receiver I have yet tested in terms of the quantitative and qualitative superiority of almost all its basic functions." Julian D. Hirsch, Stereo Review, April 1984

The CARVER Receiver has been designed for fidelity, accuracy and musi-cality. You will want to visit your CARVER dealer for a personal audition of this remarkable instrument.

*130 watts per channel RMS into 8 ohms, 20 Hz to 20 kHz with no more than 0.05% total harmonic distortion.



CORPORATION P.O. Box 1237, Lynnwood, WA 98036 MUSICAL ACCURATE

Distributed in Canada by Evolution Audio, Ltd.

POWERFUL

straight! The review should have read, "the bold intensity of Andy's guitar" and "John's throbbing bass," not the reverse. Can't fool us Duranies!

Cathy Sizemore Hamilton, Ohio

Havelock Nelson's review of The Power Station was acceptable (I guess), except for one thing: John Taylor plays bass, and Andy Taylor plays lead guitar.

Jade

Orlando, Fla.

Who got his signals crossed in the review of The Power Station? John plays bass, Andy plays lead guitar. Give credit where credit is due.

Lisa Dean

Tuscumbia, Ala.

Indeed, this was a Power Station failure. We stand corrected.-Ed.

WHERE'S THE SERVICE?

A pedestrian collapsed outside my office today. Within five minutes, emergency vehicles arrived to assist him, and he was probably delivered to nearby Stanford (California) Hospital within minutes. When my automobile acts up, I deliver it to my dealer in the morning and pick it up in the evening, repaired. When my Selectric acts up, an IBM serviceperson is on the spot within a few hours to get it working on site.

But when my stereo or video equipment malfunctions, I must disconnect it, cart it to a repair station, and listen to them tell me that in two weeks they might get me an estimate, and within four to six weeks-if parts are available-I might get my equipment back. If parts need to be ordered (from Japan, naturally), the boat will take at least two months to get them here; then it will take another three to four weeks to get the parts installed. And I am not talking about local fly-by-night repair shops, but famous brandname "service centers." Does the audiovideo repair business have to be this way? Ted and Sylvia Blishak Menlo Park, Calif.

Letters should be addressed to The Editor, Hugh FIDELITY, 825 7th Ave., New York, N.Y. 10019. All letters are subject to editing for brevity and clarity.

We get you back to what it's all about



In 1967 we started making loudspeakers in a garage with nothing to guide us but a knowledge of physics and a passion for music. Our first product was an instant classic, a loudspeaker called the Servostatic I, which was considered by many to be the ultimate audio transducer of its time.

Since then we've always had an ultimate loudspeaker in our product line, and we've used these dream systems to showcase

Music.

a host of new speaker technologies we've developed. We immodestly dubbed these systems Reference Standards — as indeed they must be since many aspects of their designs have been widely copied in the industry.

No company in audio can claim a greater commitment to significant research, developing practical and accurate polypropylene woofers, midranges, tweeters and state-of-the-art EMIT and EMIM planar drivers. And we've used the results of that research to improve sound reproduction in a multitude of applications and at virtually every price point - from under \$40 a pair for our A32 auto speakers up to about \$35,000 for our finest system, the Infinity Reference Standard. Today we're in the home, the automobile and now in video.

But our research doesn't stop at the laboratory. We still listen to music, and we still get excited by it.



Infinity Systems, Inc. • 9409 Owensmouth Avenue • Chatsworth, CA 91311 • (818) 709-9400

<section-header>



Other Type II (high-bias) cassettes are a long way from home when it comes to reproducing the pure, dynamic sounds of digitally encoded music sources.

But, number for number, TDK HX-S audio cassettes are number one.

Their exclusive metal particle formulation reproduces a wider dynamic range and higher frequency response. This enables HX-S to capture all the crispness and purity of digital performance on any cassette deck with a Type II (high-bias) switch.

With four times the magnetic storage ability of other highbias cassettes, HX-S virtually eliminates high frequency saturation, while delivering unsurpassed sensitivity throughout the audio spectrum.

Additionally, HX-S excels in retention of high frequency MOL, which no other high-bias formulation attains.

And HX-S superiority is not just numerical. To maintain its dynamic performance, HX-S is housed in TDK's specially engineered, troublefree Laboratory Standard mechanism. It's your assurance of unerring reliability and durability, backed by a Lifetime Warranty.

For optimum results with Type II (high-bias)

and digitally-sourced recordings, get TDK HX-S. You'll feel more at home with it, wherever you go.



CURRENTS

New Products



THRESHOLD'S SINGULAR AMPS

Threshold Corporation is known for its single-minded approach to amplifier designnotably its belief that for superior music reproduction, circuit nonlinearities should be addressed at their source, not corrected by feedback. The latest incarnations of this philosophy are (above right and left) the single-channel SA-1 and SA-2 power amplifiers, rated at 160 watts (22 dBW) and 100 watts (20 dBW), respectively. Both are noninverting, balanced, complementary-symmetry designs using N-channel JFETs in the front end and Threshold's proprietary Stasis output stage. All amplifying devices are operated Class A, including the output transistors. With customwound toroidal transformers feeding large, computer-grade electrolytic capacitors, the power supplies of the amplifiers are said to be capable of providing unusually high current (40 amperes continuous and 60 peak for the SA-1, 30 amps continuous and 40 peak for the SA-2).

Such performance does not come in small or lightweight packages. The SA-1 measures 19 by $8\frac{3}{4}$ by $17\frac{1}{4}$ inches deep; the SA-2 is $13\frac{1}{4}$ inches in depth. The former weighs $78\frac{1}{2}$ pounds; the latter, 56 pounds. Prices per channel are \$3,600 and \$2,600, respectively. For more information, write Threshold Corp., 1832 Tribute Rd., Suite E, Sacramento, Calif. 95815.

A STEREO TV TUNER FROM PROTON

Incorporating MTS stereo-TV decoding, Proton's 601T video tuner also features 139-channel frequency-synthesis tuning;

volume, balance, bass, and treble controls; a plethora of audio and video connections; and a full-function remote control. The cable-compatible unit's view/record function allows one video program to be monitored while another is being taped. A motorized drawer (see detail above right) contains controls for broadcast/cable selection, automatic/manual fine-tuning, numerical channel selection, and stereo-TV/SAP selection. So that it might become the switching center of an audio-video system, the \$450 tuner offers three pairs of audio-video inputs and four pairs of A/V outputs, giving a total of five source selections (TV/cable, AUX, Video 1, Video 2, and Disc). The infrared wireless remote control duplicates most of the unit's frontpanel functions (including numerical



channel selection and source switching) and adds a couple of its own (audio muting and previous-channel recall). Details are available from Proton Corp., 737 W. Artesia Blvd., Compton, Calif. 90220.

NAKAMICHI INTRODUCES LOWER-PRICE CAR DECKS

At prices "comparable to [those of] conventional autosound front ends," Nakamichi's TD-400 (above right) and TD-300 car tuner/cassette decks both use the company's unidirectional dual-flywheel transport to eliminate "bidirectional azimuth error," which can produce uneven treble response in reversing decks. The drive system also incorporates a servo-controlled DC motor and a "non-pinching shoe" tape guide that smooths the tape by supporting it across its entire surface and forcing a controlled wrap around the supply-side flywheel capstan. This configuration is said to reduce modulation noise.

The playback head in the TD-400 has a laminated-Crystalloy core with a 0.8-micrometer gap and is rated for a 10,000hour operating life. Playback response is given as ± 3 dB, 25 Hz to 20 kHz. The head in the TD-300 has a hard-permalloy core with a 1.2-micrometer gap; rated response extends from 30 to 18 kHz. Both units have Dolby B and C noise reduction and switchable 120-microsecond/70-microsecond playback EQ.

The digital frequency-synthesis AM/FM tuner sections have automatic stereo-blend circuitry, local/DX switches, and a noise prevention circuit to guard against ignition noise and other electrical interference. The \$390 TD-300 has five AM and five FM presets; the \$475 TD-400 adds



one preset per band, a quartz digital clock, separate front and back outputs with fader, program seek to find the next selection on a tape in either direction, and automatic tape replay after rewind. Mounting dimensions of either unit are 7 by 2 by $6\frac{1}{2}$ inches. Write Nakamichi U.S.A. Corp., 19701 S. Vermont Ave., Torrance, Calif. 90502.

WIRELESS MIKE FOR VIDEO CAMERAS

The traditional camera-mounted microphone has always created problems for video recordists: It picks up VCR noise and often is too far from the sound source for effective audio recording. Mikes with cables, on the other hand, can be unwieldy and lack complete mobility. A solution is offered in Nady Systems' 49VR wireless microphone/transmitter and miniature FM receiver (photo below, right). The re-



ceiver plugs into the camera's audio-in jack and mounts on the camera or clips to the operator's belt. The system incorporates proprietary companding circuitry for wide dynamic range. Effective range is given as 100 feet. The 49VR comes in two versions: a lavalier clip-on with transmitter bodypack (left, \$150) and a hand-held microphone/transmitter (center, \$200). Write Nady Systems, Inc., 1145 65th St., Oakland, Calif. 94608.



ILLUMINATING VIDEOCASSETTES

Organizing and protecting as many as 20 Beta or VHS videocassettes in the minimum amount of space, Pompano's Casset-



Announcing the Velodyne[™] ULD-15[™] Subwoofer System: a technological breakthrough in bass reproduction!

There's an exciting new product awaiting audition at your Velodyne dealer. Its called the Velodyne ULD-15 Subwoofer System and it represents the most significant advance in loudspeaker technology in well over a decade. Even if you are happy with the bass in your current speakers, you owe it to yourself to hear the ULD-15 and what it can do to improve your system's capabilities.

In addition to its 15 inch cone, 22lb. magnet structure and 3/4" travel, the ULD-15 contains our proprietary High Gain Servo™ technology. An independent sensor attached to the cone reports cone motion information to a comparator circuit within the 350 watt Power Servo Controller (included). which instantaneously adjusts the output signal to correct for any erroneous cone motion. The result is deep, powerful, and perfectly accurate bass never before possible in any conventional loudspeaker. And since the ULD-15 comes complete with its own amplifier, the bass load from your satellite amp and speakers is removed.

The ULD-15 merits your attention. Call 1-800-VELODYNE for the Velodyne dealer nearest you. Don't miss the opportunity to hear for yourself the bass technology of the future.



ter storage unit has a built-in batterypowered light, making tape selection possible in a darkened room. Additional Cassetters are stackable, and a butyl rubber protection pad on the bottom of each allows safe placement on delicate surfaces. Molded of dark gray, high-density ABS plastic, they are said to protect tapes from dust, dirt, and ultraviolet rays. Special cassette end labels are provided. While the model PM 62-01B is designed for Beta tapes and the PM 63-01V for VHS, both measure 101/2 by 121/2 by 95% inches and cost \$70. Details are available from Pompano Manufacturing Corp., 2501 N.W. 17th Lane, Pompano Beach, Fla. 33064.

CDs: Report from Japan

I've been listening to Compact Discs for the past three years and have generally liked what I've heard. On a recent visit to Japan, I got to *watch* a CD for the first time—and I was impressed by what I saw.

The demonstration was among the highlights of a tour through the Tokyo headquarters of Denon (Nippon Columbia Company, Ltd.), a venerable firm that has been a leader in Japanese audio for eight decades. In a small room across the hall from a fully-equipped video editing studio, Denon's engineers have set up a CD graphics center. The apparatus consists of a conventional Compact Disc player and audio system, a special prototype graphics adapter unit, and a standard color television monitor. A CD with a graphic display encoded on it (in addition to a standard audio program) can be played through the system, the video content appearing on the TV monitor as the music is heard. My guide, Takeaki Anazawa, Denon's chief of engineering, said that it is not yet possible to encode a live TV picture on Compact Disc, only computer-type color graphics. But even with that limitation, the educational applications are fascinating. The system employs a video-signal grid of 288 by 192 lines, which can display as many as 16 colors at one time-and the number of colors available is a staggering 4,096. The production model will have 16-channel capability, meaning that a user will be able to choose a display in English, Japanese, German, or whatever.

"It is very difficult to adjust the move-

ment of the graphics to the music—in fact, almost impossible," Anazawa remarked. "And it is very time-consuming to put in 16 channels of simultaneous text." From the looks of the demonstration disc I heard and saw of Vivaldi's *The Four Seasons*, I would say that Anazawa and his crew have done a splendid job of overcoming the difficulties.

I was even more impressed by what I saw of the second-generation CD graphics Denon is now developing—not yet demonstrable on CD, but stored on computer disk. The playback produced fabulous, high-resolution pictures of nearly photographic quality on a color monitor screen. "It is very much improved," Anazawa said



Inside Denon's CD plant

modestly, as I gaped. The technology should be ready for demonstration on Compact Disc this month.

Also under development at Denon is a CD ROM (read-only memory) image-retrieval system that uses a special Hitachibuilt player and decoder. Anazawa informed me that a CD ROM has a 600-megabyte capacity and that one kilobyte of memory is required for a single picture. Thus, a Compact Disc can hold 6,000 pages (or screens) of information, a phenomenal amount of data. (It's interesting to consider that the information contained in Beethoven's Ninth Symphony, fitting on one CD, is actually greater than that contained in an entire 6,000-page encyclopedia.) There is interest in devising a navigation and road-map system using the CD ROM process, and many other applications will doubtless be found.

Two days later, I paid a visit to Denon's software plant in the industrial city of Kawasaki, outside Tokyo. There I observed the process by which Compact Discs are manufactured, and I looked in on the production of LPs, 45s, and cassettes,

High Purity. Pure Enjoyment.

A new standard for c gital audio is here: Sherwood CDP-200 and CDP-220. Compact Disc performance at the unprecedentec level of High Purity.

THREE LASER BEAMS. Unike other CD players with only one laser beam, our three beam system virtually eliminates distortion caused by spurious data from adjacent tracks.

TWO FILTERINC SYSTEMS. Sherwood's new High Purity dual filtering system combines double over-sampling dig tal filters and linear phase analog filters for the finest sound ever.

HICH TECH FEATURES. The "smart" motorized tray knows if a disc is loaded, even if it's in upside down. You have full flexibility in programming play sequencing, random access of selection, disc and section repeat, and highspeed cue and review, indexing and multi-function digital display that tells you all sorts of information, like track number, total time, elapsed time, program sequence, and more.

INFRARED REMOTE. Full-function digital wireless remote control is standard on the COP-22D. Now you can enjoy sound of the highest purity with the luxury of armchair control.

Sherwood has spent over thirty years making sound its first priority. It's brought us to High Purity, and pure sound enjoyment.



13845 Artesia Boule and Cerritis, California 90701 as well. The total Japanese CD production capacity is an astonishing three million discs per month, of which about 900,000 come from Denon (which runs three shifts a day to do it). Demand for the discs has increased more rapidly than expected, and while Denon has no plans to expand its production facilities (at least, not in Japan), I was told that the firm could make use of additional means if it had them. Approximately 70 percent of the company's CD pressing is custom work, the remaining 30 percent appearing under its own label. Of interest to classical buyers is the fact that classical titles account for between 60 and 70 percent of the total CDs pressed by Denon, compared with about six percent of the LPs and a minuscule one percent of the cassettes.

Twenty injection-molding machines form the heart of Denon's CD production line. There is a clean room for the application of reflective coating to the blank discs by an evaporation process and a very businesslike laser-cutting chamber where the masters are made. But the single most impressive element in the chain is the human one. The key to efficient CD production is inspection, and Denon's visual inspection area had the look and feel of a thoroughly professional operation. I was asked to listen to a variety of rejected discs, all of which sounded fine, but none of which for reasons of the tiniest of flaws—had escaped the inspectors' eagle eyes.

Perhaps to keep me from getting the impression that things are *too* businesslike at Denon, I was ushered out of the factory just in time to catch the employees in an animated game of baseball during their lunch hour. But as in CDs, so in sports: The Denon contingent plays for keeps.

Theodore W. Libbey, Jr.

Car Stereo: Get Ready for The "Digital Ready" Speakers

With the digital technology of the Compact Disc making its way into the automobile, can "digital ready" speakers be far behind? The answer is no. For 1986, many manufacturers have taken a clue from



Concord's CS-400: separate crossover network with tweeter controls

their success with digital-ready loudspeakers in the home audio market and are upgrading the final link in the car stereo chain by introducing a new generation of speakers.

Noteworthy models include Jensen's 6x9s, the triaxial JTX-300 (\$149) and the coaxial JCX-200 (\$119). Efficiency and high power-handling capacity are said to be the hallmarks of these units. Pioneer also has a new speaker claiming "digital ready" status. The TS-207 (\$169)—an angled, bridgeless tweeter/midrange assembly—



aims to provide the punch of an 8-inch woofer while fitting into a 6x9 opening. A matching 8-inch component woofer, the TSW-204 (\$139), also is available. The TSX-4 (\$74), a two-way surface-mount unit, and the TS-458 (\$58), a two-way, 4x6 dashmount model, round out Pioneer's latest additions to the Maxxial line.

Other entries designed with Compact Discs in mind come from Magnum Loudspeakers, whose nine-member Magnum Opus line includes the 6912-D (\$170), a 6x9 model. Also new is the 4½-inch full-range 4506. Kenwood's KFC-5050 midrange/ woofer (\$150) and KFC-1010 tweeter (\$120) likewise are tied to digital sound. The 5inch 5050 uses aluminum honeycomb cones for low distortion at high power levels. The 1010 includes a protection circuit, which monitors power level and shuts down the driver at the overload point. Operation resumes about five seconds after power levels have been reduced.

From the company that has spurred the CD revolution in cars, Sony, comes the XS-700 (\$500). Containing three APM (Ac-



First car speakers by Design Acoustics

curate Piston Motion) drivers, this sealedenclosure system is built for high powerhandling capacity and has a specially matched crossover network. Denon is fleshing out its previously announced line of mobile electronics with three new speakers, including the three-way, 6x9 DCS-691 (\$200). All the models are described as "installer friendly" and are distinguished by polypropylene woofers. The DCS-691 also sports a soft-dome midrange and an exotic boron-diaphragm tweeter.

SFI Sawafuji is marketing two ultrathin digital-ready systems. The CA-2020 (\$450) comprises four 6½-inch-square by 1-inch-thick full-range rear-mount drivers, four 4-inch-square by 1-inch-thick ribbon tweeters, and two specially matched crossover networks. The CA-1010, which is intended for small cars, has half as many drivers. Meanwhile, Panasonic checks in with two dual-cone models, the EAB-S40. (\$40) and the EAB-S60 (\$45), both designed for easy installation.

A new face in the field this year is Design Acoustics, which has been making home loudspeakers for many years. First up is the three-way, 6x9 DA-693 (\$149), which was demonstrated at the Summer Consumer Electronics Show mounted in the rear deck of an Audi 5000S and putting out an unbelievable amount of solid bass. For tighter budgets, the two-way DA-692 (\$129) has similar qualities. The 6-inch DA-602 (\$109) rounds out the line.

Another company making its first car speakers is Jamo, with its eight JAMO-CARs. Four are door-mount designs, three are shelf-mount, and the top-of-the-line Model 305 (\$220) can be installed either way. The 305 is a two-way biamplified system with front-panel volume and tweeter level controls. Other models range from the 30R (\$56) to the 90 (\$180), which is a three-way 6x9 with an angled tweeter.

"Huge headphones" aptly describes

One audio tape is so sensitive it can hear a pin drop. Or the full crash of a cymbal. To no one's surprise, it's made by Sony.

Designec with our widest dynamic range ever, the UCX-S can pick up the softest softs you've never heard.

Or the loudest louds. Without distortion.*

And since we pack smaller, more uniform particles on our tape, you can pack more music in it.

And go from one extreme to the other.

So pick Sony. And hear what you've been missing





You're looking at what's ahead for the television set. At Proton, we call it "eye-fi".

The Proton 625, above, is a video monitor/ receiver. It's the evolution of American TV. Enjoy its absolutely superior performance just as it is. Or enhance its great sound by making it a component part of your present audio system.

A demonstration will convince you of the starling difference between Proton and what you're used to. You'll see deep, rich block, not washedout gray. You'll see third color and bue perspecWhile Proton has features of other sets like infrared remote control, 139 channel tuning range, and a built-in stereo tuner, our monitor/receiver gces beyond any other brand's "state-of-the-art" technology. Even beyond, in resolution capability, the signal quality TV stations presently broadcest

the new Challenger Top Sound speaker system (\$249). Of Swedish design and manufacture, it houses a pair each of Philips 5-inch woofers and 2-inch cone tweeters, all of which fit neatly overhead in just about any vehicle but a convertible. An expandable center section allows for a universal fit and makes the Challenger array particularly well suited for installations in which back speakers are usually precluded, as in pickup trucks.

Alpine is offering another folded-horn subwoofer system, the 6491 (\$140), which is a dual-voice-coil version of the 6490. Although it takes up less space than the 6490, the new model is still very efficient, making it an excellent choice for a modestly priced biamp system. In fact, the 6491 is specifically designed to be used with the 3211 amplifier/crossover (\$130). When inserted into the processor loop on the latest Alpine receivers, the 3211's built-in amp, rated at 10 watts (10 dBW) per channel, can be used to drive the 6491 while the front end devotes its amp strictly to the mid- and high-frequency drivers.

Three systems and a subwoofer comprise Sparkomatic's new biamplified car speaker line. An unusual styling allows the tweeters to be detached from the woofer units for optimum placement. A slide control enables you to fine-tune treble response for different setups. Making up the Sparkomatic series are the doormount ASK-3000 (\$80), the deck-mount ASK-3010 (\$100), and the surface-mount ASK-3015 (\$100), as well as the ASK-3030 subwoofer (\$60). Latest from Visonik is the two-driver David 7200 (\$234) and the two-way flush-mount David 5202 (\$160).

EPI's LS-80X (\$250) employs the same woofer cone material and tweeter diaphragm that are used in the company's Time/Energy home loudspeaker line. Its small size and push-to-connect terminals make for easy installation. A three-position tweeter level control (flat to -6 dB) is provided.

Concord's first component speaker system, the CS-400 (\$250), comprises a set of $5\frac{1}{4}$ -inch woofers, 1-inch tweeters, and a separate crossover network with tweeter level controls. The CS-300 (\$200) is an 8ohm integrated two-way system; the CS-400 is a 4-ohm unit. Also in Concord's new line are three coaxials, ranging in price from \$80 to \$60. Three surface-mount speakers are Sansui's latest. Topping the line is the S-1540 (\$229), a four-driver, self-contained system. The three-way S-1630 (\$175), like the S-1540, is intended for rear-deck mounting. The three-way S-1030 (\$89) can be mounted either in the rear deck or in a door.

Expanding its line, Acoustic Research has added the AR-6CS (\$80), a two-way, 6x9 coaxial, and the AR-3CS (\$40), a 4-inch, full-range, dual-cone design. The 6CS's tweeter is ferrofluid-cooled. And from Kraco comes the Turbo-Pro Series, a fourmodel line with a "calibrated frequencyresponse maximizer" control to adjust speaker response for different interior acoustics. Two of the entries—the fourway, 6x9 TPS-694 (\$130) and the threeway, 6½-inch TPS-653 (\$120)—incorporate a rotatable midrange/tweeter array.

Jay C. Taylor and William Tynan





19

CROSSTALK

REMOTE POSSIBILITY

My Harman Kardon CD-401 cassette deck has a multiprong jack labeled "remote" on the back panel. Does H/K make a remote control? Could it possibly be for an external timer?

Erick Valkingburg Phoenix, Ariz.

It conforms to a Japanese standard for such jacks that many companies follow. (Harman Kardon, which offers none of its own, mentions Nakamichi as one brand whose accessory controls will work.) A timer could be built to operate via this jack, but the timer functions in the 401 (like those of virtually every other component-grade deck on the market) don't depend on it. Just plug the deck's AC cord into a standard timer, set the timer switch appropriately, and it will automatically begin recording (or playback) when the timer turns on the power.

THROWING A CURVE?

In your reports on the Onkyo TA-2090 and Ultrx RD-C61 cassette decks [February], the high-frequency response with DBX lags surprisingly far behind that with Dolby B and C. Using a graphic equalizer, I checked my Yamaha K-1000 [test report, August 1983], which has both DBX and Dolby B, and found that DBX record/play response is perfectly flat at 16 kHz, while that with Dolby B is down about 3 dB. Also, I have made careful comparisons with a

Compact Disc player, Telarc discs, DBX noise reduction, and chrome tape. To my ears, which I believe to be impartial and relatively accurate, the copy was virtually identical to the source.

Tom Anderson Charleston, S.C.

Perhaps nothing else in audio is so hard to pin down. Under some circumstances, compander noise reducers including all of the above can behave quite differently when presented with discrete frequencies or sweep tones (which excite only one frequency at any given instant) than when they are reproducing music (which invariably involves groups of frequencies).

Furthermore, behavior at high frequencies can be altered radically by switching tapes or by minor differences of bias or EQ adjustment. Then there's the question of how the necessary bandwidth-limiting is handled in one deck vs. another; without it, the addition or removal of ultrasonics (FM's 19-kHz pilot, for instance, or tape's self-erasure) between encoding and decoding can compromise the accuracy of the latter. And 16 kHz is not only beyond the hearing range of many adults, but beyond the spectral range of much music as well.

At least, the 16-kHz content is well below -20 dB (if you're not overloading the tape in the midrange), which is where we test cassette-deck response. If you used a high-

by Robert Long



Looking back at the three reports in question, I'd consider most of the curves to represent very good or excellent response for cassette decks in their respective price ranges. (The Ultrx, at less than \$300, is far less expensive than the other two.) The most worrisome curve probably is that for the Yamaha with DBX and metal tape because it includes a fairly sharp high-frequency peak. But switching to a higher-coercivity brand (we used TDK MA) or recording at a higher level could easily have flattened it out. So I see no significant area of disagreement between our reports and your findings, and I certainly wouldn't agree that DBX response in our tests "lags far behind" that with Dolby noise reduction.

CHEAP FIX?

I bought my Luxman/Yamaha/Mission/Sonus system in 1984. I keep seeing ads for "Litz" cables, Compact Cassette cleaning systems, a fluid to reduce electrical resistance in contacts, a bulk eraser for cassettes, and preparations to increase stylus or disc life. All claim to "eliminate" problems



or to improve performance "significantly" or "greatly." If spending \$20 or \$30 will really improve my system as much as buying a significantly better cartridge or speakers for much more, I'm interested. But, in your personal opinion, can these products make all that much difference?

James E. Holloway, Jr. Baton Rouge, La.

Some of them can make a difference, and as long as there's any perceptible difference, I suppose it can be called "significant." The question is whether you would hear it in the first place.

If you allow your CDs to get dirty, for example, they will progressively stress your player's error-correction system until you eventually hear something amiss. Bulk erasure can reduce the level of a previous recording on cassette tapes to below the already good -60 or -70 dB that can be achieved by most decks' erase heads and leave even less residual noise than recording heads will generate with no input signal. And so on.

In many cases, the fun of trying products to see whether you will benefit from them is worth the price even if the answer proves to be no. But I agree that the descriptions regularly applied to their benefits are often excessively vivid.

We regret that the volume of reader mail is too great for us to answer all questions individually.

ADVENT[®] INTRODUCES **JEGACY** BUILT ON A SOLID FOUNDATION.

Here's the new edition of the famous "larger" Advent[®] speaker that sold more than a million units—literally revolutionized the stereo business. Built in the heritage of legendary Advent technology, this new, superpower speaker is floorstanding with a 10" woofer and 1" ferrofluid-filled, softdomed tweeter. It is digitalready, and provides the kind of dynamic-range, separation and frequency-response appropriate for compact disc, audiophile records, dbx, and Dolby[®] C recordings. The steep-sloped crossover network contributes to

Legacy's incredible 500-watt peak power capability, and improvements in linearity.

All this remarkable performance in handsome cabinetry finished off with oiled, sclid pecan wood on the top and along the base of the speaker. Real wood, becoming an Advent trademark.

See the new Legacy, and see the other great speakers in Advent's complete line: Baby Advent, Prodigy, and 6003. Advent has what you want in size, in performance, in excellence.

The New Generation in Sound



© 1985-International Jensen



BASICALLY SPEAKING

Michael Riggs

by



A Question Of Size

All else being equal, most people would prefer their speakers to be as small as possible. And nowadays, this desire can be accommodated, to some extent, without extreme compromise: A speaker doesn't have to be big to be good. In fact, smallness can even have sonic advantages. Unfortunately, good deep-bass response seldom is among them. This is a consequence of the basic physics of the situation and is therefore difficult to get

around.

Nonetheless, a designer does have some leeway, which is why speakers of similar size may have different low-frequency performance. For example, it is possible to extend bass reach by reducing efficiency. This is a reasonable expedient up to a point, but if too much efficiency is sacrificed. the system will need large amounts of power to play at reasonable volumes. One way of getting it is to reduce the speaker's impedance. Regrettably, this strategy can be carried only so far, since most amplifiers will stop delivering more power when the load drops below a certain impedance. And there is an ultimate practical limit imposed by the woofer's ability to dissipate heat: If too much power is required, it eventually will melt the voice coil.

Another approach is to reduce the size of the woofer, which lessens the cabinet volume required to obtain a given low-frequency cutoff. The catch here is, again, power handling. A small cone must move farther than a larger one to generate any given volume level. Consequently, it will tend to produce higher distortion and to have a lower maximum output level. That's why you don't see 4-inch woofers in boxes big enough to accommodate something larger. There's just no point in striving to reach a frequency that can be safely reproduced only at volumes so low as to be almost inaudible.

The last approach to getting more bass out of small boxes involves the way the woofer is loaded. The two most common methods are acoustic suspension and bass reflex. In the former, the woofer is mounted in a completely sealed cabinet de-

Disc drivers.

You're looking at the three drivers from our new NS-75T speaker. We took them apart so we could tell you how they're put together to meet the higher demands of compact discs.

The 12" woofer is made from specially developed carbon fiber material. Lightweight yet very rigid, carbon fiber has superior sonic clarity and low-end definition. Even under the increased dynamic range and high power demands of digital audio.

Both the dome midrange driver and the dome tweeter are made from a unique titanium

carbide composition. The result is outstanding transient response, wide sonic dispersion, and three-dimensional, transparent imaging. So you hear all the live in-studio or on-stage sound compact discs were recorded with.

The NS-75T is just one in a complete line of Yamaha NS-T speakers. They're ready for digital when you are.

Yamaha Electronics Corporation, USA, P.O. Box 6660, Buena Park, CA 90622





"If you love opera, you'll treasure it even more with OPERANEWS as your guide."- PLACIDO DOMINGO

SEND FOR YOUR FREE ISSUE TODAY.

OPERAT

We'll send you a FREE copy of OPERA NEWS to introduce you to the world's foremost opera magazine. Look at it, read it – and only then decide if you wish to become a regular subscriber.

You'll sit front row center – without ever leaving home.

Each beautifully illustrated issue of OPERA NEWS brings you the latest news of outstanding operatic events the world over: forecasts, reviews and reports of important openings – new productions – exciting debuts from San Francisco to Salzburg and Boston to Buenos Aires.

Preview opera on radio and TV

Only OPERA NEWS gives you profiles of the cast, the story and background of the opera, onstage action photos, all *in advance* of each performance including *every* Metropolitan Opera Saturday broadcast and "Life From the Met" telecast.

Meet the brightest stars. On stage. Off-stage. Backstage.

Celebrated artists of the past, today's super-stars and tomorrow's challengers talk intimately of their lives and careers in OPERA NEWS. You'll read the latest gossip and the hard facts in every colorful issue.

Sample OPERA NEWS free

There's just one way for you to fully appreciate OPERA NEWS' fascinating articles, stunning photographs and lively reporting. And that's to see a copy for yourself. We'll send you the current issue of OPERA NEWS absolutely free, and a full year's worth (17 issues in all) for only \$19.95 – a savings of over 50% off the single copy price.

For your free copy of OPERA NEWS, fill out and return the coupon and we'll enter your subscription. We know you'll be delighted with OPERA NEWS. But if for any reason you choose not to subscribe, simply write "cancel" on your bill and owe nothing. In any event the free issue is yours to keep.

FREE TRIAL OFFER OPERA NEWS 1865 Broadway New York, NY 10023

Send me the current issue of OPERA NEWS – FREE – and enter my full year subscription at the special rate of \$19.95 – a savings of over 50% off the newsstand price.

My check is enclosed, payable to OPERA NEWS

🗌 Bill me later

If I choose not to subscribe, I'll owe nothing, and the copy of OPERA NEWS is mine without obligation.

Name	(Please prin	t)	
Address	10	101	
City	State	Zip	75N6CJ
Offer limited t	o USA, new orders	only.	

signed to absorb all of the radiation from the back of the cone. It is a technique with many nice qualities. Cone motion is well controlled at all frequencies, and the rolloff below resonance is just 12 dB per octave. Another advantage is that acoustic suspension woofer systems are easier to design correctly than are their bass reflex cousins.

But a bass reflex speaker theoretically has a 3-dB efficiency advantage over an otherwise identical acoustic suspension model. This is achieved by making use of the woofer's backwave (the output from the back of the cone), rather than throwing it away. The means is a hole, or "port," in the enclosure that turns it into what is known as a Helmholtz resonator. When such a unit is correctly designed, the radiation from the back of the woofer cone excites the resonator over a band of low frequencies. If the enclosure is tuned to resonate at the same frequency as the woofer itself, the combined resonance peak will split into two smaller ones above and below the tuning frequency. In effect, the resonance of the woofer is moved up and damped enough to flatten its response, while the output from the port, representing the lower resonance peak, maintains response below the tuning frequency. Thus, the port both smooths and extends the speaker's low-frequency response.

The key to a good bass reflex system is correct tuning of the enclosure, achieved primarily by adjusting the size of the port according to the dimensions of the cabinet and the characteristics of the woofer. It's a fairly complicated balancing act that used to require a lot of cut-and-try work, with mixed results. Since an improperly tuned bass reflex speaker can sound quite boomy, the whole genre developed a rather soiled reputation. In the last decade, however, the work of Richard Small and A. N. Thiele has given engineers the mathematical tools necessary to design ported models to order with the same consistency of performance obtainable using sealed enclosures.

A common variation on the bass reflex principle uses a passive radiator, or "drone cone," as a vent substitute. (A passive radiator is essentially a speaker diaphragm driven by the backwave from the woofer rather than by a voice coil connected to the amplifier.) This widens the designer's options by enabling him to vary the mass of the resonant system, which in a straight reflex design is simply the acoustical mass of the air in the port.

Although it might seem that ported and passive-radiator enclosures are definitely the way to go, the situation is not that clear-cut. Disadvantages include a much faster rolloff below the cutoff frequency (24 dB per octave) and greater susceptibility to excessive cone motion in the presence of infrasonic signals from warped records. And it does not seem to me, based on our tests of a wide variety of speakers, that vented designs consistently achieve the efficiency advantage attributed to them by theory.

What's best next to your TV?

Stereo TV is here. On MTV Cable. On video tape and discs. And now over the air. To hear it best, Design Acoustics has created new PS•6V Video Speakers. Specially designed to complement the very best video monitors and receivers.

PS•6V speakers are efficient, for room-filling sound from even small built-in TV amplifiers. Yet they can also handle the full power of a 100 watt stereo amplifier.

Unlike ordinary speakers, **PS**•6V speakers are internally shielded. You can place them right next to any TV set or monitor without magnetic distortion of the color or picture.

PS•6V speakers employ unique Design Acoustics Point Source Technology[™] to create the ideal stereo image for every listener by minimizing the speaker front surface and reducing acoustic diffraction of the sound.

PS-6V speakers sound great. With deep bass from the long-throw 6" woofer, and smooth peak-free response from the ³/₄" soft-dome tweeter. Whether you're into music videos, classical concerts, movies, or just plain TV, everything sounds cleaner, clearer, richer with Design Acoustics **PS**-6V speakers.

Write today for a list of dealers and literature on the innovative speakers from Design Acoustics. Hear proof that there's far more to TV than meets the eye.

New Design Acoustics PS•6V Video Speakers



1225 Commerce Drive, Stow, Ohio 44224

THE AUTOPHILE

by Jay C. Taylor



Which Features Are Most Useful?

"I'm getting ready to buy a new car stereo. What features should I get?" As car stereo product manager at Crutchfield, I'm frequently asked that question. With the new 1986 product lines reaching dealers now, it's a good time for an update on the most common features and a few thoughts on how useful they are.

Digital tuning: It's a bit more precise than analog, and as an added bonus, you'll get as many as 24 station presets

and possibly a clock. I prefer LED readouts to LCDs, which are often difficult to make out. Seek or scan tuning: These find the next listenable station at the touch of a button and definitely are a plus, particularly when you are driving in unfamiliar areas. The two methods differ in that scan samples each successive station for about five seconds before moving on, unless you push the button again, whereas seek moves to the next listenable station and stays there. I find seek easier to use, because scan forces you to listen to a weak, noisy station for five seconds unless the button

is pushed twice. Very sensitive tuners can be annoying to operate in either mode, since they tend to stop on fringe stations, which usually are quite noisy. A local seek or sensitivity switch is a helpful option on such models. The terms seek and scan often are used interchangeably by retailers. If you have a preference, make sure you get what you want.

Autoreverse: Strictly a convenience feature, this usually results in a loss of high-frequency response. When the tape changes direction, the angle between it and the head usually is altered slightly, unless you have some way to correct it, as with Sony's Dual Adjust Head or Nakamichi's NAAC. On autoreverse front ends without logic controls, it's also more difficult to fastforward or rewind the tape, since the controls switch function when the tape changes direction. Autoreverse makes sense only for people who do a great deal of long-distance driving.

Automatic eject: When a tape finishes, it will eject automatically. A variation on this, power-off eject, kicks the tape out when the ignition is switched off. Both serve the laudable purpose of prevent-

Discwasher. The clear choice for video care.

Tape oxides can build up on your VCR tape heads. Result? Fuzzy picture, mushy sound. The answer? Discwasher Video Head Cleaner. It's a revolutionary, patentpending, non-abrasive dry cleaning system. The cleaning is thorough, removing impurities from both video and audio heads along the entire path—safely. With no harmful chemical solvents. Use Discwasher regularly to maintain picture and sound clarity—and to protect your VCR from costly repairs. You can trust Discwasher, leader in the technology of audio and video care.





The sound and sight come through clean and clear. **discwasher**

1407 North Providence Road, PO. Box 6021, Columbia, MO 65205

ing flat spots on the tape and the pinch roller, and thus to me are more desirable than autoreverse. Key-off pinchroller release holds the tape in place while preventing the same damage. If your deck doesn't have one or the other of these features, I'd suggest connecting the power lead directly to the battery. Otherwise, when you turn the ignition off, the music stops, and sooner or later you're going to forget that you were listening to a tape.

Tape search: This is another popular convenience feature that goes by any number of different names, depending on the manufacturer. It finds the blank spots between songs on a cassette, assuming they're long enough, and is great for skipping over material you've gotten tired of or just don't want to listen to.

Tape equalization: You need this to get the flattest response possible from high-bias tapes. The only front ends above \$200 that wouldn't have tape EQ might be factory-installed radios.

Noise reduction: The system in your car stereo should match the one you use at home to encode your cassettes. Dolby B is finding its way into an increasing number of lowcost name-brand decks. Dolby C is usually reserved for front ends costing more than \$300. and DBX is found on a limited number of mainly higherpriced models. The long-sincediscontinued Jensen RE-530 had both Dolby B for encoded tapes and DNR for nonencoded sources, which I thought

was an excellent idea. Apparently nobody else did.

Local/distant switching: This keeps very strong FM signals from overloading the front end. It's my least favorite feature, but I don't live in New York. With it inadvertently activated, you could drive around for a week here in rural Virginia with very limited reception and be blaming it all on the weather. The point is obvious: Local/distant switching is recommended for use in urban areas only.

Mono/stereo switching: Infinitely more useful than local/distant, this lets you continue listening to a station for miles after stereo reception would have become unbearably noisy.

Fader: This feature is unique to car stereo, functioning to

balance sound between front and rear speakers, assuming you have four. But not all faders are the same. For instance, one type fades only between the speaker outputs and the preamp outputs. An external amp would be required to make it work. An increasingly common arrangement is for the fader to balance between the front speaker outputs and both the rear speaker leads and the preamp output. Better still are the new high-power receivers with four-channel amps that can be used to run both front and back speakers or that can be bridged for much higher output into the front speakers only, with the rear pair driven by an external amp; the fader is set up to work properly in either configuration. Such a front end is the most versatile system building block you can buy. If you plan to upgrade sometime in the future, it's a feature you don't want to be without.

Preamp outputs: This pair (or two) of low-level outputs makes your front end more versatile when you get ready to upgrade. It simplifies the addition of an external amp or equalizer/booster and provides a much cleaner signal than anything you might add to the speaker leads. The latest trend is an input/output loop, which facilitates adding a passive equalizer or Compact Disc player.

Separate bass and treble controls: Something you'd take for granted on a home receiver, they may be omitted in favor of a single tone control in cheap car decks. Don't do without them.

Loudness compensation:

This feature is perhaps more useful in a car than at home, especially to overcome road noise at low listening levels.

Its double CD player lets you play the hits and skip the misses.



Toshiba's mini stereo system offers an optional double CD player that lets you program up to 30 selections at a time. The system includes a dual cassette deck with double-reverse, AM/FM stereo receiver, automatic turntable, 2-way bass reflex speakers and a 5-band graphic equalizer. The Toshiba System V-11. It not only sounds great, it even takes requests.

TV stereo. VCR stereo. AM/FM stereo. And you were going to settle for an ordinary receiver.

Technics introduces the audio receiver that's also a video switching center.

Now Technics allows you to channel your audio and video into one advanced component. To give you not only an extraordinary audio experience, but an astonishing television experience as well.

It's the new Technics SA-560 audio/video receiver. More than just AM and FM stereo, it also gives you true stereo TV sound with an ordinary TV.* All coming through your stereo system with 70 watts of power.**

In addition, there's VCR stereo? And cable TV sound.** Plus inputs for a compact disc player, cassette deck and turntable. All with one remarkable receiver.

Beyond that, Technics also gives you Stereoplex circuitry. To expand monaural sound into a spectacular stereo-like effect.

So why settle for an ordinary stereo receiver, when you can have one extraordinary audio/video receiver. The choice is yours. The receiver is Technics.





 $\mathbf{O}\mathbf{O}\mathbf{O}$

THE NEW JBL "L SERIES" SETS THE STAGE AT HOME

JBL, the most respected name in professional sound for over 40 years, is today's speaker of choice. At live concerts, where 500,000 Watts drive over 600 speakers, and in 70% of the world's recording studios, JBL is the speaker chosen by professionals—performers, engineers and producers who depend on the highest quality sound and reliability.

Now, for those who demand the same superior performance, JBL introduces the new "L Series." Each speaker in the "L Series" has a direct twin in the JBL professional studio monitor line. For the first time, the speakers relied on by recording engineers to mix the music, are available for your living room.

All of these speakers share the technology that is the cornerstone of JBL's Professional Speaker Systems—all use titanium dome tweeters, filled and laminated polypropylene and Aquaplas drivers, as well as cast frames for sonic accuracy, reliability and power handling.

Visit your local JBL dealer today and listen to professional sound for the home, made in the USA, by the sound professionals...JBL.

The New JBL "L Series"...Bringing Pro Sound All The Way Home.

HRI

SUPER BETA: How Does It Work?





SONY

The last eight years have seen the emergence of two standard home videocassette recorder standards, Beta and

Super Betah

VHS, and the repeated halving of retail prices from \$2,000 to \$1,000 to \$500 and recently to below \$250 by discounters. Television and film buffs have been so thrilled about the very existence of the home VCR, and the marvelous viewing freedom that it affords at such low cost, that few have stopped to question the quality of its performance. Meanwhile, manufacturers have devoted their maximum effort to cutting cost, providing longer recording times, and adding convenience features (portability, remote control, programmable multievent recording, slow and fast motion, freeze frame). But now that VCRs are

widely available, cheap, and flexible in operation, the time has come to start making them *good*.

Today's VCR is like the audio cassette recorder of the late '60s, which was a wonderful improvement in convenience over the older open-reel format but was consistently disappointing in sound quality—fine for recording speech, but not wide-range music. It suffered from wavery flutter, it added background noise (hum and hiss), and it had a restricted frequency response.

Around 1970, seven years after its introduction, the audio cassette began to become a respectable high fidelity medium. New tape decks had less flutter, hiss was suppressed by the addition of noise reduction circuits (such as Dolby and DBX), and frequency response was extended by improved heads and tape formulations until at last cassettes could faithfully reproduce wide-range sound. The VCR, similarly, is now making the transition from a mid-fi to a hi-fi medium.

ß

11 / 11

10-

Sound quality has already achieved high fidelity status, with the introduction of Beta Hi-Fi and then its competing equivalent, VHS Hi-Fi. Just getting under way is an improvement in the quality of VCR pictures, which typically have only about half the resolution needed to reproduce all of the fine detail that a broadcast image can contain. The first VCRs capable of recording obviously sharper pictures are the Super Beta machines, which arrived in stores this past summer, and VHS manufac-

The author heads Mystic Valley Audio, an audio design/consulting firm. turers have been developing improved-picture models (see accompanying article, "Super VHS?").

Loss of detail is only one of the compromises in video quality in today's VCRs. Another is nonlinearity of the luminance (brightness) scale, which causes, among other things, faces to look waxen by losing the subtle shadings in texture that characterize the play of light and shadow on real skin. A third item in need of improvement is the video noise level, especially chroma (color) noise-the addition of a flickering, patchy, grainy quality to the color image, especially noticeable in large areas of solid red or blue. Video noise can be reduced slightly by using the recorder's fastest tape speed (shortest running time) and by using "high grade" tapes. These are all obviously visible problems, but Super Beta addresses only one of them: the resolution of fine

picture detail.

Look Sharp

The sharpness of a television image is best expressed by a specification of frequency response. In the NTSC broadcasting system used in North America and Japan, the video signal spans a range of frequencies from DC (0 Hz) to a maximum of 4.2 MHz, with the highest frequencies corresponding to the most abrupt edges and smallest details in the picture. But as HIGH FI-DELITY's test reports have shown, the video frequency response of nearly every home VCR rolls off rapidly above 1.5 or 2.0 MHz, which means that all the minutiae-small print, individual strands of hair, blades of grass, leaves on trees, faces in a crowd-are lost in a fuzzy blur.

To see why VCRs don't record the full 4.2-MHz bandwidth of the broadcast video signal, and how Super Beta can more nearly approach that goal, we need to understand how a video signal is recorded in a VCR. For practical reasons, VCRs cannot record the video signal on tape in its original form; they must reformat it for the magnetic medium. The variations in the picture signal, encoding the light-dark shadings of the image, are represented by frequency modulation of a "luminance carrier" (see Fig. 1). Thus, the signal is recorded on the tape at constant strength-varying in frequency but not in amplitude. In standard Beta machines, the luminance carrier is centered at a frequency of 4.2 MHz. It is modulated up to 4.8 MHz for the brightest peak-white highlights in the picture and down to 3.5 MHz for the blacker-than-black bar that separates the bottom of each frame from the top of the next. The rapid frequency modulation of the luminance carrier produces "sidebands"

Fig. 1. The frequency spectrum of a video signal as it is reformatted for recording on tape by a VCR (either Beta or VHS). The carrier frequencies are slightly different in the two formats.



that represent the details in the picture. Meanwhile the chroma portion of the video signal is down-converted from its normal position (centered around 3.58 MHz in an NTSC composite video signal) and directly recorded into the VCR spectrum space below the luminance information.

The Great Shift

Figure 2 (see next page) shows how the standard Beta format was modified, first for Beta Hi-Fi sound and then for Super Beta video. In standard Beta there is no room in the spectrum between the upper edge of the chroma signal and the lower edge of the luminance sidebands. To make room for Beta Hi-Fi's four audio FM carriers (from 1.3 to 1.8 MHz), the luminance carrier and its sidebands were moved up by 400 kHz. That allowed the audio carriers to be combined with the video signals and recorded by the video heads without altering the VCR's video performance. To create Super Beta, the luminance carrier is moved up another 400 kHz, enlarging the space available for the sidebands. Seen in this light, Super Beta is a logical extension of Beta Hi-Fi. The publicity for Super Beta suggests that it shifts the luminance signal up by 800 kHz, but that is true only by comparison with standard Beta; half of that 800kHz shift has already been made in Beta Hi-Fi decks.

The sidebands produced by the frequency modulation (FM) process contain all of the information about details in the picture. Thus, the space available for the luminance sidebands is what determines the useful video bandwidth of the VCR—and its ability to resolve fine detail. In standard Beta, the sideband space ex-

NEC's digital experience here...

brings you a better digital experience here.

• When you put a satellite in orbit, you want every possible assurance that it will perform. That's why corporations and governments all over the world ask NEC to build their satellites.

Even if you don't launch objects into outer space, it's comforting to know that NEC puts much of our satellite PCM digital technology into our Compact Disc players for the home.

While most high fidelity companies have only two or three years of experience with PCM digital audio, NEC has been at it since 1965. So it comes as no surprise that other manufacturers are now imitating the digital filtration and high-speed switching our CD players have had from the beginning. And it's no surprise that independent critics in America, Europe and Japan have awarded NEC's players top ratings.

You see, building satellites is not enough for NEC. We feel obligated to take the world's most advanced technology one step further. Into your home.



NEC

We bring high technology home.

SUPER BETA

tends from the luminance carrier (at a median frequency of 4.2 MHz) down to about 1.2 MHz, for a potential video bandwidth of 3.0 MHz. Super Beta's 800 kHz upward shift of the luminance carrier means that such a machine theoretically could have a useful video bandwidth of 3.8 MHz, nearly matching the NTSC broadcast limit. But most Super Beta VCRs will include Beta Hi-Fi audio, on the sensible assumption that people who are paying a premium price for a superior picture are likely to want superior sound as well. So Super Beta's video bandwidth is limited to 3.4 MHz (at best) in order to minimize mutual interference between sound and picture.

Super Beta's potential video bandwidth of 3.4 MHz is only a modest 13-percent improvement over the 3.0 MHz bandwidth limit of both standard and Hi-Fi Beta machines-not enough to provide the 20- to 30-percent improvement in resolution that is claimed. The disparity arises from the fact that VCRs don't have flat response over their full video bandwidth. As noted earlier, the actual video responses of standard Beta machines start rolling off at a bandwidth of only 2.0 MHz (or less). A Super Beta machine need only achieve an actual bandwidth of 2.6 MHz in order to be performing 30 percent better than a standard Beta unit. Such performance would be noticeably sharper with good program material.

Noisy Compromises

In nearly all of today's VCRs, the video performance has been compromised in favor of longer recording time and special effects. The first Beta system was designed to record a 3.0-MHz luminance bandwidth, and Sony still makes a line of "industrial" Beta VCRs (like the model SLO-340, used in medical schools to record operations) that really are that good. The catch is that these machines run only at the fast Beta I speed, yielding a running time of only an hour and a half with an L-750 cassette.

Today's VCRs run at slower speeds to achieve longer playing times, and since the video signal is recorded on tracks that run diagonally across the tape, slower speeds cause successive tracks to overlap. To reduce the overlap, current VCRs record narrower tracks, using narrower heads. In the first generation

Fig. 2. The signal spectra of three successive generations of Beta VCRs: standard Beta, Beta Hi-Fi, and Super Beta.



of single-speed VCRs, the track width was 58 micrometers (millionths of a meter), but multispeed VCRs gain longer recording time by moving the tape one-half or onethird as fast, and in many of today's decks the track width is only 30 micrometers. As a result, the signal recovered from the tape in playback is only half as strong (6 decibels weaker), with a correspondingly poorer video signal-tonoise (S/N) ratio. Reducing the video bandwidth of slowspeed VCRs helps to keep the noise (which is most obvious as graininess or "snow" at high video frequencies) within acceptable limits, allowing long running times to be achieved without making the picture unbearably mottled.

Some of the early multispeed VHS models from JVC contained two sets of heads: 58-micrometer heads for optimum performance at the "two-hour" speed (SP) and narrow-track heads for the "six-hour" speed (EP). But most other manufacturers have concluded that consumers are more interested in special effects (slow motion and freeze frame) than in a better picture. A few of today's VCRs have wide-track heads tailored for SP operation (notably the five-head machines from Hitachi and RCA), but most use just one pair of narrow-track heads, optimized for EP, for all recording and regular playback. When a second pair of heads is included (as in Matsushita's Tech-4 system), it usually is employed only to provide special effects free from annoying noise bars.

You can get a usable 3-MHz bandwidth with a present-day VCR: Buy an industrial or "professional" model that lacks special effects and extended running time. For (Continued on page 37)

If a video system isn't worth hearing, it isn't worth seeing.

by Ray Charles

"My word, have you ever seriously *listened* to most video systems? This is not great sound, my friend, this is noise. They may give you something pretty to look at, but they sure make you pay with your ears.

Then one day the Pioneer folks ask me to listen to their videodisc system called LaserDisc. And I'm amazed. The sound on LaserDisc is every bit as good as I ever heard on my stereo.

Maybe better.

I think to myself, 'If the sound is so great, maybe the picture isn't so hot.' So I ask the experts. And they tell me that the picture on LaserDisc is so much better than any other video system, nothing else even comes close.

And then they tell me that because the disc is read by a beam of light instead of a video head or a needle, it can't wear out the way tapes or records do.

Model shown LD-700.

Suddenly, it all becomes very clear to me: if you could get the best sound and the best picture from the same system, if you didn't have to give up one to get the other, how could you possibly consider anything else?

I don't care if you're a big video-music fan, or all you do is watch movies. Either way, you're not going to do better than LaserDisc nohow."

> W PIONEER Video for those who really care about audio.

Prices start at \$299. Suggested retail price. LaserDisc[™] brand videodisc player is a trademark of Pioneer Electronics Corp. © 1985 Pioneer Video, Inc. All rights reserved.

"Who else would help you save money for college and give you an education at the same time?" SP4 Ivan Torres, Rocket Launch Systems

"I always figured on going to college. What I wasn't sure about was how to pay for it. So I checked out the Army. It turned out they could help me a lot, with money for school. And with my future.

"See, I wanted to learn about high-tech computers; they sent me to school. When we go to the field and I do my job, the whole mission gets off. And that's a real good feeling.

"But the Army teaches you other things, too... how to work with the soldier next to you. How to get a job done right. You learn to care more about people, too. Really, being in the Army teaches you about life."

With the New GI Bill Plus the New Army College Fund, you can earn over \$25,000 for college. While BE ALLYOU CAN BE. you learn things no one can put a price on. Just ask Ivan Torres. To learn more about the Army's educational opportunities, see your local Army

Recruiter. Or call toll free 1-800-USA-ARMY.


Now You Have a Choice Four Ways to Get the Best Value in Stereo Imaging

Walsh® Value

If you compare speakers capable of equal sound quality with Ohm Walsh speakers, you'll find that you have to pay much more for sound as good, and that equal quality in stereo imaging is hard to get at any price. One Walsh owner concluded that his Walsh speakers are "head and shoulders above the other higher priced systems I compared them to" and *Audio* magazine judged them a "best buy."

Walsh Stereo Imaging

Walsh speakers create an exceptionally effective stereo image because of the unique patented design. It's an inverted cone with sound radiating from it in a single coherent wavefront designed to cover the entire listening area. This means there are no hot spots from the narrow dispersion common to most speakers, and you get the full sound of both speakers as you move around the room. The New York Times described the result as "A spacious acoustic ambiance linked with precise stereo imaging creating a 'reach-out-and-touch-it' realism that this listener has experienced rarely and only with the very best speakers. What's more, the effect is maintained over a broad listening area, so you are not confined to a particular listening position for best results." And since the wavefront is coherent it is devoid of phase distortion so the sound is crisp and clean. This along with an extremely even frequency response is responsible for the sound that Norman Fisenburg said makes "you sense you

are listening to a performance rather than to one being reproduced by machinery; this impression which one may get from a few other top quality speakers does not lessen with prolonged listening. The full musical spectrum is easily spanned with authority and fine tonal balance. Detailing of inner instrumental choirs is excellent and so too are the fuller splashes of massed ensemble effects. Titanic dynamic impact comes across when required, yet there is no tonal dropout of the subtler nuances of chamber music."

Walsh Choice

You can choose to put your Ohm Walsh speakers in places where other speakers would sound dreadful because our dispersion is designed to be less sensitive to placement than either omnidirectional

> or traditional speakers. And our speakers with frequency and perspective controls let you balance the sound to your room's acoustics and choose your posi-

> > tion in the audience from the front row to the back of the house. With most of our speakers you have a choice of finishes so you can match their look to your home. And now you have the choices of price, performance and features from a whole family of speakers devoted to value. Get information Ohm Walsh on speakers and details on buying directly from Ohm by calling today, toll free.

(800) 221-6984) (800) 221-6984) Ohm Acoustics Corp. 241 Taaffe Place Brooklyn, NY 11205

We make loudspeakers correctly.

Specifications	Ohm Waish 1	Ohm Walsh 2	Ohm Walsh 3	Ohm Walsh 4
Frequency Response	48Hz to 18kHz ± 4dB	45Hz to 16kHz ± 4dB	37Hz to 17kHz ± 4dB	32Hz to 17kHz ± 4dB
Weight	24 lbs.	29 lbs.	48 lbs.	63 lbs.
Sensitivity	87dB at 1 meter with a 2.83 volt input	87dB at 1 meter with a 2.83 volt input and all controls at maximum	87dB at 1 meter with a 2.83 volt input and all controls at maximum	87dB at 1 meter with a 2.83 volt input and all controls at maximum
Finish *	Genuine walnut veneer	Genuine wood veneer, walnut and oak standard. Scandinavian rosewood and black or white lacquer on oak finishes available on special order.	Genuine wood veneer, walnut and oak standard. Scandinavian rosewood and black or white lacquer on oak finishes available on special order.	Genuine wood veneer, walnut and oak standard. Scandinavian rosewood and black or white lacquer on oak finishes available on special order.
Inputs	Press connectors accepting "banana plugs" or bare wire up to 12 gauge	Press connectors accepting "banana plugs" or bare wire up to 12 gauge	Press connectors accepting "banana plugs" or bare wire up to 12 gauge	Press connectors accepting "banana plugs" or bare wire up to 12 gauge
Controls	None	2 - low and high frequency each with 3 positions	3 - Iow, high and perspective each with 3 positions	3 - low, high and perspective each with 3 positions
Power requirement on Music	20 watts minimum 90 watts maximum	30 watts minimum 120 watts maximum	35 watts minimum 200 watts maximum	50 watts minimum 500 watts maximum
Impedance	8 ohms	4 ohms	8 ohms	8 ohms
Price per Pair	Under \$595	Under \$995, depending on finish	Under \$1395, depending on finish	Under \$1895, depending on finish

1984 The New York Times

1984 Ovation Magazine, reprinted by permission

• 1984 Audio Magazine

The Teac PD-300 **Compact Disc Player** won't add anything to your music. No hiss. No pops. No wow. No flutter. Which means nothing comes through but the music, pure and clear. **Random memory** programming lets you choose the selections you want to hear in the order you want to hear them. You can repeat, edit, search, and seek with the touch of a finger.

passion, listen to Teac made purely for music.

HiFi in the extreme.



10.5

SUPER BETA

(Continued from page 32)

example, the Panasonic NV-8420 portable VHS unit, which is sold by some consumer video dealers, has 58-micron heads and runs only at the SP speed. Its video response does roll off above 2 MHz, but slowly enough that a video processor can easily equalize its signal to extend the useful response to 3.0 MHz. By boosting the highest video frequencies before recording, I have produced tapes on the NV-8420 that look dramatically sharper and more detailed than what most VCRs deliver. (Some recent VCRs include a sharpness control that boosts high video frequencies in playback, but that pushes up the video noise as well; it would be better to equalize the signal before recording.)

If all VCRs were built to achieve the best possible picture quality, Super Beta would represent only a slight improvement—but that's not the case. One way to look at Super Beta is to say that it restores the 3-MHz video bandwidth that VCRs were originally supposed to provide. In more practical terms, Super Beta offers the video performance of an industrialgrade VCR together with the added attractions of Hi-Fi sound, long running times, and special effects in playback—all the conveniences that industrial VCRs usually lack

Improved Formula

The superior video performance promised by Super Beta does not depend solely on the 13-percent increase in its theoretical bandwidth limit. In fact, "Super Beta" is an umbrella name covering several enhancements in video performance. The recipe includes five ingredients (the last two of which probably will be omitted from budget Super Beta decks):

- 1. The shifted luminance carrier, which increases the bandwidth available for sidebands.
- 2. New narrow-gap video heads (smaller in gap width, not track width),

needed to handle the higher luminance carrier frequency: up to 5.6 MHz for the peak-white highlights in the video signal.

- 3. A new recording equalization curve that boosts the high video frequencies (like the video-processor EQ trick mentioned above) to exploit the superior recording capacity of today's high-grade and extra-highgrade tapes.
- 4. A circuit to suppress the excess video noise that arises when the playback bandwidth is extended to 3 MHz. For best results, Super Beta should be used with premium-grade tapes that have inherently low video noise. With standard tapes you may have to adjust your monitor's sharpness control to find the optimum trade-off between improved resolution and acceptable graininess.
- A special "edit" mode that alters the playback equalization to provide best results when video tapes are

copied—minimizing the losses in video quality that normally occur when you transfer the best parts of a recording onto a second tape for your permanent library. In one demonstration, a fourth-generation Super Beta copy looked better than a conventional second-generation tape.

Not surprisingly, with all these changes in carrier frequency, video response, and bandwidth, the compatibility among standard, Hi-Fi, and Super Beta decks is not quite total. Tapes are expected to be generally interchangeable among the three formats, though a picture recorded in one format may not look exactly the same when played back on a machine of another format. The greatest disparity may arise when a standard Beta tape is played on a Super Beta machine. Therefore, Super Beta VCRs are equipped with a switch that disables their special circuitry and restores standard Beta playback response.

SUPER VHS?

Ever since Sony and the rest of the Beta Group announced the development of Super Beta, there has been speculation as to how the VHS camp would respond. When would there be a "Super VHS" system of improved picture quality? How would VHS do it, given the technical restrictions of its recording format relative to Beta's (such as slower tape-to-head speed and narrower FM deviation limits)? Which of the major problems (noise, resolution, or gray-scale linearity) would be attacked first? The answers are only now becoming clear with recent announcements by JVC concerning its High Quality (HQ) system.

As described in a press release and in an engineering paper presented at last June's International Conference on Consumer Electronics (ICCE), sponsored by the IEEE, High Quality focuses on reducing video noise and (slightly) increasing picture sharpness. The techniques used revolve around changes in how preemphasis is applied to the video signal as it is recorded.

Audiophiles are most familiar with pre-emphasis as a means of

reducing noise on phonograph records and FM broadcasts. In the latter case, for example, a high-frequency boost is applied to the audio signal before it is transmitted. Tuners incorporate a reciprocal de-emphasis circuit that pulls down the treble again to restore flat frequency response. The high-frequency noise is attenuated along with the signal, making reception quieter than it would be without the pre-emphasis/de-emphasis cycle.

VCRs use pre-emphasis to reduce video noise. In severe cases, video noise appears as "snow," but usually it shows up as a constantly varying coarseness or graininess in the image. The preemphasis is a boost during recording of the highest video frequencies, which form the edges and small details of objects in a picture. In playback, the boosted highs are cut by an equal amount, along with any high-frequency video noise added by the recording process. (Low-frequency video noise is much less noticeable to begin with.) But as the diagram on the next page shows, a boost of the upper frequencies causes an overshoot of the video waveform. This overshoot normally is suppressed by a "white clip" circuit so that, among other things, it does not cause overmodulation of the luminance carrier. (Remember that the luminance signal is recorded via frequency modulation: The greater the amplitude of the lu-

SUPER BETA



A single scan line across a bright portion of a TV image (A) generates a raised video-signal voltage (B). A pre-emphasized VHS signal contains high spikes (C), which are cut off by a "white clip" circuit. In playback, the old VHS white-clip level leads to a rounding-off of the leading edge of the waveform (dotted line, D), making for a less sharp dark-light transition.

minance waveform, the greater the FM carrier's deviation from its "center frequency.") Unfortunately, the white clip also impairs the recorder's resolution, because it removes some high-frequency information in addition to the reduction applied by the de-emphasis circuit. The result is a slight "softening" of the reproduced image. The use of pre-emphasis to suppress video noise has led to the undesirable side effect of reduced picture sharpness.

Apparently emboldened by improvements in the high-frequency performance of videotape, JVC has decided to raise the whiteclip level in High Quality machines by as much as 20 percent. Although this does nothing to enhance the resolution theoretically attainable with the VHS system (the bandwidth of the recorded video signal not having been widened), it should result in a slightly crisper picture. It simply takes advantage of new tape formulations to make fuller use of the frequency bands already available in the VHS format. JVC says that the extended white-clip level has been incorporated into at least one VCR already on sale in the U.S., the HR-140, though no mention of it has been made in ads or product literature. Newer JVC models also will include the feature.

The High Quality system has two other special features, both aimed at lowering noise: YNR (luminance noise reduction, Y being the symbol for the luminance component of a video signal) and CNR (chroma noise reduction). In both cases, the HQ scheme uses a delay line to add the contents of one television scan line to the next line. This increases the level of the video information common to both lines by a factor of 2, but raises the noise level by a factor of only 1.414 (the square root of 2). The difference represents a theoretical increase in signal-to-noise (S/N) ratio of 3 dB. The actual processes are far more complex than this basic description suggests, however, and probably will yield slightly more than 3 dB of improvement.

Perhaps the most interesting aspect of YNR and CNR is the (perfectly reasonable) claim that the circuits are "effective even when playing back a tape recorded on a conventional VHS machine." This enticing statement points up an important aspect of the HQ system. The most serious impediment to the improvement of VHS has not been technical but commercial: compatibility. Having captured most of the large and ever-growing home VCR marketplace, VHS manufacturers are justifiably concerned with questions of tape interchangeability. Whatever picture improvements are made must be achieved within the confines of the current VHS format standard, so that tapes made on improved machines will play back acceptably well on older VHS units and, of course, so that tapes recorded on those old decks (not to mention the millions of prerecorded videocassettes already in existence) will play back correctly in the new machines. The JVC system changes none of the fundamental VHS encoding parameters (carrier frequencies, modulation indices, track dimensions, and so forth) and therefore fits the bill perfectly.

In fact, there may turn out to be no "standard" approach to bettering VHS picture quality. It's possible that manufacturers may be permitted to do anything they want to in processing the video signal, as long as the resulting tapes and machines meet the compatibility requirements. Freedom to innovate within the VHS standard would no doubt touch off an exciting round of competitive improvements. The JVC High Quality system described here may be only one of many schemes, and it is separable into individual processing steps for piecemeal inclusion at various points in a company's product line (as in the reported use of the raised whiteclip level in Hitachi's "Fine Picture" and Matsushita's "Clear Vision" systems.).

Indeed, there is no reason to rule out a level of enhancement well beyond that afforded by High Quality. Rumors have it that a true "Super VHS" system is in the works, attacking problems that the HQ scheme has left largely untouched (such as resolution). And with the recent fall in price of computer memory chips, advanced systems using digital video processing and storage techniques may become affordable surprisingly soon. At the ICCE, a representative from ITT Intermetall (a German semiconductor company) described the use of digital circuitry in a VCR to improve picture quality and reliability while reducing the number of parts. Stay tuned to this channel for further developments.

David Ranada



HF's Senior Editor reports on the latest developments from two of Britain's leading loudspeaker manufacturers. By MICHAEL RIGGS

Loudspeaker design is one of audio's last frontiers. In a good modern component system, the sound produced will be determined almost entirely by the speakers, the

room in which they are located, where they and the listener are placed within the room, and the recording itself. The amplifier will add



no coloration (provided it has a flat



frequency response and is not driven into overload), and, increasingly, neither will the playback source (particularly if it is a Compact Disc). If greater realism is to be attained, it will be through improvements at the two

ends of the sound reproduction chain, the microphones and the

loudspeakers. I was therefore very pleased to have the opportunity this

Clockwise from top: Speaker diaphragm in motion as captured by Celestion's laser interferometry system; driver manufacturing area at B&W's Worthing plant; assembling tweeters for Celestion's new DL-8 speaker; quality-control check in B&W's anechoic chamber.









Manufacture and design at B&W: Worker assembles midrange/tweeter heads for 801F and 802F speakers (top); interferometry setup (middle left), with laser at right and the driver under test in jig at left; automated woofer test station (middle right); r&d engineer Glyn Adams investigates cablet vibration modes in laser lab.

STRICTLY SPEAKING

spring to visit with some of my colleagues not just one but two of England's foremost makers of high fidelity speaker systems: B&W and Celestion. Britain is the source of much of what is good in contemporary speaker design. and these companies have been leaders in the application of advanced measurement technologies (such as computer-aided analysis and laser interferometry) and the use of unusual materials in driver and cabinet construction.

B&W

Our first stop was Steyning, in West Sussex, home of B&W's research facilities. The company was founded almost 20 years ago by John Bowers ("B&W" stands for "Bowers & Wilkins"), who is still very much in charge. Its first product was the P-2, which had an ionic tweeter. Later headliners included the visually striking DM-70, which used an acoustic suspension woofer and a narrow, curved electrostatic tweeter panel; the equally novel DM-6 (known in some circles as the Pregnant Kangaroo, because of the profile created by its stepped baffle), which was among the first linearphase speakers; and the 801F, which is the company's current top-of-the-line domestic loudspeaker.

A "conventional" loudspeaker, such as the 801F, has three basic elements: the drivers that actually generate the sound, crossover filters that segment the incoming signal to assure that each driver receives only the frequency range it is designed to handle, and the cabinet. Each plays a crucial role, and B&W has worked hard to optimize all three in its speakers, with particular attention to the drive units and dividing networks.

For example, the company has a laser interferometry lab that it uses to study driver diaphragm behavior. Although the procedure is time-consuming (a single set of measurements may have to be done overnight under computer control), it enables the engineers to build a detailed picture of a diaphragm's motion at thousands of points across its surface. A computer assembles all the separate bits of data into an animated. three-dimensional display of the diaphragm in action. Examination of displays made at various test frequencies shows how and under what circumstances the diaphragm's motion departs from the desired ideal.

While conceding that this system doesn't help much in figuring out exactly what to do about an errant driver, B&W's designers say that it can pinpoint what is happening mechanically, which may suggest solutions. It also helps tell the engineers to what degree a modification has achieved its goal. At present, coming up with fixes in driver development is still more of an art than a science. Bowers says that the company is now engaged in developing a complete mathematical model of driver behavior that would, in effect, enable them to conduct such design experiments on a computer. It also would enable them to define how the driver should behave and from that to obtain the characteristics needed. The creation of such a model is a formidable undertaking, but once completed, it should both speed up the process of designing a driver and improve the results.

Another application of 3-D computer animation is in cabinet testing. B&W engineers

STRICTLY SPEAKING

use an accelerometer to measure vibration at various points on the surface of a speaker cabinet. The computer uses this information to determine the bending modes of the walls, which it exaggerates and displays on a CRT. Like some other British manufacturers, B&W considers "cabinet readout" a significant source of coloration; this type of vibration analysis helps the engineers minimize it. Computers also are used to delineate optimum crossover networks based on the desired response and impedance, the characteristics of the drivers, and the maximum allowable complexity (to prevent the machine from designing circuits with hundreds of parts). This is a major advance over the slower, clumsier methods necessary before.

The company has complete facilities for "traditional" design and measurement, as well, including anechoic chambers, several specialized driver testing systems, and equipment for impulse testing of both frequency and transient response. These are used for manufacturing (in Worthing, West Sussex) as well as research. The factory itself is like those of most American speaker manufacturers that I've visited. Unlike many of them, however, B&W makes all of its own drivers and crossover networks; only the cabinets come from outside vendors. And almost everything is done by hand, even if it could easily be automated (a difference from what I've seen elsewhere).

Perhaps the biggest news of the visit was the introduction of the first products from John Bowers, Ltd.-a semi-independent company headed, naturally, by John Bowers. Its flagship is the Active 1 loud-

speaker. This is a two-way design (dual 6-inch bextrene woofers and a 1-inch polyamide dome tweeter) with internal biamplification. The amplifiers have high-speed MOS-FET outputs and are said to operate Class A up to a 90-dB sound level from the speakers. (Above that point, Class AB is used.) Also included are lowand high-frequency response contouring controls for matching the speakers to the acoustics of the room in which they are placed. The amplifiers turn on automatically when they sense a signal at their input terminals.

Despite their many advantages, active loudspeakers have rarely succeeded in the U.S., so it will be interesting to see how the Active 1 fares here. The company also is introducing an ultrapowerful mono power amp (delivering approximately a kilowatt into 8 ohms) for use with conventional speakers, and it has plans for a preamplifier that could serve as a front end for either the Active 1 or the power amp.

CELESTION

In Ipswich, north of London, is the headquarters of Celestion, my second port of call. Much older than B&W and among the first-established speaker companies in the world, Celestion also is substantially larger. Part of the reason is its line of professional loudspeakers-power products, as the company calls them. Celestion is a major force in the international markets for sound-reinforcement and musical-instrument speakers. But my main interest, of course, was their high fidelity line.

The company has been in and out of the U.S. audio market, but never made a big splash until it introduced the











John Bowers discusses the design of the Active 1 loudspeaker (top left). To the right is a close-up of the back panel's inner surface, showing the speaker's power supply, amplifier modules, and electronic crossover circuits. Below is one of two B&W 808 monitor loudspeakers driven by prototype Bowers power amps. At bottom, HF Consulting Technical Editor Edward J. Foster peruses an 808 coming off the assembly line.









Celestion at a glance (top to bottom): Business end of the r&d department's laser interferometer; assembly jig for DL-& tweeter; a view of the plant floor; HF contributor E. Brad Meyer cueing up a CD for a DL-8 listening session.

STRICTLY SPEAKING

SL-6 several years ago. It was a courageous move: The SL-6 is an unusually small speaker to head a product line in this country. Celestion seems to have been correct, however, in feeling that it could best establish its reputation with a small, high-performance speaker.

In talking to the Celestion design team, it became clear that they see size and sound quality as linked. The larger the cabinet, the harder it is to control panel resonances and flexing. Increasing enclosure size also increases the size of the panels and therefore their radiating area. In other words, to Celestion's engineers, small is beautiful. The problem is that small cabinets force restricted deep-bass response unless efficiency is reduced.

Nonetheless, it appears that for the near future, at least, Celestion's top speakers will also be small speakers. Indeed, the company's present flagship model, the SL-600, is essentially an upgraded version of the SL-6, with cabinet panels made of a rather hightechnology aluminum honeycomb sandwich, for greater rigidity. Chief design engineer Graham Bank was quick to point out, however, that not just any old material of this type will do. Celestion started out obtaining it from companies who supply the stuff to aircraft manufacturers, only to discover that it didn't deliver the performance they wanted. Apparently a great deal of time and effort was spent getting a version with exactly the desired acoustical properties, and it remains an expensive enclosure material.

The other key element in the design of the SL series speakers is their drivers, developed with the aid of laser interferometry. Celestion was the first company to use this technique and remains the leader in its application. It is fascinating to watch in action, providing animated, three-dimensional renderings of diaphragm motion in a relatively short time. The company is upgrading its equipment to take advantage of today's high-performance 16-bit microcomputers, a change that is expected to improve the system's speed, resolution, and flexibility.

The drivers that have emerged from Celestion's research are quite distinctive. The SL series woofer, for example, has a single-piece diaphragm, eliminating the usual join between the cone and the central dustcap. The cone material and shape and the construction of the surround are said also to be critical. The tweeter diaphragm is a thin copper dome that extends back in a short cylinder that serves as the voice-coil former as well. The coil is wound directly on this former, doing away with the usual two-piece construction. Making the driver this way is said to minimize spurious vibrations.

Celestion recently developed an aluminum version of this tweeter, which has several advantages, including lower mass (and therefore higher efficiency), lower cost, and easier manufacturing. The improved tweeter is used in the new DL-8 loudspeaker and doubtless will appear in others as well. The DL series has three other members: the DL-4, DL-6, and DL-10 (the only three-way). These use a plastic-dome unit rather than the DL-8's aluminum tweeter, but all share the same design philosophy. Celestion is justifiably proud of these new models, which represent a clear advance over the Ditton series speakers they replace.

TEST REPORTS

KEF 104/2 LOUDSPEAKER

Dimensions: 11 by 36¼ inches (front), 16½ inches deep plus clearance for connections. Price: \$1,600 per pair. Warranty: "limited," five years parts and labor. Manufacturer: KEF Electronics, Ltd., England; U.S. distributor: KEF America, Inc., 14120-K Sullyfield Circle, Chantilly, Va. 22021.

Despite regular confrontations with new (sometimes even bizarre) wrinkles in loudspeaker design, we are a little astounded at the number of innovations embodied in KEF's latest addition to its Reference Series. The 104/2 is at least slightly unconventional in all three of the basic speaker building blocks: drivers, eabinet, and crossover. Yet from the outside, it looks, if anything, rather conservative—a speaker that could easily blend into almost any living room. Its specialness is largely hidden from view.

Perhaps most interesting is what KEF calls coupled-cavity woofer loading, which is something of a cross between acoustic suspension and bass reflex. Two 8-inch bextrene-cone drivers are used, both entirely within the floorstanding cabinet and facing up. Each is loaded by its own sealed subenclosure, one at the top of the cabinet, the other at the bottom. The region between the two woofers is tuned by a large ducted port in the front baffle. (The woofers are driven antiphase to one another, so that they alternately compress and rarify the air between them, something like an accordion.)

KEF says that the tuning makes the speaker more efficient than an equivalent acoustic suspension design. But because all the bass energy is radiated by the port, you never have a situation in which the output from the port is out of phase with the direct radiation from the woofer, which is what happens at very low frequencies in reflex systems. As a result, the bottom end rolls off at the 12dB-per-octave rate of acoustic suspension speakers, rather than the 24 dB per octave of a bass reflex design. And since the woofers remain loaded at all frequencies (again, as in an acoustic suspension system), even below resonance, they are far less susceptible to uncontrolled "cone bounce" in response to infrasonic signals from warped records than they would be in a conventional vented loudspeaker.

Is that all? Well, not quite. A damped metal bar runs vertically between the magnet structures of the two woofers. Since they are driven in opposite phase to one another, any vibration induced in their frames tends to cancel through the bar, minimizing transfer of this unwanted energy to the cabinet and from there into the room. The same problem is dealt with in a different way at middle and high frequencies, which are handled by a 1-inch dome tweeter flanked above and below by identical 41/2-inch bextrenecone midrange drivers. All three are mounted in a subenclosure that protrudes from the front of the bass cabinet. But the mounting itself is unusual, in that the midrange drivers' diaphragmsurrounds are attached directly to the front of the subenclosure, with the magnet structures bolted to the back-definitely the hard way from the standpoint of manufacturing. The entire assembly is damped with a special high-density polymer to eliminate resonances, and its front is carefully contoured to minimize diffraction.

All crossovers are achieved with four-pole (24 dB per octave), phase-compensated networks manufactured with close-tolerance (1-percent) parts. The transition between the midrange and



Report preparation supervised by Michael Riggs, David Ranada, Robert Long, and Edward J. Foster. Laboratory data (unless otherwise indicated) is supplied by Diversified Science Laboratories. bass drivers is at an unusually low frequency (about 150 Hz), and the size of the bass port is about the same as that of the midrange drivers, to keep the speaker's radiation pattern as smooth as possible. In addition, KEF has designed the crossover circuits to electronically tilt the 104/2's main radiation axis slightly upward, toward the listener. This is intended mainly to minimize floor reflections, which can cause coloration and degrade imaging.

And indeed, Diversified Science Laboratories' response measurements show very little evidence of the interference usually caused by such reflections. With the speaker placed against the wall behind it, the one-third-octave, room-corrected response is exceedingly smooth and flat—within $+2\frac{1}{4}$, $-3\frac{1}{2}$ dB from the 50-Hz band to 20 kHz on axis and within $+1\frac{3}{4}$, $-3\frac{1}{2}$ dB to the 16-kHz band off axis. Moving the cabinet several feet away from the wall made very little difference, except for the loss of an octave or so at the bottom of the range.

Another important function of the crossover is what KEF calls conjugate load matching. The circuit has been designed to make the speaker look to the driving amplifier like a pure resistance, rather than a complex impedance with reactive (inductive and capacitive) as well as resistive elements. It is the reactance that causes typical loudspeaker impedance curves to look like roller coasters. It also causes trouble for amplifiers, which when reproducing music may be called upon to deliver significantly more peak current into such a load than they would into a nominally equivalent pure resistance. Thus, a typical "8 ohm" loudspeaker may at times draw as much current as a 4-ohm resistor, and a typical "4 ohm" speaker, as much as a 2-ohm resistor. (See "The Uneasy Symbiosis," October 1980.) By designing the 104/2 as a 4ohm, almost purely resistive load, KEF picks up a few dB in sensitivity without endangering the output transistors of the amplifiers used to drive it or causing premature clipping from activation of output-stage protection circuits.

Again, DSL's measurements confirm KEF's claims. The 104/2's impedance ranges between 3.4 and 4.8 ohms across the entire audible band: It is the

flattest such curve we have ever seen. And the speaker's sensitivity is correspondingly high. We also noted that on the 300-Hz tone bursts of our pulse power-handling test, it was able to draw more power from the lab's amp than most other speakers—the equivalent of 28 dBW (630 watts) into 8 ohms, which is 31 dBW (1,260 watts) into 4 ohms. This resulted in a calculated peak output of 1201/2 dB SPL (sound pressure level). Further confirmation of the system's wide dynamic range comes from the distortion measurements. At a moderately loud 85 dB SPL, total harmonic distortion (THD) averages about 1/4 percent from 100 Hz to 10 kHz (our upper limit in this test). At 95 dB, it is still less than 1/2 percent, and at 100 dB SPL (which is quite loud), it is just a little more than 3/4 percent. What's more remarkable is the distortion at very low frequencies: Even at 100 dB SPL, it's less than 1 percent at 50 Hz. Cancellation of second-harmonic distortion by the antiphase operation of the woofers is probably at least partly responsible.

Setting up a pair of 104/2s is straightforward. Amplifier connections are made to color-coded five-way binding posts near the bottom of the back panel. (Curiously, these are spaced too far apart to accept standard double banana plugs.) All of the cabinet's exposed surfaces are finished in wood veneer-walnut, oak, or black ash-and there are four concealed rubber feet on the bottom. Their main function seems to be to cover the spike feet that have become de rigueur among British audiophiles. Neither theory nor experience supports the claims of sonic improvement made in some circles for these little floor-killers, so we recommend that you leave their covers in position.

Placement seems fairly noncritical. We tried the 104/2s backed up against a wall and in several positions as much as four feet out with similar results except at low frequencies, where the wall placement produced more output. In every case, the speakers sounded excellent smooth, clean, and very detailed, even at high levels. Bass response, though not subterranean, is well extended, and stereo images are stable, precise, and convincingly natural. Coloration is nota-

ROOM RESPONSE CHARACTERISTICS



bly low. One of our listeners thought the 104/2 sounded a little forward on some material, but the effect is small and seems to be mostly a function of the recording.

KEF really did its engineering homework on the 104/2, and it shows. Good sound goes hand in hand with a host of very practical features that the user never even has to think about to enjoy. The only drawback we can see is that it isn't cheap—but then, you could hardly expect it to be.

REPORT POLICY

Equipment reports are based on laboratory measurements and controlled listening tests Unless otherwise noted, test data are provided by Diversified Science Laboratories. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read reports in advance of publication, and no report or portion thereof may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested. HIGH FIDELITY and Diversified Science Laboratories assume no responsibility for product performance or quality.

ALLISON CD-6 LOUDSPEAKER

Dimensions: 11¼ by 11¼ inches (front), 11¼ inches deep plus clearance for grille and connections. Price: \$390 per pair. Warranty: "full," five years parts and labor. Manufacturer: Allison Acoustics, Inc., 7 Tech Circle, Natick, Mass. 01760.

llison has never been a company to ۸ make changes frivolously, so we were immediately interested when we learned that its entire Designer Series had been revised. Few of the differences are obvious from inspection, however. The Model Eight has gone from bookshelf to floor (now resembling a slightly grown-up, three-way version of the Seven), and all four now sport CD prefixes in their designators, to signify their suitability for Compact Disc playback. In fact, the main difference between the new line and the old is in the crossover networks, which now cut the tweeters off more sharply at the bottoms of their ranges to reduce distortion and increase power-handling capacity. The cabinets (except for the CD-8's), the drivers, and the design principles remain essentially the same as before.

The CD-6 is the smallest speaker in the range—a cube measuring about a foot on each side. Amplifier leads connect to spring clips in a recess in the back of the cabinet, which is available in oak or walnut veneer. A distinctive, dark brown grille of acoustically transparent perforated plastic conceals and protects an Allison 1-inch Convex-Diaphragm tweeter. This driver is crossed over at 2 kHz to an 8-inch acoustic suspension woofer mounted face-up in the top of the enclosure.

The unusual woofer placement is key to the system's remarkably smooth output through the bass and lower midrange. As in all other Allison speakers, the crossover points and the driver positions relative to room boundaries have been chosen to minimize interference from early reflections that could adversely affect the system's frequency response. The CD-6 is intended for placement as close as possible to the wall behind it and well away from the floor, ceiling, and side walls, in order to provide ideal loading for the woofer. Conventional mounting on the front baffle would degrade its performance.

For its tests, Diversified Science Laboratories used the speaker just that way, mounted on an 18-inch stand. The resulting one-third-octave, room-corrected response curves are remarkably smooth and exhibit excellent bass extension for such a small enclosure size. Onaxis response is within $+3\frac{3}{4}$, $-5\frac{1}{4}$ dB all the way from the 40-Hz band to 20 kHz. Moving off-axis makes little difference: Response is within $+4\frac{1}{4}$, -5 dBout to the 16-kHz band, where the tweeter is just beginning to show evidence of beaming. This unusually wide high-frequency dispersion helps maintain an essentially uniform radiation pattern well out to the sides of the speakers, making the position of the listener less critical to obtaining a natural tonal balance.

Distortion is somewhat higher than we are used to seeing, averaging about 1 percent from 100 Hz to 10 kHz (our upper limit in this test) at a moderately loud 85 dB SPL (sound pressure level). In the 300-Hz pulse power-handling test, however, the CD-6 accepted the full output of the lab's amplifier, equivalent to $27^{3}/_{4}$ dBW (595 watts) into 8 ohms, for a calculated peak sound pressure level of 1151/4 dB. Since the speaker displayed no sign of distress under these conditions, which result in more sound than we can imagine anyone wanting to hear on a sustained basis, we would say that it has more than adequate dynamic range.

Sensitivity is on the low side, however, so you probably will want an amp or receiver with a little more muscle (say, 40 watts instead of 20) than you might find satisfactory for a more efficient model. This most likely is a trade-off made to improve the deep-bass response. (Efficiency, enclosure volume, and low-frequency extension are interrelated variables that must be juggled against one another in designing a speaker.) Average impedance is moderate, as is the "spread" of the curve. The impedance rises from 3.7 ohms at 20 Hz to a maximum of 12.7 ohms at the woofer resonance frequency



ROOM RESPONSE CHARACTERISTICS



01	n-axis response	
of	H-axis (30°) response	
SENSITIVIT	Y (at 1 meter; 2.8-volt pink noise)	87 1/2 dB SPL
AVERAGE I	UPEDANCE (250 Hz to 6 kHz)	7.5 obms

(approximately 60 Hz). From there, it descends to 3.8 ohms between 140 and 220 Hz, climbs to 11.6 ohms just below 2 kHz (in the vicinity of the crossover), and then drops again to a low of 3.5 ohms at approximately 11 kHz. This should present no problem at all to any decent amplifier, but since the CD-6 is essentially a 4-ohm system (which is how Allison rates it) through the upper bass and lower midrange, we would advise against operating a pair in parallel with another set of speakers.

We experimented with placement in our listening room, though staying roughly within the bounds of Allison's recommendations. Not surprisingly, the bass response varied considerably according to the speakers' positions relative to room boundaries. We wound up doing most of our listening with the CD-6s on low shelves, about two feet off the floor, backs against the wall behind them. On instrumental music-particularly classical and well-recorded jazzthey sounded deliciously smooth, with excellent blending between the drivers and a nice sense of spaciousness. They also did a fine job of rendering the ambience of the recording site (when there was anything there to render), and the overall stereo image was consistently

convincing, though not of the "pinpoint" variety one sometimes encounters. Results with vocal and pop music were good, but more variable: Any excess brightness in a recording (an all-too-common flaw) was immediately apparent. The CD-6 can hardly be faulted for not flattering such material (although some of the company's more expensive speakers have response-shaping controls that can help). It merely points up that, as always, a good set of tone controls or an equalizer is a handy thing to have around.

If you're looking for a compact, highperformance bookshelf loudspeaker, the

BOSE 501 SERIES IV LOUDSPEAKER

Dimensions: 16 by 24 inches (front), 14 inches deep. Price: \$750 per pair. Warranty: "full," five years parts and labor. Manufacturer: Bose Corp., The Mountain, Framingham, Mass. 01701.

The original Bose 501 dates from 1970 and was the first model to be introduced by the company after its very successful 901, which had established the Bose Direct/Reflecting principle as a force to be reckoned with. In brief, that principle asserts that a loudspeaker design must take into account reflections from the room boundaries (walls, floor, and ceiling) if the reproduced sound field is to be convincing. Optimizing only the direct, frontal radiation of a loudspeaker is untrue to the acoustic realities that high fidelity stereo seeks to emulate.

Though it was (and is) a Direct/ Reflecting model as well, the 501 is radically different from the 901 in some important particulars. Whereas the 901's multiple drivers all are identical fullrange devices, the 501 has always been a two-way system. This makes it possible to deliver a Direct/Reflecting design at considerably lower cost, because the 501 requires fewer drivers (three vs. nine in the 901) and doesn't need the 901's electronic equalizer. One advantage of the full-range drivers in the 901 is that they require no crossover and thus avoid the phase shift that one generally introduces. To minimize such phase shifts in the 501, the crossover slopes are relatively gentle and the frequency range in which both the woofer and the tweeters operate is unusually broad.

Bose has updated the basic 501 design over the years and is now up to the 501 Series IV. Aside from a more contemporary, "vertically oriented" appearance, the new 501 differs from its Series III predecessor in two crucial points: the woofer and the tweeter positions. Both have been altered to create a more stable stereo image, among other things. Like the Series III, the 501 Series IV uses a long-throw woofer loaded by a ducted port. Unlike the older speaker, the Series IV has its woofer located near the top of the cabinet. This places the important middle frequencies produced at the top of the woofer's range closer to ear level, not down near the floor as in the Series III. The port opening is in an angled baffle panel that runs down the outer edge of each enclosure (they come in mirrorimage pairs), a few inches behind the grille cloth. Above the port is what Bose calls a Free Space tweeter array: a pair of unbaffled 3-inch cone drivers in a configuration originated for the smaller Bose 301 Series II. One tweeter faces forward and inward toward the listener, and also slightly upward (to judge from Bose's diagrams, as the grille cloth is not removable). The other tweeter fires toward the back and outward through the grille. The sound from this driver eventually bounces from the rear wall, proceeding to the closer side wall and back into the listening area.

In addition to the wraparound dark brown grille, which extends halfway to the back edge on each side, the enclosure itself is elegantly simple in styling, its vinyl finish a conventional simulation of walnut veneer. As the 501 is floor-standing, its large top surface also makes a fine end table. On the bottom, out of sight from most viewing angles, are four CD-6 is a fine example (a handsome one, too, in our opinion). And since the CD-7 is essentially the same design with what amounts to a built-in stand and slightly deeper bass response, it is an attractive alternative if you prefer a floor-standing model. In their price ranges, they both warrant serious consideration.





feet that seem to anchor the cabinet in place. On the fully finished back panel there is just a nameplate and, in a shallow recess, a pair of color-coded spring clips. There are no controls, although the design includes thermal protection that reduces power to the drivers when they're overloaded; it is totally automatic in operation.

Diversified Science Laboratories measured the speaker on the floor, standing three inches out from the back wall—the most likely positioning in typical living rooms. (Bose recommends that it be within a foot of the wall behind.) As you can see from our graph, the onethird-octave room response is unusually smooth over a broad frequency range: within about +4, -3 dB on-axis from the 40-Hz test band to that at 12.5 kHz. This result incorporates the expected floor-reflection dip in the 500-Hz region, which amounts to only about $1\frac{3}{4}$ dB. Response is almost as smooth off-axis, with no high-frequency attenuation attributable to "beaming"—thanks, no doubt, to the geometry of the tweeter array. Because of the nonremovable grilles, near-field low-frequency measurements, which help us in evaluating the speaker but don't show up in our published data, could not be made.

The impedance curve is relatively flat, falling only a little below 8 ohms (7.2 and 7.4 ohms, respectively) near 140 Hz and between the twin deep-bass impedance peaks that are intrinsic to vented systems. A 31-ohm peak at the higher of the resonant frequencies (56 Hz or so) represents the 501's highest impedance within the audio band. On the whole, therefore, the 501 should be a fairly easy speaker for an amplifier to drive, even if you choose to parallel it with another 8ohm model.

Sensitivity is perhaps a little below average, given the size and vented design of the woofer enclosure, but this only tends to confirm the manufacturer's allusion to extended bass response

as being high among the design priorities for the 501. If the 501's designers had chosen to go for greater "efficiency" without reducing the impedance, a poorer deep-bass response would have resulted. In DSL's 300-Hz pulse power-handling test, the speaker accepted without complaint the full output of the amplifier, absorbing the equivalent of $27\frac{1}{2}$ dBW (578 watts) into 8 ohms and delivering a calculated peak sound pressure level (SPL) of $116\frac{1}{2}$ dB at 1 meter, which is plenty loud. Overall, distortion is moderate. Though it is low at modest listening levels, it does creep up to about 1 percent above 40 Hz when producing 95 dB SPL (which is loud, but not shatteringly so) and is closer to 2 percent at 100 dB SPL. Still, it never gets high enough to cause complaint.

Because of the quantity of sound projected outward and back from the speakers, it's important that they be fairly near the wall behind them (another important difference between the 901 and the more conventional 501) and that there be no heavy sound-absorbers beyond them (that is, to the left of the left speaker or to the right of the right one), so that the energy can be reflected to produce the intended spatial effect. We did try auditioning them out in the room to prevent early reflections, a position from which more conventional speakers usually benefit. Used that way, the 501s certainly sound good, with an even and extended frequency response and good imaging—but they develop the sense of space that is their design goal only when positioned as directed.

While the 501's spaciousness strikes us as less vivid than that afforded by the classic Model 901, many listeners will find its placement requirements far easier to deal with. Not only is it designed to stay out of the way and against a wall, but the angling of the forward-firing tweeters automatically creates the sort of crisp imaging over a relatively wide field that, in most other designs, can be achieved only by turning the speakers so that the tweeter axes intersect in front of the listening position. The Bose 501 Series IV is a fine loudspeaker by any standard, delivering more than satisfactory performance in all the usual respects, together with the spaciousness that is a hallmark of the Bose line.

VELODYNE ULD-15 SUBWOOFER

Dimensions: subwoofer, 221/2 by 17 inches (top), 18 inches high; Power Servo Controller (electronics), 19 by 31/2 inches (front panel), 10 inches deep plus clearance for controls and connections. Price: \$1,195. Warranty: "limited," five years parts and labor on driver and enclosure, two years parts and labor on Power Servo Controller. Manufacturer: Velodyne Acoustics, Inc., 1500 Wyatt Drive, #14, Santa Clara, Calif. 95054.

elodyne has followed up its impressive ULD-18 subwoofer, whose bulk and cost kept it a product for the very few, with the more modest ULD-15 (yes, the model numbers are based on the driver diameters in inches). This "little" model is still mighty impressive, though at \$1,195 it's hardly a bargain-basement item either. The ULD-15 consists of a handsome walnut box scaled so it can be used, for instance, as a low end-table, plus a rack-mountable electronics chassis that powers the woofer and supplies its servo control to reduce distortion and extend low frequency response. (With-

out the servo, the response of the relatively compact subwoofer would roll off just where it's needed—at the very low frequencies.) A supplied five-pin DIN cable connects the two components' servo circuits; in addition, you must provide speaker wiring to carry power from the electronics to the driver. The subwoofer itself is a sealed-box system with the woofer mounted in the bottom panel, which is held off the floor by four legs. Connections are made to this bottom baffle panel, so the top and sides of the enclosure remain visually uncluttered.

The servo derives its signal from

ROOM RESPONSE CHARACTERISTICS

DB			1	- 1	- 1-	-	-	
+5	1			-	-	-	-	-
0					-	-	-	-
10		N					-	
10							ULD	15
HZ 20		00 20			2К	5K	10K	20
HZ 20	bound	dary-de	pende			5K	10K	20
HZ 20	bound on-ax	dary-de is resp	pende	nt reg		5K	10K	20
SENSITI	bound on-ax oH-ax	dary-de is resp is (30°	opende ionse ') respo	nt reg Inse	ion			20

what the company describes as an accelerometer attached to the driver cone. Velodyne points out that speaker servo systems have, in the past, been used



more for reducing to tolerable levels the low-frequency distortion of relatively small drivers than for improving on the already good performance of a driver sized more aptly for the task. Be that as it may, the ULD-15's servo does seem responsible for the incredibly low distortion reported by Diversified Science Laboratories.

We usually don't characterize very low-frequency distortion at all. Speaker distortion measurements presume relatively flat response around the test frequency. Yet many small speakers roll off quite rapidly below, say, 80 Hz or so, and even most large floor-standing models roll off below 30 or 40 Hz. However, as the response graph shows, the ULD-15 is just hitting its stride at frequencies where standard speakers are beginning to run out of steam, which is just what you want a subwoofer to do. In fact, in a check of near-field response, the driver displays an almost perfectly flat response from the 20-Hz band (the lower frequency limit of our testing) up to that centered on 63 Hz, where a smooth rolloff of about 6 dB per octave begins, passing the -3-dB point at about 80 Hz. (An infrasonic filter, built into the amp on the electronics chassis, cuts off response below the audible range.) Therefore, the distortion figures are exceptionally trustworthy.

The average distortion throughout the system's working range to above 100 Hz stays below $\frac{1}{2}$ percent until the output reaches about 95 dB SPL (sound pressure level), which is already better than most full-range speakers can manage. Even at 100 dB SPL, the ULD-15 averages less than 1 percent total harmonic distortion (THD). This is an outstanding achievement. The only trouble spot we found (at 100 dB SPL) was rising distortion at 20 Hz, perhaps due to clipping in the amplifier, which has to push very hard to achieve so loud a level at so low a frequency. But few full-range speakers can even get down to 20 Hz so cleanly, let alone put it out at 100 dB.

Sensitivity does not mean the same thing in a powered speaker that it does in the usual passive designs. DSL found that in its test position (3 inches out from the back wall, a location that yields greater effective sensitivity than would a position in the middle of the room) and with the electronics set for maximum gain, 3.5 millivolts (mV) of pink noise in the range between 40 and 80 Hz, supplied to both input channels, produced 90 dB SPL at 1 meter from the subwoofer. Velodyne lists 300 millivolts (0.3 volt) as enough to drive the amplifier to full output, which is given as 350 watts $(25^{1/2})$ dBW) continuous. In other words, on either basis the unit's amplifier should be able to provide more than enough level for any reasonable need-and even for some unreasonable ones.

When it comes to hooking up and balancing the subwoofer with your existing speakers, the notes supplied aren't all that helpful, unfortunately. They do, however, point out the two options available with the electronics' level control. If you have a separate preamp and power amp (or separable, jumpered stages in an integrated amp or receiver), you set a back-panel switch to NORMAL and use the level control only to match the subwoofer to the other speakers. If you have no access to the preamp/amp interface and must use a tape monitor loop for insertion of the Velodyne electronics, you throw the switch to MASTER, use the main system level control to achieve the correct frequency balance, and adjust overall level at the Velodyne. Just how you determine when balance is correctly set is left to you.

Nothing is said about phase matching. If you consider the subwoofer to be out of phase in the crossover region with your other speakers, you would have to reverse polarity on the other speakers because reversing leads on the Velodyne



will upset the servo, which compares phase of the cone motion with that of the input signal. However, there is considerable argument about the significance (if any) of phase in this frequency region, and Velodyne's literature implies that the company doesn't consider it a question of major consequence.

As a practical matter, we found setup quite easy, despite the paucity of specific instructions. We had a tendency at first to overdo the deep bass, but extended listening tempered our taste and we soon achieved a satisfactory setting with little fuss. In fact, we found that some recordings-evidently rolled off in the deep bass but not devoid of it altogether-profited from a more aggressive setting than average. For our main speakers, we chose a moderately priced pair that are clean and neutral in the midrange and are wanting primarily in the deep bass. We set them on stands, away from room boundaries, and placed the subwoofer between them (according to Velodyne, placement isn't critical).

It's a cliché these days to say that something is awesome, but it's certainly an apt term here. Though the satellites we used aren't fairly described as sow's ears, the silk-purse sound we heard with the added ULD-15 was a revelation. We certainly have listened to less impressive speakers costing considerably more than the total of our three-piece hybrid.

AUDIOSOURCE AV-ONE AUDIO-VIDEO SWITCHER/PROCESSOR

Dimensions: 19 by 5½ inches (front), 7½ inches deep plus clearance for rack handles and connections. Price: \$580. Warranty: "limited," one year parts and labor. Manufacturer: made in Japan for Audiosource, Inc., 1185 Chess Dr., Foster City, Calif. 94404.



f your video system is growing like Topsy and matters are getting out of hand, Audiosource's AV-One may be just what you're looking for. It's an exceptionally versatile audio-video switcher with extensive dubbing facilities and features for processing both picture and sound either before or after copying.

The unit can handle as many as five audio-video sources, with separate monitor and recording selector banks (so that you can watch and listen to what you're recording or not, as you see fit). The monitor selector is labeled for two VCRs and three auxiliary video sources; a videodisc player, a component TV tuner, a video game, or what have you. If you have a video monitor, you can connect it directly to the monitor output; if not, the AV-One has an RF modulator that sends the video and audio out together on either Channel 3 or Channel 4, enabling you to use the unit with a conventional television set. An antenna button switches the RF feed to your TV between your antenna (or cable) and the modulator.

The recording selector provides options for dubbing from VCR 1 to VCR 2 or vice versa and from any of the three aux inputs to either or both of the VCRs. VCR 2's input and output connections are duplicated on the front panel, which makes a temporary lash-up as easy as pie. The front-panel jacks take priority over the back-panel ones, so you can leave a second VCR permanently connected and hook up a friend's temporarily without digging around in back.

The audio program is switched along with the video, and except when carried on the RF modulator, it is in stereo. If your program source is mono, you can either switch to the mono mode with the mono/stereo button or generate pseudostereo by engaging the stereo synthesizer. Audiosource suggests that you can use this circuit even with a stereo source, but we see little point in doing so. Diversified Science Laboratories' tests indicate that the circuit Audiosource uses routes frequencies below 1.5 kHz to the right channel and the higher frequencies to the left, with some phase shift between the two to widen the image. We prefer the comb-filter approach to synthetic stereo, although no pseudostereo technique approaches the real thing.

Synthetic stereo is the least of the audio goodies the AV-One has to offer. Most prominent is a ten-band graphic equalizer that can be used to tailor the program to which you're listening or to Except where otherwise indicated, all measurements were made through the line input with the fader and mixer controls at maximum and with all signal processing bypassed.

AUDIO OUTPUT AT CLIPPING (1	kHz) 2.3 volts
MAXIMUM AUDIO INPUT LEVEL	
line inputs (1-kHz clipping)	> 10 volts
mike input (3% THD at 1 kHz)	4.1 mV
AUDIO GAIN	
line inputs	< 1 1/4 dB
mike input	≈ 49 dB
AUDIO S/N RATIO (re 0.5 volt;	A-weighted)
all processing bypassed	82 dB
with DNR	90 3/4 dB
worst case	68 dB
HARMONIC DISTORTION (THD;	20 Hz to 20 kHz)
at 2-volt output	≤ 0.75%
at 1-volt output	≤ 0.39%
AUDIO FREQUENCY RESPONSE	
+0	1 dB, 11 Hz to 17.2 kHz
+0	, -3 dB, < 10 Hz to 28.5 kHz
AUDIO EQUALIZER ACTION (con	ntrols at max. & min.)
DB +10	m



 AUDIO HIGH FILTER
 -6 1/2 dB at 12 kHz

 CHANNEL SEPARATION (at 1 kHz)
 88 dB

 AUDIO INPUT IMPEDANCE
 Ine inputs

 mike input
 12.0k ohms

 AUDIO OUTPUT IMPEDANCE
 780 ohms

 VIDEO FREQUENCY RESPONSE (bypass)
 500 kHz to 2.0 MHz

at 3.0 MHz

at 3.58 MHz

at 4.2 MHz

	-	1/2	a

- 1/4 dB

- 1/2 dB

spruce up a copy while it is being made. Each slider handles an octave band, the lowest being centered on 31.5 Hz and the highest on 16 kHz. DSL's tests indicate that the frequency markings are accurate enough for practical purposes and that the control ranges vary from a minimum of $\pm 11^{1/2}$ dB to a maximum of $\pm 13\frac{1}{4}$ dB-very close to Audiosource's ± 12 -dB spec. The amount of EQ in each band is reasonably well indicated by the panel markings, but not perfectly so. (We've yet to see a consumer graphic equalizer whose slider scale accurately reflects the boost or cut realized.) The equalizer can be bypassed, in which case response is within +0, -1 dB from 11 Hz to 17.2 kHz and is 3 dB down at 28.5 kHz.

To control hiss from noisy tapes, the AV-One offers a high-cut filter and DNR. The filter is unusual. Rather than having a simple 6- or 12-dB-per-octave slope, it's response is 3 dB down at 4.7 kHz and reaches a maximum cut of only $6\frac{1}{2}$ dB at 12 kHz, above which the curve flattens out and even rises slightly. Measuring DNR response is always problematic when using a swept-tone generator. Suffice it to say that the AV-One's version of this circuit also is unusual in that it seems to insert a sharp horizontal-scan whistle filter (at 15.7 kHz), whose notch deepens as audio level diminishes. This is a logical addition to a processor designed for use primarily on TV audio.

If you have the urge to change the audio program while dubbing a videotape, the AV-One is one of the few accessories that permit you to do so. Certainly it allows more variations on the theme than any other device we've seen, thanks to its three-input audio mixer, which gives you independent control of audio source level (from the source you're taping), audio "line" level (from the AV-One's separate audio line-input jacks), and mike level (from the front-panel microphone input). You can mix the three signals in any proportion you like or entirely replace the audio program coming from the source by reducing its level to zero and raising the microphone or line slider. Dual nine-segment LED indicators suggest the output level, although there is no way to match their sensitivity to that of your recording deck. Independent controls enable you to fade the audio and video in and out separately or together, as desired.

The AV-One is designed to connect to a tape-monitor loop in your stereo amplifier, which makes its audio circuitry accessible whether or not you're using the video functions. (Tape input and output jacks and a monitor button on the processor substitute for the loop it occupies.) And with the possible exception of the microphone preamp (which has a precariously low overload point), it is an altogether worthy addition. Audio input impedances range from 33 to 43 kilohms, while outputs measure a low 780 ohmsa combination that should assure good interfaces with other equipment. With the fader and mixer controls at maximum (their normal position), gain is close to unity (0 dB) from the line and VCR inputs to the monitor output. The microphone preamp supplies about 50 dB of gain to raise the input to line level. The line input is virtually overload-proof, and the unit will deliver more than adequate output into a standard load before it clips.

With normal control settings, Aweighted noise is 82 dB below our 0.5volt reference. Switching in the DNR improves this already excellent figure to almost 91 dB, while the high-cut filter alone improves it by 3 dB. Even with the graphic equalizer engaged and at its worst-case settings, the signal-to-noise (S/N) ratio is a satisfactory 68 dB. Midband channel separation is excellent and is maintained quite well at the frequency extremes (72 dB at 100 Hz, 68 dB at 10 kHz). Distortion is somewhat higher than average, especially in the treble region. At a standard 2-volt output level, total harmonic distortion increases from 0.14 percent at 1 kHz to 0.75 percent at 20 kHz, although it's less than 0.06 percent in the bass. Because 2 volts is close to the clipping point of this unit, DSL remeasured distortion at a 1-volt output level and came up with figures approximately half of those obtained at the standard level. Since the distortion is predominantly second harmonic, it's very unlikely that you'd ever hear it.

Used with discretion, the AV-One's video detail and sharpness controls can do a good job of touching up a picture. When they are bypassed, the AV-One

at 500 kHz	+21/4.dB
at 1.5 MHz	+ 3 1/2 dB
at 2.0 MHz	+ 3 dB
at 3.0 MHz	- 3/4 dB
at 3.58 MHz	- 3/4 dB
at 4.2 MHz	+1 dB
VIDEO FREQUENCY RESPONSE (SHARPNESS at	max.)
at 500 kHz	+1 1/2 dB
at 1.5 MHz	+ 7 3/4 dB
at 2.0 MHz	+7 1/2 dB
at 3.0 MHz	- 3/4 dB
at 3.58 MHz	flat
at 4.2 MHz	+ 1/2 dB
LUMINANCE LEVEL	10% law
GRAY-SCALE NONLINEARITY (worst case)	попе
CHROMA LEVEL	2 dB low
CHROMA DIFFERENTIAL GAIN	nane
CHROMA DIFFERENTIAL PHASE	nane
CHROMA PHASE ERROR	none*
See text.	

has virtually no effect on the video response of signals fed through it. When switched in, the DETAIL affords a maximum boost of 31/2 dB at 1.5 MHz and an almost equivalent effect at 500 kHz and 2 MHz. The SHARPNESS works mainly on the region between 1.5 and 2.0 MHz and has a much greater maximum effect: $7\frac{1}{2}$ to 73/4 dB. Its boost at the lowest test frequency (500 kHz) is negligible. Neither control serves to boost frequencies above 3.0 MHz, which is all to the good. With present-day VCRs, there's nothing up there but noise. Except for a slight reduction in luminance and chrominance levels-by 1 and 2 dB, respectively-the AV-One has no deleterious effect on video performance. Gray-scale linearity and the related chroma differential gain and phase are essentially perfect. Under normal operating conditions there's no change in hue whatsoever, although you may perceive a slight shift as you fade out a video program.

The Audiosource AV-One is such a versatile device, it's a fiddler's delight. At first, you may be intimidated by the sheer number of controls on the front panel, but each is logically marked and does what you would expect. As with any signal processor, you may be tempted to overdo a good thing—at least at first. Once you've become accustomed to its facilities and tempered your enthusiasm with discretion, we think you'll like this new processor as much as we do.

MEDLEY

British CD: From Bloom to Boom

While in Montreux at the end of August for the annual meeting of the International Record Critics Awards jury, I learned about recent Compact Disc developments in Great Britain from fellow juror and **HIGH FIDELITY contributing**

Trivia Pursued

The Jerry Miller who played guitar for the Chocolate Watch Band is not the Jerry Miller who played guitar for Moby Grape, and only the latter is related to Steve Miller. But it intrigued Billy Altman, coauthor of August's "Let's Get Trivial" quiz, that during the heyday of California psychedelia there were two musicians named Jerry Miller floating around. Clifford Ocheltree of Hatboro, Pennsylvania, and Bruce Borgerson of Nashville, Tennessee, get Professional Nitpicker awards for bringing this detail to the attention of BACKBEAT readers around the globe.

Patrick Kelly of Falls Church, Virginia; Christopher Gales of Erlanger, Kentucky; and Mike Milch of Newport Beach, California, turned in perfect quizzes. And before I list seven other readers who got the 50 numbered questions right, let me say that Gladys Knight is eight years old performing on The Ted Mack Amateur Hour in the photograph we

Edited by Georgia Christgau and Ted Libbey

editor Edward Greenfield.

Greenfield, who writes for The Guardian (Manchester) and Gramophone, referred me to an article that appeared under his by-line in the firstnamed publication on August 28. He cites some remarkable figures: By the end of next year, Nimbus, "the British whippersnapper of a company

The answers:

2. Crosby

3. The Four Tops

5. The Vandellas

7. The Drifters

8, Blue Angel

10. Moby Grape

13. Ian Stewart

9. cosmetologist

11. Glen Campbell

Livingstone

16. Peter Green

17. Jeff Beck

Intosh, Bunny (Neville)

1. Don

that dared to go ahead when the big EMI group held back," plans to be producing 25 million CDs annually. That number compares rather well with the 35 million that Polygram plans to be running off its presses in Hannover by the same date. Add to that another 35 million manufactured yearly in Japan, and the world

asked you to identify. All of 18. "Crying in the Chapel" the following forgot to in-19."I Only Have Eyes for clude that answer (good You" thing there were no prizes!): 20. "Earth Angel" James Curran, Edd Hurt, Ka-21. "Gee" ren Weidm, Bill Goldsbury, 22. "Riot in Cell Block #9" Isidro de la Herran, Chuck 23. Eight Arms to Hold You Rankin, and Donald Miller. 24. Agnetha, Bjorn, Benny, My favorite write-in com-Anni-Frid ment came from Mr. Hurt, **25. The Ronettes** who added to his correct an-26. Jackie Wilson swer that Chuck Berry is a li-27. Frank Beard censed cosmetologist. "in-28. "D.O.A." vented Maybelline." 29. The Donna Reed Show Thanks to everyone who 30. The Man Who Fell to replied; it was fun for us, too. Earth 31. fear of flying 32. Ellen Foley **33. Jayne Mansfield** 34. Ronnie James Dio 35. Gene Vincent 4. The Impressions 36, Don Van Vliet **37. Vincent Furnier** 6. The Temptations 38. Ernest Evans **39, Declan McManus 40. Reginald Dwight** 41. Jay and the Americans 42. Three Dog Night **12. The Mothers of Invention** 43. Roy Orbison 44. Bad Company 14. Blind Boy Grunt 45. The Four Seasons 15, Bob Marley, Peter Mac-46, "Do Wah Diddy Diddy"

47. "A Horse with No Name"

48. "Careless Whisper"

49. "Born to Run" 50. "All Shook Up"



total for Compact Disc production by the end of 1986 should stand near 100 million.

Having been caught on the fence when the CD was launched several years ago, EMI has paid a dear price, as have a number of smaller labels that have been unable to get sufficient press time from Polygram or the Japanese. This has forced them to delay, or temporarily pass up, releasing Compact Disc versions of their recordings. But EMI plans to get back into the game by opening a CD plant at Swindon, England, which it hopes will be producing 10 million Compact Discs by the end of 1986.

At the same time, a handful of smaller labels on both sides of the Atlantic have benefited from their decision to move quickly into CD when it appeared on the scene. Greenfield mentions Britain's Unicorn-Kanchana, which is selling more copies of its new releases on CD than on LP. The same is true of Telarc, a company that, to the delight of many of us critics, is shifting its emphasis away from material mainly of audiophile interest toward central repertory items performed by leading interpreters. Greenfield plans to report on the label's European recording activities in an upcoming issue of HIGH FIDELI-TY. And he tells me that my suggestion to Telarc that it record André Previn and the Royal Philharmonic in William Walton's First Symphony has been acted upon by the label. I, for one, can't wait to hear the results. Ted Libbey

51

CD Means Compact Delight

C

A noted critic evaluates the new medium.

by Irving Kolodin

ince I first encountered it in a demonstration at a 1982 trade show at the Rye, New York, Hilton, the Compact Disc has progressed in myriad ways. On that occasion, the names associated with the medium were Sony and Philips. Discussion centered on highs and lows, phenomenal clarity of sound, and lack of tonal distortion. Now, as the succeeding comment makes abundantly evident, the top names in CD belong to the performers: to violinist Itzhak Perlman and conductor Zubin Mehta, to leader Herbert von Karajan and the Vienna Philharmonic, to soprano Kiri Te Kanawa and upand-coming conductor Jeffrey Tate. They can be heard on recently issued discs in works of such composers as Khachaturian, Verdi, and Villa-Lobos. I have also sampled the accomplishments of dozens of other artists in compositions by Brahms, Delius, Copland, et al. All performances are reproduced with a quality of sound rarely, if ever before, available for home consumption.

To digress from generalities to specifics, the first of the above-mentioned partnerships is the "bread and bone" of music making. I recall a 1984 occasion when Perlman took advantage of the presence in New York's Avery Fisher Hall of his "hometown" orchestra (the Israel Philharmonic) to sit in unobtrusively in its back row. His performance on CD of Khachaturian's Violin Concerto with the same forces, under Mehta, is a musical miracle that transcends praise (Angel EMI CDC



Yuli and Eleonora Turovsky: chamber music with a difference

47087). If anybody should ask how Perlman's effort on this disc compares with the playing of Jascha Heifetz, the answer is: This is a work that Heifetz never recorded, done in a way that only a Perlman can muster (or master). And to fill out the CD with Tchaikovsky's *Méditation* is to provide a nearly ten-minute encore of violinistic eloquence (as orchestrated by Alexander Glazunov, because the composer never got around to it) not often encountered.

Another kind of tonal and temperamental distinction is achieved in the newest recording of Verdi's Requiem, the most fulfilling one that Herbert von Karajan—who has done it twice before—has led (Deutsche Grammophon 415 091-2). This two-disc set takes in not only a peerless effort by Anna Tomowa-Sintow, Agnes Baltsa, José Carreras, José van Dam, the Vienna Philharmonic, and the Vienna State Opera Chorus (plus the chorus of the National Opera of Sofia, for its excellent low voices), but a dispersion of sound that foretells what

One of the deans of American musical letters, Irving Kolodin served for 25 years as the music editor of The Saturday Review. His books include a history of the Metropolitan Opera, titled in its last edition The Story of the Metropolitan Opera, 1883–1950, but soon to be available in an updated version; several guides to recorded music; and the autobiographical In Quest of Music. will someday also be *seen* when the TV/ video version is released by Telemondial.

Here is something that surpasses those not uncommon concert performances of this demanding work, in which the conductor often has to answer, when criticized about a vocal quartet that lacks the right fourth voice, "I'm sorry, I couldn't get the one I really wanted." Judging not only by the beautifully balanced nuances of Tomowa-Sintow and Baltsa, but by the superb Hostias of Carreras and the rich resonance of van Dam in the Mors stupendit, Karajan scheduled this project for just when, and with whom, he could get what he wanted. In keeping with it all is a booklet with good notes in three languages and clearly printed text.

Winning distinction in a different part of the repertory is a more than fulfilling re-creation of the Chants d'Auvergne, one of the world's greatest assemblages of folk music, powerfully and thoughtfully orchestrated by that great synthesist, Marie-Joseph Canteloube de Malaret (1897-1957). In years gone by, the choicest performer of this enchanting music was Madeleine Grey, though she had some ambitious successors in the later LP versions by Victoria de los Angeles and others. Now, however, the collection has been recast with almost infallible results by London on two separate fine-sounding discs, with Kiri Te Kanawa as the brilliantly chosen soprano. And her selection of 36 songs expands on what has been, to my knowledge, previously available. The project is in the hands of Jeffrey Tate, who has led several well-conducted performances at the Metropolitan Opera.

For the collector on a budget, I would recommend Vol. 2 (London 411 730-2) of the Chants. The reason-not to discriminate against Vol. 1 (London 410 004-2), which contains some of the best, most familiar Auvergne songs-is that Vol. 2 contains the superb Bachiana Brasileira No. 5 of Villa-Lobos. High choice has settled over the years on the historic version by Bidu Sayao, but Te Kanawa comes close to her predecessor vocally, and the treatment of the background, as performed by cellist Lynn Harrell, is in itself memorable. Since these pieces are destined to become a repertoire item that Te Kanawa must add to her concert-giving, why not improve the delivery of the mountain-lying, "south of France" text? Her sound is too good for her present blurry syllables.

Scanning the recent score of diversified CDs, comment settles on the fraction of chamber, orchestral, vocal, and other music that has certain virtues in common. These virtues are not merely top-notch sound—which is a *sine qua non* of current recording—but personal involvement on the part of the performers.

Outstanding among chamber music discs of late is a Chandos CD of generous quantity highlighting Yuli and Eleonora Turovsky, who migrated (not defected) from the Soviet Union during the past decade, settling in Quebec. Yuli is an excellent cellist, formerly of the Borodin Trio; Eleonora, a quality violinist. This first-rate CD (Chandos 8358) is devoted to an assortment of works for their instruments by Ravel (his Sonata), Jean Rivier (his Sonatine), Honegger (his Sonatina), and Martinů (his Duo). The Ravel and Honegger are highly representative of their composers; the Rivier, a product of a man close to ninety at his most recent birthday. The Martinů is a good instance of why his works were much performed when he was living in the United States during World War II. Most appealing of all is the engagement of the Turovskys in what they are doing: playing music they love, and making the listener share in it.

Yuli is a participant in two other re-cent CD productions for Chandos. The first contains two trios of Rachmaninoff, which Turovsky performs with his Borodin Trio colleagues, violinist Rostislav Dubinsky and pianist Luba Edlina (Chandos 8341). The extended slow movement of Trio No. 1, in G minor, Op. Posth., is followed by the three-movement Trio No. 2, in D minor, Op. 9. Both are produced out of love, rather than merely because of an open microphone. Each has an amount of repetition that must be endured, but they also wear well. In the second release, the same ensemble performs the three trios of Brahms (Chandos 8334-35). The packaging of this integral sequence in one box presents a different kind of problem for the collector: Is the temptation to acquire the three works by the one and only Mr. Brahms overpowering, or is it more prudent to wait for the item you really prefer? These trios are unquestionably well performed, but my heart goes out to the last of them, Trio No. 3, in C minor, Op. 101. Here, taking into consideration everything that has preceded, Brahms finally knows how to write a trio, and he does it wonderfully well.

Among orchestral CD selections, the most recent effort of Klaus Tennstedt with the Berlin Philharmonic (Angel EMI CDC 47071) possesses two virtues: The orchestra is content to give this former resident of East Germany the best of which it is capable, and he has not merely a decent set of values vis-à-vis Dvořák's Symphony No. 9, but a whole range of insight and discrimination to cherish. One factor to consider: Are the 41 minutes of Dvořák's Ninth all that a CD should contain, or, isn't there a belief that another ten minutes of content comes closer to a full value?

This query aside, the inclusion on a Unicorn-Kanchana disc of over 50 minutes of Frederick Delius digresses from such common music as Summer Night on the River to include his Violin Concerto, written in 1916 and, as memory goes, not recorded in about 20 years. Here the honors are shared by soloist Ralph Holmes and conductor Vernon Handley leading the Royal Philharmonic. The well-colored outside cover of the CD (Unicorn-Kanchana DKP CD 9040) bears an inscription reading "Recorded Under the Auspices of the Delius Trust," which speaks for itself. This is relatively appropriate terminology, for the late Holmes was a violinist of truly Deliusian aptitudes, who sang out from start to finish. He also commanded the kind of vibrato very much suited to the intimacies of Delius. The backing by Handley brings out the horn and harp decorations very much as the composer intended. Also included are 18 or so minutes of a Delius work for violin and orchestra titled Suite and a much briefer Légende for the same forces. Both are identified as first recordings, and both suffer from rather muffled sound that lacks definition.

Orchestral material not likely to be duplicated soon is contained on a new CD that bears the superscription "American Composers" (Varèse Sarabande VCD 47211). In this instance, the composer is Aaron Copland and the featured offering a relatively early (1937) work that was produced for a radio broadcast and that de-*(Continued on page 73)*

REVIEWS

Bernstein Triumphs In a Miscast ''West Side Story''



Stars, some eclipsed: Troyanos, Bernstein, Te Kanawa, and Carreras

BERNSTEIN:

West Side Story.

Te Kanawa, Carreras, Troyanos, Ollmann, Horne; chorus and orchestra, Bernstein. John McClure, prod. Deutsche Grammophon 415 253-4 (D, 2). ☉ (2). ◑ (2).

West Side Story with opera singers: That's the basic premise of this latest installment in Deutsche Grammophon's Bernstein-conducts-Bernstein series, and it makes pretty good sense. The vocal writing in West Side Story is often quite demanding, particularly in "Maria"; the angular rhythms and jagged intervals can be terribly difficult for untrained singers to negotiate. And you don't have to be able to dance in order to sing West Side Story in a recording studio. So Leonard Bernstein's unorthodox casting choices ("I decided to go for sound") look promising on paper.

On record, much of this performance comes off superbly. Kiri Te Kanawa and José Carreras are, however, flagrantly miscast. Te Kanawa's dull vowels and inaudible consonants turn Stephen Sondheim's intricate lyrics into unintelligible mush, and her basic sound is inappropriate to begin with: One wants a young, slightly acidic voice for Maria, instead of the creamy tones of Dame Kiri. Carreras is somewhat more plausible, since his lovely tenor voice is about as close to right for the hard-to-cast role of Tony as can be managed. (In a perfect world, Tony would be sung by a baritone with a reliable tenor extension-Leonard Warren, maybe.) But a Tony with a thick Spanish accent inevitably reduces the dramatic argument of West Side Story to nonsense, and Carreras's diction obviously proved impervious to coaching. Moreover, Tony's first number, the wonderfully ardent "Something's Coming," becomes in Carreras's hands a stylistic disaster in which every syncopation is flubbed, with brutal consistency.

The rest of the cast is right on target. As Riff, Kurt Ollmann sings with impeccable tough-guy delivery and exceptional flair. Tatiana Troyanos beautifully brings out the anger and carnality of Anita, her first entrance in the "Tonight" quintet ("Anita's gonna get her kicks . . . tonight") a little masterpiece of lewd suggestion. Marilyn Horne's overdubbed cameo appearance in "Somewhere" is predictably fine. The chorus is raucously precise and full of character; Louise Eideken's bit part in "America" is a clear standout. And the pickup orchestra—



Focus is on fine sound, no stage echoes

an amalgam of New York Philharmonic veterans and top-notch free-lancers—rips through this notoriously difficult score with jazzy panache.

Needless to say, Bernstein is the real star of the show. In his first performance of the complete score, he conducts brilliantly: Perfectly sprung rhythms, relaxed tempos, and an honest, straightforward approach to purple patches like "One Hand, One Heart" add up to a reading of *West Side Story* in which even the less convincing numbers are immeasurably strengthened. The echoes of Copland and Puccini are strong, but so are the nervous, electric energy and frank melodic appeal of Bernstein at his best; though *West Side Story* is no *On the Town*, it still makes most other musicals sound like *State Fair*.

This is a musically complete recording (give or take a couple of change-of-scene cues). However, the treatment of Arthur Laurents's book is another matter. Speeches accompanied by music are retained, the rest dropped. The conductor's son, Alexander, reads Tony's lines in a bland, glossy fashion; daughter Nina reads Maria's with direct and affecting simplicity. But no serious attempt has been made by producer John McClure to suggest the way West Side Story comes across onstage, much less to create a Culshaw-like illusion of dramatic reality: given the histrionic weaknesses of Te Kanawa and Carreras, this is probably just as well. (A few sound effects, including one hopelessly phony gunshot, are thrown in as a vain gesture to theatrical verisimilitude.) The digital recording is vivid and appropriately detailed. The layout on cassette is poorly conceived, however, with 75 minutes of music divided between two tapes. Included in the booklet are a complete libretto, a useful essay by David Patrick Stearns, and a typically fatuous set of diary excerpts by Bernstein.

Terry Teachout

BEETHOVEN:

Concerto for Piano and Orchestra, No. 4, in G, Op. 58; Sonata for Piano and Orchestra, Op. 81a ("Les Adieux").

O Kocsis; Budapest Symphony Orchestra, Lukács. István Serédi, prod. Fidelio FL 3366 (A).

Zoltán Kocsis (KO-cheesh), in case you don't yet know his name, ranks among today's hottest young pianists. In San Francisco, he has perhaps displayed more flash than musi-

FORMAT KEY

- ◯ LP
- ••• Cassette
- O Compact Disc
- Videocassette
- Videodisc
- Open reel

RECORDING INFORMATION

- (A) analog original
- (D) digital original

Large symbol beneath title indicates reviewed format. Small symbols following catalog number of reviewed format indicate other available formats (if any).

Catalog numbers of all formats of a particular recording usually are identical except for differing prefixes or suffixes. Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format.

Arabic numeral in parentheses indicates number of items in multi-item set. Unless otherwise indicated, all multi-LP sets are in manual sequence.

a mystery." Not, may I suggest with all respect, if you consider the fact that Bach insisted in the memorandum to the town council that "there are lacking the following most necessary players, partly to reinforce certain voices, and partly to supply indispensable ones," and proceeded to itemize among the lacking "two violinists for the first violin, two violinists for the second violin, two that play the viola, two violoncellists."

I suggest, on aesthetic grounds, that moderation and common sense, conjoined to the element of contrast (which was always one of Bach's great concerns), can help to shed light on these shadowy areas. Is it reasonable to sing Bach's exulting music for the words "Magnificat anima mea Dominum" with the same resource-of-one employed for "Quia respectit ancillae suae"? The entire Magnificat is the canticle of the Virgin Mary, but Bach does not set the whole for the single voice with which the words were first spoken. Therefore, we cannot logically feel constrained to permit only one voice to sing so exuberant a declaration as that which opens the work.

Rifkin makes the point that one might most expect the autograph score to call for doubling voices at the transition from "Quia respexit" to "Omnes generationes." Yet since he cannot find a specific instruction for what seems emotionally logical and even theologically sound, he refuses to alter his basic viewpoint. Strange that he uses adult female sopranos and an adult male alto thus, as he says, deviating from the strict historical record—but stops at other crucial points in order to sustain his dominant prem-

cally necessary in Rachmaninoff's works for piano with orchestra, which he and Edo de Waart have undertaken to record (for Philips) with our excellent Symphony. In this concerto recording, though, his playing remains pristine, almost introverted—truly classical and beautifully articulated. He uses the pedal sparingly, much less even than Beethoven expressly indicated.

I wish Kocsis had not imposed his will upon Beethoven's in the first movement by taking a suddenly much slower tempo during a four-measure C sharp minor passage 18 bars before the recapitulation. And I dispute his notion of *Andante con moto* in the middle movement: It neither moves nor has motion to it, but almost becomes downright ponderous. Beethoven's score also gives him no authorization to drag his feet so exaggeratedly before the last movement's *presto* ending.

On the manuscript of his Opus 81a Sonata, Beethoven wrote, "Sonate caractéristique: Les adieux, l'absence et le retour," and over the first three chords he inscribed the syllables "Le-be-wohl! [Farewell!]" In Kocsis's interpretation, all goes swimmingly until the third movement, when the departed returns. Beethoven marked it Vivacissimamente. Kocsis certainly has the technique to take it at a clip that would have let joy seem truly unconfined, but for reasons of his own, he celebrates the reunion almost sedately.

Ervin Lukács and the orchestra provide serviceable support in the concerto, and Fidelio (son of Hungaroton) has recorded it all handsomely. Paul Moor

BACH:

Magnificat In D, B.W.V. 243*. HOFFMANN, M.:

Magnificat in A minor.

 Bryden, Baird*, Gall*, Hoffmeister*, Opalach*; The Bach Ensemble, Rifkin. Judith Sherman, prod. Pro Arte PAD 185 (D). ⊡ 0

""Is," as Yul Brynner sang well over 4,000 times, "a puzzlement." Bach wrote in August 1730 to the Leipzig Town Council—his bosses—a famous memorandum that he somewhat temerariously called "A short, but indispensable, sketch of what constitutes a well-appointed church music, with a few impartial reflections on its present state of decline."

"If the choirs are to perform church music properly ...," wrote Bach, "the vocalists must again be divided into two classes: concertists (for the solos) and ripienists (for the chorus). There are usually four concertists, but sometimes up to eight if it is desired to perform music for two choirs. There must be at least eight ripienists, two to each part...."

At the risk of wearying Bach scholars, let me continue: "To each choir, there must belong, at least, three trebles, three alti, three tenors, and as many basses, so that if one person is unable to sing (which often happens, and particularly at this time of year, as can be proved by the prescriptions of the *modicus* sent to the dispensary), a motet can still be sung with at least two voices to each part. (N.B. How much better would it be if it were so arranged as to have four singers available for each part, each choir thus consisting of 16 persons!)"

As if these clear numbers were not impressive enough, Karl Geiringer, in his invaluable *The Bach Family*, calls attention to a performance of the *St. Matthew Passion* conducted by Bach himself in Leipzig in which he led a chorus of 36 voices!

Where, then, is a puzzlement? It is, dear friends of Bach, in the continuing efforts of Joshua Rifkin to persuade the world that what Bach really wanted was to have his larger choral works sung with one voice to each part. Emboldened by the misguided award from England's Gramophone in 1983 for his performance of the B minor Mass, Rifkin has now brought out a Magnificat done with similarly diminished resources. Hoping profoundly to avoid any hint of the disputatious, I have read and reread Bach's words, which I have loved for many reasons over many years. With them before me, I cannot descry Rifkin's justification for saying, "The forces used for the present recording of the Magnificat reflect chiefly the very consistent precedents set by the parts for Bach's other Leipzig sacred compositions. These parts indicate, first and foremost, that Bach performed the bulk of his church music with single voices rather than the larger chorus now customary...."

As for instruments, Geiringer, in his description of the *St. Matthew Passion* performance, speaks of an orchestra of 34, while Rifkin continues, "corresponding parts, when they survive, show nothing to suggest the presence of more than one of each instrument." Rifkin does admit to being uncertain at one point: "Bach's reference to 'cellos' and 'bassoons' presents something of ise. In sum, I can only say what has surely become obvious: I cannot agree with the Rifkin approach, *either* musically or from the critical standpoint of what seems emotionally essential.

To the present performance then, in which there is much to admire. For anyone wishing to study Bach's lines, both in the voices and in the instruments, the complete clarity of this recording is an asset. (I cannot help pointing out that any real student would be able to do that with a score and any other more persuasive performance.) It is the matter of "persuasion" that troubles me to so great an extent that I am going to end my review of this Magnificat by saying that the greater the impact of the music-especially in the choral passages-the more the present performance sounds like some good voice students singing this great work in order to learn it well. The soloists are certainly adequate, but without a single spark of vocal or interpretive authority, though Jeffrey Gall's ornaments on the word bones in the "Esurientes" rise above the normal level.

The second side of this disc is filled out by a setting of the Magnificat in German by Melchior Hoffmann, who lived from 1679 to 1715. Since Hoffmann succeeded Telemann in Leipzig in 1704, and since he also taught Gottfried Heinrich Stoelzel (composer of the marvelous concerto for six trumpets, four kettledrums, two harpsichords, and double string orchestra), I am happy to believe that he was a man of parts. On the evidence of this music, it is easy to understand why Stoelzel said of him, "He conducted himself in a modest and polite manner, obliging everyone." It is a competent work, decently performed by soprano, flute, two violins, viola, and organ. And dull. SCHWANN lists nothing else by Hoffmann.

After fretting over this recording of the Bach for weeks, I returned to a performance

HIS

conducted by Geraint Jones (Seraphim 60001). Balm to the ear and the soul!

Paul Hume

LA BARBARA:

October Music: Star Showers and Extraterrestrials; The Solar Wind*; Vlissingen Harbor*.

SUBOTNICK:

The Last Dream of the Beast (from "The Double Life of Amphibians")**.

O La Barbara; chamber ensemble*; various instrumentalists, Mosko**. Joan La Barbara and Morton Subotnick, prods. Nonesuch 78029.

It is years overdue, but Joan La Barbara has finally received her first major-label release. La Barbara, who was classically trained in both voice and composition, first gained prominence in the early 1970s as an avantgarde vocalist in lower Manhattan's once grimy SoHo district. To say that she works with extended vocal techniques does not sufficiently separate her from numerous other performers who similarly desire to expand our notions of vocal timbre. La Barbara may be apart from the theatrical performance art of Meredith Monk and Laurie Anderson, both of whom have been interested in lavered vocal techniques; she may be uninterested in Anderson's sly social posturing; she certainly is distant from the primal Expressionist Geschrei of Diamanda Galas. What is most important is that La Barbara's work is far more successful from a purely musical point of view: She is able to mold her enormous coloristic imagination and technical skill into coherent, structured compositions that capture and hold the listener's attention.

Two of the works recorded on *The Art of* Joan La Barbara are for voice and chamber ensemble. Both *The Solar Wind* (1983) and *Vlissingen Harbor* (1982) indicate her musical debts, as well as her remarkable virtuosity. Though *Vlissingen Harbor* opens with jagged, disjunct material that makes a casual nod toward acceptable modernism, both pieces are highly emotional and mostly tonal, the latter quality due to La Barbara's fondness for drones. As a matter of fact, her long years of contact with such composers as Steve Reich and Philip Glass have influenced her profoundly: One can hear Reich in the pulsing rhythmic ostinatos and in the use of mallet instruments, while the influence of Glass is noticeable in the circular arpeggiation and additive melodic growth. Yet La Barbara has bent these surface sonorities to the service of her own technique. And what an immensely flexible instrument her voice is: Whether layered by electronic means, engaging in multiphonics and circular breathing, or simply groaning, fluttering, or trilling, it has an enormous range, and her control is impeccable. Not one effect seems gratuitous, and it is this exquisite sense of proportion that prevents her works from ever appearing overextended.

October Music: Star Showers and Extraterrestrials (1980) allows La Barbara to display her vocal skills without the encumbrance of instrumental accompaniment. Since all vocal sounds are produced without any electronic manipulation (except for layering), one is astounded by the scope of her "natural" sonorities. From plaintive moans to chattering, animalistic cries and fluttering half-speech, La Barbara creates an evocative nocturnal canvas of enviable expressive power. Musically, the work is far more experimental than the instrumental pieces, making few if any references to minimalism or traditional notions of tonality.

La Barbara's husband, Morton Subotnick, is represented by *The Last Dream of the Beast*, a concert version of an aria from his mammoth multimedia epic *The Double Life of Amphibians* (part of which is recorded on Nonesuch 78020-1, reviewed here by this critic in May 1984). Subotnick's music is

Ν.

BACH: Brandenburg Concertos (two recordings).

-

BACH: Magnificat in D, B.W.V. 243.

BEETHOVEN: Piano Concerto No. 4; "Les Adieux" Sonata.

BERNSTEIN: West Side Story.

S

100

81

CHAUSSON: Concert, Op. 21.

GERSHWIN: Porgy and Bess (excerpts).

HANDEL: Aminta e Fillide. HOFFMANN, M.: Magnificat in A minor.

LA BARBARA: Vocal/Instrumental Works.

MOZART: Piano Sonatas, Fantasy.

SCHOENBERG: Pierrot lunaire, Op. 21.

SUBOTNICK: The Last Dream of the Beast.

WEBERN: Concerto, Op. 24. far more dissonant, dark, and uncompromising than La Barbara's. Scored for amplified soprano, two cellos, live electronic sounds, and Subotnick's trademark "ghost" electronics, the composition creates a primeval, ritualistic aura, replete with animal noises, florid melodic fragments, and dissonant drones. All builds to an anguished climax before receding into a lustrous, faraway celestial "choir."

The live instrumentalists, who are under the direction of Stephen Mosko, deliver fine, accurate performances, and Nonesuch's nondigital sound is excellent. May Nonesuch treat us to Joan La Barbara's artistry again in the not too distant future.

K. Robert Schwarz

HANDEL:

Aminta e Fillide.

⊙ Fisher, Kwella; London Handel Orchestra, Dariew. Nicholas Parker, prod. Hyperion A 66118 (A). ☐ (Distributed by Harmonia Mundi, U.S.A., 3364 S. Robertson Blvd., Los Angeles, Calif. 90034.)

So heavenly were Handel's achievements in his later years that it's easy to pass off anything he wrote prior to his fateful arrival in London as clever, ingratiating preparation for the real music that was to come. Certainly, Handel wrote some frivolous stuff during his Italian apprenticeship, but that production wasn't just a mere quarry from which he could later borrow for his more imposing musical edifices. Never was the composer's sense of invention more rich and engaging than in his 1708 cantata *Aminta e Fillide*.

He would later recycle some of the music in Agrippina and Rinaldo, but while these later works are more ambitious, Aminta seems to have come out in a single, divine musical breath. With its abundant obbligatos and sparkling diversity of rhythm, the piece has an almost Haydnesque, robust sunniness that was only occasionally heard in Handel's music thereafter. Indeed, this is virgin Handel, with all of the unaffected openness that the term implies.

Aminta emerges fetchingly in this recording often through the efforts of the performers, who also brought us an excellent recording of *The Triumph of Time and Truth* (Hyperion A 66071/2). Patrizia Kwella (Fillide) is a wonderful Baroque singer, with a voice light and agile enough not to overpower the music, but with sufficient sound and personality to avoid the soup-blowing soprano syndrome that infects some authentic performance practice specialists. Gillian Fisher (Aminta) has a somewhat smaller, less interesting voice, but manages it intelligently, particularly where Handel's wordpainting is concerned.

Conductor Denys Darlow has found his own solution to Handel performance practice problems; it is a musicologically enlightened one that nonetheless brings a warmth and sensuality to the textures. Also, he has a keen feeling for rhythm, to which he gives a dancelike spring without sacrificing the more emotive possibilities. Darlow may not have as high a profile as some of his earlymusic colleagues, but I hope he has a large enough following to makes this release part of an ongoing series, not just a product of the Handel tercentenary. Considering Hyperion's natural sonics and excellent pressings, I can't think of any group from whom I'd rather hear more Handel.

David Patrick Stearns

MOZART:

Sonatas for Piano: No. 11, in A, K. 331; No. 12, in F, K. 332; Fantasy in D minor, K. 397.

These neat, expressive performances combine two of Mozart's most popular sonatas. Everybody knows the Turkish Rondo that ends the earlier sonata, and Max Reger, in a sort of Oedipal retribution, took over the theme of the first movement-on which Mozart himself had composed six variationsand proceeded to compose his own set of variations and fugue for orchestra. Mitsuko Uchida's fleet fingers and sharp articulation make her purling passagework and ornamentations a joy to hear. In K. 332's Adagio movement, she really takes off, so to speak, and you suddenly hear music that departs radically from the Peters edition of the score. The album notes in German explain that she has compared the first printed edition with Mozart's autograph score and drawn her own musicological conclusions, which she here records. She does something similar at the end of the D minor Fantasy, which fills out Side 2. I would have preferred getting along without the Fantasy (7:12) and having her observe the repeats of the second halves of K. 332's first and last movements.

A brief, abusive word about those album notes. The time has come to blast Philips and other firms—for cutting economic corners by printing polylingual sleeves suitable for sale in as many countries as possible. In

WHOLESALE
WAREHOUSE
PRICE • SERVICE • SELECTION • SATISFACTION
Here's a sample of our amazing prices!
HiFi/STEREO VIDEO/TV
Yamaha R9 \$592 Sanyo Beta HiFi \$357
JVC RX500
Aiwa ADF990
Nakamichi LX5 588 Fisher FVH810 234
B&W DM220
Technics SLQ200 69 Sharp 19" Color 198
Tandberg TCD3014 . 1092
34//SUI 34//30 300 COMPUTEDO
Hogers LS3/5A 191 IDM Coloctric T CERR
11101CHS 10320 342 0014 F
3/dx 3n-A III
MISSIUN /3/
A0400
Tamana CDA2 292
Denon DP45F294 CAR STEREO
Sony "Discman" 194 Alpine 7146 \$392
H/K 4901
Grace F9E
RECORDING TAPE Nakamichi TD700 633
TDK SA90
Call or write for all your home electronic needs.
Computers/software/peripherals, personal/portable
stereo, Casio synthesizers, Yamaha organs, calculators, Canon copiers, radar detectors, microwave ovens.
 Free International Monthly newsletter & price list Credit Plans available
Friendly, knowledgeable people
 Same day shipment in most cases
 Full U.S. warranty on all goods.
For Fastest (010) CO 1 0000
Service, call: (212) 684-6363
Hours: 9am-7pm EST Monday-Saturday
Or write our World Headquarters
2 Park Avenue, Dept. 13, New York, NY 10016
Prices subject to change without notice. We reserve the right
to limit quantities. Offer may be withdrawn anytime.

The art of shaping sound.

Does your music sound better in the next room? Pro audio kills resonances with SONEX acoustic foam, and now you can too. Control acoustics and turn your room into a studio. At midrange, SONEX has twice the sound absorption of good carpeting for about the same cost. If your dealer doesn't have SONEX, send us \$48 for a sam-

ple box of four 24"x24" sheets, or write for our color brochure. Or for easy, factory-direct orders, call toll-free 1-800-662-0032. (In MN call (612) 521-3555)

11.72

illbruck

3800 Washington Ave. N. Minneapolis, MN 55412

57

the example at hand, you get dispensable, ungainly notes about the music in English by Erik Smith and considerably better notes in German and French by Alfred Beaujean. The trilingual printing, of course, cuts down by two thirds the available space for the notes. I wish I could tell you something about Uchida (except that she plays Mozart extremely well), but Philips tells us not one word about her here except that she made these recordings in London. Thanks a whole Paul Moor lot.

SCHOENBERG:

Pierrot lunaire, Op. 21*. WEBERN:

Concerto, Op. 24.

Manning*; Nash Ensemble, Rattle. Campbell Hughes, prod. Chandos ABR 1046 (D).

The album notes do not reveal Jane Manning's year of birth, but Simon Rattle, thirty this year, came into a world where Pierrot lunaire had already existed for 43 years. I think that helps explain the almost eerie ease and security with which all these consummate English musicians perform two such extremely difficult works.

Everyone involved displays the utmost faithfulness to the printed scores, with very few lapses; Manning goes against Schoenberg's express instructions by attempting "characterizations" in a couple of the poems (12 and 16), and five measures before the end, the viola and cello unaccountably enter one quarter-note late, but don't let's carp about such comparative trivialities. Manning has developed Sprechgesang to a degree of perfection I have never before encountered. In addition, she has almost faultless German, and she adheres with admirable precision to the intricate notation of her part. I find it difficult even to imagine a better performance of this epoch-making, nightmarish work. Chandos, unfortunately, provides Albert Giraud's French poems only in Stephen Pruslin's English translations; it would have helped the listener much more to have had at least the English parallel to Otto Erich Hartleben's German versions, which Schoenberg set and Manning, of course, performs.

Webern's little three-movement Concerto, for only nine instruments, lasts only about nine minutes. If you understand this Latin palindromic word-square:

S	Α	Т	0	R
Α	R	Е	Р	0
Т	Е	N	Е	Т
0	Р	Е	R	Α
R	0	Т	Α	S

-which means "Arepo, the sower, controls the work"-you have a leg up toward understanding the concerto's arcane, mathematically complex organization. Here again, these musicians provide a definitive performance.

Schoenberg wrote Pierrot lunaire in

1912, Webern his Concerto (dedicated to his teacher Schoenberg for his 60th birthday) in 1934. The passage of the decades has made neither work one whit easier for lay listeners. It makes you think.... Paul Moor

BACH:

Brandenburg Concertos, B.W.V. 1046-51.

 Academy of Ancient Music, Hogwood. Peter Wadland and Morten Winding, prods. Oiseau-Lyre 414 187-4 (D, 2). O (2). O (2).

BACH:

Brandenburg Concertos, B.W.V. 1046-51.

Amsterdam Baroque Orchestra, Koopman. Tini Mathot, prod. RCA Erato MCE 751342 (D, 2). ⊙ (2). ● ECD 88054/5 (2).

The eagerly anticipated Christopher Hogwood/Academy of Ancient Music Brandenburgs, released just in time for Bach's tercentenary, at once significantly differ from and generously surpass expectations.

Instead of the familiar presentation score of 1721 that the Marquis of Brandenburg simply filed away unplayed, Hogwood opts for the preliminary versions actually played in Cöthen, themselves revised from still earlier sources. The most immediately apparent discrepancies are in the First and Fifth Concertos: The pre-presentation version of the former has, among less noticeable variants, no second Allegro, no solo Violino piccolo, and no Polacca in its finale; the latter has no cello in addition to a violone, and the celebrated first-movement harpsichord

R Т C S' C

The most noteworthy releases reviewed recently

BACH:

Works for Harpsichord. Gilbert, Pinnock. O Archiv 413 103-1, June.

CHABRIER:

L'Étoile.

Gautier, Bacquier, Le Roux, David, Alliot-Lugaz, Raphanel, Damonte; Orchestra and Chorus of the Opera of Lyons, Gardiner. O Pathé Marconi 2700863, July.

GESUALDO:

Il quinto libro dei madrigali a cinque voci.

Consort of Musicke, Rooley. O Oiseau-Lyre 410 128-1, Aug.

GIORDANO:

Andrea Chénier.

Pavarotti, Caballé, Nucci, Kuhlmann, Varnay, Ludwig, Krause, Cuenod, Howlett, Tadeo, De Palma, Andreolli, Morresi, Hamer; Chorus of the Welsh National Opera, National Philharmonic Orchestra, Chailly. O London 410 117-2, Aug.

HANDEL:

Concerto in F; Concerto a due cori, No. 2, in F; Royal Fireworks Music. Cappella Coloniensis, Linde. . Angel EMI 4DS 38155, Aug.

HANDEL: Water Music.

Linde Consort, Linde. 📼 Angel EMI 4DS 38154, Aug.

IVES:

Symphony No. 3; Orchestral Set No. 2.

Concertgebouw Orchestra, Thomas. O CBS IM 37823, Aug.

MONTEVERDI:

li quinto libro dei madrigali. Consort of Musicke, Rooley. O Oiseau-Lyre 410 291-1, Aug.

MOZART:

Concertos for Piano and Orchestra: No. 12, in A, K. 414; No. 14, in E flat, K. 449

Bilson; English Baroque Soloists, Gardiner. . Archiv 413 463-4, Aug.

PAGANINI:

Works for Violin and Orchestra. Accardo; Chamber Orchestra of

Europe, Tamponi. O Angel EMI DS 38127, 38128, June.

SCHOENBERG:

Vocal and Instrumental Works.

Various artists; BBC Symphony Orchestra and Chorus, Ensemble Intercontemporain, Boulez. O CBS Masterworks I3M 37863, June.

STRAVINSKY:

"The Firebird" Suite.

TCHAIKOVSKY: "The Nutcracker" Suite. Achatz. O BIS LP 238, July.

ZEMLINKSY:

Der Zwerg, Op. 17. Nielsen, Haldas, Weller, Riegel; RIAS Chamber Choir, Berlin Radio Symphony Orchestra, Albrecht. O Schwann VMS 1626, Aug.

ZEMLINSKY:

Eine florentinische Tragödie, Op. 16.

Riegel, Sarabia, Soffel; Berlin Radio Symphony Orchestra, Albrecht. O Schwann VMS 1625, Aug.

RECITALS AND MISCELLANY

ONDON SYMPHONY **ORCHESTRA:**

Orchestral Works.

Gould. O Varèse Sarabande VCD 47209. July.

58

cadenza is not as greatly extended. Hogwood believes that Cöthen performance practice called for only a single player to a part—thus, his recorded performances of the six works are by only, respectively, 12, 10, 11, 9, 6, and 7 players, all of whom use actual or replica period instruments.

This is not the first time the Cöthen versions have been recorded. Max Goberman, back in 1962, provided some of the differences as a supplement to his set (now on Odyssey). Neville Marriner's first *Brandenburgs* for Philips (c. 1972) used Thurston Dart's Cöthen-based edition, which also featured the latter's more musicologically controversial substitutions of flageolets (sopranino recorders) in the Fourth Concerto, a horn for the trumpet in the Second, and an organ continuo in the Sixth. A good number of current period-instrument versions use only one player to a part in some, but not all, of the concertos.

What makes the Hogwood set musically distinctive is the superbly controlled exuberance, the infectious sense of elation, that fires these performances. There is a perva-

sive dancing buoyancy (even the slow movements lilt), a seeming spontaneity combined with executant precision and timbral refinements rarely approached or consistently maintained in even the best of the seven other available period-instrument sets (three of which are digitally recorded). And even in this digital age, the sonic luminosity and transparency, the equable balancing of the concertante soloists among themselves and in the tutti passages, and the vivid differentiation of timbres are all truly exceptional. If ever characteristic Baroque tonal qualities and stylistic practices can win over hitherto resistant listeners, it is in these Brandenburas

For good measure, the six concertos are recorded in proper chronological sequence (Fuller's Smithsonian set is the only other period-instrument version so arranged), and the accompanying notes-and-documentation booklet includes not only Hogwood's explanations of his editorial decisions but exact personnel lists for each concerto and complete instrumental specifications.

Ton Koopman, Dutch organist, harpsi-

chordist, and lately ensemble leader, is one of the several Gustav Leonhardt students who have come to rank among the leading specialists in Baroque music. His portraits show a young man with the face of a medieval poet or saint, and his recorded performances radiate a most engaging personality. This, plus the fact that his Brandenburgs are something of a family-and-friends affair (his wife, Tini Mathot, who was second soloist in Koopman's Bach harpsichord concertos for Philips, is the producer here, and again their fellow Amsterdamers participate), must account for the disarming geniality and lightheartedness of these standardedition Brandenburgs.

The mostly quite young ensemblists are not as polished as Hogwood's Academicians, yet they play not only idiomatically but with genuine empathy and tender, often poignant, expressiveness. The soloists' names are largely unfamiliar to Americans (Mona Huggett, *violino piccolo* and *violino principale*; Crispian Steele Perkins, trumpet, for example), but they play very well indeed and make a refreshing change from some of the

Discwasher. The clear choice for record care.

discwashe

Hi-Technology

Where do you turn to get the best sound from your records? The answer is clear. To the Discwasher D4+[™] Record Care System. Its scientific design uses a unique fluid and directional micro-fiber pad to clean records safely. Without leaving residues behind. And the SC-2™ Stylus Care System loosens and wipes away damag-

ing stylus contaminants. All to keep your records playing clean and clear. You can trust Discwasher. The clear choice for tape and video care, too. Discwasher, leader in the technology of audio and video care products, also provides advanced systems for cleaning

tape decks and VCR's.



discwasher

Record Cleaning Fluid Come through clean and clear.



1407 North Providence Road, P.O. Box 6021, Columbia, MO 65205

only-too-familiar stars who have dominated this repertory in the past.

Koopman, himself doubling expertly as solo and continuo harpsichordist, in fact triples as the illuminating explicator of *his* editorial and executant philosophies. And while he—like so many other old-music specialists—indulges in what to me are unnecessary "surges" and "accent leanings," Koopman at least cites 17th-century theoretical justifications for *mezza di voce* swellings. (I remain unconvinced.) His sequence—1; 3 and 4; 5; 6 and 2—makes a bit more dramatic sense than some other departures from Bach's own order. The complete personnel list is given, but only the soloists are named for each concerto, and the actual instruments they play are regrettably not specified. The actual pitch used, however, is specified: A = 414 Hz. So is the harpsichord's tuning: to Werkmeister's temperament.

My personal period-instrument Bran-

American Acoustics **D-Series Digital Loudspeakers** Soundsational, Sensational Speakers Soundsational High Fidelity Feel the sound of live music. Clean, clear, electrifying sound at ALL listening levels. Soundsational Sensational Looks D-Series speakers look great with any room decor. Brass grille trim and walnut woodgrain finish matches popular lines of audio, video and computer furniture Soundsational Digital Audio Reproduction From a soft whisper to the roar of a 747 let D-series speakers handle the wide dynamic range of today's compact disc players Sensational 10-Year Limited Warranty You expect quality audio products from American Acoustics, a company with a heritage extending over 100 years. An outstanding 10-year limited warranty backs up this superior product quality. D-Series speakers available at CMC locations in St. Louis, Kansas City, Houston, Memphis, Atlanta, Dallas, Indianapolis, In Chicago area, at Alan's Creative Stereo American Acoustics One Mitek Plaza Winslow, IL 61089 Phone: (815) 367-3811

NOW AVAILABLE THE NEW SCHWANN ARTIST ISSUE

The unique classical music guide. Presenting over 25,000 classical recordings listed by orchestra, trio, quartet, conductor, soloist, vocalist, choral group and operatic company.

APT. #

Reserve my copy of the new Schwann Artist Issue. Lenclose just \$6.95 (plus \$1 for postage and handling) for each copy. Number of copies_____

Amount enclosed \$.

g) for each ADDRESS

NAME

SCHWANN ARTIST ISSUE Circulation Dept . 825 Seventh Ave . New York, NY 10019

denburg rankings now must be revised to put Hogwood a shade ahead of Harnoncourt II (my earlier preference and still so for the standard edition of the music), with Koopman not only close to the top but notable for some especially endearing attractions. Whatever one's own, possibly better, choices, no true lover of this music can ever again be fully satisfied by any moderninstrument performance. *R. D. Darrell*

CHAUSSON:

Concert for Violin, Piano, and String Quartet, in D, Op. 21.

On the heels of this excellent French firm's releases of Ernest Chausson's Opus 3 Trio (Harmonia Mundi 1115) and Opus 30 Piano Quartet (1116) comes a performance, involving several of the same musicians, of the oddly named work Chausson composed for the great Belgian violinist Eugène Ysaÿe. This recording follows recent releases of the same work featuring Sylvia Rosenberg (Pantheon PFN 2101) and Itzhak Perlman (CBS IM 37814) [see December 1984 review]. Both of those had their virtues, as does this one.

The splendid sound of the recording strikes you at once. (Harmonia Mundi makes its recordings in coproduction with Radio France.) Chausson, concentrating on Ysaÿe, rather neglected the pianist in this work, giving him endless arpeggios and similar figurations, but Jean-Claude Pennetier informs his part with enough imagination to make it almost a match for Régis Pasquier's outstanding work as solo violinist. All six musicians play with tenderness and elegance, and in the third movement, marked *Grave*, they build to a moving climax of eloquence and power.

May we interpret recent events as omens of a Chausson revival? RCA Erato has scheduled a recording of his almost unknown opera *Le Roi Arthus*. All this leaves us Chausson fans hoping for a new recording of his symphony, a minor masterpiece today unfairly neglected.

Paul Moor

Editor's note: A new recording of the Symphony in B flat, Op. 20, has just been released by Chandos and will be reviewed in

60

PAYMENT MUST ACCOMPANY ORDER PAYMENT IN U.S. CURRENCY ONLY PLEASE ALLOW 6-8 WEEKS FOR DELIVERY SAHJ

HIGH FIDELITY



20 day return policy. All returns must be phoned in for prior authorization and must be received within 20 days from receipt of original shipment. All products must be returned in original factory packaging, clean and unscratched, and blank warranty card. Do not tape, or deface manufacturers' original cartons. Shipping and handling charges not refundable. Pictures are for illustration only... and do not represent the product exactly as shown. Rainchecks available upon request. Please call and reserve your purchases II you plan to pick up at store. Quantities are limited and subject to availability.

a forthcoming issue of HIGH FIDELITY. José Serebrier conducts the Nouvel Orchestre Symphonique de la Radio-Télévision Belge.

GERSHWIN: Porgy and Bess (excerpts).

Now it becomes clear why the Gershwin estate has been so insistent upon requiring that American performances of Porgy and Bess be given by black choruses. Under the knowing direction of American conductor Leonard Slatkin, this less-than-hearty East German chorus manages to get down-but without getting dirty-giving an unintentionally Brechtian irony to "I Ain't Got No Shame" as it sings about "doing what I want to do" in meticulously learned American jive. One wonders how much time and trouble it took to teach these singers something that is alien to their nature. Obviously, the cost was less than what it takes to record opera in the United States!

That this recording often fails to ring true (even its black American principals sound a bit starchy) is not as serious a shortcoming as one might initially think. *Porgy* has survived for years in all manner of orchestrations and performance styles, often by jazz singers using Gershwin as a vehicle for their own vocal narcissism. Here, at least, the music more than just survives the performance, which goes to the opposite extreme of tidiness. Not surprisingly, in view of the circumstances under which it was recorded, the account strikes a rather objectivist stance, through which the music emerges with a certain purity, communicating totally in terms of its innate musicodramatic value. One could say that the original cast recording on MCA takes a similar approach, though not with the full orchestra or technical confidence heard here.

Aided by the precise, almost antiseptic Berlin Radio Symphony Orchestra and by state-of-the-art digital engineering, Slatkin makes as convincing a case for the original orchestration as I have ever heard, taking dazzlingly fast tempos (not unlike those of James Levine in the Metropolitan Opera production) while preserving an unusual transparency in Gershwin's dense but rich orchestration. Later, amid the somewhat stilted reading of the recitative preceding Bess's departure to Kittiwah Island, Slatkin works magic with the radiant, impressionistic music that accompanies it. Elsewhere in the performance, transitional music that was previously passed off as superfluous now glistens brilliantly.

Helden-Porgy Simon Estes redefines the role with sheer vocal majesty. "The Buzzard Song," one of the weakest points in the opera, holds up simply because Estes is able to sustain a firm line. Less welcome is his tendency to operaticize the role, right down to the stylized chuckle in "I've Got Plenty of Nothin'." It doesn't sound at all natural, but still makes its point, illustrating just how much charm and personality the music can exude if the singer will just hit the notes. Estes's stylized diction undermines the poignance of the pivotal "Bring me my goat" line, but the final two ensembles stand firm atop the granitelike vocal foundation he gives them; he may be lacking in pathos, but he is preferable to any number of *overly* pathetic Porgys. If nothing else, his singing is worth the price of the album.

Where this set clearly fails is in its concession to the now standard practice of doubling up roles in studio recordings. While it's probably physically impossible for Roberta Alexander to be anything less than winning, she is sorely overextended singing Serena and Clara, as well as Bess. She's a warm and passionate Bess, but she sounds pinched and strained elsewhere. The less said, the better, about Estes's hideous miscasting as Sportin' Life in "It Ain't Necessarily So." Diane Curry fills in the gaps as necessary—a pity because she seems to be the one singer here with a tangy sense of idiom.

Obviously, this isn't the first choice for a *Porgy* excerpts record: The Houston Grand Opera version on RCA reigns supreme and probably will for years to come. But it *is* an interesting second choice, particularly since negotiations have broken down between Philips and the Metropolitan Opera to record *Porgy* live with Estes and Alexander, who have no doubt benefited from the experience of the Met run. As the present recording stands, it is perhaps best heard by those who know and love the opera but have a fairly open mind about how it should go.

David Patrick Stearns

TO ORDER: Dial toll free 1-800-232-1818 and order with your VISA or MASTERCARD or send certified check or money order to EVEREST ELECTRONICS INC. 1601-47th St., Bluyn., N.Y. 11204, Presse include shipping, insurance and hand ing charges. For inguiries please dial 1-718-438-3007. Prices and availability subject to change without notice. No sales tax for out of state orders. Not responsible for tipografical errors. All merchandise with U.S. warranty.





For most of us, Heinrich Schütz (1585– 1672) is the perpetual forerunner, a composer who still has not quite escaped from that nebulous period labeled "pre-Bach." Generations of scholars have poured light onto that era, and if anything is accomplished by the celebration of the 400th anniversary of Schütz's birth, one hopes that it will be his acceptance as a composer in his own right.

Dates are often telling—and in the case of Schütz, positively amazing. When he was born, in Köstritz, Saxony, Orlando di Lasso was still alive; when he died, in Dresden, Corelli was nineteen. Seen in such perspective, Schütz becomes less a precursor than a bridge, incorporating in his works the rigor of the old, polyphonic style; the dramatic and expressive manner he learned from Gabrieli; and the subtle declamation he absorbed, in part, from the works of Monteverdi.

He spent most of his life in Dresden in

	illinoir audio SA	VE MON
X	COMPONENTS	
ă	AKAI GXR-88 3HD, DOLBY B&C, AUTO-REV. CASS.	\$329.95
	AKAI GX-7 3 HEAD DOLBY B&C CASSETTE DECK	229.00
	KENWOOD KVR-A50 (45x2) VIDEO READY STEREO RECEIVER	169.95
	AIWA ADF-330 DOLBY B&C, SOFT TOUCH CASS.	149.95
	ADC SS-415X 10 BD PER CH. EQUALIZER with ANALYZER	CALL
×	SANSUI DW-10 SANSUI'S BEST DOUBLE CASSETTE DECK	CALL
	SANSUI SX-1130 New! TOP RECEIVER W/AM STEREO	CALL
X	TEAC EQ-A20 10BD, PER CH. EQ. W/SPECTRUM ANALYZER	
	TEAC R-666XBL DOLBY B, C, & dbx & AUTO-REV. CASS DK	198.00
Ã.	TEAC V-350C DOLBY B&C CASS DK.	150.00
Ų.	TEAC V-530X DOLBY B, C, AND dbx CASS DK.	150.00
	TEAC V-900X 3 HEAD, DOLBY B, C, AND dbx CASS DK.	98.00
×	TECHNICS SA-460 (50x2) TV, AM, FM STEREO RECEIVER	219.95
	TECHNICS RSB-33W 'NEW' DOLBY B, C, AND dbx dubbing CASS	CALL
X	TECHNICS SL-J3 QUARTZ PROG. LINEAR TURNTABLE	149.95
	TECHNICS RSB-78R AUTO-REV. DOLBY B,C, & dbx CASS.DK	CALL
Ĩ.	TECHNICS RS-B11W 2-SPD, DBL CASS. W/AUTO TAPE SELECT	149.95
	SONY We Have a Complete Selection of SONY Products	CALL
	PORTABLES	
X	SONY WM-F75 NEW! AM-FM SPORTS WALKMAN CASS.	
	SONY WM-W800 DUAL CASSETTE WALKMAN 'NEW'	CALL
Ă	SONY CFS-5000 3-PC., AUTO REV., 5 BD. EQ.	
	JVC PCW-88JBK 3-PIECE PORT. SYSTEM W/dubbing CASS	195.00
	AUTOMOTIVE	
8	SONY ES-R10 DIGITAL CASS W/AUTO-REV. & FADER.	149.95
	JENSEN RE-980 AM-FM DIGITAL CASSETTE	179.95
X	JENSEN J-3033 6x9 TRIAX SPEAKERS (PAIR)	69.00
	SANYO FTE-D6 FOR GM, FORD & CHRYSLER, DIN-COMPATIBL	E. 162.00
	SANYO FTU-52 AM/FM CASS.W/DOLBY B&C, METAL CAPABLE	128.00
X	illinoir qua	
ň	12 E. Delaware Pl., Chicago	60611
	Phone Now Hours: TOLL FREE 1-312-664-0020 10:00–5:00 1-800-624	
2	1-312-664-0020 10:00-5:00 1-800-62	

Mon. thru Sat.

Price Lists & Quotes

Orders & Quotes

the service of the Elector of Saxony. While still a youth, Heinrich had been spotted by the Landgrave of Hesse-Kassel, who sent him to Italy to learn the fashionable new style of Gabrieli. In 1615, the Elector of Saxony stole him away from his first patron, and he spent nearly 60 years in the service of the court—gladly at first, reluctantly after the electoral *Kapelle* was ravaged by the Thirty Years War and as his own strength began to fail.

Schütz was a man of strong faith and vision, working without complaint under the yoke of the nobility, but always true to his own musical precepts and ready to take up the cause of his singers and instrumentalists, many reduced to near beggary by the war. A large number of his compositions have been lost in subsequent wars, and of the almost 500 works that survive, only a fraction are represented on disc. Nevertheless, the sampling provided here gives some idea of the vast range of the composer praised in the inscription on his tomb as "the Christian psalm-singer, a delight for foreigners, for Germany a light." *Michael Fleming*

Christmas Oratorio.

Partridge; London Schütz Choir, Norrington. London STS 15602 (A).

Italian Madrigals, Op. 1, Nos. 1-18.

Concerto Vocale, Jacobs. Harmonia Mundi France HMC 1162 (D). • 401162. (Distributed by Harmonia Mundi, U.S.A., 3364 S. Robertson Blvd., Los Angeles, Calif. 90034.)

Kleine geistliche Konzerte a 1–5, Opp. 8* and 9**.

Westphalian Choral Ensemble, Ehmann. Nonesuch 73012 (A, 2)*; 73024 (A, 4)^{4*}.

Musikalische Exequien, Op. 7.

Westphalian Choir, Baroque instrumental group, Ehmann. Vanguard S 245 (A).

Psalms of David, Op. 2, Psalm Nos. 6, 23, 128, and 136.

Westphalian Choral Ensemble, Ehmann. Nonesuch 71235 (A).

St. Matthew Passion.

Elliott; Hilliard Ensemble, Hillier. Angel EMI DS 38167 (D). ARCH

HOH

Symphoniae sacrae (selections).

Concerto Vocale. Harmonia Mundi France HM 1097 (A). • 401097.

MONEY . TIME . FREIGHT ON NAME BRAND STEREO VIDEO RECORDER AKAI VS-603 VHS STEREO HI-FI W/WIRELESS REMOTE \$599.95 SANYO VCR-7500 BETA STEREO HI-FI W/WIRELESS REMOTE.... 549.95 349.95 SANYO VCR-7150 BETA HI-FI W/WIRELESS REMOTE HEADPHONES 39.00 KOSS PORTA PRO NEW HEADPHONE SONY MDR-M-77 'NEW' SONY MONITOR HEADPHONES. 59.95 SENNHEISER MS-100 MINI-OPEN AIRE 35.00 TAPE-AUDIO & VIDEO SONY UCXS-90 NEW HIGH BIAS CASSETTE TAPE. 18.00/10 16.00/10 TDK SA-90 SUPER AVILYN CASSETTE TAPE 25.00/10 TDK SAX-90 DOUBLE COATED 'SA' TYPE CASSETTE 11.50/10 TDK D-90 LOW NOISE CASSETTE TAPE 15.90/10 BASF CRS II-90 CHROME DIOXIDE EXTRA 30.00/10 FUJI M-90 METAL CASSETTE MAXELL XL 'S' 90 TYPE I OR II (PLEASE SPECIFY) 24.00/10 MAXELL UD 'S' 90 II NEW HIGH BIAS, (NOT 'XL') 20.00/10 MAXELL XL-II-90 TYPE I OR TYPE II (PLEASE SPECIFY) 22.00/10 CARTRIDGES SHURE V-15 TYPE 5 MR NEW TYPE "5" CALL CALL SHURE V-15 VP TYPE 5 "P" MOUNT AUDIO-TECHNICA AT-155LC REGULAR MOUNT 79.95 AUDIO-TECHNICA AT-122EP "P" MOUNT 27.95 COMPACT DISC PLAYERS AKAI CD-A7TB 3-BEAM LASER, WIRELESS REMOTE, PROG. 340.00 TECHNICS SL-P1 PROGRAMMABLE AT 'NEW' LOW PRICE!. CALL TECHNICS SL-P2 WIRELESS REMOTE, PROGRAMMABLE CALL CALL SONY D-5 DELUXE PORTABLE AT NEW LOW PRICE CALL OTHER CD BRANDS AVAILABLE SEE A BETTER PRICE? CALL US! WE WANT YOUR BUSINESS !! Prices and Availability Subject to Change UPS rates apply on these units. – send for free price list – Name. Address City. VISA Zip State or use your address labe

COMPACT DELIGHT

(Continued from page 61)

rived its title, Saga of the Prairies, from a poll of listeners. With it is Samuel Barber's Capricorn Concerto of 1944 and his First Essay of 1938. Copland's Saga of the Prairies bears indications of some later Americana to come, as does Barber's Capricorn Concerto of his own emerging colorations. The performances are by the Pacific Symphony Orchestra (of Orange County, California), whose director, Keith Clark, is a product of Tanglewood. The sequence of 53 minutes not only includes Copland's lively Outdoor Overture of 1938, written for the orchestra of the New York High School of Music and Art, but also an arrangement by David Porter of the overture from Charles Ives's Third Orchestral Set, billed as a world premiere recording. The reproduction techniques are under sure control, and the accompanying booklet includes material by Edward Tatnall Canby, Edward Cole, Porter, and Copland himself.

Varèse Sarabande has also released a disc—at some musical distance from Copland, Barber, and Ives, but in the same neighborhood when it comes to quality that bears, extraordinarily, a total of 19 items from Alan Jay Lerner and Frederick Loewe's *Camelot* (Varèse Sarabande

VCD 47206). The reference to the number of the disc's selections is in no way an apology for what is left out, but a blessing for what is included, under the stirring musical direction of Gerry Allison. Herein preserved is the total content of London's 1982 stage production, which is led-and how!-by Richard Harris as King Arthur. Having seen the original New York show of 1960 and its reverberant 1980 renewal at the New York State Theater, with Richard Burton in both, I can only, while shedding a tear for the late performer, remember specifically what he did so well. Burton spanned the 20 years between his two endeavors by carefully contriving to match such a passage of time in the King's own life: As a young man, he anticipated with hope and enthusiasm what might come about in Camelot; later, he looked back on it, with fondness and affection.

Similarly, Harris has projected with great understanding what is contained in songs from "I Wonder What the King Is Doing Tonight?" to "How to Handle a Woman," "If Ever I Should Leave You," and all the other gems that are crowned by—what else?—"Camelot" itself. Included in what is preserved from the 1982 Varèse Sarabande production (recorded in the Abbey Road Studios of EMI) are touching participations by Fiona Fullerton (Guenevere), William Squire (Merlin), Michael Howe (Mordred), and the rest of the cast. One element not to be ignored is the intention that prevailed during the sessions: to maintain the atmosphere of the *theater* as the performance was taking place, rather than to convert the studio into a Valhalla of Wagnerian sound. Worth every penny—or, if it may be said, every farthing—of what is being asked.

For another kind of re-creation of this literature, in the broadest sense, how about Jessye Norman enjoying herself in a dozen-plus items, backed by the Boston Pops under the direction of John Williams? The selections on *With a Song in My Heart* (Philips 412 625-2) include works by Richard Rodgers and Lorenz Hart, Cole Porter, Jerome Kern and John Mercer, Harold Arlen and Truman Capote, and the Gershwin brothers. To the credit of Miss Norman, she treats every *word* of the lyricists with the same high regard and clarity as she does the music with which they have been fixed in memory.

Lest one derive from the preceding abundant sampling a fixed and final impression that CD has reached its zenith, consider that the medium is more likely only in the pioneering stages of its accomplishments. Imagine the delights that lie ahead....

CD PREVIEW ADDENDUM

THE FOLLOWING LISTINGS were either not available or inadvertently omitted from our October "Compact Disc Preview." We include them here with our apologies.

CONSORTIUM RECORDINGS

See Laurel Record. Consortium Recordings, 2451 Nichols Canyon, Los Angeles, Calif. 90046-1798.

LAUREL RECORD (distributed by Consortium)

- Beethoven: Quartet in F (world premiere, original version of Op. 18, No. 1). Szymanowski: String Quartets: Nos. 1, 2. Pro Arte Qt (a).
- Bloch: Concerto for Violin and Orchestra*. Prokofiev: Sonata Violin, Op. 115. Sarasate: Introduction and Tarantella for Violin and Orchestra, Op. 43*. Lefkowitz; London PO*, Freeman* (a).
- Bloch: String Quartet No. 2; Prelude; Night; Two Pieces for String Quartet. Pro Arte Qt (a).
- Bloch: String Quartet No. 1. Pro Arte Qt (a).

- Corigliano: Sonata for Violin and Piano. Flagello: Sonata "Zurich" 1963; Declamation for Violin and Piano. Fodor, Portney (d).
- Lazerof: Sinfonietta (1981); Chamber Symphony (1976). (World premieres.) Los Angeles CO, Schwarz (d).
- MacDowell: Piano Concertos: No. 1, Op. 15; No. 2, Op. 23. Amato; London PO, Freeman (d).
- Western Arts Trio: The Best of Vols. 1, 3, 4, 5, 6. Piano Trios by Bloch, Copland, Debussy, Goldmark (Rubin), Muczynski, Piston, Tcherepnin, Turina (a).

DENON

- Bach: Concertos for Harpsichord and Strings. Dreyfus; Tokyo Solisten (d).
- Bach: Sonatas for Flute, after Sonatas for Violin. Nicolet, others (d).
- Bach; Teleman: Trio Sonatas. Rampal, Larrieu, Nabeshima (d).
- Beethoven: String Quartets (complete). Smetana Qt (9, d).
- Beethoven: Concerto for Violin, Op. 61. Kantorow; Netherlands CO, Ros-Marba (d).
- Bizet: Orchestral Works; L'arlésienne Suite, No. 1, etc. Tokyo Metropolitan SO, Fournet (d).

- Cage: Sonatas and Interludes for Piano. Takahashi (d).
- Debussy: Works for Piano, Vol. 4. Suite Bergamasque, Arabesques, etc. Rouvier (d).
- Haydn: Sonatas for Piano (3): Nos. 36, 43, 46. Schiff (d).
- Mahler: Symphony No. 2. Frankfurt RSO, Inbal (d).
- Mozart: Complete Works for Flute and Orchestra, Vol. 1. Adorján; Münchener Kammerorchester, Stadlmair (d).
- Mozart: Complete Works for Flute and Orchestra, Vol. 2. Adorján; Münchener Kammerorchester, Stadlmair (d).
- Mozart: Concerto for Three Harpichords and Orchestra, K. 242. Dreyfus, Baumont, Kiss; Capella Academica Wien, Melkus (d).
- Mozart: String Quartets: No. 18, K. 464; No. 19, K. 465. Kocian Qt (d).
- Ravel: Works for Piano: Sonatine; Le tombeau de Couperin; Jeux D'eau. Thibaudet (d).
- Schubert: Quintet for Violins, Viola and Cellos, Op. 163. Berlin Philarmonia Qt (d).
- Schumann: Dichterliebe, Op. 48; Liederkreis, Op. 24. Prey, Hokanson (d).

Birthday Greetings From Hungary

by Bálint András Varga

BUDAPEST—Anniversaries have inspired much of what Hungaroton is offering during its traditional Record Weeks this year. At press time, the gala concert inaugurating the late-September festival was scheduled to feature Antal Doráti conducting Liszt's large-scale oratorio, *Christus*, in honor of the composer's double anniversary in 1986—the 175th of his birth and the 100th of his death. In a way, the performance is a dress rehearsal for the recording sessions that are to begin immediately afterward.

Liszt is also being celebrated by the Hungarian label with the release of The Legend of Saint Elizabeth. One of the most popular saints of the Arpad dynasty (headed by descendants of the heathen prince who conquered the Carpathian basin with his Magyar tribes in A.D. 896), Elizabeth fired Liszt's imagination to such an extent that he wrote what has become a sort of national Romantic oratorio. Rather than reissue an earlier recording, Hungaroton decided to have a go at it again, largely to exploit the availability of soprano Eva Marton, who sings the title part. (Ever since her debut at the Metropolitan Opera in 1976, as Eva in Die Meistersinger, Marton has been an international star whose appearances in her native country are few and far between.) The Budapest Chorus and the Hungarian State Orchestra are among the ensembles featured on the record, and the conductor is Arpád Joó, another expatriate Hungarian, who, after stints in Knoxville and Calgary, has become associated with Calgary-based Sefel Records. (In fact, Sefel is to distribute The Legend in the West.) The rest of the cast includes Kolos Kováts (Hermann), Eva Farkas (Sophia), Sándor Sólyom-Nagy (Louis), József Gregor (Friedrich II), and István Gáti (Hungarian magnate/ steward)

Atalanta is one of several Handel operas never before recorded. Hungaroton followed the suggestion of the British flutist/harpsichordist-turned-conductor Nicolas McGegan to commit it to disc and engaged the ensemble Capella Savaria, which uses mainly period instruments (the drums were made in 1736, the year of the opera's first performance). Intended as a wedding present for the Prince of Wales, the future King George III, Atalanta is a delightful work full of humor and wit. It includes the first and only high C that Handel ever put in an opera score, meant for the popular eighteen-year-old male soprano Gizziello. His role is taken on this record by tenor János Bándi; the Atalanta is Katalin Farkas. A lyric soprano, attractive of voice and comely of presence, Farkas is an up-and-coming artist whose Zdenka in Richard Strauss's Arabella was much commended at Glyndebourne this past summer. The part of Meleagro is sung by Eva Bártfai-Barta; the Irene is Eva Eax, the Nicandro is József Gregor, and the Mercurio is László Polgár.

Although unlikely to make the Record Weeks, another rarely heard Handel work deserves mention at this point: the Brockes Passion. Named after the Hamburg poet Barthold Heinrich Brockes, who wrote the words, it is based on the Gospels but does not actually quote them. The new Hungaroton recording is very much an international one, with (once again) McGegan conducting the Capella Savaria. Katalin Farkas is the star of the cast, which also includes Mária Zádori, Guy de Mey of Belgium, Drew Minter of the United States, and Martin Klietmann of Austria. The cosmopolitan flavor is further enhanced by the presence of the Städtsingerchor of Halle, East Germany.

The tercentenary of Bach's birth is being observed with the release of *The Art* of the Fugue, in two versions. The Franz Liszt Chamber Orchestra performs it in the traditional manner, while pianist Zoltán Kocsis, taking note of the latest discoveries of scholarly research, changes the order of the movements considerably.



Doráti looks to Liszt 1986.

He also adds an appendix with an earlier version of Contrapunctus 7 (*per Augmentationem et Diminutionem*). In the two fugues for two claviers, he is joined by his former teacher, Ferenc Rados.

Clearly a name to watch for, bass László Polgár (Don Giovanni in Jean-Pierre Ponnelle's Paris production this year and Sarastro at the Salzburg Festival) sings two Bach cantatas with the Capella Savaria conducted by Pál Németh: Ich will den Kreuzstab gerne tragen, B.W.V. 56, and Ich habe genung, B.W.V. 82. (The second "n" in genung is no printing error: There is a consensus among Bach scholars headed by Alfred Dürr that this is the authentic 18th-century spelling of the word.)

Twenty years have passed since the Italian ensemble Virtuosi di Roma recorded Giovanni Paisiello's Barber of Seville. Hungaroton has now decided to add the opera to its catalog, with Adám Fischer conducting the Hungarian State Orchestra. The Rosina is Krisztina Laki (Colognebased, this Hungarian soprano has made quite a name for herself in Europe); the Almaviva is Dénes Gulyás; the Bartolo, Gregor; the Figaro, Gáti; and the Basilio, Sólyom-Nagy. Before the twenty-fouryear-old Rossini had the audacity to set the same Beaumarchais comedy, Paisiello's Barber enjoyed a tremendous success in Europe (where it had some influence on Mozart) and even made its way to Mexico, becoming the first Italian opera ever to be performed in that country.

Bálint András Varga works in Budapest at Editio Musica, the state music-publishing agency.



Home video brings punks into your living room. Enter alienated youth; exit their subculture.

by John Piccarella

Before punk music there were punk movies. I don't mean punk rockumentaries like D.O.A. or moviesabout-punks like Rude Boy or even Hollywood classics like The Blackboard Jungle. Long before punk rock self-consciously rebelled against the music industry with antisocial attitudes, proud amateurism, overt deviance, raw experimentation, and budget equipment, the "new American cinema" of the '50s and '60s championed the same values, making underground films that stood outside the norms of the Hollywood narrative and the consumer-class morality it embodied. It might be argued (though not by me) that the short-lived, self-righteous independence of early punk bands was a pose that fell away in the face of record-company dollars—the same case made against independent filmmakers, whose work, the gripe goes, is a self-aggrandizement of amateur talent lacking the technical expertise or resources to make it in the commercial marketplace.

But just as the punk music of progenitors Patti Smith, the Ramones, the Sex Pistols, and the Clash achieved innovations in sound, image, and content that would be co-opted by the more commercial "new music" it would give way to, such artists as Stan Brakhage, Bruce Connor, Kenneth Anger, and Andy Warhol discovered techniques and images—ways of seeing and revealing—that would eventually enhance commercial

John Piccarella writes about music for The Village Voice and The Boston Phoenix.

filmmaking. Twenty years ago Anger's *KKK (Kustom Kar Kommandos)* invented the format for today's music-video promo, and his use of rock-'n'-roll-segue in the soundtrack to *Scorpio Rising* has yet to be bettered. Warhol gave us *Chelsea Girls*, the Velvet Underground, and the Exploding Plastic Inevitable—film, light shows, dance, poetry, and rock. In one great breath, the psychedelic underground of sex, drugs, and loud music came together, ultimately winning Oscars in 1969's *Midnight Cowboy*.

Independent movies, like independent records, contribute to the semipopular culture that bridges the gap between art school and mass entertainment, invigorating both. Following the lead established by Warhol director Paul Morrissey's Trash and Heat-the first art films that made a few concessions to plain storytellingsuch midnight movies as The Rocky Horror Picture Show (1975) gained a loyal audience roughly equivalent to that of cult bands. Now, as videocassettes, these films are consumer items, enabling their strange icons to invade middle-class home entertainment-where, not coincidentally, cult solidarity vanishes. Living-room media eliminate communal experience and minimize the music's impact, too, attenuating the qualities that make it most challenging-loudness, rawness, relentlessness, and brutality.

The best punk movies available for home viewing-Liquid Sky, Smithereens, Repo Man, and Stranger Than Paradise-do not portray a real subculture, but, like the Warhol/Morrissey films, use emblems of underground lifestyle as assumed details of character and setting. Rather than challenge conventional narrative design, these films subvert by changing the context within which those parameters operate. Smithereens writer/ director Susan Seidelman even maintained her point of view in the very mainstream Desperately Seeking Susan. It's a delight to see Loisaida personalities Richard Hell, Adele Bertei, and Arto Lindsay turn up in a box office hit. But so what? What do these four movies say about true punks and punk subculture?

Only *Liquid Sky*, the least commercial of the bunch, is actually about the sexual and drug taboos (specifically homosexuality, transvestism, and heroin addiction) that have been the substance of underground tradition. Set in lower Manhattan and directed by Eastern European Slava Tsukerman (and written by Tsukerman in collaboration with Anne Carlisle, who plays both the male and the female leads, and with on- and off-camera costume designer Nina Kerova), Liquid Sky bears no resemblance to any New York scene. The dada/expressionist fashions and the European electronic music score (also by Tsukerman, with Brenda Hutchinson and Clive Smith) are equally stylized. The plot's patterns of misanthropic sexual and drug abuse are set in a paranoid, William Burroughs-derived cosmology where junkie aliens suck kicks from human biochemistry.

Basing their creature on the fact that heroin (like sexual orgasm) permits continuous activation of pleasure circuits in the brain, the filmmakers give us an alien who is the absolute embodiment of addiction as voracious, hedonistic hostility. It's a metaphor for the way the punks in the film treat each other. Heroin(e) Margaret lives with her jealous lover, Adrian (Paula Sheppard), a performance poet who wants them to move to Berlin. Most everyone else wants Margaret's body or Adrian's drugs; the fulfillment of either desire causes the abuser to be dissolved and absorbed by the alien, whose UFO is parked on Margaret and Adrian's roof.

While sex and drugs are all-consuming, terminal obsessions in Liquid Sky, Repo Man's slightly more authentic portrayal of L.A.'s hardcore scene (also visited by extraterrestrials) takes sex, drugs, and shocking iconology for grantedwhich would be subversive if the film weren't burlesque from start to finish. As an industry farce with enough budget to support a huge cast, numerous car chases, and a broad spread of outdoor locations, Repo Man hardly qualifies as a cult film. It even has an official soundtrack album, which, as a companion consumer item, amplifies and legitimizes the film's context. The punk caricatures gain credibility from the ironic, occasionally self-parodic distance of songs by Black Flag, Suicidal Tendencies, the Circle Jerks, and especially theme-song composer lggy Pop.

It's the function of a good soundtrack to comment, Greek chorus-wise, on the action, clarifying point of view from outside

Midnight Madness

LIQUID SKY.

Slava Tsukerman, dir. and prod. Media Home Entertainment M 252 (Beta and VHS); \$59.95.

REPO MAN.

Alex Cox, dir.; Jonathan Wacks and Peter Mc-Carthy, prods. MCA Home Video 80071 (Beta and VHS); \$59.95. San Andreas SAR 39019. (Distributed by MCA.)

SMITHEREENS.

Susan Seidelman, dir. and prod. Media Home Entertainment M 718 (Beta and VHS); \$69.95.

STRANGER THAN PARADISE.

Jim Jarmusch, dir. Available soon from CBS/Fox.

the frame, where the audience lives. Smithereens would have produced an equally illuminating album, with a great potential segue of the Feelies' "The Boy with Perpetual Nervousness" and Hell's "The Kid with the Replaceable Head." (All songs are available on independent labels, as are most that appear on the *Repo Man* LP). When Smithereens's kid from Montana (Brad Rinn) wakes up in his van, he plays the Raybeats' "Guitar Beat," echoing not only his Western roots but also Repo Man's Latino/Tex-Mex rock 'n' roll.

The hardcore of Repo Man and the somewhat more dated punk rock of Smithereens authenticate the portrayal of subculture as Liquid Sky's surroundings do not. Club scenes in both Repo Man and Smithereens feature bands also heard elsewhere in the films, while Liquid Sky's club scene, offering Adrian's pretentious beat poetry and Margaret's fashion shows with alter ego Jimmy, seems updated Mayakovskian cabaret. Additional guitar music, composed by Feelies Glenn Mercer and Bill Million for Smithereens and by Plugz Roberto Larriva and Steven Hufsteter for Repo Man, skillfully evokes the respective regional settings. The Feelies' minimal ostinato drones stop and start through New York streets before the band finally breaks into its appropriate "Loveless Love." The Plugz' Southwestern twang permeates road scenes in between almost subliminal shards of hardcore anthems (which appear in full only on the soundtrack recording).

Otto (Emilio Estevez), hardcore-fanturned-Repo-Man, and his slampit acquaintances all dress punk, although none of them are in bands. The search by Kevin (Zander Schloss) for a real job and the petty larcenies of the trio Duke (Dick Rude), Debbie (Jennifer Balgobin), and Archie (Michael Sandoval) are motivated by mid-(Continued on page 74)



McKean, Shearer, and Guest of *This Is Spiñal Tap* and Candy and Levy of *The Last Polka*: video vaudeville

THIS IS SPINAL TAP.

CD Rob Reiner, dir.; Karen Murphy, prod. Embassy Home Entertainment 2081 (Beta and VHS); \$69.95. ⊙ Polydor 817 846-1. □

THE LAST POLKA.

Dohn Blanchard, dir.; Jamie Paul Rock, prod. Vestron VB 3101 (Beta), VA 3101 (VHS); \$59.95.

Rob Reiner's 1984 film, This Is Spinal Tap, is a hilarious parody of rock documentaries like Martin Scorsese's The Last Waltz and Jeff Stein's The Kids Are Alright, chronicling the rise and fall and rise of a fictional British heavy metal quintet. But though Spinal Tap (dig the umlaut) turn their amps way up, prance around in spandex and leather, and sing songs like "Sex Farm Woman" and "Hell Hole," the movie never sneers too viciously at heavy metal's peculiarities; it even refrains from cheap shots at easy targets like sex and drugs. Scriptwriter Reiner (who plays the film-within-a-film's director, Marty Di Bergi) and co-writers Christopher Guest, Michael McKean, and Harry Shearer-who star as, respectively, Tap lead guitarist Nigel Tufnel, frontman David St. Hubbins, and bassist Derek Smalls-obviously love every little absurdity. This film is an affectionate satire of the music industry, from cutthroat record-company politics to the miseries of touring, and all the droll one-liners and riotously tacky musical numbers are even funnier the third time around.

Spinal Tap are staggeringly mediocre musicians (Guest, McKean, and Shearer

really do play their instruments-badly), and their lyrics, according to one (rock) review, "tread water in a sea of retarded sexuality and bad poetry." But the band is spurred by delusions of artistic grandeur; in one scene, Nigel explains to Di Bergi, with utter seriousness, that the somber piano piece he's working on is part of a trilogy, influenced by Mozart and Bach, entitled "Lick My Love Pump." Yet even at their most pompous, Spinal Tap are lovably sincere, if dim-witted, rubes whose naiveté insulates them from realizing how ridiculous they are and gives them a touching, wacky dignity in the face of their flop "comeback" tour of the U.S. They have our sympathies all the way as they struggle with a barely competent manager ("The Boston gig has been canceled. I wouldn't worry about it, though. It's not a big college town"), a humiliating recordstore autograph session where no fans show up, and stage gimmicks that constantly malfunction.

But at its very big heart. *This Is Spiiial Tap* is about the symbiotic, sometimes bumpy friendship at the center of great bands from the Beatles (Lennon and McCartney) to the Who (Townshend and Daltrey) to the Clash (Strummer and Jones). Di Bergi traces the relationship between Nigel and David from their boyhood in Squatney, England, through their early-Sixties success as the Thamesmen and the psychedelic period of Spinal Tap to the present U.S. tour. Nigel (who looks a lot like Jeff Beck) is the dazed, gum-chewing lumpenprole to David's intellectual poseur and gullible inner-peace seeker, but these guys are so close that when one develops a cold sore on his upper lip, the other gets one on his lower lip.

And in a send-up of the classic John-Paul-Yoko triangle, it's David's domineering witch of a girlfriend, Jeannine (June Chadwick), who drives a wedge between the two pals. While the couple engage in uproarious John and Yoko shtick (they sport identical blond shag haircuts, and Jeannine worms her way into becoming band manager and proceeds to book the group according to astrological charts), the hurt and abandoned Nigel fights to recapture David's affections by suggesting a new stage concept based on Stonehenge; the plan's backfire is the film's most sidesplitting sequence. Nigel and David finally have their blow-out, but their fondness for each other (expressed with manly decorum through their love for the music) finally triumphs. There hasn't been a sweeter depiction of male rock 'n' roll bonding since A Hard Day's Night-which in itself is pretty sweet praise.

Meanwhile, fans of those lovable polka stars Yosh and Stan Shmenge and their "Happy Wanderers' Hour" (from the late, great SCTV) may be shocked or at least mildly depressed by the revelations of another behind-the-scenes saga: The Shmenges' rise from child vaudevillians in their native Leutonia to veritable polka gods was not all cabbage rolls and coffee. There was the (married) brothers' scandalous involvement with a female singing trio known as the Lemon Twins; the disastrous Plattsburgh concert in which the Shmenges shamelessly attempted to cash in on the youth market, falsely advertising an appearance by Michael Jackson; and of course the Schmenges' mysterious retirement from show biz. Is this farewell concert really their last polka, or just a desperate ploy to save a floundering career?

The Last Polka (which originally aired as an HBO special) is fun, even if the writing of stars John Candy and Eugene Levy never quite hits the heights of sweet satire, hilarity, and believability of This Is Spinal Tapits obvious inspiration, although it cops at least its title and its special-guest-appearance concert lineup from The Last Waltz, in a more obvious parody of that film's overweening self-importance. Still, there are exuberant performances by Candy and Levy as bespectacled clarinetist Yosh and platinumhaired, accordion-pumping Stan, and particularly by fellow SCTV alumnus Catherine O'Hara as the leader of the Lemon Twins (whose teased hair and skin-tight dresses suggest a Balkan Ronettes). And Rick Moranis, portraying Linsk Minyk, a singing Shmenge protégé, delivers a show-stopping version of the Doors' "Touch Me." Oh yeah, The Last Polka includes a lot of polka, so if the sound of a burping tuba drives you batty, consider this a warning.

Joyce Millman

TOURE KUNDA:

Natalia. ③ Bill Laswell, prod. Celluloid 6113.
④

Toure Kunda just might be the best antidote to apartheid, drought, and spiritual dissemblance going down these days. Firmly rooted in Senegalese culture (but commercially based in Paris since 1978), this interracial ten-man band (sparked by a fiery female singer/dancer from the Ivory Coast) is running hot on the heels of King Sunny Ade, Manu Dibango, and Fela as the next heirapparent of African pop. The heartchild of three Senegalese stepbrothers who grew up listening to Otis Redding and James Brown in their West African homeland, Toure Kunda employs musicians from Cameroon, Martinique, the United States, and France to carve out a sound that could wreck a Memphis soul parlor, a Brazilian nightclub, or a tiny village back home. Natalia, their fourth album, marks their debut with producer Bill Laswell of Material, whose restrained nips and tucks admirably reflect the group's commitment to spread their animistic gospel westward with the aid of American studio wizardry.

Like an ethnic Chicago or Blood, Sweat and Tears, Toure Kunda knows how to make big fat melodic statements fast, and from its very first upbeat, Natalia smacks of celebration. The opening sax riffs, slick and souleved, are sliced off with cocksurety by blatantly familiar pop hooks, but what Natalia loses in free-style effusion is more than made up for by a tight collective vision that consistently chooses synchronization over individual virtuosity. Laswell makes the interlocking vocals of the harmonizing Toure brothers more pungent and keeps tabs on guest synther Bernie Worrell, whose Fairlight CMI never upstages the traditional drums and even credibly effects African modes and timbres (kalimba, kora), as well as various chirps, whistles, and snorts.

Charged by catchy backbeats lifted from Senegalese puberty rites of passage, the chantlike texts directly address the psyche of the budding adolescent, an important resource in a society whose agricultural economy depends on the hearty participation of each member. Although sexuality isn't ignored, Toure Kunda does tend to sing less about personal romantic indulgence and more about selfhood via the individual's relationship to God, to the earth, and to his fellow man. Without translation, however, one can only guess at why the words "making love" suddenly slip out of the middle of an African-dialect refrain (seven of which are sung on this album). More organic is the title cut; illuminated by the iridescent sliver of a sax line, it provocatively suggests the ripening sensuality of a waxing moon.

Toure Kunda sounds like the big brother you always wanted: bright, warm, supportive, unpretentious, and full of good-humored surprises. At bottom, the group is committed to teaching kids not about breaking away from society, but rather plugging into it and taking responsibility. In an international market rife with nihilistic icons, Toure Kunda urges us to look forward, gear our own resources, and dance right on into the suffering of being human. For a world that desperately needs to grow up, their song is truly a cri de coeur. Pamela Bloom

THE STYLE COUNCIL: Internationalists.

⊙ Peter Wilson and Paul Weller, prods. Geffen GHS 24061. ⊡

I own this record by accident. I thought the café jazz of the Style Council's previous two releases was unearned, perched on the hedge between authenticity and parody. But *Internationalists* makes a smorgasbord of nonrock sources speak. And I love it for being the only white pop record that calls for unity with any credibility. When rockers go as far to the left as Paul Weller and Mick Talbot have, they're usually most comfortable using the language of confrontation, pointing fingers at the audience and them-

POP GEORGE CLINTON:

Some of My Best Jokes Are Friends.

TERRI GIBBS: Old Friends.

THE LAST POLKA.

NILE RODGERS: B-Movie Matinee.

THE STYLE COUNCIL: Internationalists.

THAT'S THE WAY OF THE WORLD.

THIS IS SPINAL TAP.

TOURE KUNDA: Natalia. VARIOUS ARTISTS: Country Music on Broadway.

VARIOUS ARTISTS: Go Go Crankin'.

JAZZ

WILLIAM BREUKER COLLECTIVE: Willem Breuker Kollektief.

DAVE HOLLAND QUINTET: Seeds of Time.

VARIOUS ARTISTS: "One Night with Blue Note" Preserved, Vols. 1 and 2.

VARIOUS ARTISTS: The Real Sound of Jazz.
selves. But this is a startlingly generous album, and its tone is affirmative: You don't have to endure this, it says, together we can demand what's ours. At home in England, Weller's a superstar, as committed and loved as Bruce Springsteen. Although there's no danger that Margaret Thatcher will attempt to co-opt any of Weller's appeal; he's too explicitly political.

The Style Council has no trademark sound. "All Gone Away" is Astrud Gilberto Brazilian pop—as it might have been read by Petula Clark. Strange, but its languid pulse and flute are sweet and felt, even as lyrics describe the effects of monetarism on one working-class hamlet. Second-British-invasion psychedelia snares some Southern soul rhythm on "Come to Milton Keynes," another wrecked industrial town. As with recent Elvis Costello, there's nothing like spontaneity on *Internationalists*, but everything like craft and hard work. Rarely does a note not build a melody or temper an emotion.

Of the just two rock songs, only the closing "Walls Come Tumbling Down" sticks. This album is far more about Isaac Hayes string arrangements, '70s CTI jazz, drums played with brushes ... elements that make up a dozen different musics. Behind it all stands Weller, a true fan, someone who probably found his left side through the culture that radio created; this is how the revolution sounds in his head. It's not built of sacrifice, but of consumption and variety (both avenues of pleasure). That's why Internationalists is so rich and so weird. It's one long answer-record to the austerity conservatives expect of us. RJ Smith

NILE RODGERS:

B-Movie Matinee.

Just because *B-Movie Matinee* isn't ruling the boom boxes the way "Good Times" did or selling the way *Like a Virgin* was (and is!), don't think that Nile Rodgers has lost it. The career of the axe-wielding king of sophistifunk has always been spotty, and he has bounced back enough times not to be dismissed as a solo artist. Or maybe he prefers to be heard and not seen, satisfied that his innovations will make their way onto more commercial releases. Before Debbie Harry's *Koo Koo*₂ also an experimental Rodgers LP (coproduced with Bernard Edwards), no one in vogue had thought of using echo/delay on a drum. Now almost all of the funk mob does. So you wanna-be hitmakers, take heart.

The most impressive production number on Matinee is "Plan 9," where aliens land and begin "dancing with the President" to complex but hearty rhythms created by computerized recordings of drums, guitar, and bass. The long-sustain vocal harmonies are cool, too. But my fave rave goes to "Let's Go Out Tonight," a song that says more about Nile's adoration for cheap, Saturday afternoon karate and sci-fi flicks than about the sushi bar he probably chooses later for his dinner date. After all, Matinee is a concept album. "Terminator," a propelling power funker I heard in the studio, was dropped from the script when legal tangles ensued over its title. "Stay Out of the Light" even splices in a quote from Indiana Jones, and over a percolating track, Rodgers gets past riffing to show off the incredible jazz chops he acquired by listening to Wes Montgomery and John McLaughlin.

These titles sound like movies, and Rodgers's creative and dramatic use of the Synclavier and other producer-boy toys enables the tunes themselves to feel like movies. There's a Rudy Vallee-type megaphone effect on the hip-whipper "Doll Squad" and cream-laced synths on "State Your Mind"the cut, along with "Groovemaster," that you should check if you're a Chic freak. Because a reunion of that group remains remote. Tony Thompson, on the heels of the Power Station gig, is booked solid; singers Alfa Anderson, Luci White, and Fonzi Thornton do backup vocals for everybody who catches a groove; and Bernard Edwards is, most notably, supervising Duran Duran's next one. Besides, Nile's got a new partner: himself. Tommy "Rock" Jymi is an alter ego. Havelock Nelson

GEORGE CLINTON: Some of My Best Jokes Are Friends.

⊙ George Clinton, prod. Capitol ST 12417. ⊡

Leave it to George Clinton to go forward and backward at the same time. His albums have always integrated newer currents in black pop—scratch and hip-hop, go-go, and Afropop, in this case—into the now seasoned funk he first invented out of his roots in doowop, James Brown, Sly Stone, Jimi Hendrix, and the Beatles. But *Some of My Best Jokes Are Friends* is the most flagrant, though sometimes diffuse, example yet.

McIntosh

Get all the newest and latest information on McIntosh stereo equipment from McIntosh Laboratory.



Send For Your Stereo Information

HF 1185
State

Clinton, who has even more political points to make than usual, is a worried man—worried about global affairs, the bomb, the ghetto. Yet his typically absurdist outlook tends to confuse what he is trying to say. It's hard to believe that "Double Oh Oh" is simply a silly salute to a femme fatale, for example, but it's even harder to figure out what the allegory might be. For that matter, what's the point of "Bangladesh"? What's the title song really about? Perhaps Clinton has finally succeeded in creating a universe so self-referential it's impenetrable.

But the music, which molds together the usual gaggle of P-Funk all-stars and alsorans, pretty much blows such questions away. Clinton is relying less on machines, though electronic bass and drums combine with what he calls "real bass" and "real drums" to add texture to synth-dominated workouts like "Double Oh Oh." You want bawdy old George? Try "Bodyguard." You want a couple of those George Martin/Beatles production takeoffs he always did so well? Try "Bangladesh" or "Thrashin"; both also flaunt arranger Clinton's jazzy horns, which sound improvised, though they're anything but. "Bangladesh" adds the doo-wop vocal flavorings of early P-Funk, while "Thrashin" (one of two cuts coproduced by Thomas Dolby, whose influence is negligible) bows toward everything from Sly to Afro-pop and go-go, but sews the whole package up with a shrieking guitar solo. You want variations on Prince? Check out the ominous, bottom-heavy "Bullet Proof."

The title track remains the real tour de force, though. This one seamlessly mixes classic Clintonesque funk with James Brown guitar and stop-and-go rhythm patterns that imply go-go and Afro-pop without emulating either. Clinton even borrows some production tricks from hip-hop and still manages to get the freewheeling-yet-structured feel of, say, an earthy acid-rock gem. Like I said, leave it to George. John Morthland

VARIOUS ARTISTS:

Country Music on Broadway.

Vic Lewis, prod. Marathan Pictures; \$39.95. (Distributed by Vintage Country Videos, 240 Tilton Rd. S.E., Dalton, Ga. 30720.)

Despite an all-star lineup, the very best part of this feature-length video is the opening shot, which shows an anonymous fiddler, surrounded by mirrors, turning out an edgy "Orange Blossom Special." After that, *Country Music on Broadway* manages to play to nearly every prejudice against its subject imaginable, while offering no insight or visual style, or even much interesting music. The whole project is so hokey that it comes as no surprise to learn it wasn't even shot on Broadway, as billed, but on a Nashville sound stage. Some of the top country stars of 1964—George Jones, Stonewall Jackson, Hank Williams Jr., Buck Owens, Porter Wagoner, Hank Snow, Skeeter Davis—are featured, though they are obviously lip-synching.

But what are they lip-synching to? In many cases, these versions aren't even the originals, though they are always perfectly acceptable alternatives, carbon copies of the records. This means that everything is played excruciatingly safe, and you get a nearly perfect facsimile of what you came to see and hear. We never do see the audience, only a set that never changes, and the applause is dubbed. The camera never moves. The performers never move. Band members never interact with singers or with each other. Documenting a time when the music was becoming more middle-aged and middleclass, the video makes every attempt to blunt the hard truths inherent in good country, to keep the proceedings as bland as possible, on the assumption that bland and respectable are one and the same. That's a much more telling comment on the genre's inferiority complex than, say, the now hysterical scene backstage in which a fat woman, who may or may not be comedian Duke of Paducah's wife, sits on a straight-backed chair, eating fried chicken and swigging milk from a quart bottle.

Even the few true moments are tarnished. There's rare footage of Hank Williams singing "Hey Good Lookin" on the Kate Smith TV show, but it's projected onto a tiny portable screen backstage (the ol' movie-within-a-movie trick-in 1964, no less!), presumably so that the camera can focus on an adolescent Hank Jr. casting angstridden stares at the floor. It's a pleasure to see a young, skinny Porter Wagoner; a young, skinny Merle Kilgore; a young, skinny Buck Owens (joined by Don Rich); and a middle-aged, skinny Hank Snow. They all look great in their burr haircuts and bolero suits; the music they're faking sounds okay, too, but the visual and the aural don't even try to hook up. What a pity that there's so little other footage from this key transitional era; as a period piece, Country Music on Broadway is both painfully accurate and painfully unreal. John Morthland

TERRI GIBBS: Old Friends.

Over five years and five albums, country singer Terri Gibbs, a blind Georgian with a deep blue voice, has been as engrossing as any American vocalist. *Old Friends* is hardly her best LP, but it emphasizes her eccentricity, a quality that has kept her from becoming famous even as it compels me to listen to everything she has recorded.

The first thing you notice about Gibbs's voice is its androgyny; it's so low and sonorous that it can easily be mistaken for a man's. That voice is a unique and uniquely pleasing instrument: utterly unadorned, but capable of both delicacy and power. Add to this her preference for songs about heartbreak and its aftermath, and you have a woman who seems to approach a dying love affair from both sides simultaneously. There are no fireworks, mind you, but the smooth surfaces of her songs, which often feature elaborate string and vocal arrangements, barely conceal her passion and precision.

Gibbs made the c&w Top 10 with her first single, "Somebody's Knockin'," in 1980. The song has become a standard—you can still hear it in your local elevator—but she has yet to match that initial commercial success, even though subsequent singles were just as haunting, especially "Ashes to Ashes." MCA was too quiet about Gibbs; following her fourth and most consistent album, Over Easy, the label dropped her, presumably for lack of sales.

Linda Ronstadt and Emmylou Harris make backup appearances here, and Old Friends as a whole shows a distressing tendency toward Warnerization. The overarranged title cut is so sweet it's cloying. "Rockin' in a Brand New Cradle" is an annoyingly bouncy number more suited to Ronstadt's quasicountry than to Gibbs's own peculiarities. But she arrests our attention even in songs that are inappropriate to her gifts. Her smoky expressiveness is framed by Harris's gorgeous but wooden duet on "Someone Must Be Missing You Tonight"; the contrast makes Gibbs's strange beauty obvious. Always pristine, she never

O Steve Buckingham and Jim Ed Norman, prods. Warner Bros. 25209-1.

yells or gesticulates. She makes her point quite calmly and, for that reason, all the more explicitly. Crispin Sartwell

VARIOUS ARTISTS: Go Go Crankin'.

○ Max Kidd, prod. Island BWAY 4001. 🖽

Go go-a percussion-happy, chant-andshout, endless midtempo dance rhythmpossesses near incantatory powers in that urban jungle called Chocolate City (Washington, D.C.). Patrons of go go clubs are exhorted to dance till dawn, and they usually do, thanks to the communal energy generated by acts like Ice Berg Slim, Chuck Brown and the Soul Searchers, and Trouble Funk. Anchored though they may be by crunching bass lines and the continuous, syncopated percussion of trap drums, timbales, congas, cowbells, triangles, and even plastic pails and tin cans, go go bands need ample time to find and milk the groove; transferring such laid-back spontaneity to vinyl seemed a difficult if not impossible task.

My favorite cuts on Go Go Crankin', an album originally recorded by D.C. producer Max Kidd for his T.T.E.D. label and the first national release documenting this regional rage, are Ice Berg Slim's bouncy "Good to Go" and the instrumental "In the Mix," all grinding guitar, stalking horn licks, and lumbering bass; the talkin' funk of "Somebody's Ringing That Doorbell," by E.U., who were featured on Kurtis Blow's 1983 Party Time; and Trouble Funk's strenuous, martial "Drop the Bomb." Then there's the aggressive r&b of Brown and the Searchers' "We Need Some Money" (Brown became elder statesman of go go in 1979 when his "Bustin' Loose" became the movement's first and, so far, only national hit) and Redds' sultry, churning "Movin' and Groovin'." The rawness of this music doesn't aspire to much more than getting folks up on the good foot, with an honesty and exuberance that makes even the most lethargic of tunes infectious. Whether or not popularity will sanitize go go, however, remains to be seen.

Don Palmer

THAT'S THE WAY OF THE WORLD.

bia PC 33280. □

In this age when visual promotional tools often get more attention than the music they're supposed to be selling, it's hard to imagine that just ten years ago a band as major as Earth, Wind & Fire would willingly attach its name to a movie as flimsy as That's the Way of the World. Maybe they didn't realize that they were on the brink of becoming the most popular r&b big band of the '70s, and were still grateful for any exposure to a wider audience. The film's vision of a music biz fueled by chicanery, immorality, and sundry white powders-in short, the very things that keep America strong-is so schematic and befuddled that it could almost qualify as a camp anticlassic if it weren't for dull intrusions like a coherent plot and English sentences. It's cold comfort that Earth, Wind & Fire escape unscathed simply because they figure in little more than brief performance segments.

Harvey Keitel, in a performance whose lifelessness is almost forgivable considering the wooden lines he's mouthing, plays Coleman Buckmaster, a record producer under contract to New York's Acorn Records. The powers that be, led by Ed Nelson of TV's Peyton Place, insist that he produce the Pages, a saccharine family act with skeletons in their closet. Endangering his relationship with a band called the Group (EWF). whose hit-in-the-making record he puts on hold, Keitel gives in. Then he gets involved with the Pages' female lead singer, Velour (Cynthia Bostic), and marries her-invalidly, on purpose-to take control of her booming career. Eventually he sells back her contract in return for the right to work with the Group.

The supposed moral contradiction of the film-that you've got to be unscrupulous to maintain your scruples-never gathers any weight or complexity. How could it, when the dialogue sags with amazing/awful lines, mostly from poor Velour: "I hear the Strip is a wild, funky place"; or, about a mean critic, "I've done everything except crawl into that little faggot's pants." With morsels like these whirling about, you might be too occupied howling to notice the anemic colors, clay-footed camera work, and sound levels that require lipreading or to observe that out of the whole motley cast of caricatures, the most credible one is played by Bert Parks (Bert Parks!) as the sleazo, patriarchal Franklin Page.

EWF fans get to see the band work on the title track in the studio and deejay Frankie Crocker play "Shining Star" on the radio, hear Maurice White call Keitel a "jive turkey," and watch bassist Verdine White levitate on stage. You can take this near-cameo status as proof of the band's savvy. Or simply consider that a year after this film was made, EWF would have no need—or desire, even—to grace such a shoddy vehicle.

Mark Moses



VARIOUS ARTISTS: "One Night with Blue Note" Preserved, Vols. 1* and 2**.

John Jopson, dir.; Tammara Wells, prod.
Sony 96W00093 (Beta), 96W50094 (VHS);
\$29.95*. Sony 96W00095 (Beta), 96W50096 (VHS);
\$29.95**. ⊙ Blue Note BTDK 85117 (4).

Blue Note has a mystical aura among jazz aficionados because it was that rare creature: a label that grew with the music itself. From pre-bop swing to the early days of fu-(Continued on page 76)



Concert video fails to link Blakey (top) and Newton, but they still sound great.



PUNK VIDEO

(Continued from page 68)

dle-class materialism: "Let's go get sushi and not pay!" Before holding up a supermarket, Duke asks Debbie to settle down: "I want you to have my baby." "Why?" "I don't know." Otto's endearing but utterly phony sentiments toward family and friends are all for money. But he finally abandons sex, money, friends, family, work, and the hardcore scene for the rush of a free spin in a Malibu-turned-UFO. He gets the same rush at his job: "The life of a repo man is always intense." Margaret's submission to annihilation at the end of Liquid Sky, like Otto's extraterrestrial joy ride, is a mock transcendence of the crass greed and common discontents of their subculture, to which they both feel superior.

Minus the sci-fi-and for Repo Man, the satire-both films offer a punk-world portraval that is overstated, as well as inadequate to the power of nihilism and protest expressed in that world's best music. Smithereens and Stranger Than Paradise take the opposite approach. Their plots are simpler, yet rich in the kind of detail that makes their characters easier to care about. Smithereens is the only film that actually has anything to do with punk rock or the people who play it. But as in Desperately Seeking Susan, its subject is not the music or musicians, but a woman's struggle for identity. Richard Hell, cofounder of Television and leader of the Voidoids, does turn up as Eric, a rock singer something like himself (less compassionate, one hopes); however, Wren (Susan Berman), who we first see plastering Xerox images of herself in the subway that say "Who Is This?," has no apparent talent for or knowledge of anything to do with music. She even has trouble getting musicians to talk to her. Unlike Margaret or Otto, she's a certifiable loser, a punk bag-lady who can't find a friend willing to put her up or a relative willing to lend her money. Her vulnerability is pathetically complete. She's not even good at conning people, which is the one thing she thinks she knows how to do.

The punk trait that all of these movies' characters share is their feigned toughness, and of course their best moments occur when it breaks down. For Otto it's simply when he gets excited about anything. For the drifters in *Stranger Than Paradise* it's any potential action that will break the boredom. For Wren it's after she gets beaten up and finally admits to needing someone, or the touching scene after she helps Eric rob a businessman because she thinks they're going to L.A. She asks where he wants to live; in his coolest hipster drawl he says, "Malibu" (rhymes with Xanadu). Of course he takes the money and runs without her.

In Liquid Sky, Margaret and Jimmy show flashes of vulnerability through their veneer of practiced hostilities until the stunning and ugly climax where Margaret, provoking Jimmy's verbal, then physical, abuse, turns it on him in a powerful wave of masochism that adores his punishment. By this time Margaret knows what really happens to her sex partners who have been vanishing in a metallic flash at the crucial moment. She has been utterly defenseless against seductions and rapes, but, thanks to alien intervention, her passivity has become a deadly weapon.

In Smithereens, Repo Man, and Liquid Sky, a punk underground of selfish opportunism sets the main characters in an attitude of steely indifference. Stranger Than Paradise is altogether different; to begin with, it's in black and white. There are no references to a larger subcultureto music, sex, or drugs. In a series of discrete shots, each fading to blackout in a timeless entropic rhythm, the film's insular trio carries on aimlessly in a comedy of repressed behavior. Their indifference is all their own. As in director Jim Jarmusch's earlier Permanent Vacation, there's no context that ties the characters to their generation or time. John Lurie (new wave saxophonist and founder of the "fake jazz" Lounge Lizards) and Richard Edson, as Willie and Eddie, are moved by simple kicks like a card game, TV, a can of beer, a joy ride, or a promising horse. Lurie's soundtrack of stark violin-and-cello passages is even further removed from punk music than the eerie keyboard and beat-box sounds of Liquid Sky or his own solo sax score for Permanent Vacation. In Stranger Than Paradise, Willie's cousin Eva (Eszter Bálint), just in from Hungary, repeatedly plays a tape of one song, Screamin' Jay Hawkins's "I Put a Spell on You." When Willie and Eddie drive to Cleveland to see her a year later, she's still grooving to it. Willie comments, "I hate that kind of music," while Eddie argues it's good for driving. That's it on the subject—which is a lot more than they say about sex.

Because of the scarcity of context in Stranger Than Paradise, the interpersonal alienation is all the more touching. Similarly, the way in which Otto, Wren, Margaret, and Jimmy are isolated within their respective crowds-all misfits without real friends-allows what is portraved as general punk nihilism to become a function of their loneliness. All of these films implicitly deny the music itself or the real subculture as a community united by its anthems, its dress code, and its recreational drugs and patterns of sexual exchange. This amounts to covert disarmament of their cult audience, who are not permitted to closely identify with the characters because the characters are not permitted to establish themselves as part of a group. The films' repackaging as home entertainment is based on the assumption that their new audience has more money and belongs to a different class than the people they portray. Certainly Liquid Sky means to present its characters as weird and depraved. So does Repo Man, but no more so than a film like Airplane!, another comic farce shot through with satire. Duke, as he bleeds to death: "I know a life of crime has led me to this end, but still I blame society." Otto: "Bullshit. You're a white suburban punk like me."

Smithereens and Stranger Than Paradise, by virtue of their "realism," escape stereotyping. Finally, though, it's only Stranger Than Paradise that has lasting subversive energy. Its characters show no redeeming motivation, no real ability to relate. But they have no criminal vices, no malice, no sociopathy. They're not part of a subculture, just old-style bohemians with a nostalgia for hipsterism and a barely perceptible affection for each other. They have undeniable charm. Because they're not sensationalized punk misfits, they're worth believing in. Sitting in front of your TV (something Willie and Eva do a lot of), you won't be tempted to rob your way to Malibu (or repo a Malibu) or to OD while loving the alien, but you might be inspired to drive to Cleveland.

No, probably not.



SOME ITEMS CLOSEOUTS, SOME LIMITED QUANTITIES, ALL WITH FULL FACTORY WARRANTY PRICES ARE AS LONG AS THEY LAST DEALER INQUIRIES WELCOME.

2417 w badger rd madison, wi 53713

MON-THURS 8-8 FRIDAY 9-8 SATURDAY 9-5

SEND FOR OUR NEW ALOG No.65





Enjoy HIGH FIDELITY for a full year for only \$6.98—12 issues at 50% off the regular subscription rate. You'll receive a full year of the latest news and reviews of digital audio...video



components...Compact Discs...car stereo...and more. But you must act now. Send your check or money order to HIGH FIDELITY, P.O. Box 10758, Des Moines, Iowa, 50349.

Rates are good in U.S. only and are subject to change. For delivery outside the 50 states, add \$7.00 (U.S. currency).

(Continued from page 73)

sion, the company captured each new sound as it burst from the cocoon-not after it had already caught on with the public. This daring and foresight paid off with classic records that mirror their age and haven't dated yet.

Apart from some superb music, what was most affecting about the concert Capitol/EMI gave in New York to announce Blue Note's revival was the historical context it maintained. Though overlong and marred by occasional backslapping and marginal artists. last February's show was thoughtfully programmed, chronologically and by genre. Each successive "Blue Note Sound"-bop, hard bop, modal, avant-garde, and funkwas given its due, and lineage was just as important. Art Blakey, who began the night as a sideman in a tribute to Bud Powell and Thelonious Monk, was joined by an all-star edition of his own Jazz Messengers, including Freddie Hubbard, who in turn shared the stage with his peers. Eventually the group expanded to include younger but like-minded virtuoso James Newton. ...

By scrambling the order of this presentation and forgoing introductions of any kind, the two-volume video "One Night with Blue Note" Preserved sacrifices this historical weight. What relationship these men have to each other, the music, or their record company gets lost in the shuffle; a unified event has been reduced to a random sampler. Of course, when that sampler is beautifully shot and edited, and when many of its performances are priceless, well, you just don't feel like complaining. The direction is blissfully straightforward, letting the music state its own case. John Jopson's camera is always on target, and his cutting and graceful tracking shots concentrate on capturing group interaction

Vol. 1 jumbles numbers by Blakey's Messengers, as well as the set of a shifting unit visited by Herbie Hancock, Freddie Hubbard, Ron Carter, Tony Williams, Joe Henderson, Bobby Hutcherson, James Newton, and newcomers Stanley Jordan and Bennie Wallace. The most dramatic opening for the video would have been Blakey's celebratory "Moanin'"; instead we get the overly solemn "Bouquet," the only ponderous spot in Hancock and company's dynamic and unforgettable performance. Their intensely funky "Canteloupe Island" and the lovely "Little B.'s Poem" give you a taste of their

High Fidelity Classified

MAIL TO: 825 7th Ave., 7th floor, New York, N.Y. 10019 Phone: 1-800-ABC-MAGS. In New York call: (212) 887-8459. GENERAL: all copy subject to publisher approval. Users of P.O. Box MUST supply permanent address and telephone number before ad can run.

CLOSING DATE: 1st of second month preceding cover date. 15 Word minimum No charge for Zip Code.

CLASSIFIED RATES: regular type, per word: 1x - \$2.75; 3x - \$2.65; 6x - \$2.55; 12x - \$2.45. Words in caps - 15qextra each. IMPERIAL type, per word: 1x - \$3.75; 3x - \$3.65; 6x - 3.55; 12x - \$3.45. Words in caps - 15q extra each. Minimum 15 words. Box numbers: \$3.00 additional per insertion to cover cost of handling and postage. Display, per inch: 1x - \$350; 3x - \$340; 6x - \$330, 12x - \$315. PAYMENT WITH ORDER: Send check, M.O., MASTERCARD er VISA No. and expiration date to: Candice Leyden Classified Dept., HIGH FIDELITY, 825 7th Ave., 7th Floor, New York, NY 10019.

For Sale



EXPERIENCED FRIENDLY ADVICE! ACOUSTAT, SAE, HAFLER, QUAD, KLIPSCH, THORENS, FRIED, ADCOM, MONSTER CABLE, PS, GRADO, CD PLAYERS, more. Immediate, FREE Shipping! READ BROTHERS STEREO, 593-C King Street, Charleston, South Carolina 29403. (803) 723-7276.

Jingle Bells, Jingle Bells!! The Holiday Season is here again and so is Direct Sight and Sound.... Five years and 40,000 customers later, we continue to offer the best in audio, video, and auto sound including esoterics at incredible prices! We sell and service only U.S. warranty merchandise!!! Our staff is not only knowledgeable, but helpful and courteous in choosing the right component for you. Call 404-351-6772. Direct Sight and Sound, 3095 Bolling Way, Dept. H, Atlanta, Ga. 30305. MC/VISA/AMEX. COD with deposit. Free catalog.



HARMAN/KARDON, NAKAMICHI, CROWN, CARVER, HAFLER, THORENS, TANDBERG, REVOX, NAD, LUXMAN, DCM, DBX, ELECTRO-VOICE, VANDERSTEIN, AND OTHER QUALITY COMPONENTS, BEST PRICES - PROFESSIONAL SERVICE, EAST (904) 262-4000; WEST (818) 840-0878.



Bose Home Speakers, Savard Home and Commercial Speakers. Must call for prices and information (504) 924-1520.

RCA-JVC-MAGNAVOX-PIONEER VCR'S-CAMERA'S-CAMCORDERS MONITORS-HOME & CAR AUDIO THE STERO FACTORY 1010 TENTH ST HUNTINGTON, W.V. 25701 1-800-GET VCRS ORDERS ONLY 1-304-526-0132 INFORMATION

CALL TOLL FREE 1-800-826-0520 FOR ACOUSTAT, DAHLQUIST, NAD, HAFLER, DENON, dbx, 3D, PROTON, TANDBERG, BELLES, ORACLE, M&K, GRADO, NITTY GRITTY, AUDIOQUEST, NEC, DUNTEC, MONSTER, SUMIKO PERREAUX, CWD, SNELL, B&W, DEM, THORENS, VSP, STAX, SOTA, GRACE, ASTATIC, DYNAVECTOR. THE SOUND SELLER, 1706 MAIN STREET, MARINETTE, WI 54143, (715) 735-9002.

THEY DON'T DISCOUNT IT? WE DO! GET LOW PRICES on ALL types of audio equipment—including high-end and even esoteric products not normally discounted! Now we can save you money on the equipment you REALLY WANT. Extensive selection—no need to settle for second choice. Thousands of satisfied customers nationwide. Call us for price quotes or friendly, expert advice. Catalog \$1. 616-451-3868. VISA/MC/AMEX. The AUDIO ADVISOR, INC., BOX 6202, Grand Rapids, MI 49506.

BANG & OLUFSEN FULL LINE, ADS, B&W AND BOSE SPEAKERS AND OTHER QUALITY PRODUCTS AT REASONABLE PRICE. SOUNDCREST, INC., (201) 756-4858

SAVE 50% BUILD YOUR OWN SPEAKER SYSTEM. Write McGee Radio Electronics, 1901 McGee Street, Kansas City, Missouri 64108. Call Toll Free: 1-800-346-2433.

GUARANTEED SAVINGS Plus Professional Advice FEATURING ADS • Adcom • Advent • Alphason • Audioquest • Amber AR · Bose · Celestion SL6/SL600 & DL series · Denon DCM Time Window & Time Frame · Dual · Energy Grado • Harman/Kardon • JBL • Kyocera • Monster Cable Proton • Robertson • Rauna • Signet • Soundcraftsmen Sony • Systemdek • Tandberg • Thorens • Tiptoes • Triad VPI • VSP Labs • C. J. Walker • Warfedale and other fine lines RETAIL, MAIL-ORDER, EXPORT **Prompt Insured Shipments** Call or write today Harold Minto, Proprie PERFORMANCE AUDIO/ VIDEO 365 S. Bayview Ave. Freeport. Long Island, New York 11520 (516) 378-4389 Showroom Open: 12 to 7 P.M. Mon.-Fri. 11 A.M. to 6 P.M. Sat. (EST) VISA/Mastercard/AMEX

CAUTION, YAMAHA BUYERS!! Some dealers are offering Yamaha products for sale that are not designed for use or sale in the U.S.A. These units may not carry the UL approval for safety nor are they designed for usage on 110 volt U.S. current. YAMAHA **ELECTRONICS CORPORATION, USA** CANNOT BE HELD RESPONSIBLE FOR THESE UNITS MEETING U.S. PERFORMANCE SPECIFICATIONS NOR ARE WE RESPONSIBLE FOR WARRANTY SERVICING. For the name and location of your nearest authorized Yamaha dealer. call 1-800-854-3264. Or write Yamaha Electronics Corporation, USA, P.O. Box 6660, Buena Park, CA 90622.

CAUTION! NAKAMICHI BUYERS!! Nakamichi goods not intended for sale in the United States are being sold by unauthorized dealers. NAKAMICHI U.S.A. CANNOT BEAR ANY RESPONSIBILITY FOR SALES OR WARRANTY SERVICING OF UNITS NOT COVERED BY OUR APPLICABLE WARRANTY. For the name of your nearest authorized Nakamichi dealer, call 1+800/223-2313. In California, call 1+800/223-1521.

FREE catalog—LOWEST DISCOUNT PRICES on stereo/esteric components for home and car. Sony, Bose, JVC, AR, SAE, Crown, other 'high quality' brands. AUDiO UNLIMITED, 1203½ C Adams, LaGrande, OR 97850 (503) 963-5731. 10-6/M-Th Pacific Time.

"GETTING YOUR SHARE OF AUDIO BARGAINS?" Exciting FREE information packet. SCC, Box 551HF Dublin, OH 43017

EXCEPTIONAL AUDIO REPRODUCTION SYSTEMS... REASONABLY PRICED!! E.A.R.S, P.O. BOX 658-H, WEST COVINA, CA 91790. 818/961-6158, EVENINGS, WEEKENDS. STAMP BRINGS MONTHLY SPECIALS. MC/VISA. LOWEST POSSIBLE PRICES ANYWHERE! FULL WARRANTY — Most Audio Brands!! C.D.'s — Car Products — Computers (Hardware-Software) — Most Video Brands!! ELECTRIFIED DISCOUNTERS, 996 ORANGE AVENUE, WEST HAVEN, CT 06516, MC/VISA (203) 937-0106.

CALL US! HARMAN-KARDON, PERREAUX, SAE, STAX, ADCOM, KLIPSCH, HEYBROOK, PYRAMID, AUDIO PRO, VSP LABS, HAFLER, NAD, AMBER, DENON, TANDBERG, ADS, DCM, CONRAD-JOHNSON, GRACE, DBX, PS AUDIO, OHM ACOUSTICS, GRADO, DYNAVECTOR, INFINITY, NITTY GRITTY, MONSTER ALPHA, AKG, CELESTION, AUTOMOTIVE, SONY, THORENS, KENWOOD, ZAPCO, **CRIMESTOPPERS SECURITY, MORE!** FRIENDLY, EXPERT CONSULTATION. FAST, FREE SHIPPING!! MC/VISA. **REFERENCE AUDIO SYSTEMS, 18214** DALTON AVENUE, GARDENA, CA 92048. (213) 398-4205, (213) 391-2679.

Tapes & Records

	TAPE WORLD				1-800-245-6000			
+ TDK	1	1/120/	L750	HG		1.74	MAXEL	0.6
MAR-90	5 79	TOK	4 69	5.99	SONY UCXS-90	1 99	MX-90	3.89
MA-90	3 99	TOK-HOP	- OR	9 99	SONY HE 90	.95	XLN3-90	2 29
HX5-90	3.89	MAXELL	4,75	5.99	FUJI FRS1-80	1.69	XLI1-90	1.75
5AX-90	2 40	MAXELL	SOLD-	7,99	FUJI METAL 90	3 39	XLII-46	1.69
ADX-90	2 00	SONT	4 99	5.99	BASF METAL 12	04.99	UD\$11-90	1.70
\$A-90	1 65	A				~	UR-120	1 89
54-60	1 40	1600	\mathbf{A}		10	21	UR-90	.99
AD-90	1 60	10 0	11		116	21	UR-60	.95
D90	.99	18-5	11		1180	21	XL135-908	\$ 40
D-60	85	Ce				2	UD 35-90	4.90
		3 95 SHIP	PING ANT	SIZE OF	DF THE TOTAL OR ANDLING CHARGE ADER. C O D. ADO PO, GIVE US A TAI BUTLER	S BY 1" 1 95 PA 160	412/28	

OPEN REEL TAPE-AMPEX 641/671, used once, unspliced, unboxed. 7" 1800' or 2400' Reels; 30 for \$35.00. Sample: \$2.00. Ten 3600' 101/2" Reels: \$39.00. Sample: \$3.75. New, Premium High-Bias cassettes; Sample: \$1.00. AUDIO TAPES, BOX 9584-J, ALEXANDRIA, VA 22304. (703) 370-5555 VISA/MC

LIVÉ OPERA TAPES, CASSETTES. Incredible selection. Free Catalogue, Live Opera, Box 3141. Steinway Station, L.I.C., NY 11103.

SOUNDTRACKS, SHOW, NOSTALGIA & JAZZ—FREE Catalog & Offering List—A-1 Record Finders, P.O. Box 7507 1-H, L.A. CAL. 90075.

SEARCHING FOR OUT-OF-PRINTS? Try for Discontinued Records, 444 South Victory, Burbank, California 91502 (213) 849-4791.

RARE CLASSICAL AND JAZZ. 150,000 LP's. The Record Collector, 1158 N. Highland, Los Angeles, CA 90038. (213) 467-2875. SHOW ALBUMS—Rare, out-of-print lps. 64-page list \$1.00. Broadway-Hollywood Recordings. Georgetown, CT. 06829.

RECORDS BY GASPARO. Chamber music, solo, baroque—We have something for you! Write for free catalog. P.O. Box 120069, Nashville, TN 37212.

OPERA-HISTORICAL PERFORMANCES ON VIDEO AND DISC. Most comprehensive selection. Send \$1.00 for catalog. LYRIC. P.O. BOX 622, MERRICK, NY 11566.

IN PRINT & OUT OF PRINT RECORDS ALL CATEGORIES Spectacular Catalog!! \$2.00 USA \$3,00 ForeIgn. Serendipity Records, 4775 Durham Road, Guilford, CT 06437 USA.

LIVE OPERA TAPES, REELS-CASSETTES-VIDEOS— Unbelievable treasures since 1926, over 10,000 selections. Deluxe alphabetical catalog. Mr. Tape, Box 138, Murray Hill Station, NYC 10016.

RECORD RATERS WANTED: IN EXCHANGE FOR YOUR OPINION YOU CAN BUILD A SUBSTANTIAL ALBUM COLLECTION. SMALL MEMBERSHIP FEE INCLUDES GIFT CERTIFICATE — WRITE EARS, BOX 10245F, Milwaukee, WI 53208.

AMPEX PROFESSIONAL SERIES AUDIO TAPE SALE. High Quality Open Reel 1800' or 2400' on 7" Reels. Used Once. Case of 40, \$45.00. 10½ 3600' and Cassettes. MC/Visa. Valtech Electronics, Box 6-H, Richboro, PA 18954. (215) 322-4866.

CASH FOR UNWANTED STEREO LP's, PRE-RECORDED REEL TAPES. We sell like new LP's, pre-recorded reel tapes, cassettes. Catalog \$3.00. Record House, Box 323, Hillburn, NY 10931.

FREE RECORD, CASSETTE AND COMPACT DISC CATALOG: Features a tremendous selection of remaindered LP and cassette values in all musical categories. Compact disc, cassette and LP new releases at discount prices. Many imports and smaller labels offered. Prompt delivery. Rose Records, Dept. H, 214 South Wabash Avenue, Chicago, IL 60604.

Rediscover The Kingston Trio. Previously unreleased recordings from 1958-1964. \$12.50. Also other folk artists. Free catalogue. Kingston Korner, 6S230 Cohasset, Naperville, IL 60540.

Societies

MASSENET SOCIETY-

Concerts/Lectures/Newsletter/Book on Massenet's Operas. Annual Dues \$15.00. Write: 9 Drury Lane, Fort Lee, NJ 07024.

Inventions

Inventors! AIM wants—Ideas, Inventions, New Products, improvements on existing products. We present Ideas to manufacturers. Confidentiality Guaranteed. Call Toll Free 1-800-225-5800 for information kit.

Equipment 4/Sale





WE WILL VIDEOTAPE any subject matter you specify in a 50 mile radius of NYC. Send request to: VIDEOKRAFTWERKS 56 Wallace St. Belleville, NJ 07109

1,000,000 VIDEOTAPES/SOUNDTRACKS! Video catalog \$1.00. Soundtrack catalog \$1.00. RTSHK, Box 1829, Novato, CA 94948.

Compact Discs



COMPACT DISCS. First Class Mail Order ServIce. Many Non U.S. Titles. Free lists. Popular—Classical—Opera. Europadisc. 91 North Street, Sudbury, Suffolk, U.K.

COMPACT DISCS-Most \$11.99-\$13.99. 2,800 Plus Titles in Stock. Free Catalogue Plus Monthly Updates. OZ Records, 5246H Memorial Drive, Stone Mountain, GA 30083, (404) 292-5452.

NORTHEASTERN COMPACT DISCS & CASSETTES. Lowest Prices. Widest Selection. Order Today! CALL TOLLFREE 1-800-231-5811 (In CT, 1-452-1490). 7 day/week: 9 am—11 pm EST. VISA/MC/COD accepted. Northeastern Compact Discs & Cassettes, 29 No. Hillside Ln., Monroe, CT 06468.

C.D.SUPERMARKET PRICES SLASHED!! MOST COMPACT DISCS \$12.49. LARGE SELECTION. PROMPT DELIVERY! For information and phone orders, call TOLL-FREE 800-382-1985. CA residents 800-322-1985. C.D. Supermarket, 1525 Aviation Blvd., Suite B-210, Redondo Beach, CA 90278.

COMPACT DISCS/LASER VIDEO DISCS AND PLAYERS. Nice Prices — free lists. MC/VISA. SIGHT & SOUND, INC. 18 Bennett Street, Dept. HF, Boston, MA 02135. (617) 787-4465. COMPACT DISCS AT COMPACT PRICES!!!! Over 2,000 Discs from \$9.49. Send \$2.00 for Complete Catalogue. DISC HAVEN, Box 416 Dept. H, Rantoul, ILL 61866.

COMPACT DISCS AT FANTASTIC SAVINGS!! Large selection, fast service. Send today for free catalog: DISCOVER, 35 Aldom Circle, West Caldwell, NJ 07006

COMPACT DISCS & ACCESSORIES. Call TOLL FREE 1-800-ALL-DISC (in Connecticut 1-452-0203) For Free CATALOG M-F, 10-8, Saturday 10-6. 41 Monroe aTurnpike, Trumbull, CT 06611.

Publications

AMERICAN RECORD GUIDE. Informed reviews of classical recordings to help you make the best choices. Bimonthly, \$19.50 per year. For FREE SAMPLE ISSUE write RD #2, South Road, Millbrook, NY 12545 (914) 677-8177.

Miscellaneous

TERMPAPER ASSISTANCE. 15,278 papers available| 306page catalog—rush \$1.00. Research, 11322 Idaho, # 206HF, Los Angeles 90025. OR, CALL 213-477-8226.

New Electronic Equipment Company needs salesmen. For information send \$1.00. Act Now! Baker Enterprises, Box 312, Bloomingdale, IL 60517.

IS IT TRUE YOU CAN BUY JEEPS for \$44 through the U.S. Government? Get the facts today! Call (312) 742-1142, ext. 4647.

Business Opportunities

YOUR OWN RADIO STATION! AM, FM, Licensed, unlicensed, low cost transmitters! Free information. BROADCASTING, Box 130-D11, Paradise, CA 95069.

ELECTRONIC REPRESENTATIVES NEEDED!! Lowest Possible Prices!! Over 100 Brands! Audio-Video-Car Stereos + Computers! Electronic Experts. 1000 Orange Ave., West Haven, CT 06516.



magic. Kamakazi tenorman Wallace comes off a bit too frantic and eager, but in close-up Jordan's slow-building guitar pyrotechnics seem even more incredible than usual.

Vol. 2 loses much of its energy, as did the concert and live LP, from the inclusion of Charles Lloyd, whose connection to Blue Note past or present still eludes me. Instead of his 15 minutes of tenth-rate Coltraneisms, Hancock's transcendent "Maiden Voyage" or Henderson's "Recorda Me" or Newton's Eric Dolphy tribute, "Hat and Beard," would have fit just fine. Kenny Burrell, Grover Washington Jr., Lou Donaldson, and Jimmy Smith are pleasant, a dirty word where funk is concerned; the fireworks are reserved for the meeting of McCoy Tyner, Woody Shaw, and Jackie McLean on "Passion Dance." Too bad their incendiary "Appointment in Ghana" was left off. Where the concert originally whimpered to a close with Stanley Turrentine, Vol. 2 climaxes with 12 magisterial minutes of solo Cecil Taylor. After a segment of such intense, condensed energy and imagination, you can understand why much of the mediocrity was left in; the brilliant performances could have burned a hole through your TV set. Steve Futterman

WILLIAM BREUKER COLLECTIVE: Willem Breuker Kollektief.

○ Ed Fishman, Alan Ringel, and Larry Shengold, prods. About Time AT 1006. (Distributed by New Music Distribution Service, 500 Broadway, New York, N.Y. 10012.)

Although it has taken 12 years for Dutch saxophonist, clarinetist, and composer William Breuker's Collective—now comprising three brass, three reeds, and three rhythm to makes its American debut, it's a pleasure to report that the album lives up to the advance praise from those who have heard the group's hard-to-find European recordings or were fortunate enough to see them perform during their two brief trips to the U.S.

Satirical eclecticism is Breuker's game, and any attempt to describe his music inevitably involves a list of influences. The most obvious, going by this record, are the Carla Bley groups of the '70s. The humorous pastiches, the use of fanfares and state anthems, the mock-traditional arrangements that frame uninhibited free solos are traits the two composers share, as well as a penchant for the ironic sentimentality of Nino Rota and Kurt Weill (here, unlike Bley, Breuker goes to the source, covering both



Catalog numbers of all formats of a particular recorring usually are identical except for differing prefixes or suffixes. Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format. Arabic numeral in parentheses indicates number of items in multi-item set.

Weill's "Benares" and "Song of Mandalay"). Other apparent influences are Charles Mingus, swing bands, polka bands, march bands, and various post-Ornette free players.

What makes Breuker's music more than just a grab bag is that his eclecticism rarely seems strained; the album's opener. "Amsterdam Rhapsody Overture," smoothly blends its gypsy melody, '30s jazz, marches, and alto saxophonist Andre Goudbeek's Dolphyesque solo. The transitions are pleasantly surprising rather than jarring, and the mood changes seem to adhere to some dream logic just beyond the listener's grasp. Though Breuker is, in light of both his openness to various musics and his skeptical treatment of them, a product of the '60s, his use of free jazz is restrained, in length and by context. Typically, a free interlude with Breuker's clarinet alternating hoarse growls with mewling puppy noises comes in the middie of an unabashedly beautiful ballad, "Sylvia's Proposal"; the effect of this brief, playful episode is to deepen the song's overall plaintive mood rather than shatter it.

Not all of Breuker can be contained on one record. His famed political commentary is evidenced only by the rather cryptically titled "Women's Voting Rights," a Spanishtinged piece with a wonderfully raffish solo by trumpeter Andy Altenfelder (imagine Lester Bowie with a Freddie Hubbard tone...); the appearance of "La Marseillaise" in the exuberant hodgepodge of "Preparations and Farewell"; and the Weill songs. Another minor complaint is that the only non-Breuker composition aside from the Weills, tenor saxophonist Maartin van Norden's "Kontrafunkt," misses the mark:

Advertising Index

Advent	21
Allsop	19
American Acoustics	60
Army	34
Carver Corp.	10
Denon America, Inc.	Cover III
Denon America, Inc.	Cover IV
Design Acoustics	24
Discwasher, Inc.	25
Discwasher, Inc.	59
Dischastici, inc.	30
Everest Electronics, Inc.	62
Everest Liebtromics, inc.	02
liibruck	57
Illinois Audio	64
Infinity Speaker Systems, Inc.	11
International Hi Fi	76
JBL/Harman Kardon	28
J&R Music World	63
LaBelle Camera & Stereo	61
and the second	
MEMTEK	Cover II,
Contract In the second second	
NEC Home Electronics, Inc.	31
New York Wholesale Warehouse	57
Ohm Acoustics Corp.	35
Opera News	23
Panasonic	27
Pioneer Video	33
Polk Audio, Inc.	8, 9
Proton	18
Radio Shack	2
S&W Electronics	75
Sansui Electronics Corp.	6
Sherwood	15
Shure	7
Sony Corp. of America	16, 17
Sound Reproduction	76
Stereo Corp. of America	74
TDK Electronics Corp.	12
TEAC Corp. of America	36
Technics	5
Toshiba	26
Veledyne	14
Wisconsin Discount	75
Yamaha	22

It goes on for too long, and its attempt at satire, a tacky jazz/rock section, sounds too much like the real thing (c. '66).

But overall this is a delightfully engaging record. Breuker deserves a wider audience in this country, and one hopes that his appearance on spunky little About Time doesn't contribute to his obscurity. *Willem Breuker Kollektief* is worth seeking out.

Richard C. Walls

DAVE HOLLAND QUINTET: Seeds of Time.

⊙ Manfred Eicher, prod. ECM 25032-1. .

The presence of drummer Marvin "Smitty" Smith on Dave Holland's first album in over a year transforms an exceptional band into an essential one. The basic strengths of *Jumpin'In* are still here: memorable compositions, sharp ensemble passages, and a preference for frothy counterpoint instead of indulgent solos. But Smith adds the missing link—a rhythmic vitality and fervor that ignites bassist Holland, and everyone else, like a percussive hotfoot.

Holland's quintet is centered on a collective vision rather than an individual one; trumpeter Kenny Wheeler, trombonist Julian Priester, and saxophonist Steve Coleman are content to banter harmoniously or take concise, emotionally restrained solos. But with Holland and the whirlwind Smith bearing down on them like a two-man hurricane (especially on "Gridlock" and "Double Vision"), their playing takes on a tougher edge that gives Seeds of Time more personality than its cerebral predecessor. Still, producer Manfred Eicher's icy mix gives the horns a faraway feel; he would have made Albert Ayler sound like Grover Washington. Jr.

Holland is an idea man, picking the brains of his cohorts in order to get some unexpected and delightful tonal colors. Coleman alternates alto, soprano, and flute; Wheeler shuffles trumpet, flugelhorn, cornet, and pocket trumpet; and Smith uses woodblocks, cowbells, and tuned gourds (wonderful on the percussion/bass duet "Walk-a-way"). The odd instrumental voicings reflect this versatility: alto and drums ("Celebration"), arco bass and flute ("Perspicuity").

Like all of the best bands today, Holland's quintet draws upon diverse postbop influences to form its own identity. But Holland has tapped sources that up till now have been ignored. The contrapuntal lines and light textures that set his band apart recall Miles Davis's late-Forties birth of the cool recordings. This hard-swinging but poised sound suggests directions that hopefully others will follow. Steve Futterman

VARIOUS ARTISTS: The Real Sound of Jazz.

Pumpkin 116. (P.O. Box 7963, Miami, Fla. 33255.)

"The Sound of Jazz" has taken on legendary proportions since it premiered as part of the CBS TV series The Seven Lively Arts in December 1957. The show not only had an outstanding lineup-Roy Eldridge, Red Allen, Rex Stewart, Dickie Wells, Vic Dickenson, Coleman Hawkins, Ben Webster, Gerry Mulligan, Pee Wee Russell, Count Basie, Thelonious Monk, Freddie Green, Milt Hinton, Jo Jones, Jimmy Rushing, and Billie Holiday, just to skim a few names off the top-but made unusually good use of these stars both musically and visually. A record called The Sound of Jazz, a rehearsal tape released shortly after the telecast (still available on Columbia Special Products), differs slightly from this new soundtrack, most notably in its replacement of Monk with Mal Waldron. But The Real Sound of Jazz preserves the show's pacing and polish.

Its two principal groups-the Count Basie All-Stars and the Red Allen All-Starsare in brilliant form. Basie's All-Stars, a magnificent swinging machine, were a burgeoning ensemble from which arose Webster's and Hawkins's magisterial solos, Wells's gloriously lazy smears and chuckles, Eldridge's insistent whistles, and Mulligan's rugged runs and cries. The whole shebang, led by a nostalgic Basie returning to his stride piano roots, created a huge backdrop for Rushing's billowing voice. In Allen's group, the pungent musical personalities of Stewart, Dickenson, and Russell nicely set off the leader's exuberant trumpet-playing and singing. Monk contributes a jubilant solo on "Blue Monk," and although Holiday is in her best autumnal form on "Fine and Mellow," she is outshone by the instrumental stars backing her (except, sadly, for a listless Lester Young in his only appearance here). Jimmy Giuffre's jumpy little jigs, which were at the height of their popularity in 1957, are the album's one passing fancy. Otherwise, this dazzling collection is timeless.

John S. Wilson

WOULD YOU BUY HI-FI VIDEO FROM A TV COMPANY?

The L g word among video manufacturers now has become *audio*. Yet, the vast majority of companies trying to

sell hi-fi video used to make nothing but TV's. If you're looking for true high fidelity video performance, lock to a company with a real background in high fidelity. Deron.

Denon's audiophile approach to video is demonstrated in the innovative AVC-500, a component destined to become the heart of the finest audio/video systems. From its 5-band dynamic equalizer designed specifically for video applications to its mult -mode surround sound signal processing, the

DENON

AVC-500 epitomizes Denon's sound engineering.

AVC-500 epitomizes benon's sound engineering. Rather than tack an audio receiver onto a video switcher, Denon incorporated full video switching nto the powerful new DRA-Series AM/FM Stereo Receivers. Plus, Denon is introducing genuine high fidelity video components to satisfy the most discriminating videophiles. They include the VHS Hi-Fi VA-1000 and T-1000 Stereo-ready

25" Full Square Tube Monitor/Receiver. Whether you think of these new components as video for the audiophile or audio for the videophil€, remember one thing. Denon.

BETTER. MUCH BETTER. NONE BETTER.

Improving on the sonic performance of the Denon DCD-1800 was no easy task, considering that reviewers in the U.S., West Germany, and Japan claim "never to have heard a better sounding CD player." Yet Denon set out to build players that exceed our original performance level and make them more affordable.

We began with the compact DCD-1000, a Denon CD Player at an unthinkably low \$359.95* Yet it includes Denon's unique DDAC, the world's only digital-to-analog convertor that's hand-tuned for reduced D/A transfer distortion. And it has Denon's Real Time phase correction circuitry.

Better still is Denon's DCD-1100. This full-sized machine has the same high-performance DDAC, the same Real Time phase correction, and adds wireless remote control with a 10-key pad for direct track access. The deluxe DCD-1500 uses two separate 16-bit DDAC

he deluxe DCD-1500 uses two separate 16-bit DDAC convertors (one for each channel), and computer-analyzed linear-phase filtration for perfectly flat frequency response. Its wireless remote even features volume adjustment.

wireless remote even features volume adjustment. Now, no matter how much or how little you plan to spend for a CD Player, you can own one from the Company that invented digital audio in the first place. Denon.

19

G

S

G

dis

DENON POM