SPECIAL REPORT: THE TRANSISTOR REVOLUTION

HiFi/Stereo Review

APRIL 1967 • 60 CENTS

ST. CECILIA, PATRONESS OF MUSIC • POP GOES PARIS • BORODIN—THE SUNDAY COMPOSER
EXCLUSIVE FEATURES OF THE 700-T:

SUPER-SYNCHRODE** FRONT END
WITH THREE FIELD EFFECT TRANSISTORS
PROVIDES A TUNER SENSITIVITY
OF 1.8 MICROVOLTS (IHF).

FISHER STEREO BEACON*
FOR AUTOMATIC
MONO/STEREO SWITCHING.

TRANSIST-O-GARD™
OVERLOAD PROTECTION CIRCUIT
ELIMINATES ANY POSSIBILITY
OF TRANSISTOR DAMAGE FROM OVERLOAD,
SHORT CIRCUITS OR
FAULTY SPEAKER WIRING.

FOUR-DIODE COINCIDENCE CIRCUIT
ELIMINATES TRIGGERING
CAUSED BY SPURIOUS SIGNALS.
ONLY A TRUE STEREO SIGNAL
CAN TRIP THE MONO-STEREO SWITCH.

OTHER FEATURES AND
SPECIFICATIONS OF THE 700-T:
HEAVY FLYWHEEL TUNING,
SILICON OUTPUT TRANSISTORS
ON MASSIVE HEAT SINKS,
FOUR IF STAGES,
0.8% HARMONIC DISTORTION,
50 DB SELECTIVITY, 2.0 DB CAPTURE RATIO,
70 DB SIGNAL TO NOISE RATIO,
40 DB FM STEREO SEPARATION (400 HZ),
$499.50 (CABINET $24.95).

CIRCLE NO. 21 ON READER SERVICE CARD
The Fisher 700-T all-solid-state FM stereo receiver is capable of delivering 60 watts music power per channel into a 4-ohm load.

This figure was measured in Fisher’s own laboratory, using the finest test equipment available and in strict accordance with the regulations as established by the ...
watts.

The Fisher 700-T
No ad man can do it justice.
GARRARD'S LAB 80 MK II...

**HOW THE PATENTED ANTI-SKATING CONTROL ELIMINATES A CAUSE OF DISTORTION AND PROLONGS RECORD AND STYLUS LIFE**

Due to the offset angle of any cartridge, and the rotation of the record, all tone arms have an inherent tendency to move inward toward the center of the record. This "skating force," a definite side pressure against the inner wall of the groove, is a major cause of poor tracking, right channel distortion and uneven record wear. The Garrard Lab 80 MK II is fitted with a patented, adjustable anti-skating control consisting of a simple arm with a sliding counterweight which is set along a calibrated scale. To obtain the correct anti-skating compensation, the counterweight is moved to a position along the scale corresponding to the stylus pressure reading on the tone arm. The anti-skating device then accurately cancels out the tone arm side pressure. This insures flawless reproduction through perfect tracking of the most advanced cartridges...those with the highest compliance and frequently the most critical stylus assemblies. Since the Garrard anti-skating control uses no springs or other delicate balancing devices, it remains accurate permanently. These illustrations explain how the anti-skating feature operates on the Lab 80 MK II...$99.50, less base and cartridge. Anti-skating controls are also built into Garrard's 70 MK II and 60 MK II. For descriptions of all five Garrard models, write for complimentary Comparator Guide to Garrard, Dept. AD-5, Westbury, N.Y. 11590.

**ANTI-SKATING CONTROL—DISENGAGED**

The anti-skating arm can be turned over and out of operation. This permits the tone arm to track as if there were no anti-skating control. Now, when the Lab 80 is started there will be the normal tendency, present in all tone arms, for the stylus to exert a side pressure (skating force) toward the inner wall of the groove...causing distortion and uneven wear on record and stylus. The inner wall may be prematurely worn, while the stylus pulls away from the outer wall.

If this record surface were flat (without grooves) the arm would literally skate across to the center, as you see in this illustration. Garrard dealers are supplied with grooveless records and can demonstrate the action for you.

**ANTI-SKATING CONTROL—ENGAGED**

With the anti-skating control in position (as it is kept, once the correct pressure is set) the tone arm tracks perfectly. The side pressure (skating force) toward the inner wall of the groove is neutralized by an equal side pressure toward the outer wall exerted by the anti-skating weight. Favoring neither side, the stylus tracks with a minimum of wear to itself or to the delicate record groove wall. Free of this distortion-causing factor, the sound emerges cleaner.

Playing a grooveless record (as in the illustration), the arm remains in one position as if tracking a groove(!)...a dramatic demonstration of the perfect performance of the Lab 80, which your Garrard dealer will be happy to show you.

On the oscilloscope—tracking without anti-skating control, sine wave form shows considerable distortion.

Tracking with anti-skating control, the sine wave form becomes a clean picture of the output of the cartridge.

*These oscilloscope readings based upon 1,000 cycle, 30 cm per sec. test record as signal source.*
THE MUSIC

THE BASIC REPERTOIRE
Beethoven's Fourth Symphony

ALEXANDER BORODIN: THE "SUNDAY" COMPOSER
The Russian composer served two masters: music and medicine

MUSIC'S ST. CECILIA
Who was she, and how did she become associated with music?

POP GOES PARIS
A native son's tour of the MODernized French pop-music scene

PABLO CASALS: COMPOSER AND CONDUCTOR
Three new Columbia albums show less-known facets of his genius

THE EQUIPMENT

NEW PRODUCTS
A roundup of the latest high-fidelity equipment

HI-FI Q & A
Answers to your technical questions

AUDIO BASICS
Audio Specifications VIII: Cartridges

TECHNICAL TALK
 Tone-burst Testing: Hirsch-Houck laboratory reports on the Crown SX 721 tape recorder, the Dual 1009XK automatic turntable, and the Fisher 70Q 7B stereo receiver

WATCH YOUR (TECHNICAL) LANGUAGE
A glossary of misused audio terms

SPECIAL REPORT: TRANSISTORS 1967
The transistor is consolidating its gains in the audio field

THE REVIEWS

CLASSICAL

ENTERTAINMENT

TAPE

THE REGULARS

EDITORIALLY SPEAKING

LETTERS TO THE EDITOR

ADVERTISERS' INDEX; PRODUCT INDEX
EDITORIALLY SPEAKING

By William Anderson

O ur editorial mailbox the past few months has been overflowing with a spate of outraged letters from a vested interest—the American FM-radio audience—that suspects it is about to be had. Since we agree that some sort of alarm should be sounded for those not yet awakened to the danger, we are pleased to reprint as a guest editorial John Milder's call to arms which appeared in a recent issue of Electronics Illustrated.

B een listening to FM lately? If so, you may realize that some strange things have been going on. FM, once called the good music medium, is becoming something else. And, ironically, an FCC decision that was intended to strengthen FM seems to be helping to make it the kind of radio broadcasting that turns people off.

FM was given a tremendous boost by the surge of interest in high fidelity and stereo sound. FM circuitry, once an optional (and even discouraged) extra in mass-market radio-phonographs, is now a standard feature—sometimes to the exclusion of AM. And commercial sponsors, once accustomed to thinking of FM listeners as impossible eggheads who never bought anything, are becoming acutely aware that quality-conscious FM dialers are likely to be a selective and reasonably affluent audience.

So the sponsors are arriving and with them the push for the kind of soporific, bland, homogenized programming that makes the commercials more interesting than what comes in between them. There is also evidence that the suburbia set thinks that Mantovani is a lot nicer than Mozart for an evening of stereo and mah-jongg. After all, who buys stereo to listen?

With the push coming simultaneously from potentially lucrative sponsors and Muzak-minded mah-jonggers, FM stations are scrambling to convert from good-music programming to ping-pong pops and safely light classics. In Boston, the last commercial station (out of more than twenty) broadcasting substantial classical programming during the day made the switch in June of last year. (Boston's magnificent educational station, WGBH, has put on special classical programming, but the commercial stations are all playing stereo lullabies.) This pattern is duplicated in smaller cities across the country.

Meantime, the FCC decision to force stations to separate AM and FM programming for at least half the broadcasting day is not helping to strengthen FM programming. Still allotting minimum staff for the FM side of their operations, stations are finding it easier to throw in a giant glob of light programming (which can safely be interrupted at any time from good music) than to devote attention and money. If you would like to do something, I suggest you drop a line detailing your complaint to FM stations, the FCC, or anybody that some sort of alarm should be sounded for those not yet awakened to the danger, we are pleased to reprint as a guest editorial John Milder's call to arms which appeared in a recent issue of Electronics Illustrated.

I don't mean that there isn't room on FM for the Beatles and Stanley Black. But something has to be done—and done quickly—about the now-proven process by which mediocrity takes over. If not, FM is going to be a sick joke on the people whose interest originally helped it to attract attention and money. If you would like to do something, I suggest you drop a line detailing your complaint to FM stations, the FCC, or anybody else (including advertisers) who usually don't hear anything but the soft rustle of money.

John Milder

An important CONSUMER BULLETIN from The Longines Symphonette

HOW MOST “RECORD CLUBS” FORCE YOU TO BUY RECORDS YOU DON’T WANT AND COST YOU LOTS OF MONEY BY CONFUSING OFFERS!

The Longines Symphonette’s new Citadel service helps change this situation by providing you with a “discount record store” in your own home! The new Citadel Record Club gives you Any Record, Any Artist, Any Label at savings up to 55% . . . jet-speed service . . . and, best of all, you are not obligated to buy any records at all! Read all the details below. Special “money-back” membership — just like a free trial!

You’ve seen the “tricky” ads in this and other publications: “Get 10 records FREE,” they say. Then in smaller print, “If you agree to buy 10 or 11 more in just one year.” They give you your choice of from 30 to 90 records to choose from . . . and that is not free choice, for the Schwann Catalog lists more than 30,000 long-play records now available to you. The extra records you have to buy no matter what choice is offered you are part of the “trick”. More records you really don’t want. And did you ever try to turn down a record club selection of the month? It’s tough— and you have to move fast. THERE IS A BETTER WAY: The Longines Symphonette Citadel Club gives you a huge “Discount Record Store” in your own home . . . acts like a “record buyers cooperative”.

The honest sincere CITADEL CLUB way is quite simple. There are no hidden contracts, no obligation to buy any records at all, and you have your FREE choice of any record available today at discounts of up to 55%, with a minimum 35% guaranteed. Here’s how easy it is to start saving on the records you buy.


2 YOU ARE NOT REQUIRED TO BUY ANY RECORDS AT ALL! Buy as many or as few records as you need—records of your choice!

3 IRON CLAD GUARANTEE: FACTORY-FRESH RECORDS, MOST SEALED IN PLASTIC. Any record that passes our inspection team and is imperfect, is replaced without additional cost to you.

4 24 HOUR SERVICE IN MOST CASES! Your orders filled promptly . . . The fastest service in the industry.

5 FREE MEMBERSHIP KIT INCLUDES 300-PAGE SCHWANN CATALOG PLUS TWO OTHER BIG BOOKS! As a member you get the famous SCHWANN catalog which lists more than 30,000 long-play records now available. Same book used by the biggest stores . . . tells you the manufacturers’ suggested price and other information. And you get two BONUS BIG BOOK CATALOGS listing special bargains and current top sellers. All FREE with your membership.

6 “MONEY-BACK” MEMBERSHIP—JUST LIKE A FREE TRIAL! We invite you to accept a three-month trial for just $1. And—we will even give you a Record Bonus Certificate worth $1 toward your first purchase . . . just like a FREE trial. AND—we’ll even bill you later for the small $1 fee. Remember—every Citadel Club membership is for the entire family. Your children can order and save. Any member of your family can order records . . . and save. Three-month “Money-Back” trial for only $1.

TYPICAL CITADEL SUPER BARGAINS!

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SEND NO MONEY MAIL COUPON TODAY!

CITADEL RECORD CLUB • Symphonette Square, Larchmont, N.Y. 10538

Enroll me in the club for all the privileges described in the advertisement. I get FREE kit including SCHWANN catalog plus two bonus big books. I AM NOT OBLIGATED TO BUY ANY RECORDS . . . but save up to 55% on those I really want, any artist, any label. Bill me for the $1 trial membership and send the $1 Record Bonus Certificate which I can use toward my first purchase.

CHECK HERE FOR STEREO TAPE MEMBERSHIP

☐ STEREO TAPE MEMBERSHIP includes FREE KIT plus famed HARRISON Stereo Tape Catalog (just 50¢ additional)

NAME _______________________
ADDRESS _______________________
CITY _______________________
STATE ___________ 2nd

CIRCLE NO. 12 ON READER SERVICE CARD

APRIL 1967
But Winegard does something about it!

Famous Winegard Stereotron FM antennas consistently give you the kind of pure sound reproduction most people talk about. And dream about.

Magnificent sound. Without interference and noise and without multipath distortion.

And not just on a few local stations. The Stereotron's high directivity and extremely high gain enable you to pull in more stations than ever before. All with the same great sound quality.

And if that's not enough, you can add a Stereotron Amplifier and receive 85% of all stations within a 200 mile radius.

Don't just talk about truly great FM sound quality. Do something about it.

At your Winegard dealer.

Ask him about Stereotron antennas (3 models from $19.95 to $32.50); Stereotron Amplifiers (75-ohm and 300-ohm; $44.95 and $39.95); and a host of other professional FM accessories including coupler-splitters and wall sockets.

Free literature? Write.

LETTERS TO THE EDITOR

G & S

- So Mr. Paul Kresh is the latest to sign his name to that sophomoric article (February) that has been appearing on Gilbert and Sullivan in various magazines for the past fifty years! By now it must have solidified into a formula somewhat like this: C (coy embarrassment), plus F (fond reminiscences), multiplied by D (dreary clichés like "those wonderfuls the Victorians bequeathed us") equals G & S.

- For all our sakes, please promise never to publish another article on these men until you find someone who is willing to discuss their virtues and flaws as intelligent entertainment instead of an "addict" who seems to lack either the brains or the guts of his convictions.

- Many thanks for Paul Kresh's Gilbert and Sullivan article—it inspired me. For years I thought I was the only Savoyard left in the world. I've pored over G & S articles and books holed away in a dark corner of the library, I've worn D'Oyly Carte records thin, and to make it worse, I went to see a D'Oyly Carte performance of The Mikado! I'm only a junior in high school, but I've memorized the music and dialogue from all the operas I can find. You are right—there's no fighting it!

- How forthright and bold of Paul Kresh to speak out in public and outline for the world the sufferings of his fellow Savoyards. Perhaps at long last they will let us alone!

- Mr. Kresh is quite right when he characterizes the achievement of G & S as the creation of a unique world. However, it seems to me that he doesn't make it absolutely clear that the foundations of this Gilbertian world (absurd premises) are also, to a large extent, the foundations of the real world as well. Whereas in the real world we cannot recognize basic absurdities for what they really are (or, when we do, suppress the insight), what happens in G & S is that the implications are instead logically entertained and entertainingly pursued. When Dick Deadeve observed that it is a queer world, he wasn't reflecting on the stage proceedings alone!

- My thanks to Mr. Kresh for the flowers and the lowdown on Sullivan's ailments. And be it quite right—it was the Fairy Queen, not Stepbrother's mother, who wanted to introduce civil service methods at Westminster. Poor Iolanthe had enough troubles just pleading for her boy—and her own life.

- How about it, London?

- How about it, London?

- If that's not enough, you can add a Stereotron Amplifier and receive 85% of all stations within a 200 mile radius.

- Don't just talk about truly great FM sound quality. Do something about it. At your Winegard dealer.

- Ask him about Stereotron antennas (3 models from $19.95 to $32.50); Stereotron Amplifiers (75-ohm and 300-ohm; $44.95 and $39.95); and a host of other professional FM accessories including coupler-splitters and wall sockets.

- Free literature? Write.
uniCLUB Inc.  
255 West 42nd Street  
New York, N. Y. 10036

GIFT MEMBERSHIPS
Save money on your enrollment.
$2.50 covers LIFETIME MEMBERSHIP in uniCLUB. There is never another fee though benefits are increasing all the time.

MONEY-BACK GUARANTEE
If after receiving your uniCLUB materials you aren’t convinced that we meant what we said—that uniCLUB membership offers more Club for the money—or if you’ve simply changed your mind—tell us within 10 days and your money will be fully refunded at once.

Here are 10 reasons to clip our coupon and join now.

These 10 points answer the most frequently asked questions about uniCLUB.

1. What labels have you got?
   All of them. No exceptions. Choose any LP or tape on over 350 different labels including Capitol, Columbia, RCA, Angel, Verve, Nonesuch, Decca, Vanguard, MGM, DGG, Folkways, Mercury and London to name just a few. Your selection is absolutely unlimited. Every LP and tape available in the USA.

2. How much do I save? What are the prices? Do they apply to all items?
   You save a minimum of 35% on LP’s; 1/3 on tapes; 25% on books except texts. No guesswork about it—here are the prices.

3. No requirements ever to buy anything. Nothing will ever be sent until I order it.
4. What are “Specials”? Specials are a regular feature of uniCLUB. You save extra dollars—often on a single item. Specials save 40-80%. They appear in uniGUIDE, the monthly Club magazine, keeps you posted on releases of your favorite artists, supplements the Schwann and Harrison catalogs and lists extra-discount club specials.

5. Do you guarantee the quality of everything shipped? Suppose I’m not happy with a particular item?
   Factory-sealed, brand new albums and tapes are guaranteed you. So is your satisfaction. All albums and tapes fully returnable. Books are always original publishers’ editions and present no problem with regard to defects.

6. How do I know what is available and the price of items I want?
   FREE Schwann catalog is sent upon joining. It lists over 30,000 LP’s—Every LP available on every label. No guesswork here either. The records you want you’ll find under “Classical, Popular, Opera, Folk, Jazz, Original Cast Shows, Drama and Comedy, etc.” The Harrison catalog, sent FREE upon joining if you request, does the same job for tapes and auto cartridges. uniGUIDE, the monthly Club magazine, keeps you posted on releases of your favorite artists, supplements the Schwann and Harrison catalogs and lists extra-discount club specials.

7. What are “Specials”? Specials are a regular feature of uniCLUB. You save extra dollars—often on a single item. Specials save 40-80%. They appear in the monthly uniGUIDE.

8. Hi-Fi & Stereo gear of most makes up to 50% off, to uniCLUB members only.
   Featured systems in every uniGUIDE make expansion of your system a reality right now!

   We found that readers and listeners are often the same people. uniCLUB’s books division is a valuable extra for those enjoying a 25% discount on books of all publishers. MacMillan, McGraw-Hill, Little Brown Co. and all the rest—pocket-books too. Same unlimited selection and of course, no obligation to buy.

10. SAME-DAY SHIPMENT OF YOUR ORDER
    Not same-day processing, same-day shipments. 250,000 LP’s, tapes and cartridges in stock make this unique claim a reality. (Books take slightly longer to reach you.)

Send my Free Schwann catalog, order blanks & uniGUIDE by return mail.
$5 enclosed guarantees me:

1. LIFETIME MEMBERSHIP IN uniCLUB
2. 35%-80% savings on LP albums, 1/3 off on tapes, 25% on books.
3. No requirements ever to buy anything. Nothing will ever be sent until I order it.

I must be delighted with uniCLUB or within 10 days I will let you know and receive a full refund.

uniCLUB saves you plenty on

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Prices apply to every LP, tape or book available in the USA. (Except for “Specials” where prices are even lower.)

Here are 3 unique features of uniCLUB.

1. LIFETIME MEMBERSHIP IN uniCLUB.
   $5 enclosed guarantees me:
   1. LIFETIME MEMBERSHIP IN uniCLUB.
   2. 35%-80% savings on LP albums, 1/3 off on tapes, 25% on books.
   3. No requirements ever to buy anything. Nothing will ever be sent until I order it.

FREE Schwann catalog is sent upon joining. It lists over 30,000 LP’s—Every LP available on every label. No guesswork here either. The records you want you’ll find under “Classical, Popular, Opera, Folk, Jazz, Original Cast Shows, Drama and Comedy, etc.” The Harrison catalog, sent FREE upon joining if you request, does the same job for tapes and auto cartridges. uniGUIDE, the monthly Club magazine, keeps you posted on releases of your favorite artists, supplements the Schwann and Harrison catalogs and lists extra-discount club specials.

Shipping  
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Up-grade your sound with EMI loudspeakers.

EMI loudspeakers will make any receiver or amplifier sound better.

Take the space saving EMI Model 62 for instance. You can expect at least three major improvements in sound from the unique EMI construction and design.

First, the 62's aluminum cone in the woofer is very light, absolutely rigid, but freely suspended, follows the audio signal with greater accuracy thus providing better transient response, better attack and recovery characteristics.

Second, the elliptical shape of the cone with its varying measurements from voice coil to perimeter gives a wider band of basic resonance and therefore better, smoother bass response.

Third, the tweeter has a critically curved diaphragm designed with extreme attention to both weight and material. The frequency response remains smooth all the way up to 20,000 cps and the polar response characteristic is vastly superior to that of a conventional tweeter.

The end result is a speaker system with fine, clean, precise free-floating natural sound. So, come on up to EMI loudspeakers. You'll definitely up-grade your sound.

The Model 62 is just $79.95. Other EMI models range from $49.95 to $395.00.

EMI / SCOPE
Scope Electronics Corporation
470 Park Avenue South
New York, New York 10016
Also available in Canada.
CIRCLE NO. 27 ON READER SERVICE CARD

As a matter of fact, I found myself wondering as I read (1) how much editorial struggle was involved to get Foster included in your fine Great American Composers series, and (2) what fate a new album of his simple songs would encounter at the hands of your reviewers.

If an artist of the caliber of the late Richard Crooks should record an equally fine Foster album today, would your reviewers approach it with the same obvious enthusiasm with which they seem to approach European art songs or folk music from Texas barrel-houses, or would they tend to chide the artist for wasting his talents on "hackneyed chestnuts"?

Like the reader mentioned in your "Editorially Speaking" column of April, 1966, I have been trying to use your magazine as a guide for expanding my own limited musical horizons. But if I must acquire a certain sneer toward Beautiful Dreamer or The Old Rugged Cross as a prerequisite for learning to appreciate Schuman's Diösterlehme, I don't see that I would be expanding any horizons. I would merely be shifting my limitations to different realms.

Roger Heidelberg
Memphis, Tenn.

We had Mr. Heidelberg's musical position unexceptionable-after all, we did publish Mr. Hitchcock's article. And to answer the questions: (1) move at all; (2) in the unlikely event that a beautifully sung album of Foster songs were to be released, we are confident our reviewers would greet it with joy. But, of course, even Foster can be badly performed.

The Value of Recordings

Mr. Anderson's editorial in the February issue expressed what must be the feelings of countless music-lovers the country—indeed the world—over. I, for one, can never be grateful enough to the appreciation and the artists who record for it—for helping in immeasurably to make music a vital part of my life. I will never talk down the concert hall, but I shall always be happy that a turntable and the marvel of records await me in the privacy of my home.

Paul Sivers
State College, Pa.

Compliance

Since it is impossible to conclude that two men who make their living designing cartridges can be as poorly informed as Messrs. Andersen and Jacobs, we must assume that they failed to reread their article in the January issue before submitting it. The next-to-last paragraph certainly seems to me to imply that damping and stylus stiffness are important considerations in addition to mass and in addition to compliance (. . . designers are also aware of . . . such other factors . . .).

Actually, of course, damping and stylus-shaft stiffness are two of the principal ways of regulating compliance and determining it. They are much more accurately described as part of compliance than as something in addition to it.

In the same issue, on page 34, Mr. Fantel implies that the accelerations imposed on the stylus are greater for low bass notes than for low level high-frequency notes. I believe he is mistaken. The shortness of the time allowed for reversal of direction is far more significant than the amount of motion. Finally, I think I can sum up, for your less technical readers, the basics of cartridge design much more clearly and simply (said he modestly) than that (and all that) your experts! 1. The reason low mass is essential for tracking rapid side-to-side or up-and-down motions can be instantly perceived if you will imagine trying to conduct an orchestra with a sledge hammer.

2. You will imagine conducting with a baton which is held in a centered position by four springs, you will instantly perceive why you would like these springs to be as soft and weak as other factors would permit, rather than strong or stiff (this is compliance).

3. And, to explain why "springs" are needed at all, you must realize that the stylus must be returned to a center or neutral position between signals, so that a symmetrical signal will cause equal amounts of excursion about the neutral point.

4. The principal force tending to move the stylus off center apart from the signals, is the drag of the tone arm; hence, the less tone-arm friction, the greater compliance is possible—and the greater the compliance (and lower mass), the lower the tracking pressure can be.

John H. Cone
Pasadena, Calif.

Mr. Andersen replies: "Judging from his items 1, 2, and 3, it seems that Mr. Cone has a good intuitive appreciation of some of the dynamical properties of some of the statements in his second paragraph are inaccurate. "The dynamics of a mechanical system may be described by the instantaneous force and the resulting velocity associated with the system. In the literature for instance, Olson, 'Dynamical Analogies' the quantities of these two quantities are defined as the Mechanical Impedance, which has a real and a reactive component. Mechanical resistance or damping is defined as the real component, mass is a passive reactive component divided by the angular velocity, and compliance is the negative reactive component multiplied by the angular velocity. Therefore, mass, compliance, and damping are independent components of mechanical impedance and bear no necessary relations to each other.

"If paragraph two above is converted to read 'impedance' instead of 'compliance,' then it will be essentially correct. It will also agree with the original statement, and semantic un-picking will be unnecessary.

"I would also like to call attention to two misprints in the article. The record caption on Page 59 should read eighties times instead of eight. The J. S. Bach caption on Page 60 should read 0.0019-inch wide instead of 0.019."
There are so many Miracord 50H features to talk about: Papst hysteresis motor, anti-skate, cueing, push buttons, and others. Why pick on a measly little screw?

As any expert can tell you, one of the most flagrant causes of record playback distortion and record wear is tracking error. But how come tracking error if the tonearm is properly designed, and its geometry correctly calculated?

It has to do with stylus position.

The distance between the stylus and the tonearm pivot, sometimes called stylus overhang, is an integral part of the arm's design and a critical factor in its performance. A deviation in that distance by as little as 1/16th inch can throw the tracking geometry and the performance entirely out of kilter. Result: distortion and excessive record wear.

How can you be sure about this distance? There aren't two make cartridges physically alike. Where do you measure from, and how? Seems an almost impossible task.

Yet, amazing how easy it is with the Miracord 50H! There's a retractable pointer on the turntable deck which shows the exact position for the stylus, no matter what cartridge make. You insert a screwdriver in the slotted leadscrew at the front of the tonearm, and turn it until the stylus lines up precisely over this pointer. That's all there is to it.

A little thing, to be sure, but what a big difference it makes in performance. And it shows how much attention is paid by Miracord to even the littlest details.

At $149.50, less cartridge and base, the Miracord 50H is probably the most expensive automatic available. But this is entirely understandable, when you consider that is also the finest. Your hi-fi dealer will be glad to show you. For descriptive literature containing further details, write: Benjamin Electronic Sound Corp., Farmingdale, N.Y. 11736

Why all the fuss about a little screw?
We re-invented tape recording.

It started with the Compact Cassette. Norelco introduced the Compact Cassette in the United States—it's the tape you don't have to tangle with. It's about the size of a cigarette pack. And just as easy to store and handle.

The tape is pre-threaded inside the Cassette so you never have to touch it. Just snap the Cassette into the recorder and it's ready to play. Norelco left the good things in, locked the bother out. The Norelco Compact Cassette both records and plays back. (Most cartridges can only play back.) Unlike other cartridges, it has fast forward and rewind for easy indexing and program selection. It has full stereo compatibility. And unsurpassed sound reproduction.

About the only thing the Norelco Compact Cassette doesn't give you is the headache of tape handling. The lugging, the loading, the threading, the tangling—they've all been locked out of the Norelco Compact Cassette.

Norelco made a unified sound system. Norelco has the most complete Cassette line in the business. And the Norelco Compact Cassette is completely interchangeable with every machine in this line.

That's why we call our line the 'Norelco Sound System.' There's the famous portable Carry-Corder® '150'. The monaural '350' and the stereo '450'—both designed in beautiful teakwood. And they're the only AC cassette models on the market.

If you used to be interested in tape recording, but decided it wasn't worth the bother, take a look at our re-inventions. You just might get re-interested.

Charles R. Anders
New York, N. Y.

Lehar

I enjoyed George Jellinek's article on Lehar (January). I am especially interested in obtaining a recording that has the Serenade from Frasquita on it. This song is a favorite of Madame Anna Rosza of Cluj, Rumania, who was the Violetta on RCA's (HMV's) first complete Traviata, recorded in 1931. This recording was my introduction to opera as a teenager. After World War II, I spent twenty years—off and on—trying to locate this singer to express my appreciation. Two years ago I found her living on a small pension in two rooms in Cluj, Rumania. The Romanian government and friends of mine financed her trip to visit my family and me in the summer of 1965. Madame loves the Serenade from Frasquita—hence I would like to own a copy of it. Madame is 69 now, and still has a voice of great power. The lower range is rich; her best top note is now high A-flat. She retired in 1959 with a Tosca.

Norman Hill
Florence, Ala.

Tinnitus

This is a cry from the heart. I am anxious to get in touch with people devoted to music who suffer from tinnitus. This ailment takes various forms, such as a ringing, a rumble, a whistle, and, in severe cases, a howl in the ears. It can be intermittent, continuous, or modulated by other sounds. It severely interferes with the enjoyment of music, whether reproduced or natural, and can completely mar certain sounds. In my particular case the whistle occurs at between 3,500 and 4,000 Hz, and causes interference with long sustained notes, particularly at low volume. I am informed by my doctors that this state is incurable.

Perhaps readers of HiFi/Stereo Review have encountered this problem, and may even have been cured. But any experience of tinnitus is of interest. The information required is as follows: age first noticed, one or both ears, approximate frequency of sound, approximate loudness, intermittent or continuous, and has it been totally or partially cured by any means?

W. H. Jarvis
Fourways, Lower Berry Hill
Cotford, Gloucestershire
England

(Continued on page 12)
Announcing an important Scott innovation in high fidelity...

**Scott Integrated Circuits...now in 4 Scott receivers**

Hear stations you've never been able to hear before...brought to life with amazing clarity!

---

**Integrated Circuits...the computer-born miracle.**

Originally developed as a space-saving device in giant computers, the integrated circuit ("IC") is a complete circuit in miniature...often barely larger than a grain of sand. The various elements of the circuit—transistors, resistors, and wiring—are permanently carved into a microscopic layer of silicon. There are no lose wires or parts that can change, age, fail out, or wear out. In fact, Scott Integrated Circuits can last literally thousands of years.

**More performance in less space.**

Used in the vital FM tuner IF strip, Scott Integrated Circuits actually incorporate more circuitry in less space. The new Scott IF strip now contains 20 transistors, as compared to four in the previous model. Scott's previous IF strip, without IC's, gave superb capture ratio and selectivity figures of 2.5 dB and 45 dB, respectively. Scott's new Integrated Circuit IF strip is conservatively rated at 1.8 dB capture ratio and 46 dB selectivity. Independent test reports, however, show the new Scott Integrated Circuits to be consistently capable of an incredible 0.8 dB capture ratio!

**What Scott IC's mean to you.**

Now you can hear more stations with less noise and interference. Weak, distant stations that you never have been able to receive before will suddenly appear with amazing clarity. Outside interference from electric razors, auto ignitions, etc., will be drastically reduced. And, you can count on enjoying this amazing performance for many, many years...thanks to the absolute reliability of Scott Integrated Circuits.

**When will Scott IC components be available?**

Scott IC receivers are now at your Scott dealer's showroom. Scott IC's are incorporated into the design of the 388 120-Watt AM/FM stereo receiver, the 348 120-Watt FM stereo receiver, the 344 85-Watt FM stereo receiver, and the 342 65-Watt FM stereo receiver. Your Scott dealer will be glad to demonstrate to you the amazing capabilities of these new receivers.

---

**FREE Fact-filled, fully illustrated booklet on Scott Integrated Circuits...simply circle Reader Service No. 100.**

---

Sonotone’s new dynamic cardioid microphone for home recordings

... eliminates distortion, background noises, boominess as no other tape microphone can.

Are unwanted sounds spoiling your home tape recordings? Has everyday household noise got you down? Sonotone has the unidirectional answer. It’s our new CDM80 dual impedance microphone.

Just 5 1/2 inches high and 1 1/4 inches in diameter at the top, this Sonotone microphone features the discriminating cardioid pattern that professional performers prefer. Captures every word, note and nuance directed into it, while suppressing extraneous, distracting noises, boominess and feedback. Yet it does not restrict your movements or introduce false tonal variations.

Complete with on-off switch, 15-foot cable and shield. Impedances of 200 ohms and 50K ohms. Price: $43.50

Write TODAY for Latest Catalog on Sonotone Microphones

The Beatles

- One of the most abused and misunder-

stood of the twentieth century’s musical phe-

nomena is the Beatles. I, for one, would

like to come to their defense.

Rex Reed’s review of their album “Rev-

olver” (January) was interesting but mis-

saw the point. Mr. Reed leads us to believe

that the song Yellow Submarine describes

a trip on LSD. In a London Times inter-

view, Paul McCartney said this: “It was written

as a commercial song, a kid’s song. People

have said ‘Yellow Submarine? What’s the

significance? What’s behind it?’ Nothing.

Kids get it straight away.”

In another paragraph Mr. Reed implies

that the Beatles haven’t changed a thing in

their presentation over the past three years.
The Beatles have changed, and even a super-

ficial hearing of the album reveals this. They

have changed from a simple guitar quartet
to an intense musical group which uses such
diverse influences as the Indian raga (Love

You To), classical music (Eleanor Rigby,

For No One), and musique concrète (the

mystical Tomorrow Never Knows).

The Beatles have, if anything, increased

their authority over their mode of expres-
sion, creating music of intensity and beauty
which will stand as the music of the Sixties.

Burt Winn
San Lorenzo, Cal.

Plaintive Note

- May I echo the plaintive cry of William

Planagan, who says (December): “I wish I

knew—oh, how I wish I knew—what Eu-

gene Ormandy sees in the music of Richard

Yardumian. . . .”

Resident most of my life in the Phila-
delphia area, I long had season seats to the
Philadelphia Orchestra. Year after year would
come the Yardumian opus of the season,
often with the composer present. I had been
able to take Varèse, Schoenberg, and others
from Stokowski; if they often seemed what
the Germans call “unmusical,” they at least
kept one awake. But the repeated doses of
Yardumian were not novel, just boring. A
young lady who sat next to me one evening
applauded one of the Yardumians—I forget
which. I asked her why; she said it sounded
“cute.”

Arthur D. Pierce
Manchester Center, Vt.

Tracking and Overhang

- Hans Fantel’s statement (Audio Basics

December, 1966) that, to obtain a tracking
error of less than 2 degrees across a record,
a tone-arm/spindle overhang of about 1/32
inch is required is wide of the mark. As I
showed in The Gramophone for September,
1924—yes, 43 years ago!—the formula is:

\[ p^2 - a^2 = r_i r_o \]

where \( p \) is the length of arm between back
bearing and stylus, \( a \) is the distance between
that bearing and the center of the turntable
spindle, and \( r_i \) and \( r_o \) are the radii of inner
and outer record grooves.

This means that for a 9-inch arm the over-
hang at the stylus tip should be 0.69 inch, if
we assume \( r_i = 2 \) inches and \( r_o = 6 \) inches.
The value for minimum distortion due to
tracking error is a little less since at any point
it equals error/radius. But not much.

Percy Wilson
Headington, Oxford, Eng.
GREAT SCOTT...
the stereo compact with component features!

Here's what's happening ... the only stereo compacts with component circuitry, component features and component sound!

1. Radically new Field Effect Transistors let you hear more stations more clearly.
2. Professional automatic turntable with magnetic cartridge just as used in expensive component systems.
3. Exclusive automatic variable bandwidth gives amazing clarity to AM broadcasts.
4. All silicon circuitry for rugged trouble-free performance.
5. Tape recorder and tape cartridge player connections expand your range of musical enjoyment.
6. Electric guitar and microphone inputs and mixer provide you with a stereo showcase for your own talents.
7. Complete component controls, including dual Bass and Treble, let you tune the music to your taste and room requirements.
8. Provision for extra speakers lets you bring great Scott sound to other rooms.
9. Stereo headphone output enables you to listen in privacy, without disturbing others.

$339.95 (Model 2502, illustrated. Other models start at $249.95) Optional transparent dustcover, $22.95

Scott... where innovation is a tradition
NEW PRODUCTS
A ROUNDUP OF THE LATEST HIGH-FIDELITY EQUIPMENT

- **Tandberg** is marketing a portable radio, the TR-3, that has a mounting bracket available for installation in cars. When the TR-3 radio is installed in its mounting bracket, the car's battery and antenna are automatically connected and a special filter circuit eliminates spark-plug noise. When desired, the battery-powered radio can be used as a normal portable. An a.c.-line adaptor that provides plug-in 120-volt a.c. operation is also available.

The radio is available in teak or plastic, and it will operate on any of four wavelengths: long wave (145-320 kHz), short wave (5.8-18.5 MHz), AM broadcast band, and the FM broadcast band. For out-of-car use, a built-in telescopic whip antenna serves for FM and short-wave reception. The TR-3 has separate continuously variable bass and treble controls, a tape-recorder output, and record-player input. Speaker size is 31/2 x 8 inches. Overall dimensions are 11 x 7 x 31/4 inches, and weight, including batteries, is 4.8 pounds. Price: $39.95.

**Circle 174 on reader service card**

- **Acoustic Research** has printed a four-page brochure listing their recommended stylus-force requirements for most modern phono cartridges. The figures presented were derived from AR's laboratory tests and are said to be valid for any high-quality tone arm on either a manual or automatic turntable. Included in the free brochure is a section on record care and storage.

**Circle 177 on reader service card**

- **Heath** has announced its new top-of-the-line AM-FM stereo receiver kit, the Model AR-15. Aside from its excellent performance specifications, the solid-state AR-15 introduces a host of new styling and circuit features to the kit field including a tuning dial and function markings that disappear when the unit is switched off, use of integrated circuits, and crystal filters instead of i.f. transformers. The stereo amplifier section has a total continuous-power output (with both channels driven) of 100 watts into 8-ohm loads, 90 watts into 4-ohm loads—both at less than 0.5 per cent harmonic and intermodulation distortion from 20 to 20,000 Hz. Distortion at 1,000 Hz, and under 1 watt output, is less than 0.2 per cent.

The FM section of the AR-15 has a rated sensitivity (IHF) of 1.8 microvolts, a capture ratio of 2.5 db, and harmonic and intermodulation distortion of 0.5 per cent or less. Stereo channel separation is 40 db or greater at mid-frequencies and not less than 20 db anywhere in the audio band. The AM section has a rated sensitivity of 7

(Continued on page 16)
The new KLH Model Five is designed to supply the highest level of loudspeaker performance for the lowest possible cost. It is intended to be compared, without qualifications or any consideration of its size and cost, to the most expensive and formidable speakers ever made.

And it doesn't sound the way you would expect it to sound.

The Model Five is not meant to sound like a bigger, better bookshelf speaker system. It's not designed to sound a little richer than the KLH Model Six, or a little more brilliant than Brand X or Y.

The Five is an open, completely unrestricted sound source. Without exaggeration, and without spurious richness or brilliance, it will supply the full detail of a musical performance.

Which means that it will reveal its full potential only with the very best of today's—and tomorrow's—recordings. On an indifferent recording, it won't sound impressive or even worth its price. In fact, it sometimes won't sound as good as our less expensive speakers.

The Model Five is a gamble, on our part and on yours, that the best recordings of today will become the standard for tomorrow.

We think that's an excellent gamble, and that the Model Five will show its abilities often enough on today's recordings to justify the investment by the serious listener. Those abilities extend from the lowest octave of usable bass to the highest frequencies that make musical instruments sound like themselves, with the precise octave-to-octave musical balance for which all KLH speakers are known.

The Model Five meets every requirement we can use to define highest performance in a speaker. It does so for a lower cost than we once believed possible. And it is scaled to fit gracefully into a living room, so that you will not have to disrupt your home for the sake of your interest in music and sound.

If you would like to hear how we define highest performance in a speaker, listen to the Model Five. For a list of KLH dealers and further information on the Five, please write to KLH, 30 Cross Street, Cambridge, Massachusetts 02139.
NEW PRODUCTS
A ROUNDUP OF THE LATEST HIGH-FIDELITY EQUIPMENT

microvolts (at the center of the broadcast band) and a 7,000-Hz bandwidth.

There is a full complement of operating controls, including switchable loudness compensation and a switch that removes the tone controls from the circuit. Other features include a front-panel stereo headphone jack (plus a switch to shut off the speakers when phones are used), dual tuning meters to indicate both center channel and maximum signal strength, interstation-noise suppression, automatic mono-stereo switching on FM, and a stereo switch that allows only stereo broadcasts to be received.

In addition to the AM and FM settings on the input-selector switch, there are AUX., PHONO, and TAPE. The phono-input section has a 98-db dynamic range that enables it to accept high-output phono cartridges without the risk of overload distortion. A tape-monitor switch permits instant monitoring from a three-head recorder.

The circuit of the AR-15 employs silicon transistors in the audio section, field-effect transistors in the tuner sections, and integrated circuits in the i.f. amplifier section. In addition, the i.f. amplifiers use two crystal filters to replace conventional i.f. transformers with the advantages of permanent alignment and precisely controlled bandwidth. Overall dimensions of the receiver are 4½ x 17 x 14½. Price of the kit: $329.95. An assembled walnut cabinet is $19.95 additional.

Circle 182 on reader service card

- Capito is producing a small speaker system, the Stereo Modulator XF-13, intended primarily for use with home and automobile stereo tape players. The units feature a series of tuned pipes placed in front of an upward-facing radiator to control frequency range and dispersion. The systems are sold in pairs and come with a mounting plate and hardware that facilitates installation on the rear-deck package shelf of most cars. Frequency response of the speaker is 40 to 13,000 Hz, impedance is 8 ohms, and power-handling capacity is 10 watts of integrated program material. Dimensions of the oval-shaped system are 6¾ x 8½ x 10 inches. Price (for a pair): $59.95.

Circle 183 on reader service card

- Switchcraft is producing two unique speaker-switch units that permit instant selection of up to eight stereo speaker systems. Called Sound-Control Centers, Models 611 and 612, they offer the opportunity for audiophiles and commercial sound installers to tailor their sound-distributing systems to meet specific needs. The switch assemblies are housed in black enamel cabinets with brushed-aluminum escutcheons, and the pushbuttons have easily identifiable faces numbered 1 through 8. Maximum amplifier power-handling capability of the pushbuttons is 100 watts (into a 4-ohm load). The Model 642 is designed primarily for situations where simultaneous distribution of sound to more than one stereo speaker system is desired, while the pushbuttons on the Model 611 are interlocked so that only one pair of stereo speakers can be switched on at a time. Price for either system: $19.50.

Circle 184 on reader service card

- Jensen has introduced a new compact loudspeaker system, the X-40, that occupies only one cubic foot of space. Its oiled walnut cabinet measures 19½ x 10½ x 9½ inches. Designed to operate from 30 to 16,000 Hz, the X-40 has a long-travel, low-resonance 8-inch Flexair woofer (installed in a sealed acoustic chamber) that crosses over at 2,000 Hz to a 3-inch direct-radiator tweeter. The system has high-frequency balance control so that the system can be adjusted for optimum acoustic balance. Nominal input impedance is 8 ohms, and power rating is 25 watts. Price: $57.

Circle 185 on reader service card

- Kodak offers three new accessory items for sound recording tape—a pre-cut splicing tape called Pressstapes, a leader/timing tape, and a unique tape-timing guide. The ¼-inch Pressstapes are pre-cut splices that can be easily applied to recording tape with no trimming necessary since they are identical in width to the recording tapes. Price (for a pack of 40): $30.

The leader/timing tape has a 1½-mil polyester base and a matte, opaque surface that permits write-on identification. The product is supplied in 130-foot lengths on a 3-inch tape reel in a dispenser box. Price: $1.50.

The tape-timing guide measures 5 x 1 ¼ inches and is notched at one end for use with any type of sound recording tape. Positioning the guide with its notched end against the reel spindle makes it possible to check the number of minutes of playing time remaining on a reel by reading the proper scale of the guide. Each package contains two guides, one for use at a tape speed of 7½ ips, the other for use at a tape speed of 3½ ips. Each guide covers standard, extra, double, and triple-play tapes. Price: $35.

HIFI/STEREO REVIEW
the most important advance in phono cartridges since the advent of stereo

**THE TYPE II SHURE V-15**

...a new genre of cartridge, analog-computer-designed, and measured against a new and meaningful indicator of total performance:

**"TRACKABILITY"**

The radically new V-15 TYPE II heralds a new epoch in high performance cartridges and in the measurement of their performance. We call it the era of high Trackability. Because of it, all your records will sound better and, in fact, you will hear some recordings tracked at light forces for the first time without distortion.

**THE PROBLEM:**

While audiophiles prefer minimum tracking forces to minimize record wear and preserve fidelity, record makers prefer to cut recordings at maximum levels with maximum cutting velocities to maximize signal-to-noise ratios. Unfortunately, some "loud" records are cut at velocities so great that normally superior styli have been unable to track some passages: notably the high and midrange transients. Hence the problems of orchestral bells, harpsichords, pianos, etc., cause the stylus to part company with the wildly undulating groove. (It actually ceases to track.) At best, this produces an audible click; at worst, sustained gross distortion and outright noise results. The "obvious" solution of increasing tracking forces is impractical because this calls for a stiffer stylus to support the greater weight, and a stiffer stylus will not track these transients or heavy low-frequency modulation, to say nothing of the heavier force accelerating record and stylus wear to an intolerable degree.

Shure has collected scores of these demanding high level recordings and painstakingly and thoroughly analyzed them. It was found that in some cases (after only a few playings) the high velocity high or midrange groove undulations were "shaved" off or gouged out by the stylus, thus eliminating the high fidelity. Other records, which were off-handedly "shaved" or gouged out by the stylus to part company with the wildly undulating groove. (It actually ceases to track.) At best, this produces an audible click; at worst, sustained gross distortion and outright noise results. The "obvious" solution of increasing tracking forces is impractical because this calls for a stiffer stylus to support the greater weight, and a stiffer stylus will not track these transients or heavy low-frequency modulation, to say nothing of the heavier force accelerating record and stylus wear to an intolerable degree.

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Shure and enclosing your check. (Note: The test record cannot be played more than ten times with an ordinary tracking cartridge, regardless of how light the tracking force, because the high frequency characteristics will be erased by the groove-deforming action of the stylus.)

(2) A reprint of the definitive technical paper describing the Shure Analog and trackability in cartridges, which appeared in the April 1966 Journal of the Audio Engineering Society, is available (free) to the serious audiophile.

(3) A representative list of many excellent recordings with difficult-to-track passages currently available is yours for the asking. These records sound crisp, clear and distortion-free with the Shure V-15 Type II.

**THE SOLUTION: TRACKABILITY AS A NEW SPECIFICATION:**

The Shure Super-Track V-15 TYPE II is available at your dealers at $67.50. The Shure Super-Track V-15 TYPE II is available at your dealers at $67.50.

**ENTER THE COMPUTER:**

The solution to the problem of true trackability proved so complex that Shure engineers designed an analog-computer that closely duplicated the mechanical variables and characteristics of a phono cartridge. With this unique device they were able to observe precisely what happened when you varied the many factors which affect trackability: inertia of tip end of the stylus or the magnet end of the stylus; the compliance between the record and the needle tip, or the compliance of the stylus shank, or the compliance of the

The test record cannot be played more than ten times with an ordinary tracking cartridge, regardless of how light the tracking force, because the high frequency characteristics will be erased by the groove-deforming action of the stylus.

This chart depicts the new performance specification of trackability. Unlike the oversimplified and generally misunderstood design parameter specifications of compliance and mass, trackability is a measure of total performance. The chart shows frequency across the bottom, and modulation velocities in cm/sec up the side. The grey area represents the maximum theoretical limits for cutting recorded velocities; however, in actual practice many records are produced which exceed these theoretical limits. The smoother the curve of the individual cartridge being studied and the greater its distance above the grey area, the better the trackability. The trackability of the Shure V-15 TYPE II is shown by the top (solid black) line. Representative curves (actual) for other cartridges ($80.00, $75.00, $32.95, $29.95) are shown as dotted, dashed and dot-dash lines for comparison purposes.

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>Trackability (V-15 TYPE II)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0.05</td>
</tr>
<tr>
<td>50</td>
<td>0.10</td>
</tr>
<tr>
<td>100</td>
<td>0.15</td>
</tr>
<tr>
<td>200</td>
<td>0.20</td>
</tr>
<tr>
<td>500</td>
<td>0.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Modulation Velocity (cm/sec)</th>
<th>Trackability (V-15 TYPE II)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>0.2</td>
<td>0.10</td>
</tr>
<tr>
<td>0.3</td>
<td>0.15</td>
</tr>
<tr>
<td>0.4</td>
<td>0.20</td>
</tr>
<tr>
<td>0.5</td>
<td>0.25</td>
</tr>
</tbody>
</table>

This chart represents the maximum theoretical limits for cutting recorded velocities; however, in actual practice many records are produced which exceed these theoretical limits. The smoother the curve of the individual cartridge being studied and the greater its distance above the grey area, the better the trackability. The trackability of the Shure V-15 TYPE II is shown by the top (solid black) line. Representative curves (actual) for other cartridges ($80.00, $75.00, $32.95, $29.95) are shown as dotted, dashed and dot-dash lines for comparison purposes.

CIRCLE NO. 56 ON READER SERVICE CARD

*April 1967*
If you can spend as much as $100 on a bookshelf loudspeaker, consider the new Fisher XP-55.
The new XP-55 is, by far, the most advanced compact bookshelf system Fisher engineers have ever designed.

It incorporates a unique 8-inch woofer with a totally new suspension system: an inverted half-roll surround that provides extra-wide cone excursions and a free-air resonance as low as 25 Hz! This radically new driver, in its air-tight baffle, attains fundamental bass response to 37 Hz without doubling.

The 2½-inch wide-dispersion mid-range/tweeter is also new. With its highly damped low-mass cone and new dome center, this driver is flat within ±2½ db from 1 kHz to 15,000 Hz. The LC-type network crosses over at 1000 Hz and uses air-core coils.

At *$59.50, there has never been a compact system quite like the new Fisher XP-55. It should be compared only with systems costing at least $100.

(For more information, plus a free copy of the 80-page Fisher reference guide to hi-fi and stereo, use coupon on magazine’s front cover flap.)

The Fisher
HiFi Q&A

By Larry Klein

Five-Inch Small-Hub Reels

Q. Can you tell me if you know of any company that manufactures five-inch reels with a hub of less than 13/4 inches? A small center would let me put more tape on the reel.

DEAN ALLISON
Asheville, N. C.

A. Yes, a small hub would let you put more tape on a five-inch reel, but the question is whether your machine would then be able to get it off the reel. The difference in torque requirement between a fully loaded five-inch reel and a take-up reel with a very small hub might be so great that your machine's drive system would not be able to handle it easily. And in any case you could expect problems of wow and speed irregularity to be greatly intensified. In addition, with the aid of a little math, I think you would find that the amount of playing time gained by using a smaller hub is not as great as you apparently think it is. A quarter inch added to the outside diameter of a 5-inch reel is a lot more tape than a quarter inch added to the inside of the reel. I know of no company manufacturing a reel such as you describe.

Speaker Improvement

Q. Recently I heard that a good-quality speaker grows better with age. Is this statement true, how is it possible and what happens to the speaker?

CLARENCE W. ALEXANDER, JR.
Tucker, Ga.

A. The statement that a good speaker grows better with age is sometimes true now, and was almost always true five or ten years ago. What happens with a number of speakers is that the cone suspension and centering elements—the spider near the voice coil and the skiver (or surround) at the outer edge of the cone—tend to grow more compliant through constant flexing. This increase in flexibility will result in a lower free-air resonant frequency of the speaker and hence the possibility of a slight extension of the low-bass response. However, the better modern speakers start with extremely compliant suspensions that are quite stable and hence cannot be expected to change much with age and use.

Aside from the possible theoretical interest of the foregoing, it behooves anyone with a bass-reflex speaker system more than five or six years old to recheck the match between the resonance of the speaker and the tuning of the enclosure following the instructions in my article "How to Tune Bass-Reflex Enclosures" in the August 1965 issue. Any mismatch in tuning could result in some low-bass loss and an increase in distortion at low frequencies. Back copies of the August 1965 issue (and most other recent issues) are available from Ziff-Davis Service Division, Department BCHF, 389 Broadway, New York, N. Y. 10012. They cost 75c, postpaid.

Switch to Stereo

Q. I own a good 20-watt integrated monophonic amplifier of fairly recent vintage that incorporates many features that I like. I am contemplating a switch to stereo, and would like to know if it is a good idea to purchase a second mono amplifier (of the same brand and model) to use as the other channel in conjunction with my present amplifier. What problems might I encounter?

CLEVELAND CEMMENTS
Bronx, N. Y.

A. If your present mono amplifier is a good one and you can get a second one cheaply enough, then the major problem that you will encounter is one of inconvenience in use. You may also run into difficulties with hum. The hum can usually be handled easily. Turn up the volume and bass control on both amplifiers and try reversing the a.c. line plugs of one or both amplifiers in the wall outlets until the lowest hum is heard. When you find the lucky low-hum combination, mark the outlets and the plugs to be sure that the amplifiers are always plugged in the same way in the future. Try connecting a ground wire (any piece of heavy, insulated wire) from a chassis screw on one amplifier to a chassis screw on the other. If the ground wire lowers the hum level, leave it in place. If it increases the hum, remove it.

In regard to the convenience problem, you might check used-equipment dealers to see if they have any stereo-adapter units (designed to centralize the stereo control juctions of individual integrated mono amplifiers) dating from the early days of stereo. A number of these units will work with amplifiers other than those they were originally designed for and should be available at a fraction of their original cost. Make sure that any adapter unit that you buy is purchased on a money-back guarantee in case it does not work properly with your amplifiers.

(Continued on page 24)
The thing that intrigued us most about this letter from Mr. O'Leary (whom we have never met) was his use of a "live vs. recorded" comparison—the Cincinnati Orchestra in concert and on records—to evaluate high fidelity components.

We asked and received Mr. O'Leary's permission to reproduce his letter, and here it is, secretary's typos and all. Only the first group of brand names has been deleted.


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Diodes in Hi-Fi

Q. I notice that there seem to be more and more diodes used in hi-fi amplifiers, tuners, and so forth. Exactly what is the function of a diode in a hi-fi component, and why are so many used?

PAUL LAWS
Cincinnati, Ohio

A. So many diodes are used because of the wide variety of functions they are able to perform. In their most familiar application, silicon diodes are used as rectifiers in power supplies. Here, they convert a.c. to the d.c. required by the various circuits of both tube and transistor amplifiers. Their advantage (over rectifier tubes) lies in their large current-handling capacity, low internal-voltage drop, cool operation, small size, and potentially much longer life. In addition, rectifier diodes do not require filament current as do rectifier tubes.

Lighter-duty diodes serve as signal rectifiers in the detector circuits of FM and AM tuners. Here their function is to extract the audio signal from the radio-frequency carrier signal. In effect, they convert r.f. to audio frequencies.

In their role as regulators, diodes serve to keep critical voltages in transistor and tube circuits at the correct level regardless of the fluctuations of temperature-sensitive components or power-supply voltages.

In addition, diodes are available with special thermal properties, and so are used in transistor output stages as stabilizing elements to prevent "thermal runaway." The heat generated by the output transistors is applied to a diode that is connected as part of the transistor's biasing circuit. As the transistor heats, the diode (which is physically located to receive part of the heat) changes its conductivity and thereby changes the bias on the transistor to prevent it from being damaged by excessive current.

As switching devices, diodes serve for interstation muting and automatic stereo mono switching in stereo FM tuners. And in some FM tuners, diodes designed to change their internal capacitance with a change in applied voltage provide automatic frequency control (AFC) action.

Diodes are also capable of a variety of other tasks, but those capabilities have not yet been called upon by the hi-fi equipment designers.

Because the number of queries we receive each month is greater than we can reply to individually, only those questions selected for this column can be answered. Sorry!
The dynamically balanced tonearm of the 1009SK tracks flawlessly as low as 1/2 gram. The accuracy of its continuously variable stylus force adjustment ensures that any cartridge will track exactly at the force you set. And the accuracy of its Tracking-Balance Control (anti-skating) also assures that the stylus will track with equal force on each wall of the stereo groove. Exactly as its manufacturer designed it to track.

With Dual's versatile Cue-Control, you can not only lift and lower the 1009SK tonearm anywhere on the record, but also take full advantage of its ultra-gentle descent (0.5 cm/sec.) when you start automatically. Most valuable with today's ultra-sensitive high compliance cartridges.

Dual's powerful, utterly silent Continuous-Pole motor rotates the record at constant speed, regardless of voltage variations or the number of records on the platter. And its rotating single play spindle, still another Dual exclusive, eliminates record binding, slippage and center hole wear.

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Announcing The World's Most
New Heathkit® All-Silicon Transistor AR-15...150 Watts Dynamic Music Power...the highest power output of any stereo receiver! Made possible by 4 conservatively rated, individually heat-sunk and protected output transistors powered by an unusually large power transformer and filter capacitor. 75 watts music power per channel — 50 watts continuous power per channel.

Integrated Circuits...tomorrow's electronic miracle today. Two are used in the IF amplifier section to replace the usual transformers. No coils, therefore no alignment or adjustment is ever required. Precise controlled bandwidth produces the finest fidelity with alternate channel selectivity of 70 db.

Crystal Filters...another exclusive. Two are used in the IF amplifier section to replace the usual transformers. No coils, therefore no alignment or adjustment is ever required. Precise controlled bandwidth produces the finest fidelity with alternate channel selectivity of 70 db.

Field Effect Transistor FM Tuner...cascode 2-stage FET RF amplifiers and an FET mixer provide high overload capability, excellent cross modulation index and image rejection. The completely shielded tuner has a 4-gang variable capacitor and 8 tuned circuits for extreme selectivity under the most adverse conditions. Factory assembled & aligned to speed kit construction, assure peak performance.

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Massive Power Supply...for low heat and superior regulation — electrostatic and magnetic shielding for lowest hum and noise.

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Recessed Inputs & Outputs...no protruding array of leads to waste valuable space — fits flush against any wall or surface.

150 WATTS DYNAMIC MUSIC POWER...the highest power output of any stereo receiver! Made possible by 4 conservatively rated, individually heat-sunk and protected output transistors powered by an unusually large power transformer and filter capacitor. 75 watts music power per channel — 50 watts continuous power per channel.
Advanced Stereo Receiver...

Watts... AM-FM-FM Stereo...IC's...$329.95

Crowning Achievement Of The World's Most Experienced Solid-State Audio Engineers... the new Heathkit AR-15. Compare the advanced features on the opposite page. Compare the "state-of-the-art" features below. Compare the specifications. There's nothing like it anywhere in the transistor stereo marketplace!

Positive Circuit Protection... four Zener diodes and two thermal circuit breakers protect the driver and output transistors from overloads and short circuits of any duration. A special front-panel Hi-Temp indicator lights when the thermal breakers have opened.

Stereo Threshold Control... for automatic switching to stereo and automatic switching to mono when signal/noise ratio becomes too low for good stereo reception. A stereo indicator light automatically signals when stereo is received.

Adjustable Phase Control Compensator For Station Differences... so you can adjust for the best possible stereo.

Stereo Only Switch... silences all monaural transmissions when you wish to listen to stereo broadcasts only. An added tuning convenience!

FM Stereo Filter... eliminates noise without diminishing high frequency response.

Choice Of 3-Way Installation... as a VOM for check-out during or after kit construction. Lets you test kit response.

Direct Coupled Output Circuits - no output transformers - for improved capacitance to the speaker terminals protect the speakers.

Positive Circuit Protection - four Zener diodes and two thermal circuit breakers protect the driver and output transistors from overloads and short circuits of any duration. A special front-panel Hi-Temp indicator lights when the thermal breakers have opened.

FM Stereo Noise Filter... eliminates noise without diminishing high frequency response.

Power Ratings:

AR-15 SPECIFICATIONS-AMPLIFIER SECTION: Dynamic Power Output Per Channel (Music Power Rating): 8 ohm load = 75 watts; Continuous Power Output, Per Channel: 8 ohm load = 50 watts. Power Bandwidth For Constant 0.5%, Total Harmonic Distortion: 25 kHz. Frequency Response (1 watt level): ±0.1 db, 5 to 50,000 Hz. ±0.3 db, 4 to 70,000 Hz. Harmonic Distortion: Less than 0.5% from 20 to 20,000 Hz at 50 watts output. Less than 0.2% at 1,000 Hz with 50 watts output. Less than 0.2% at 1,000 Hz with 1 watt output. Intermodulation Distortion (60 Hz): Less than 0.5% with 50 watts output. Less than 0.1% with 1 watt output. Damping Factor: 45. Input sensitivity: PHONO: 0.25 millivolts (unweighted). FM: 50 millivolts (unweighted). AUX: 50 millivolts (unweighted). Volume Sensitivity: Volume control at minimum position: -60 db. PHONO: -65 db (unweighted reference). FM: -60 db (unweighted reference). AUX: -55 db. Channel Separation: PHONO: 45 db. FM: 45 dbcling. AUX: 55 db. Output Impedance: 6.3 ohm (balanced). Tape Output Impedance: 500 ohms. Input Impedance: PHONO: 60 k ohm. FM: 150 k ohm. Tape Input: 0.7 volt. FM SECTION (Monophonic): Tuning Range: 88 to 108 MHz. Intermediate Frequency: 10.7 MHz. Frequency Response: ±2% at 900. Antenna: Balanced input for external 300 ohm antenna, unbalanced, 75 ohm. Volume Sensitivity: Below measurable level. Selectivity: 30 db. Sine wave rejection: 10 db. IF rejection: 90 db. Minimum frequency: 0.2% capture ratio: 1.5 db. AM Suppression: 50 db. Harmonic Distortion: 0.5% or less. Intermodulation Distortion: 0.2% or less. FM Suppression: 55 db. Sensitivity: 0 db. Spurious Rejection: 100 db. FM SECTION (Stereoephonic): Channel Separation: 40 db or greater. Frequency Response: ±1 db. 20 to 15,000 Hz. Harmonic Distortion: Less than 1.5% at 400 Hz. 90% modulation. Hum & Noise: 65 db. Power Output, Per Channel*:

AM Output Power (RIAA equalized): 8 ohm load; 75 watts. CONTINUOUS Power Output: 8 ohm load; 50 watts. POWER requirement, 105-125 volt 50/60 Hz AC. Dimensions: Overall: 16'/2" wide x 4'4" high x 14'/2" deep. Mounting Position: Horizontal or vertical. Power Rating:

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CIRCLE NO. 33 ON READER SERVICE CARD
Most high-fidelity cartridges operate on the principle that an electric current can be generated in a coil of wire by varying the magnetic flux impinging on the coil. The power plants that light our cities make electricity by this technique, and one might think of a magnetic phono cartridge as a miniature electric generator. Relative motion between the magnetic-flux field and the coil produces a voltage that corresponds in frequency (pitch) and amplitude (loudness) to the musical content of the record groove.

It does not really matter whether the magnet moves and the coil remains stationary, or vice versa, or whether neither moves and some third element varies the magnetic interrelationship between the two. The engineer thus has the option of designing either a moving-coil, a moving-magnet, or what could be called a moving-flux cartridge.

Moving-magnet models are theoretically quite simple. The magnet is attached to the rear of the stylus shank and swings between two pairs of coils so positioned that one pair produces the left stereo signal while the other produces the right. Manufacturers who have settled on this type of phono cartridge have achieved excellent results. Others, however, feel that a magnet swinging back and forth between the coils will not generate the most linear signal and favor the moving-coil approach. With this technique, the coils move while the magnet stays put. Still another approach involves having a stationary magnet induce a magnetic field in the stylus shank whose motion is then magnetically sensed by the stationary coils or simply by having the shank “interfere” with the magnetic path between the magnet and the coil.

Quite a different way of generating phono signals is based on the odd fact that certain ceramics and crystals produce electricity when they are squeezed, pushed, stretched, twisted, or otherwise mechanically stressed. Ceramic cartridges rely on this so-called piezo-electric effect. In these cartridges, the stylus motion twists two tiny slabs of ceramic materials—one for the left channel, the other for the right—which then produce an electric voltage that is proportional in frequency and amplitude to the torsional force exerted by the stylus and hence to the convolutions of the record groove. For many years, such cartridges failed to attain high performance levels, mainly because of the difficulty of providing a precise lever linkage between the stylus and the ceramic slabs. But Grado and Sonotone, among others, have effectively solved this problem in their recent ceramic cartridges.

An offbeat approach to cartridge design is espoused by Euphonics, who make several cartridge models that do not in themselves generate signals but whose elements act as resistances that vary in accordance with the musical waveform in the record groove. A d.c. voltage applied to the cartridge from a separate power-supply unit is modulated by the changing cartridge resistance.

While these different approaches are hotly argued among engineers, the audiophile can regard the issue with satisfied dispassion, happy in the knowledge that each of the contending principles discussed here has proved its musical competence.

Copies of the Basic Audio Vocabulary booklet are still available. To get yours, just circle number 181 on the Reader Service Card, page 18.
Curl up with a good Bogen.

The new TR100X stereo receiver for homebodies.

Just add speakers, dial your pleasure and relax. Enjoy the magnificent sound that comes from the most advanced design in audio today.

The all-silicon solid state TR100X combines a sixty-watt (IHF) amplifier (flat from 20 to 50,000 Hz.) and a super-sensitive, easy-dialing am/fm-stereo tuner. It offers automatic stereo switching, a Stereo Minder signal light that alerts you to stereo broadcasts, and an oversize meter for precise tuning. Plus four speaker outputs and a speaker selector switch that lets you listen to stereo in either or both of two rooms...or through headphones, with speakers silent.

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The striking styling of the TR100X...its rich satin gold and warm walnut grain...will grace and harmonize with any home.

Best of all, the TR100X is easy to come home with. Only $249.95.*
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CIRCLE NO. 8 ON READER SERVICE CARD

APRIL 1967
The W60C 3-way bookshelf and floor standing speaker system (dimensions 14½" x 26" x 19½" deep) is one of 6 Achromatic Speaker Systems. Let us send you a free, full color comparator brochure. Write Dept. HD-5, Wharfedale Div., British Industries Corp., Westbury, New York 11590.

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Wharfedale Achromatic Speaker Systems
**TONE-BURST TESTING:** In all Hirsch-Houck lab reports on speaker systems, the tone-burst response is shown and mentioned as an important indication of transient performance. Since space limitations prevent a detailed discussion of this test in the individual lab reports, I would like to elaborate on it at this time.

Ordinary frequency-response and distortion measurements are made with continuous sine-wave test signals. Such a signal is heard as a pure, unwavering tone. However, loudspeakers in music systems seldom, if ever, are called upon to handle continuous tones, since music and voice are essentially transient in nature. In other words, program material consists of a large number of frequencies whose amplitudes are changing constantly and abruptly over wide limits. The better the speaker, the greater is its ability to reproduce accurately a wide range of frequencies—and to follow their rapidly changing waveforms.

It is entirely possible for a speaker to require a relatively long time (5 or more milliseconds) to attain its full output level after a steady signal is applied. In such a case, the speaker may continue to "ring," or emit the same frequency with a slowly decreasing amplitude, for some time after the driving signal is removed. Sometimes the ringing is at a different frequency from the input signal.

If the input drive signal is applied for a very brief interval, the speaker's output signal may never reach its full amplitude, and the ringing will tend to smear or mask the next transient signal. If the speaker's drive signal is music instead of a test tone, this effect is audible as a haziness, or lack of definition, which makes it difficult to pick out individual instruments from the total orchestral sound.

Musical program material, because of its non-repetitive nature, is obviously unsuitable for objective measurement of transient response. Many types of transient test signals have been proposed, including pulses, square waves, white noise, and tone bursts. Systems have been devised to obtain quantitative, numerical results from such signals, but the techniques tend to be quite complex. Fortunately, a tone-burst test can be applied easily and inexpensively and with experience can be visually interpreted without elaborate electronic instrumentation.

A tone burst can be likened to the periodic ring of a telephone except that it normally takes place many times per second. It is an audio-frequency tone that is switched on and off at regular intervals. Perhaps the simplest tone-burst generator consists of an audio oscillator (which need not have particularly low distortion) and an electronic switch such as the Eico 488 or Heath 1D-22. (The Heath switch requires a simple modification to reduce its minimum switching rate for testing at low frequencies.)

This simple setup works very well, although the lack of synchronization between the switching rate and the oscillator output results in random switching transients at the beginning and end of the bursts. This disturbance is not significant for the type of test I am describing. It is completely eliminated in an excellent tone-burst generator made by General Radio, which costs about $500. We use a lab-constructed equivalent of the G.R. tone-burst generator for our speaker testing.

The switched audio tone is fed to a stable power amplifier that drives the speaker under test. The output of a microphone placed in front of the speaker is amplified (by any conventional preamplifier), and then displayed on an oscilloscope where it can be viewed and photographed. Ideally, the speaker should be located outdoors or in an anechoic chamber to prevent room resonances from influencing the results. However, we have found it possible to operate indoors, with the microphone placed about a foot from the speaker (on the axis of the active driver in a multi-speaker system).

The audio oscillator is tuned slowly through its frequency range while the waveform is observed on the oscilloscope. The switching rate of the electronic switch is adjusted to display approximately 10 to 30 cycles of the test frequency. Test frequencies below 100 Hz are not practical indoors because of room resonances.

It is important that the burst be neither too short nor too long. If only 5 or 6 cycles of the burst are shown, many of the disturbances which require a longer time to build up will not be seen. On the other hand, excessively long bursts, such as 0.5 second, permit the speaker to...
attain its steady-state response, so that the initial disturbances cannot be seen in their true perspective. Under these conditions, any speaker can be made to look good.

This test assumes that the microphone and amplifier have no significant problems in handling the transients involved. A good condenser microphone (such as the Altec 21BR150, which we use) is ideal but rather expensive for casual experimenting. Most good-quality public-address microphones in the $30 to $60 price class will serve, as will any reasonably stable amplifier.

The electrical output of the amplifier, shown in Fig. 1, is the standard of comparison. No real speaker is as good as this, although some come very close. Figure 2 shows the response of a good-quality speaker to a tone burst. Observe that 3 cycles are required for the output to reach its full amplitude at the beginning of each burst and 2 cycles for it to decay at the end. The low-level ringing between bursts is relatively insignificant.

It is helpful to vary the duration of a burst while maintaining a fixed test-tone frequency. In Fig. 3, the full amplitude is reached in about 4 cycles, but after several more cycles it begins to fluctuate. The speaker "turns on" and "turns off" very quickly in about 1 cycle. However, after switching off, its output drops to an intermediate level and decays over a period of several cycles before settling down to a low, background-ringing level.

Some speakers have resonances which smear the tone-burst outputs, as shown in Fig. 4. Here, the 300-Hz burst rises gradually to a maximum in 5 or 6 cycles and decays in 2 or 3 cycles to a ringing level not far below its maximum output. What should be a sharp transition from burst to quiet interval is largely erased. Actually, this is not a very bad response comparatively, but it is noticeably inferior to the preceding examples. These tone-burst photos were taken of a number of reasonably good speaker systems. If any speaker had a tone-burst response throughout its frequency range that generally resembled these examples, it would rank quite high.

These tests do not indicate the frequency range of a speaker, but results are closely related to its clarity and listening ease. Both a wide, smooth response and good tone-burst response are properties of a really good speaker, but we would rate the tone-burst response as being the more important of the two. After all, one can correct for frequency imbalance with tone controls, but nothing short of redesign of the speaker system can be done to improve poor transient response.

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**EQUIPMENT TEST REPORTS**

By Hirsch-Houck Laboratories

**CROWN SX724**

**FOUR-TRACK STEREO TAPE RECORDER**

- Many tape recorders labeled semi-professional are clearly recognizable as home machines, even though their performance may approach that of professional units. The Crown SX724, however, appears to be a recorder of truly professional caliber in its styling, construction, and performance, yet it is definitely intended for use by the advanced amateur recordist as well as the professional user. The SX724 is a four-track stereo machine operating at 7½ or 3⅞ ips. The Crown SX722 is similar, but has two-track heads. Numerous options, such as 15 ips, very slow speeds, or extra heads, are available from Crown on special order.

The Crown SX724 is large, heavy, and designed for standard (19 inches wide) rack mounting in 15⅜ inches of vertical panel space. The transport and electronic sections are separate, with the latter using silicon transistors throughout. Modular construction is used in both the electrical and mechanical portions of the machine, and all replaceable parts, including the motors and the power transformer, are plug-in style for easy maintenance.

The ruggedly constructed transport has three motors and a heavy flywheel for constant tape speed. Reels up to 10½ inches in diameter can be handled, and 3-inch hub adapters are available for the NAB 10½-inch reel. On our test unit, speed change required shifting a belt inside the machine from one pulley to another. Latest production models have a front-panel control for speed (Continued on page 34)
We didn't invent the circle.
(We just put it to music.)

Actually it was the Romans who first conceived the idea that sound projected through an urn could disperse sound in a 360 degree radius.

In 1963, Empire reasoned out that a speaker system with complete symmetry of design could provide the same effect.

We were later to make three very important discoveries: A wide angle acoustic lens assures fuller frequency and magnificent stereo separation. A mass loaded woofer facing downward, feeding through a front loaded horn will provide 360 degree sound dispersion and prevent standing waves from developing in the room. And, an imported marble top to match the flawless hand-rubbed walnut finish will bring a sigh of comfort to the decorator-conscious audiophile.

The result: superlative musical performance. When did we know we had it made? When others began copying us.

Augustus Caesar, thanks a lot.

Empire Grenadier.
One of the great firsts.

Great new 16 page color catalog is now available, write Empire Scientific Corp., 845 Stewart Ave., Garden City, N.Y.
changes. The tape motion is controlled by solenoids, operated by light-touch pushbuttons. In accordance with professional practice, there is no index counter.

The Model SX electronic section has two inputs per channel, with separate volume controls for mixing. The jacks will accept high-impedance microphones and/or high-level lines. The playback-output level is +8 VU (about 2 volts into 600 ohms). The two 5-inch VU meters are illuminated and are highly legible. Each channel has its own recording interlock switch, permitting mono or sound-on-sound recording, with external patch cords from the output of one channel to the input of the other. All inputs and outputs are at the rear of the recorder, and phone jacks are used throughout except for the line outputs, which have both phone and phone jacks in parallel. On the front panel are two stereo headphone jacks for monitoring.

We measured the 7 1/2-ips record/playback response of the Crown SX724 as an excellent ±2.3 dB from 20 to 20,000 Hz. The playback response, with the Ampex 31321-04 alignment tape, was ±2.5 dB from 50 to 15,000 Hz. At 3 3/4 ips, the record/playback response was ±1 db from 20 to 10,000 Hz and down 5 db at 15,000 Hz.

The signal-to-noise ratio was outstandingly good, 59 dB at 7 1/2 ips and 56 db at 3 3/4 ips, referred to the 3 per cent distortion level. Distortion at normal recording levels was exceptionally good—under 0.5 per cent at 0 VU.

It did not reach 3 per cent until +8 VU, which was well off-scale on the meters. Wow and flutter were 0.03 and 0.07 per cent, respectively. The recording amplifiers had very high gain, requiring only 0.32 millivolt from a microphone or 0.04 volt from line inputs for 0-VU recording level.

In the fast tape speeds, 1,800 feet of tape was handled in 58 seconds. There are no mechanical brakes, and all braking is achieved by d.c. passed through the reel motors. Care must be taken not to interrupt power while running at fast speed, as tape spillage is sure to occur. Also, the tape must be allowed to stop fully before switching from fast forward or reverse. Although the recording interlocks do not release when the tape is stopped, the transport will not go into fast motion unless both are in play. This effectively prevents an accidental tape erase.

The instruction manual with the Crown SX724 is exceptionally complete, including schematics and detailed installation and operation data. As one would expect from the measured data, the Crown SX724 is a superb performer. At 7 1/2 ips, the output signal was indistinguishable from the input. At 3 3/4 ips, there was some loss of high frequencies with the tape type specified. We used the machine without adjustment; however, there is provision for adjusting the record bias for optimum performance with different kinds of tape.

The Crown SX724 is a machine for the serious recordist who expects to use it for long periods of time without unusual maintenance. It is constructed in such a manner that we believe it will give years of reliable service. At 7 1/2 ips, its quality is the equal of any recorder we know of, and various accessories (such as NAB reel adapters, matching transformers, special heads, amplifiers, and tape speeds; remote control; and built-in power amplifiers) permit the user to tailor the machine to his own needs. The Crown SX724 sells for $995. A portable case sells for $59, and it has sufficient room for a solid-state stereo power amplifier available from Crown.

For more information, circle 187 on reader service card

**DUAL 1009SK AUTOMATIC TURNTABLE**

- DUAL has recently introduced the Model 1009SK automatic turntable, which combines many features of the 1009 (which it supersedes) and the 1019. Like the 1019, the new 1009SK has four speeds, a balanced tone arm with low-friction bearings, and a sensitive trip mechanism that allows tracking forces of as little as 0.5 gram to be used during automatic operation. Tracking force is "dialed in" by an accurate calibrated adjustment at the arm pivot. Record spindles are interchangeable for use of the machine as a changer or for single-play operation. With the single-play spindle in place, automatic arm indexing and shut-off still function.

The arm is so designed that the vertical tracking angle changes by less than 6 degrees from beginning to end of a stack of ten records (this is less than the variation from unit to unit in many types of cartridges). The stylus force is also constant within 0.2 gram over the full stack of records. The arm-bearing friction, referred to the stylus tip, is less than 0.1 gram in the Model 1009 and under 0.04 gram in the 1009SK and 1019 (according to the manufacturer). After the machine has been used as a changer, records can be lifted off without removing the spindle.

The 1019 has a vernier speed control that provides about 6 per cent speed variation at each nominal setting and a heavy, 7 1/2-pound balanced non-ferrous platter. The 1009SK, on the other hand, lacks the vernier speed adjustment, and its balanced platter weighs slightly over four pounds.

The 1009SK and 1019 models share a number of features not found in the discontinued 1009. They have a highly effective anti-skating compensation, which is adjusted by a calibrated dial at the base of the arm-pivot system. The dial is set to correspond to the tracking (Continued on page 36)
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APRIL 1967
force, which provides the optimum amount of torque to oppose the inward torque or skating. The degree of compensation is set for optimum performance with a 0.6-mil stylus. Styli of different dimensions or with elliptical shapes require slightly different amounts of compensation, which can be determined from a table in the instruction manual for the 1009SK.

A silicon-damped cueing device raises the pickup as much as 3/8 inch from the record surface and lowers it gently when the lever is flicked to the normal position. The cueing mechanism retains control of the arm position until it reaches the record surface so that the arm does not tend to move outward as it descends. Other automatic turntables have stationary spindles, and discs with slightly undersized center holes may therefore bind. The Dual players, like manual turntables, have spindles which rotate with the platter, eliminating one of the record-playing purists' last remaining objections to automatic record players.

The magnesium cartridge shell of the 1009SK and 1019 can be released simply by pushing the finger lift toward the rear of the arm. It has provision for adjusting the stylus overhang for minimum tracking error with any cartridge, and a plastic guide is supplied for locating the cartridge correctly in the shell.

Having previously tested the Dual 1009 and 1019, we fully expected the 1009SK to be of the highest quality. Nevertheless, we were not prepared for the results of our tests. The first unit we tested had the lowest wow, flutter, and rumble we have ever measured on a turntable, either manual or automatic. The wow varied from 0.03 to 0.04 per cent at all speeds, and flutter was 0.015 per cent. We suspect that these figures, particularly the flutter, represent the residual levels in our test instruments and records. The rumble, combining vertical and lateral components, was -39 db by NAB standards (unweighted) and was -42 db in the lateral plane. Obviously, the lighter turntable platter used in the 1009SK does not detract from its performance.

The turntable speed was nearly exact and did not vary detectably over a line voltage range of 80 to 135 volts. The automatic-change cycle required about 12 seconds when 33 1/3-rpm records were being played. The arm of the Dual 1009SK had a tracking error of less than 0.5 degree per inch of radius, except for a reading of 1 degree per inch at a 3-inch radius. These measurements were made with a cartridge installed with the jig provided, and we did not make any attempt to improve it by further adjustment. These figures are satisfactory, though not as outstanding as those for rumble and wow. A second sample measured 0.5 degree at a 3-inch radius.

The tracking-force dial calibration was accurate within 0.15 gram over the range from 1 to 4 grams. The arm resonance, with a high-compliance cartridge installed, was at about 10 Hz and had an amplitude of about 2 db. The Dual 1009SK floats on very compliant spring mounts, and hence it is nearly immune to shock and vibration as well as feedback from nearby loudspeakers.

The first sample of the 1009SK automatic had, by a small margin, the best rumble, wow, and flutter figures we have ever measured; the second unit tested was very close to being as good. But even if the wow, rumble, and flutter were to be increased two or more times, it would still rank as an outstanding instrument. The 1009SK sells for $109.50, $20 less than Dual's top-of-the-line 1019. Various attractively styled oiled walnut bases are available from $6.95 to $34.95.

For more information, circle 188 on reader service card

**FISHER 700-T STEREO RECEIVER**

- Although many moderate-price integrated stereo receivers perform very well, a segment of the audio-hobbyist community will not accept even the small design compromises that occur when combining tuner and amplifier on a single chassis. The Fisher 700-T receiver is apparently intended to satisfy the most critical group of audiophiles. The all-solid-state tuner section uses three field-effect transistors (FET's) in its front end (replacing the nuvistor tubes used in previous Fisher models) and has a conservatively rated IHF sensitivity of 1.8 microvolts.

The audio amplifiers of the 700-T are rated at 40 watts per channel into 8 ohms (50 watts into 4 ohms) at less than 0.8 per cent distortion. In addition to the usual volume, balance, and tone controls (the latter being concentric types which can be adjusted individually or simultaneously), the Fisher 700-T has switchable loudness compensation, FM muting, and high- and low-cut filters.

The input selector has positions for TAPE HEAD, PHONO, AUX, and three FM settings: AUTO, STEREO, and MONO. Set for AUTO, the receiver switches automatically between mono and stereo reception (an operation controlled by the transmitted pilot carrier), and signals stereo reception by a red light on the dial scale above the tuning meter. In the STEREO setting, the receiver responds only to stereo broadcasts, giving no audio output from mono broadcasts. In MONO, all stations are received monophonically.

In the 700-T, the functions of a mode selector and tape-monitor switch have been combined. In the three counterclockwise positions of the switch, the receiver operates either in mono, stereo, or with the sub-channel noise filter for stereo FM weak-signal reception. In the three clockwise positions of the switch, the receiver is set up for tape monitoring or playback from a three-head tape recorder, or for playing back either track of a mono tape through both speakers. Like many current receivers, the Fisher 700-T has provision for pairs of main and remote speakers, with a switch to select either or both pairs or to turn off all speakers for headphone listening via the front-panel jack.

(Continued on page 38)
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Considered only as an FM tuner, the Fisher 700-T would rate special mention. Its measured IHF sensitivity was 1.6 microvolts and its limiting sensitivity (where the distortion and noise are within 3 db of their ultimate minimum level) was 2.8 microvolts. It is one of the most sensitive FM tuners we have ever tested.

Stereo FM channel separation averaged about 27 db over most of the audio range. Drift was undetectable, and the interstation muting and automatic stereo operation were flawless and unobtrusive in their action. There are LOCAL and NORMAL antenna terminals on the rear of the receiver to prevent overload of the front end by strong nearby stations. We found some very low-level cross-modulation when listening to weak signals spaced 400 kHz from strong local stations. We found some very low-level distortion and noise (which were also very low but nonetheless stronger than the distortion components). Intermodulation distortion was about 0.6 to 0.7 per cent over the full audio range, and at one-tenth power (3.6 watts) it was very slightly more than it was at 18 watts.

The 1,000-Hz harmonic distortion was in the vicinity of 0.2 per cent up to slightly more than 30 watts output, rising sharply to 1 per cent at 36 watts. Below 3 watts, the distortion was very low and was obscured by hum and noise (which were also very low but nonetheless stronger than the distortion components). Intermodulation distortion was about 0.6 to 0.7 per cent at any power level below 30 watts.

The Fisher 700-T has a property rarely found in transistor amplifiers. It will drive large capacitive loads at full power, and at the highest audio frequencies, without degradation or damage to itself. We could discern no effect from placing a 3-microfarad capacitor across the 8-ohm load resistor while driving the amplifier to 40 watts output at 20,000 Hz. We would consider this amplifier especially well suited to driving electrostatic speakers, which are anathema to many transistor amplifiers.

Although the NAB tape-head equalization was very accurate (+0.5, −1.5 db) from 30 to 15,000 Hz, the RIAA phono equalization in our test sample had a downward slope, resulting in an error of several db at about 50 Hz.

With one channel driven, at 1,000 Hz, the 700-T delivered 40 watts with 0.8 per cent distortion, as rated. In accordance with IHF standards on amplifier tests, we measured the amplifiers with both channels driven, under which condition they delivered 56 watts per channel, with distortion under 1 per cent from 80 to 17,000 Hz. With a 4-ohm load, power output was about 56 watts; with a 16-ohm load, about 20 watts. At half power (18 watts per channel), the distortion was under 0.7 per cent over the full audio range, and at one-tenth power (3.6 watts) it was very slightly more than it was at 18 watts.

As we suggested earlier, the Fisher 700-T is meant to—and should—satisfy the most critical home-musicsystem requirements. It contains one of the most sensitive FM tuners available, plus a powerful, stable, low-distortion amplifier, making up an attractive, easy-to-use receiver. The Fisher 700-T is priced at $499.50. A walnut cabinet is available for $24.95.

For more information, circle 189 on reader service card.
We've been asked by many high-fidelity enthusiasts, "If nobody can hear frequencies below 20 and above 20,000 cycles, why bother to reproduce them?"

It's a reasonable question—one that has set off much discussion in hi-fi circles over the past few years.

Some manufacturers deliberately build audible-sound barriers into their amplifiers, clipping response at these arbitrary frequencies on the assumption that what lies beyond doesn't matter.

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What happens when a stereo receiver doesn't reproduce faithfully the overtones and low fundamentals the ear can't catch? By deliberately chopping bandwidth at these boundaries, it's unwittingly added distortion—frequency and phase distortion—in the area where the ear can hear it. An otherwise good instrument is robbed of that ultimate degree of realism that distinguishes a truly great receiver from the crowd.

So it was natural for us to design our new Nocturne receivers with frequency response that's octaves wider than many manufacturers think necessary. It's this ultra-wideband concept that brings out all the pure undistorted sound you're entitled to. Ultra-wide frequency response lets Nocturne owners know one voice from another, one instrument from another, as easily as if they were sitting at a live performance. Harman-Kardon, Inc., 401 Walnut St., Philadelphia, Pa. 19105.

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FREE

WATCH YOUR (TECHNICAL) LANGUAGE

A short glossary of misused audio terms

By EDGAR VILLCHUR

THE MEANING of words changes with time and with use. When George IV said that the Brighton Pavilion was awful, he didn't mean that it was appalling, but that it filled him with awe.

Technical language is more rigorous than colloquial language; it is part of the discipline that it serves. It is changed by professional usage to reflect changes in technology rather than in popular speaking habits. For example, the pick-up of an Edison phonograph was called a speaker. It performed two functions—it translated the record-groove indentations into mechanical vibrations, and it radiated sound into the room. Later, in the electric phonograph, these two functions were assigned to separate components. The term speaker was transferred, logically enough, to the component that made the sound.

Audio terms are occasionally changed by popular rather than scientific usage. Sometimes the change does no harm and adds color. The correct technical term for any fluctuation in record or tape speed is flutter: the onomatopoetic term wow has come to mean those variations that are slow enough to be recognizable as pitch changes. The colloquial expression is apt and doesn't detract from the precision of the language.

But sometimes the popular change in meaning—perhaps introduced by advertising copywriters not really familiar with the phenomenon or device represented—is unacceptable. The new meaning may conflict with standard usage in the rest of the scientific world, or it may usurp a term still needed in its original meaning. Here are some examples of improper usage.

- **Dynamic balance**: a term usually applied improperly to a statically balanced tone arm whose stylus force is derived from spring tension rather than gravity. Dynamic balance is a standard term in physics. It describes the state of a system whose mechanical balance at rest is not upset by inertial forces when it is in motion. Static neutral balance is important in tone arms, but true dynamic balance has no significance at all in this component and few if any arms have it, whatever the claims. (This includes the AR turntable, which I designed.) Dynamic balance in a tone arm would require that the line connecting the centers of mass on each side of the pivot not only pass through the pivot axes, but be perpendicular to them.

- **Stylus pressure**: used in place of the correct term **stylus force**. Pressure is also a standard term in physics, meaning force per unit area. A light force can create great pressure if the area of contact is small. The inaccurate usage would be a relatively minor offense if it were not for the fact that the actual pressure between the stylus tip and the record groove is a matter of engineering concern, and a word is needed for it. Substitution of the word **pressure** for **force** is apparently so common that the American Standards Association takes note of the term **stylus pressure** as a "deprecated" form of **stylus force**.

- **Tracking**: used as an incorrect substitute for **tracing**. As in the case of **stylus pressure**, no matter how widespread the use, the term **tracking** is bad, because it leaves no independent expression for the original meaning. Tracking refers to two or more variables keeping in step with one another. For example, the two ganged sections of a stereo volume control are said to track bad if, for a given turn of the knob, the volume of one channel changes more than the other.

Tracking in a record player means keeping a constant relationship between the angle of the cartridge and the tangent to each succeeding groove at the point of stylus contact. When an arm (Continued on page 42)
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tracks well, the cartridge remains tangent or nearly tangent to each groove.

Tracing, on the other hand, refers to the way the needle follows the zig-zag path of the groove modulations. If the vibratory path of the needle is not an accurate copy of the groove modulations, tracing is said to be imperfect.

Confusion between these terms does not allow a clear distinction to be made between two quite different phenomena—tracking distortion and tracing distortion. The former has to do exclusively with lining up the cartridge and groove, while the latter is associated with such factors as insufficient stylus force, a worn stylus, or the difference between the shapes of the recording and reproducing styli.

Four-pole motor: used incorrectly to denote a non-synchronous motor of the induction type. Turntable motors are all too commonly thought to be classified into two types—the hysteresis and the four-pole. The confusion of this classification reminds me of a children's joke in which one is asked if he would rather go to Europe or by boat. It is based on two false assumptions: (1) hysteresis motors do not have poles, or if they do it is always some number other than four; and (2) hysteresis motors are the only kind of synchronous motor used in audio devices.

Of the current hysteresis turntable motors, the majority are four-pole, as are most of the induction motors. The hysteresis motor is one type of synchronous unit used in turntables; another is the permanent-magnet synchronous motor used in at least one commercial turntable.

Speaker doubling: used incorrectly to mean speaker distortion. This misnomer is apparently derived from the mistaken idea that most speaker distortion is second-harmonic. The symmetrical construction of a dynamic loudspeaker is such that all even orders of harmonic distortion tend to be suppressed. The predominant order of distortion is almost always the third harmonic, so that one could legitimately talk about loudspeaker "tripling."

One of the worst cases of speaker distortion I ever came across, with the distortion meter reading 98 per cent at 30 Hz, showed less than 4 per cent second-harmonic distortion. The acoustical output with a 30-Hz electrical input was an almost pure 90-Hz tone.

Anyone who uses technical audio language should own the American Standards Association publication Acoustical Terminology. It is the highest authority there is in such matters, and is obtainable for $5.50 from the American Standards Association, 10 East 40th Street, New York, New York 10016.

Edgar Villchur is President and Director of Research, Acoustic Research, Incorporated.
We don't presume to tell you how to spend your time between now and April. You can bug your dealer, if you wish, but please don't. What you can do is reserve a demonstration of what will be the most exciting FM Stereo tuner ever developed. You know Sony, and the kind of magic they work with transistors. Their new tuner is really something special and different. But we repeat, it won't be ready until April.

In the meantime, spend some time with your family, or visit your dealer and listen to Sony's fabulous solid-state stereo amplifiers. The TA-1120, an integrated model, delivers 120 watts of pure power with virtually no distortion and has the most sensible arrangement of functions. It's the one that is drawing rave notices from the high fidelity editors. The TA-3120 is a power amplifier only, identical to the one employed in the TA-1120. Prices are respectively $399.50 and $249.50, suggested list.

While you're at it, fiddle with the ingenious Sony PUA-237 and PUA-286 tonearms, or spend some time trying to detect a noise or rumble from the new servo-controlled Sony TTS-3000 turntable. Or check the new moving-coil cartridge, VC-8E. Above all, tell your high fidelity dealer to save a front-row seat to hear the new Sony FM tuner, available in April.

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The Marantz components illustrated, top to bottom: SLT-12 Straight-Line Tracking Playback System • Model 15 solid-state 120-watt Stereo Power Amplifier • Model 7T solid-state Stereo Pre-amplifier Console • Model 10B Stereo FM Tuner
Beethoven's
FOURTH SYMPHONY

It has often been remarked that Beethoven's even-numbered symphonies represent their creator in his gentler, softer aspect, and the odd-numbered ones represent the fist-shaking, heaven-storming Beethoven. It is almost as if some inner compulsion demanded a kind of equilibrium as he moved from one symphony to the next, the balancing of fiery and defiant passion with easier, more lyrical expression. And it may be significant that, although in 1805 Beethoven drafted two movements of a symphony in C Minor, which ultimately became part of his Fifth, he set them aside and devoted himself in the following year to the more relaxed contours of the B-flat Symphony, published in 1806 as his Fourth.

Robert Schumann characterized Beethoven's Fourth Symphony as a "Greek maiden between two Norse giants"—referring, of course, to the two colossal symphonies on either side of the Fourth, the "Eroica" and the Fifth. Though the Fourth Symphony may present a more serene countenance than the two flanking it, it is nonetheless a work of astonishing power and freshness. Hector Berlioz wrote a perfect description of the score: "The character is generally lively, nimble, joyous, or of a heavenly sweetness." Beethoven's biographer A. W. Thayer referred to the "placid and serene Fourth Symphony—the most perfect in form of them all." And that irrepressible Beethoven enthusiast Sir George Grove found in the symphony "something extraordinarily entralling—a more consistent and attractive whole cannot be... The movements fit in their places like the limbs and features of a lovely statue; and, full of fire and invention as they are, all is subordinated to conciseness, grace and beauty."

A popular Romantic theory of the late nineteenth century tied the Fourth Symphony to the mysterious "Immortal Beloved" to whom Beethoven pledged his undying love in his diaries and notebooks. Beethoven spent much of the summer of 1806 visiting his friend the Count of Brunswick at his ancestral estate in Martonvásár, Hungary. Among the adornments at Martonvásár were the Count's sisters, Therese, Josephine, and Caroline. Beethoven was especially charmed by Therese and Josephine ("Tesi" and "Pepi"), and there has even been speculation that he and Therese became engaged.
Beethoven's Fourth Symphony has been well served in the recording studio. Arturo Toscanini made the first great disc performance in the 1930's; it is still available as an Odeon import. The stereo lists include Pierre Monteux's polished reading (RCA Victrola) and Ernest Ansermet's ebullient treatment (London, on tape as well as discs).

During that summer; the slow movement of the Fourth Symphony has been seen by some as the composer's declaration of love for her.

Subsequent examination of Therese von Brunswick's diaries, however, has revealed that there was nothing more between her and Beethoven than a deep and abiding mutual esteem. Josephine, on the other hand, is mentioned by Therese as evincing a rather "dangerous" interest in the composer; this testimony has been taken by some to indicate that it must have been Josephine whom Beethoven called his "Immortal Beloved."

Whatever may be the truth about Beethoven's emotional involvement at the time, the summer at Martonvásár was perhaps the calmest period in the composer's life. Days and nights were spent in joyful communion with dear friends, and the beauty of the estate and the surrounding countryside is echoed in the pages of the symphony then in the making.

The first great recording of the Fourth Symphony appeared in the mid-1930's, a performance by the BBC Symphony Orchestra conducted by Arturo Toscanini. On these eight 78-rpm sides (RCA Victor album 676) the distinguished conductor, then at the height of his powers, shaped a reading of total communication, the orchestra's musicians outdid themselves, and the recording engineers of EMI (in this and other London-originated recordings of the time) gave Toscanini the finest sound reproduction he was to enjoy for years. The one catch was that Toscanini refused to accommodate the musical continuity to the break imposed every four and a half minutes or so by the limitations of the 78-rpm recording process. The result was that the original issue of the performance had several very abrupt side breaks. An LP reissue of the performance is available on an imported Odeon disc (QALP 10227); the abrupt side changes have been joined together by tape editing, and the performance has a dazzling quality of impetuosity—and the slow movement a serenity—that is quite remarkable. This is one of the finest of all recorded performances by Toscanini, and it is recommended wholeheartedly.

There are fifteen other recorded performances of the Fourth Symphony available in this country, ten of them in sets of the complete Beethoven symphonies. Of the fifteen, ten are in both stereo and mono. Eight of the latter, it seems to me, are so good that the prospective purchaser cannot go wrong with any of them. These eight are the performances conducted by Ernest Ansermet (London CS 6070, CM 9255), Otto Klemperer (Angel S 35661, 35661), Josef Krips (Everest SDBR 3113, LPBR 6113), Pierre Monteux (RCA Victrola VICS/VIC 1102), Eugene Ormandy (included in the sets D7S 745 and D7L 345), William Steinberg (Command 11016SD, 11016), George Szell (Epic BC 1264, LC 3864), and Bruno Walter (Columbia MS 6055, ML 5365).

All these conductors bring to their performances a healthy and extroverted vigor, and all are very well recorded. The Ansermet and Ormandy performances may be regarded as the surprises among the lot, for whatever other good qualities these two have, they are not generally considered to be among the leading Beethoven conductors of our day. Yet both deliver readings of the Fourth Symphony that are extremely winning, sensitive, and satisfying. My own favorite among the eight performances cited is the one conducted by Pierre Monteux and played by the London Symphony Orchestra with immense polish and exuberance, but this may be because I cherish the memory of several Monteux performances of the score in the concert hall just a few months before he died.

Tape buffs have available to them a choice among four recordings: the performances mentioned above by Ansermet (London K 80057), Steinberg (Command C 11016, coupled with the third Leonore Overture, or GRT 22014, coupled with Beethoven's Seventh Symphony), and Walter (Columbia MQ 369), and also one by the Berlin Philharmonic Orchestra conducted by Herbert von Karajan (Deutsche Grammophon A 8803). Of these four, my nod would go to Ansermet: his bright, ebullient performance is given excellent processing in the tape medium, and on the other sequence of the reel is an equally successful performance of Beethoven's Second Symphony.
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A lineal descendant of the well-established transistor, the integrated circuit (above), is now making its first bid for the attention of the audio public.

SPECIAL REPORT: TRANSISTORS 1967

THE "TRANSISTOR REVOLUTION" IS NOW IN THE PROCESS OF CONSOLIDATING ITS TECHNICAL AND ECONOMIC GAINS

By PETER SUTHEIM

EVEN THE most conservative observer of the audio scene must by now agree that transistors have arrived. They have, in fact, completely displaced tubes in newly designed audio equipment. And within another two or three years—or however long it takes for transistor prices to come down even further—it is likely that tube amplifiers will disappear from the market.

Whenever a new technical approach completely supersedes an older one, consumers may wonder whether they are witnessing real progress or artificial obsolescence. In the case of transistor audio equipment, are manufacturers going “solid state” simply because it is cheaper for them, because market analysis has discovered that it is “what people want,” or because such equipment will deliver superior performance for the same or less money? In short, are transistors so much better than tubes for audio uses that they deserve to eclipse tubes completely? The answer to the last question, I think, is an unequivocal yes. Simply stated, there is no longer any valid technical reason for spending further engineering effort to design tube amplifiers, tuners, or receivers, because transistors do have certain undeniable advantages over tubes. Compared with tubes, transistors are:

- smaller and lighter;
- more efficient (they waste less power, producing far less heat while doing the same job);
• less subject to damage by shock and vibration;
• longer lasting, if used within their maximum ratings (this has still to be proved conclusively, but all evidence so far indicates that they are).

In addition, transistors are, in some instances, cheaper than the tubes that could perform an equivalent job—but this, of course, is a result of the other advantages above, which have brought transistor prices down by expanding the market for them.

Given all these cheery, positive factors, why then did transistor audio equipment get off to such a slow, faltering start? When we look into the question, everything seems to point to one obvious (or, depending on your background, not-so-obvious) fact: transistors are fundamentally different from tubes. It is not possible to "transistorize" a circuit simply by pulling out a tube and plugging in a transistor. Early trials at transistor design were certainly somewhat more sophisticated than that, but many of today's taken-for-granted circuits were yet to be invented, and the transistors that were then available suffered from current leakage, power limitations, and poor frequency response, along with non-linearity and a distressing tendency to self-destruction. Every one of these problems has since been resolved with today's new generation of semiconductors and the equipment they are used in. And there are a host of advantages available to the audio designer who knows how to work with transistors—advantages that come down to the buyer and the listener.

First, transistors don't have the same kind of inherent maximum-power limitations that tubes have. A transistor power amplifier, if driven hard enough, will try to produce all the current its load (speaker) can draw. Thus, most transistor amplifiers will deliver more power into a 4-ohm speaker than into an 8-ohm speaker. (There is a maximum-power limitation that tubes have. Most transistor amplifiers will deliver more power into a 4-ohm speaker than into an 8-ohm speaker. The efficient way to transfer maximum power from an electrical source (such as an amplifier) to an electrical load (such as a speaker) is to match the impedances of the source and the load. A high-impedance (say, 10,000 ohms) tube amplifier cannot feed power directly to a low-impedance (say, 4 to 16 ohms) dynamic loudspeaker without wasting 99.9 per cent of its power output—this is why an "output" transformer is used as a matching device between tubes and speaker. Good output transformers that can handle powers of 50 watts or so over a wide range of frequencies are large, heavy, and expensive. Transistors, on the other hand, are ideally suited for driving a speaker directly, thus eliminating the need for an output transformer. Gone are the volume, weight, and expense of the output transformer (two of them in stereo amplifiers), and gone also are the response-limiting problems such transformers customarily present.

The low impedance of transistors (typically one-hundredth of that of tubes) pays off in another way too—not just in the output circuit, but in every stage of an amplifier or toner. All wiring and circuit components of any kind have capacitive reactance with respect to all other wiring in the unit. This "stray" capacitance causes phase shift and high-frequency losses and makes the design of wide-range feedback circuits difficult. But the lower the impedance of a circuit, the less the effect such capacitance will have on the circuit's performance.

It is doubtful that anyone knows who first coined the expression "transistor sound," but everyone will agree that it has been responsible for a great deal of confusion. Is there such a thing as transistor sound? A number of engineers will tell you that there was, but that it is seldom to be heard these days. Why? Simply because it was bad, not good. It has been pretty well established that some early transistor amplifiers boasting "transistor sound" were in fact suffering from a sonic aberration called crossover distortion, which produced sizable amounts of spurious third, fifth, seventh, and higher harmonics. These harmonics put a wiry edge on the reproduced sound, a quality that can easily be mistaken at first for brilliance, transparency, crispness, and the like. But it is still distortion.

But there are also some top engineers who maintain that transistor sound is superior to tube sound and believe the reason can be found in the transistor amplifier's unique electrical relationship to the speaker. A speaker system presents a very complex load to any amplifier; it appears—to the amplifier—to be a network of capacitors, coils, and resistors. As a result, the speaker's effective impedance depends upon the frequency of the signal driving it. A speaker's "nominal" rated impedance (if derived according to the Electronic Industries Association standard) is its minimum impedance over its usable frequency range. But the use of multiple drivers and adjustable mid-range and tweeter controls in a system frequently results in radical departures from the nominal rating at some frequencies. Depending upon the engineer you talk to, you will hear that:

1. All this makes no difference whatsoever—a tube and a transistor amplifier will be sonically indistinguishable from each other if their specifications are the same.
2. Improved speaker handling is the major factor resulting in improved sound in transistor equipment because (a) the amplifier is able to deliver more power to the fluctuating speaker impedance, particularly when the speaker is at its lowest impedance, and (b) the amplifier is able to deliver more peak power to a speaker load that is reactive (*i.e.*, one whose resistance changes with frequency) than it can to a purely resistive load such as is used for amplifier testing. And under a possible subcategory (c) might be listed the opinion of a few engineers who feel that transistor equipment's improved damping factor at low frequencies and the ability to use more feedback also make significant contributions to sound quality.

An increasing number of engineers, particularly among those companies that have produced top-level tube as well as transistor equipment and who therefore have extensive experience with both, believe that there is no inherent sonic advantage in transistors, and that the same results could have been (or actually were) achieved with tube equipment. They agree, however, on the physical virtues of compactness and cool operation, and some state that excellent performance is slightly easier to achieve at lower cost with the new transistors. (The price to the consumer is no lower at present because years of extensive engineering design time still have to be paid for.)

To backtrack a bit, it is generally agreed that some of the early transistor amplifiers really did sound far better than their audio measurements would account for. This apparently impelled a number of engineers to reinvestigate the subtler details of amplifier design and measurement. Such factors as overload recovery time, transient rise time, high-order harmonic-distortion analysis—all these got concentrated attention from a large number of engineers for the first time. As a result, we now have transistor amplifiers that, in some minor or major aspects, are better than the best tube amplifiers. So if there is a transistor sound now, it is probably only, in a literal sense, the sound of high fidelity.

Some transistor equipment, of course, is still terrible—as is some tube equipment. There are always people willing to manufacture profitable junk, and their unlovely products are available right alongside the best. The counsel is clear: do not buy equipment just because it is "transistorized"; buy it because it checks out well in the lab and sounds good to you in the store.

**HOW THE TRANSISTOR WORKS**

A **transistor** is a semiconductor device capable of amplifying an electrical signal—that is, of using a small current to control a larger current. Today's transistors are made of either silicon or germanium, chemical elements that fall between the metals and the nonmetals in their electrical properties. For use in a transistor, the silicon or germanium is first highly purified, then "doped" carefully with tiny quantities of particular impurities, which give the end transistor material the desired electrical characteristics. Common transistors have three active parts: emitter, collector, and base. At (A) above, a battery is shown connected between the emitter and collector terminals. The polarities are such that there is no current flow through the load in the collector-emitter circuit. If another battery is connected between the base and emitter terminals with the polarity shown in (B), a small current will flow (say, 1 milliampere) in the base-emitter circuit. This small current flow results in a larger current flow (perhaps 10 milliamperes) in the collector-emitter circuit.

If, instead of using a steady d-c source such as a battery, a varying source of electrical signal such as the audio signal from a phono pickup is used to vary the base-emitter current (C), the collector-emitter current will vary accordingly. Because the collector-emitter current is ten times greater than the base-emitter current, we have amplified the signal by a factor of ten.

The drawings above illustrate the action of npn transistors. A pnp transistor uses p-type semiconductor material for the collector and emitter, and n-type for the base. The battery polarities must be reversed. Circuit symbols for the two types are shown at (D).
Echoes of the perhaps premature debut of transistors on the audio scene still resound in the marketplace, and skeptics still have their questions. Do transistor amplifiers tend to blow out their output and/or driver transistors when presented with an incorrect or shorted load? No. All the better amplifiers now have some kind of protective circuit that prevents transistor damage when the amplifier is overloaded. No recent transistor amplifier of reputable manufacture is likely to be damaged by brief shorts (or sometimes even prolonged ones) in the speaker wiring, even at high signal levels. Some few will still go under when confronted with long-term short circuits at full power—long-term meaning, in this case, several minutes.

Barring the catastrophic failures caused by mistreatment, transistor equipment is, on the whole, more reliable than tube equipment, primarily because of three things: First, transistors themselves have none of the built-in "failure mechanisms" of tubes: there are no heaters to burn out or cathodes to lose electron-emitting capacity, no grids to become noisy or emissive, no evacuated spaces to become gassy. Second, transistors use much lower operating voltages than tubes (one tenth or less), and that means lower electrical stresses on the associated circuit components such as capacitors and resistors. Third, transistors produce less heat than tubes, so operating temperature tends to be much lower in transistor amplifiers than in tube amplifiers of equivalent rating. High temperature, of course, is the greatest enemy of electronic component parts.

Transistors do not "wear out," as far as we know. The best indication of end-of-useful-life that anyone has been able to find is a gradual increase in noise; but even that doesn't seem to happen with all transistors, and when it does, it happens only after many tens or even hundreds of thousands of hours of continuous service. However, although the likelihood of breakdown is smaller with transistors, when a breakdown does occur, other parts are apt to go also and it is harder to get competent repairs. Experienced service technicians grew up with tubes; transistors and their circuits are still new to many of them. Also, many transistors and diodes used in high-fidelity amplifiers are not replaceable off the shelf—they may need to be specially selected for low noise or high gain, or matched in pairs or groups of four. So, if you live in a small town where the local technician specializes in washing machines, Toasters, and TV sets, you had best ship any malfunctioning solid-state equipment back to the manufacturer or to one of his authorized service shops for repair.

The first attempts to make transistors work in FM tuners were no more successful than they had been with amplifiers. For i.f. stages, transistors offered no real advantage over tubes until high-gain, high-frequency silicon transistors appeared at reasonable prices only a few years ago. Transistors in the front-end tuning sections were not only no help; they were a handicap, since they are much more susceptible than tubes to overload by strong stations, resulting in cross modulation. Cross modulation makes a strong FM station appear spuriously at several places in a receiver's tuning range, often right on top of one or more weaker stations. The cross modulation problem is the reason why some otherwise all-transistor tuners had tubes (nuvistors, for example) in their front-ends.

Front-end difficulties in FM tuners have now been largely overcome by the use of a new kind of transistor, the field-effect type. The field-effect transistor (FET) was developed about fifteen years ago, but has only recently become inexpensive enough to be used in hi-fi equipment. The FET works on an entirely different principle from the conventional transistor. The answer to a fanciful engineer's wild daydream, it combines some of the best aspects of the tube and the transistor. Although it has the same physical appearance as a transistor, it can be used in circuits in much the same way as a vacuum tube. A number of manufacturers are using FET's in the r.f.-input sections of their FM tuners and receivers, and these companies will, without doubt, be joined by others. At the present time, FET's are considerably more expensive than either tubes or transistors, but their cost will inevitably come down as they come into wider use. And as the cost comes down, engineers will probably start incorporating FET's into preamplifier sections and tape recorders, where they will achieve small but significant im-
productions in signal-to-noise ratio. And they are already being used as low-noise pre-preamplifiers in some quality condenser microphones.

An even more recent semiconductor development, the integrated circuit (IC), has appeared in FM tuners and receivers. (The term "integrated" has nothing to do with the phrase "integrated amplifier," meaning a combined preamplifier-power amplifier.) An IC is a combination of active elements (ones that amplify, such as transistors) and passive elements (such as resistors and capacitors)

produced as a unit etched into a silicon chip—usually a tiny one about the size of a pinhead. The techniques used to produce IC's are among the most precise in modern technology, entire micro-electronic circuits being fabricated on a chip without any kind of wiring or assembly. The finished chip is fastened to a header that provides connections from points on the chip to the outside circuits. The header is then sealed in a tiny metal or plastic enclosure about the size of a pencil eraser.

In addition to all the advantages of transistors, IC's offer some attractions all their own. The amplifying characteristics of IC's are more uniform from unit to unit than those of transistors, which makes the engineer's job simpler and his results more predictable. Conventional transistors of the same type number may be spread over a current-amplification range of as much as 5 to 1, but IC's, more uniform to begin with, also incorporate a great deal of self-compensation in the form of negative feedback within the circuit. That means very little variation from unit to unit.

Because of their higher gain per unit, IC's permit full noise-limiting in FM tuners at lower signal levels than ever before; the result is greater sensitivity. Their limiting is also more symmetrical than that of transistors: IC's clip off negative and positive peaks of the signal waveform equally, which helps maintain a good capture ratio. At the present time, IC's are finding their major hi-fi application in the i.f.-amplifier stages of tuners and receivers, but we can expect them to appear in preamplifiers and in the driver stages of amplifiers in the not-too-distant future.

Considering all these radical developments and the sonic improvements that have resulted from them, is now the time to unload all your tube equipment? Certainly not—not if it still sounds good. Look into transistor equipment when you feel dissatisfied with the performance of your present system, or when it is due for a major repair or overhaul. You will find that every manufacturer of hi-fi amplifiers and tuners is making semiconductor equipment. Considering the wide choice of quality units available, if you let the manufacturer's reputation, test reports, and your own two ears be your guides, it is hard to go wrong.

Future developments in solid-state technology may be expected to bring even better specifications and lower prices. But do not expect transistor equipment to get much smaller than the smallest units now available. The lower limit on size for tuners and control amplifiers is obviously set by the smallest practical knobs and dial scales. Transistor power amplifiers have eliminated the bulk of output transformers, but they still need hefty power transformers and very large electrolytic capacitors for voltage regulation and (some) for speaker coupling. The heat sinks needed to dissipate the heat from the very high-power output transistors also tend to put a lower limit on size. The transistor revolution can, in a sense, be considered to be over. The transistor has clearly won and it remains now only to consolidate and expand its sovereignty over the high-fidelity empire. And ten years from now, if we are not in the middle of another revolution, we will probably wonder what all the shouting was about.

Peter Sutheim, who has been writing on audio and other matters in the electronic field for several years, has also spent much time in the design and construction of solid-state equipment.
An oil portrait of Borodin by Ilya Repin shows the composer leaning against one of the columns of the St. Petersburg Academy of Medicine in a pose that captures the sense of a warm, affectionate family man, but with a touch of brooding other-worldliness.

By WILLIAM B. OBER

THOUGH the old maxim tells us that no man can serve two masters, Alexander Borodin, who started his professional life as a doctor, became equally famous as a professor of chemistry and as a composer. We know from common experience that many doctors and scientists are musical amateurs who move freely in musical circles: after all, Apollo was the god of both medicine and music. Borodin was fortunate, however, in being able to make the best of both possible worlds; most young men, when confronted with a career decision, an either/or choice, opt for one or the other. Both music and medicine (or any other science) are demanding disciplines, and since success in music commonly depends upon recognition of talent early in life (usually before the age of ten), the long years of conservatory study and practice preclude any young man’s becoming more than a talented musical amateur if he is more interested in a medical or scientific career.

The musical accomplishments of many well-known physicians are familiar—at least to the medical fraternity. Herman Boerhaave, the great teacher at the University of Leiden in the first third of the eighteenth century, had regular chamber-music concerts in his home, much to the delight of the foreign students who were attracted there by his reputation. Auchenbrügger, who discovered the art of percussion (not of musical instruments but of the thorax!), wrote the libretto for Antonio Salieri’s opera Der Rauchfangkehrer (The Chimney Sweep); his daughters took piano lessons from Haydn. Caspar Bartholinus, the eighteenth-century Danish anatomist, played several wind instruments with skill; he wrote De tibia veterum, a history of wind instruments. Jacob Henle, a nineteenth-century German anatomist, could play any string instrument and take any part in a string quartet. Hermann von Helmholz, the renownedphysiologist, was a fine amateur musician; his book Lehre von der Tonempfindungen (1862) reflects both his sensitivity as a musician and his stature as a physicist and physiologist. Theodor Billroth’s friendship with Brahms is well known; the surgeon was competent enough at the keyboard to play four-hand works with Brahms, and his book Wer ist musikalisch? (Who Is Musical?) should not be forgotten. In our own century many critics have lauded Albert Schweitzer as a Bach scholar and as an organist, possibly more for humanistic values than musical ones.

Yet the distance between the perceptive amateur and the skilled professional is all too apparent. Consider such physician-composers as Bernard Berenclow, Thom-
as Harrington, William Kitchner, Florent Kist: forgotten, known only to the encyclopaedist. The only two physicians who achieved lasting recognition as composers were Thomas Campion and Borodin. We know little of Campion's life, and his music is seldom heard these days, albeit undeservedly so. But Borodin's compositions, all too few in number, are in the regular repertoire of all orchestras and most chamber ensembles. Even pops concerts would be poorer without the Polovetsian Dances.

The outline of Borodin's life is accessible to anyone who reads program notes at concerts or jacket notes on recordings. In addition, Serge Dianin's full-length biography has recently been made available in English translation. However, it is useful to recapitulate a few salient features to keep in order the conventional landmarks of time, place, and person. Borodin was born in 1833, the illegitimate son of Prince Ghedeanov, then a man of sixty, and a much younger woman. His natural father provided well for his mistress and son, even arranging, in 1839, a marriage for her with a retired army physician.

As a boy, Borodin was lively, curious, and articulate; though not physically robust, he had a wide range of interests. He enjoyed acting out plays with his juvenile contemporaries; he took lessons on the flute and piano, and later on the cello; he painted many water colors; he was interested in all sorts of phenomena in natural science; he was excited by fireworks—how many composers from Handel to Debussy have adored fireworks!—and he played endlessly with chemicals in a laboratory that he had built on the top floor of the house in which he lived with his mother and physician stepfather. As a schoolboy he received outstanding grades, and he read the scientific semi-popular literature of his day avidly.

In 1850, Borodin entered the Academy of Medicine in St. Petersburg, completing his formal studies in 1855, cum extimia laude, but did not receive his M.D. degree until 1858, when he completed his dissertation. This thesis bore the title On the Analogy of Arsenious with Phosphoric Acid, surely a strange subject for a medical degree. What had happened between 1855 and 1858 was that Borodin had decided to leave medicine and become a chemist. After he had completed his formal medical studies, he was appointed to the Second Military Hospital in St. Petersburg, an assignment equivalent to an internship. There was little supervision and teaching at this hospital, and he found the routine work disagreeable. Thus, when medicine proved not to be the career he thought it was, Borodin cast about for another field. As an undergraduate, he had worked in the laboratory of Professor Nikolai Zinin, the distinguished founder of Russian chemistry, a man of great intellect and international reputation. Zinin accepted Borodin as a graduate student in 1856 and set him to work on inorganic acids—and hence the unusual subject for his master's thesis.

Throughout a decade of scientific study, music was Borodin's principal avocation. His favored instrument was the cello, and he particularly enjoyed playing Boccherini quintets. He played chamber music regularly as a medical student and as a graduate student in chemistry at St. Petersburg. He took his cello with him to Germany, where many of the scientists he met were also musical, and no doubt his willingness to play and his evident enjoyment of music-making made him a welcome guest. However, there is no indication that at this time he ever considered himself to be a musician or destined to become one. While in Heidelberg, he met Catherine Protopopova, a young pianist from Moscow, who had gone there to be treated for early tuberculosis. A mutual love of music drew them together and a happy courtship ensued. When Borodin finally returned to St. Petersburg in the fall of 1862, he was appointed Adjunct Professor of Chemistry at the Academy of Medicine; the young couple were married in the spring of 1863. A few months later they moved into a sprawling apartment at the Academy in the same building that housed his laboratory, and there they lived until he died almost a quarter of a century later. In 1864 he was appointed Professor of Organic Chemistry, his permanent academic rank.

The musical die was cast at about this time. Shortly after Borodin returned home, he was introduced to Mili Balakirev at the home of Professor Sergei Botkin, the warm-hearted physician who was a prime mover in the development of social-welfare work in Russia. Balakirev had already attracted to his circle the then immature talents of Cesar Cui, a military engineer; Nikolai Rimsky-Korsakov, a naval officer; and Modest Moussorgsky, an army officer. Never in the history of music was so much to be accomplished by such a handful of amateurs with so little formal musical training. Together they made up the famed "Russian Five" who were to foster Russian national music. Borodin's musical outlook was congenial to the other four; they all shared an admiration for Glinka, who had died in 1857. To use a term coined by Borodin, they were all confirmed "Russianists" (from Glinka's Russian and Ladunya, an opera whose overture is familiar to American concert audiences). Balakirev's influence was that of a catalyst. Dianin's biography states the dynamics clearly: "The significance of this meeting with Balakirev lay not in any sudden, imaginary 'revolution,' but in the experienced Balakirev's recognition of his [Borodin's] true musical vocation and of the powers hidden within him." To this catalytic function one might add that Balakirev, like Borodin's stepfather, and like Zinin, was a father image. Borodin needed the advice and encouragement of an older man whom he looked up to, someone to make him
Never before had so much been accomplished by so few with so little in the way of formal musical training: the creation, almost out of nothing, of a Russian music. Mikhail Glinka (far left) was the pioneer, the discoverer. But the others settled the musical land and built in it a thriving national tradition—in an odd room on Sunday, a free evening during the week, time off from being conscious of his ability and to give him a firm push on the road. By the end of December, 1862, Borodin had completed the first movement of his First Symphony, and he played it for his fiancée when he visited her in Moscow over the Christmas vacation (Christmas in Russia is celebrated on January 6).

The first movement of Borodin's E-flat Symphony is constructed on a startling innovation of musical form—an innovation that was to have considerable impact on music written later, though Borodin has not generally received credit for it—and it is tempting to equate this new rhetorical device to developments in the field of organic chemistry in the late 1850's and early 1860's. Instead of using the conventional sonata form (two contrasting subjects with exposition, development, and recapitulation), Borodin built the movement on a single theme, but the listener is not aware of it until almost the end of the movement. Fragments of the theme are given out, developed, and played off against one another, but the fragments are not permitted to fall into place, and the full theme is not enunciated, until just before the coda. The form is that of an inductive synthesis: individual elements or groups of elements are successively combined to form a final product, or statement. Later symphonists, notably Sibelius, copied this innovation, and many individual movements in twentieth-century orchestral and chamber music are modeled on the principle in one manner or another. It is reasonable to speculate that this form, this rhetorical device, would appeal to a chemist of the 1860's. In 1861, Borodin had attended a congress of chemists in Germany at which Butlerov gave his famous paper on "Aspects of the Structure of Chemical Combinations," and at about the same time Kekulé, whom Borodin had met in Heidelberg, was working out the correct molecular structure of the benzene ring. Structural chemistry and synthetic organic chemistry were just beginning to appear as scientific disciplines at this period. Borodin's orientation toward synthetic chemistry may have influenced, consciously or not, his choice of a form in which to cast his musical ideas. At any rate, he would have been the right man at the right time for just such a transfer of ideas from science into art.

One cannot pretend that during his two decades of composition Borodin was a systematic composer. The critic V. V. Stassov describes a visit to Borodin's laboratory: "After mixing some reagents in a reaction chamber, he would go down the hall to his music room, write down a few bars, work out some harmony, then return to the laboratory bench for further manipulations of chemicals and apparatus." Borodin used to refer to himself as a "Sunday" composer, and, indeed, the physical aspect of the Borodin ménage at the Academy was scarcely conducive to systematic, well-ordered work. The rent-free quarters were a semi-public corridor without much privacy. According to Rimsky-Korsakov's memoirs:

People swarmed through it at all hours of the day or night—students seeking advice, friends seeking company, relatives seeking shelter. The relatives, especially, came often and in large number, choosing Borodin's home as a convenient hospice in which to fall ill or even go mad. When the beds were all taken, they would sleep on couches or the floor, or else doze in chairs; not infrequently they appropriated Borodin's bed. The apartment itself was usually a litter of disorder or disarray. Five years after they moved in the Borodins still picked their way around piles of books and music, half-unpacked trunks and suitcases. On one occasion when carpenters and plumbers came to repair defective drains, they left holes in the floor that remained for months... Meals were fantastically irregular; dinner often began as late as eleven o'clock at night. Along with transient guests, relatives, and partial strangers the Borodins shared their meals with a colony of cats, bold animals of both sexes and varying sizes which walked on the table, examined the food, leaped on the backs of the
an engineer, a chemist, an army or navy officer. Balakirev alone, at the beginning, was a full-time musician; the others were amateurs, Sunday composers whose innocence of the size of the task they set themselves allowed them to accomplish it. From the left, after Glinka, the "Russian Five": Borodin, Mili Balakirev, Cesar Cui, Nikolai Rimsky-Korsakov, and Modest Moussorgsky.

diners, and in general treated the household as a feline liberty hall.

One could say, in a literal sense, that Catherine kept a disorderly house, but she was in poor health: her tuberculosis progressed very slowly, and it was complicated by severe asthmatic attacks which gave her sleepless nights. When the climate of St. Petersburg grew too severe, she would go on long visits to her mother in Moscow, leaving Borodin to shift for himself. Yet, instead of complaining about his ambiance, Borodin thrived on it, despite a rather nervous temperament and an intermittent sequence of psychosomatic ailments. The fact that Borodin had been raised in a household of adults, without siblings, may account in part for his intellectual precocity, but his evident satisfaction with his wife and her domestic arrangements suggests an element of reaction to his mother, whose household, though populated by a series of lovers, was on the surface well ordered and "proper." Catherine's physical and emotional dependency on him must have filled some emotional need in Borodin, supplying something of which he had been deprived as a child. The host of free-loading relatives Rimsky-Korsakov describes were hers, and the constant needs of the ubiquitous Protopopoffs for advice, intercession with officials, and medical care provided Borodin with a ready-made family of his own.

Under such circumstances it is not surprising that the First Symphony was not finished until 1867. Indeed, Borodin's reputation rests on only a handful of major works. If we exclude juvenilia and ephemera, we have an opera (Prince Igor), two complete symphonies and two movements of a third, two string quartets, and a tone poem (In the Steppes of Central Asia). Borodin was an intermittent composer. He began work on Prince Igor at Stassov's suggestion in 1869-1870, laid it aside for a few years, began his Second Symphony and worked on that from 1869 to 1873, resumed work on the opera in 1874, and worked on it piecemeal until his death in 1887, leaving it unfinished. We know Prince Igor today in the score completed by Rimsky-Korsakov and Glazunov; its first performance took place in 1890. Moreover, the Second Symphony was not completed until 1876. In between times during the 1870's, when tired of working on the symphony and when inspiration faltered in Prince Igor, he composed the String Quartet No. 1, in A Minor, also in fits and starts, from 1874 to 1879. Only twice did Borodin begin a composition, stick with it, and see it through to completion without interruption; these works were the tone poem In the Steppes of Central Asia (1880) and the String Quartet No. 2, in D Major (1881). The two movements of his Third Symphony were composed in 1886-1887; they were in rough form at his death, and Glazunov finished off the scoring. Apart from this handful of important compositions, between 1867 and 1885 Borodin wrote about a dozen art songs. Although they are among the most beautiful in the Russian literature, they are rarely heard in concert in Western Europe or America.

One finds a similar pattern in Borodin's work as a research chemist. During his years as a graduate student and a traveling fellow (1858-1863), he completed and had published thirteen separate scientific papers, but during the more than two decades of his tenure as full professor at the Academy there were only another thirteen papers actually put into final draft and published. Some of his important contributions were delivered at local meetings of the Chemical Society at St. Petersburg and reported briefly in the published proceedings, but were never written up in full. During these two decades, however, he taught the undergraduates, trained his graduate students, traveled to scientific meetings, and undertook
a major role in the development of medical training for women in Russia. This last activity merits special comment, for Borodin's pioneering work did not begin to bear fruit until after the Bolshevik Revolution, and today Russia leads the world in the number of women doctors, over fifty per cent of the medical graduates being women.

Among the items affected by the liberal reforms of Tsar Alexander II (1855-1881) was the revision of the entire Russian educational system. No longer was the emphasis exclusively on classics and the humanities; there was an upsurge of interest in science, both pure and applied, and the impulse for it was derived from the highest official circles. Under the influence of such high-minded paternalism, general interest developed in higher education for women in a number of fields. In 1872, Borodin and some colleagues founded the Women's Medical College of St. Petersburg. He himself assumed the duties of professor of chemistry and treasurer. He was deeply committed to the cause of medical education for women at a time when it was almost unheard of in Western Europe, and he devoted endless hours to administrative details of organization and management. At the same time his tasks at the Academy were increasing, for Professor Zinin, whom he idolized, was old and in failing health. The duties of giving a double set of lectures and training an extra group of graduate students fell on Borodin. Small wonder that both music and chemical research progressed in fits and starts!

Unfortunately, Tsar Alexander's reform program moved too slowly to satisfy the radicals, and he was assassinated by Nihilists in 1881. Alexander III (reigned 1881-1894), immediately adopted a policy of reaction and repression. Many of the social and educational gains were abolished. Some of the more outspoken students (we would call them liberals today) were harassed by the police, and Borodin did his best to protect them. In 1882 the government took steps to abolish the Medical College for Women; Borodin and his associates tried in vain to have it reprieved, but the institution was closed and its influence was felt again only after the revolution.

One of the most significant events in Borodin's life was his meeting with Franz Liszt in 1877 at Weimar. He was rather shy about presenting himself to the "grand old man" of European music, but Liszt received him warmly. Borodin showed him the score of the B Minor Symphony and even played the Scherzo for him in a piano-duet arrangement. Liszt praised the symphony and encouraged Borodin, saying "Go on working, even if your music is not performed or published, even if you get bad reviews. Believe me, your works will make their way through their own merit. You are immensely gifted and most original. I am not merely paying you compliments. I am an old man and it would not become me to say other than what I think." Again, this was a firm push from a father figure; Borodin returned to St. Petersburg, worked hard on Prince Igor, finished the A Minor Quartet, and then, in 1880, set himself firmly to work on In the Steppes of Central Asia, which he dedicated to Liszt, who after all had "invented" the tone poem. On a subsequent visit to Germany in 1881, Borodin was again able to combine attendance at a scientific meeting with a visit to Liszt. He showed him the score of this colorful orchestral piece, and Liszt was delighted with it. Liszt was a seminal influence on advanced music of the period, and his recognition of Borodin's merit must have been taken as a ratification.

Borodin's creative pace slackened somewhat during the last few years of his life. Increasing academic duties, travel to meetings, and official business conspired to keep him from finishing the Third Symphony and Prince Igor. In 1885 he suffered a severe attack of cholera and never regained his health or his strength. Yet he continued to serve his two masters, chemistry and music. He died suddenly while attending a ball at the Academy in the early winter of 1887. He had arrived in high spirits, wearing a red blouse and black leather boots, a sort of native costume. While chatting and joking with friends, he collapsed and died within a minute or two.

Borodin was buried in the cemetery of the Alexander Nevsky Monastery; his grave is not far from those of Dostoievsky, Tchaikovsky, and Anton Rubinstein. On his casket was placed a silver plate sent by the women doctors he had taught, inscribed

To the founder, protector, and defender
Of the School of Medicine for Women.

After his death a monument was erected, somewhat ornate to twentieth-century eyes, but nonetheless rich in associations. An elaborately carved granite shaft with a central recess serves as the background for a bronze bust of the composer. Behind the bust, reproduced in mosaic, are quotations from his music—the theme from the first movement of the First Symphony, the motif for the chorus of Polovetsian Maidens from Prince Igor, the first bars of his Song of the Dark Forest, the opening theme of the Scherzo of the Third Symphony, and the opening notes of In the Steppes of Central Asia. On the face of the pedestal that supports the bust there is a carved image of a kobza, a traditional Muscovite folk instrument. The tomb is surrounded by an elaborate iron railing; in the center of it is a shield embossed with the formulas of chemicals Borodin had isolated or synthesized. It is an old-fashioned, sentimental monument, but it serves to recall the several facets of Borodin's peculiar genius.

William B. Ober, like Borodin, is a member of the medical fraternity and has an avid avocational interest in music. He is currently a pathologist at Knickerbocker Hospital in New York City.
Though some vast computerized science of the future may eventually pinpoint for us the source of artistic inspiration, it is today as mysterious a spring as it was for the ancient Greeks. In the case of musical creation, they found the usual convenient pigeonhole: blame it on the gods. Thus Athena was credited with inventing the flute, Pan the reed pipe, and Hermes the lyre. Greatest of the musicians was half-mortal Orpheus, whose mother was Calliope, chief of the nine Muses, and composers have acknowledged his inspirational powers for millennia. In the Christian Era, however, the old gods retired to Olympus, and musicians discovered a new patron in St. Cecilia. Composers, recognizing a debt unpayable elsewhere, have been dedicating works to her for centuries, and music lovers have founded many organizations to honor her—Rome’s Accademia di Santa Cecilia will be familiar to readers of record-jacket notes. But who was St. Cecilia, and how did she come to be associated with music?

MUSIC’S ST. CECILIA

By H. C. Robbins Landon

The life of Saint Cecilia, Virgin, Martyr, and Patroness of Musicians, is known to us only in the vaguest terms. She was a young Roman lady of noble birth who became engaged to a Roman patrician named Valerianus. A Christian, Cecilia persuaded her spouse to refrain from exercising his marital rights; she also succeeded in converting not only her husband, but also her brother-in-law, to Christianity, and the two brothers were baptized by Pope Urban I (reigned 222-230 A.D.). Cecilia is supposed to have converted some four hundred Romans to Christianity; her house became a secret church, but her activities came to the attention of the Roman Prefect Turcius Almachius (the Roman Emperor at this time was Alexander Severus—reigned 222-235), who forthwith summoned Valerianus and his brother and demanded that they renounce their new religion. They refused and were beheaded. Cecilia was subsequently murdered in her own bathroom. One report has it that they tried to strangle her and failed, while another suggests that she was placed in a dry bath with flames underneath, “which failing to terminate her existence as rapidly as her persecutors desired, they sent an executioner to despatch her by severing her head from her body.” Even that attempt proved to be fraught with difficulty, for after three hefty strokes of the axe, her head was still joined to her body, and she is reported to have lived for another three days. Pope Urban buried her in the Calixtus Catacombs on the Appian Way, where her grave later became a shrine for visiting pilgrims. She seems to have been beatified in the fourth century, because she is explicitly mentioned in the Martyrologium Hieronymianum, which dates from the beginning of the fifth century. By the middle of the fifth century, a church had been erected in her name in the Roman suburb of Trastevere, her house was again turned into a church, and in 821 her remains, together with those of her husband and her brother-in-law, were brought there. In 1959 the old church was rebuilt. Just how Cecilia became associated with music is lost in legend. Tradition has it that an angel was attracted to earth by the charms of her singing, and an old German manuscript of the twelfth century says that “her prayers rose like a sweet-sounding organ to God.” We know that she quickly became a favorite subject for poets and painters, and it was the custom to portray her playing an organ positiv (a small chamber organ).

In time, whole musical societies came to be established in St. Cecilia’s name. One of the earliest of these was founded in Louvain, Belgium, in 1502, and we know of the society’s existence because the statutes—a record of which is still preserved—had to be submitted to the town magistrate for approval. Another early society of this kind was formed at Eureux in Normandy in the year 1571 under the title “Le Puy de Musique.” A solemn religious celebration took place in the cathedral “on the vigil,” and the next day (November 22, St. Cecilia’s feast day) high mass, vespers, and complin were celebrated. There was also a large banquet, and prizes were awarded for the best literary and musical compositions; Orlando di Lasso once won such a prize.

“The Musical Society” was formed in London in 1683 to celebrate the “Festival of St. Cecilia, a great patroness of music, on her name day, for the 22nd of November, being St. Cecilia’s day, is observ’d through all Europe by the Lovers of Musick.” Six stewards—“four persons of Quality and two Gentlemen of His Majesty’s Musick”—were each year appointed to organize the event. They went to attend divine worship, usually at St. Bride’s church, when a choral service and an anthem with orchestral accompaniment—often a work specially commissioned for the event—were performed with a large group of voices and instruments. There followed a sermon, usually in defense of “cathedral music” (which had been prohibited under the Puritans), after which the
group went to another place, usually Stationers' Hall, for a banquet. At this feast, an ode in praise of music was performed; the finest poets of England, among them Dryden (in 1687 and in 1697), Shadwell, Congreve, and Pope (in 1708) wrote the words, while the flower of London's composers set them to music—Henry Purcell, John Blow, Jeremiah Clarke, and later George Frideric Handel.

On the Continent, similar societies flourished. One of the most interesting was the "Cecilia Brotherhood" in eighteenth-century Vienna, where the finest vocal and instrumental virtuosos foraged in the venerable Cathedral of St. Stephen on November 22nd each year to celebrate high mass. Florian Leopold Gassmann, a talented contemporary of Haydn, wrote a Missa Sanctae Caeciliae in 1765, and Haydn himself wrote the longest and most elaborate of his masses, the Missa Sanctae Caeciliae (1773?), for this Viennese group.

Although, in the nineteenth century, the old tradition never quite died out, with the advent of the modern symphony and established choral societies, the old St. Cecilia brotherhoods and societies no longer fulfilled such an urgent need. Attention gradually became centered on individual works written to honor the patron saint of the art. As late as 1823 we find the ubiquitous Louis Spohr composing a "Hymn to St. Cecilia" for the Cecilian Society in Kassel, but this was nearly the end of the tradition. The most celebrated nineteenth-century Cecilia composition was Charles Gounod's Hesse Solennelle Ste. Cecile (1885).

In our own century, certainly the finest inspiration, both poetically and musically, to come from "bright Cecilia" is W. H. Auden's beautiful poem, set to music by Benjamin Britten in 1942: "Hymn to Saint Cecilia."

A representative, though by no means comprehensive, selection of St. Cecilia music is currently available on discs. All the major works are available, but very few of the lesser-known compositions (such as those by Blow or Clarke, which are beautiful). Of the major works, practically none except the Gounod and, curiously, the Britten, was available before the advent of microgroove—another proof, if any be needed, of what the long-playing record has done for the diffusion of classical music. The compositions discussed below have been arranged in chronological order, and if more than one recording is available, the preferred version is listed first.

- **PURCELL: Ode on St. Cecilia's Day, 1683** ("Welcome to all the Pleasures") for soli, choir, string orchestra, and harpsichord. Words by Christopher Fishburn. In 1683, Purcell published "Sonatas of III parts, two Violins and Basse to the Organ or Harpsichord" with an engraved portrait of himself at the age of twenty-four attached. These twelve sonatas, written in the newest Italian manner, caused considerable excitement among musical amateurs and professionals in London, and their success may be part of the reason why the new "Musical Society" mentioned above decided to engage the young composer to write the very first Cecilia Ode for the group.

Unlike Purcell's second Ode for St. Cecilia's Day, which will be considered below, "Welcome to all the Pleasures" is basically an intimate work; yet, within the small frame, we find those jarring dissonances and that fine sense of melody which characterize so much of Purcell's writing. The dissonances, in fact, surprise and occasionally shock even today. In a hundred small ways, Purcell's first Cecilia Ode is close to the greatest English opera ever written, his Dido and Aeneas, whose date of composition is uncertain but is now believed by authorities to have been produced in 1689, six years after the Ode.

**Recording:** April Cantelo, Eileen McLoughlin, Alfred Deller, Gerald English, Owen Grundy, and Maurice Bevan; Kalmar Orchestra of London, Walter Bergmann (harpsichord), Alfred Deller cond. VANGUARD BACH GUILD BGS 5015, BG 5015. Your feelings about this beautifully recorded and stylishly performed record will ultimately be dictated by whether you like Alfred Deller or not. The countertenor voice is a kind of falsetto singing which Deller has mastered—indeed, Purcell himself used to sing the alto parts "with incredible graces"—but the St. Cecilia is customarily represented pictorially as playing the organ—as here, in a detail from an engraving by Zacharias Dolendo after Dutch painter Jacob de Gheyn II (1565-1619).
sound is not for everyone. There are some critics who have described Deller as one of the geniuses of present-day concert life; there are also those who shoulder when they hear his voice.

- **PURCELL: Ode for St. Cecilia's Day, 1692** ("Hail! Bright Cecilia") for soli, choir and orchestra. Words by Nicholas Brady. Purcell printed his first Cecilia Ode shortly after its initial performance, but the present large-scale ode remained in manuscript until it was resuscitated by the Musical Antiquarian Society some hundred and fifty years afterward. The second ode is twice as long as the earlier one, and requires a large orchestra—including woodwinds, trumpets, and kettledrums—which the composer uses with great skill and daring. There are arias with only trio-sonata (two violins and basso continuo—i.e., harpsichord and lower strings) accompaniment, such as the alto solo "The airy violin and lofty viol quit the field." There is also another alto solo, "The fife and all the harmony of war," with solo trumpets and drums, minus all the upper strings (viols, violas), which must have been revolutionary in its day. If this second ode lacks the dissonance-ridden intimacy of "Welcome to all the Pleasures," it contains the grandeur and polyphonic splendor that we usually associate with Handel—in fact, it is obvious that the second ode exerted a profound influence on Handel.

**Recording:** April Cantelo, Alfred Deller, Wilfred Brown, Peter Salmon, Maurice Bevan, and John Frost; George Eskdale (solo trumpet), Ambrosian Singers, Kalmar Chamber Orchestra, Michael Tippett cond. VAN GUARD BACH GUILD BG 559. The Kalmar Orchestra contained, in its day, many musicians who have subsequently become famous in their own right, such as Denis Vaughan, their then continuo player, and their leader, Leonard Friedman. There are a number of outstanding things about this recording: a well-known modern English composer directs, and the trumpet soloist is none other than Eskdale, whose trumpet playing in the old Adolf Busch Second Brandenburg Concerto created gramophone history before the war. Again, the crux of the matter is whether you adore ("... the name of Alfred Deller has the stature of a Weingartner in Beethoven, a Casals in the cello repertoire...") or loathe ("... a disgusting, emasculated sound...") the sound of Deller's countertenor voice, here joined by a second countertenor, Salmon. In any case, the music of both these odes is so magnificent that no one ought to pass them up.

- **HANDEL: Alexander's Feast or the Power of Music (Ode to St. Cecilia), 1736** ("Twas at the royal feast") for soli, choir, and orchestra. From the ode by John Dryden originally written in 1697, with additions and adaptations by Newburgh Hamilton. The original Dryden ode had been set to music by Jeremiah Clarke and again by Thomas Clayton in 1711. Dryden wrote two odes to St. Cecilia, both of which were later set to music by Handel; Handel's first ode was Dryden's second. Of the two Handelian settings, this is the largest and perhaps most impressive. Mozart, to continue the pattern of everything in twos, re-orchestrated both of Handel's settings much in the same manner as he re-orchestrated Messiah. His rewriting of Alexander's Feast was done in July 1790 for Gottfried van Swieten, later the librettist of Haydn's Creation, Seasons, and Seven Last
Words, and patron of the young Beethoven (the First Symphony was dedicated to Swieten). To keep the record straight, all the recordings discussed here of both Handelian settings use the original Handel score.

Alexander's Feast, preceding as it does the great line of oratorios (Saul, Israel in Egypt, Messiah, and Samson), occupies a central position in Handel's creative life. He had written to English words before, in the famous Coronation Anthems and in the two Biblical dramas Esther (1732) and Deborah (1735). But Alexander's Feast marked a turning point in the new "massive" Handel, the composer of whom Mozart said "he strikes like a thunderbolt" and whom Haydn called "the master of us all." Handel used his orchestra and chorus to move and shake the emotions of his audience.

A typical effect: he reserves the entrance of the trumpets and kettledrums until the beginning of Part Two, where the solo tenor calls "A louder yet, and yet a louder strain! Break his bands of sleep asunder/And rouze him, like a rattling peal of thunder." The effect is stupendous, especially since Handel repeats the last two lines in a gigantic chorus. Handel himself was once described as listening sorrowfully to one of his choruses, murmuring, "Oh, if I had a cannon!"

Alexander's Feast was first performed at Covent Garden on February 19, 1736. "Never was upon like Occasion so numerous and splendid an Audience at any Theatre in London, there being at least 1300 Persons present... It met with general Applause," reported the London Daily Post. It was a major triumph in Handel's life, and it must have been a particular comfort to the composer, whose affairs, the year before, had been described in a letter as being dismal: "Handel, whose excellent compositions have often pleased our ears, and touched our Hearts, has this Winter sometimes performed to an almost empty Pitt."

Recording: Honor Sheppard, Max Worthley, and Maurice Bevan; Oriana Concert Choir and Orchestra, Alfred Deller cond. VANGUARD BACH GUILD BGS 70666/7, BG 70666/7, two discs, boxed. Deller, as conductor, gives a fine, clean-cut performance which is, as usual with Vanguard, spaciously and faithfully recorded. The soloists are not in the Schwarzkopf/Patzak class, but they are good musicians, and the orchestra, apparently one of London's fabulous pick-up groups comprising the best musicians from various leading orchestras, is very good indeed. It is scarcely credible that this should be the first, and only, recording in the catalog of this great and noble piece of music. But let us not quibble: "At last divine Cecilia came."

• HANDEL: Ode for St. Cecilia's Day, 1739, for soli, choir, and orchestra. Words by John Dryden, 1687. Dryden's ode, the first of two settings (the other was written ten years later), was originally set to music by G. B. Draghi and had been performed by the famous "Musical Society." Handel, that old and cynical plagiarizer, lifted large chunks of two harpsichord suites by Gottlieb Muffat (1690-1770) and used them, with widespread changes, in the present ode. But plagiarisms and all, it is a full-blooded and magnificent work. Who could resist the solo kettledrums in "The double, double beat of the thundering drum," or the final number in which, as in the end of Israel in Egypt, the solo soprano, entirely unsupported, sings each line alone, to be followed by the full strength of the chorus and the orchestra, bright with D trumpets?

Recordings: (1) Adele Addison and John McCollum; Rutgers University Choir, F. Austin Walter, choirmaster; New York Philharmonic, Leonard Bernstein cond. COLUMBIA MS 6206, ML 5606. (2) Teresa Stich-Randall and Alexander Young; London Chamber Singers; London Chamber Orchestra, Anthony Bernard cond. MUSIC GUILD MS 101, MG 101. There is no doubt that Bernstein is in his element here, and the recording is sensationnally good, as is the playing of the orchestra and its soloists (John Wummer, flute; Laszlo Varga, cello; and a smashing unnamed first trumpet player). Bernstein is in many ways a Baroque figure, and this is music peculiarly suited to his musical personality. If one has a small reservation, it is the soprano; Miss Addison approaches many of the high notes, particularly in slow arias, with almost gingerly tact. One feels the whole part is rather high for her, and on this count the young Stich-Randall's voice is fresher, more in tune, and, quite simply, far more beautiful. Altogether, the late Anthony Bernard's record is a good one, but the Bernstein, reservations above excepted, is better. There are also one or two cuts in the Bernard which were not, I think, necessary.

• HAYDN: Missa Sanctae Caeciliae (1773?) for soli, choir, and orchestra. This is Haydn's longest and structurally most complex mass. It has pensive moments (the wonderful slow introduction to the Kyrie), stormy moments (the menacing, aggressive Benedictus), lyrical moments (the dreamy slighnost-fag fugue "Gratias agimus" in the Gloria), and many, many exciting ones. Perhaps the most thrilling fugue Haydn ever wrote is the end of the Credo, "Et vitam venturi," which even uses high trumpets (up to two octaves above middle C) in the Baroque fashion. It recalls in vivid colors the pageantry and glory of eighteenth-century Vienna.

Recordings: (1) Rosl Schaiger, Sieglinde Wagner, Herbert Handl, and Walter Berry; the Akademie Choir; Vienna Symphony Orchestra, Hans Gillesberger cond. HAYDN SOCIETY 2028, two discs, boxed (not yet reissued, but an Erato pressing still exists in France). (2) Maria Stader, Margot Hoffgen, Richard Holm, and Josef Greinell; Michael Schneider (organ); Choir and Orchestra of the Bavarian Radio, Eugen Jochum cond. DEUTSCHE GRAMMOPHON 138028/9, 18545/6, two discs. Old though the Haydn Society recording is—it was made in 1950—and badly though the original tape was processed (ends chopped off the choruses, for example), the performance was one of Gillesberger's great ones. The music flamed in his interpretation. Jochum's reading is pedantic and lifeless by comparison, and the recording is very strange indeed. You can't hear the woodwinds, trumpets, and drums...
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People tend to have equally strong opinions about the music of Charles Gounod; they seem either to love it or to hate it. Arguments about Gounod in French intellectual circles often end nowadays in the participants’ not speaking to each other. Probably we are too near the Victorian era to be able to judge him without prejudice, but there are passages of this interesting work which strike many as being intolerably saccharine, reminiscent of French or Italian prints of little boys at prayer, their eyes rolled upwards like a Baroque saint in ecstasy. But there is no doubt in my mind that it is the wholly sincere expression of a deeply thinking and religious man. When he was composing the work, in the countryside near Avranches, Gounod wrote: “During the afternoons I generally go to the woods and read some chapters of my beloved Saint Augustine. I have made myself a translation of them, that is my time for reflection. Afterwards I think about my Mass.”

Recordings: (1) Pilar Lorengar, Heinz Hoppe, and Franz Crass; Choeurs René Duclos; Orchestre de la Société des Concert du Conservatoire de Paris, Jean-Claude Hartemann cond. ANGEL S 36214, 36214. (2) Irmgard Seefried, Gerhard Stolze, and Hermann Uhde; Tschechischer Sängertchor, Czech Philharmonic, Igor Markevitch cond. DEUTSCHE GRAMMOPHON 139111, 39111 (a co-production with Supraphon, Prague). The difference between these two records is stupendous. Not only are the voices of the Angel production more suited to the music, but they are on the whole more pleasant. Seefried, that glorious Mozart singer of the 1940’s and 1950’s, is, quite frankly, past her prime; she sounds terribly strained. But apart from that, the Angel recording is far more idiomatically; in a word, it serves Gounod better. This is no doubt partly because Paris, primarily Catholic, is a better and surely more obvious place to record a Gounod mass than Communist Prague; it is also because Hartemann, though not a famous virtuoso conductor of Markevitch’s class, understands the music more intimately and deeply.

BRITTEN: Hymn to St. Cecilia (1942), words by W. H. Auden. There can surely be no controversy about this attractive and beautifully written choral piece. If you are frightened by “modern” music à la Webern or Stockhausen, you can’t help liking this open, clear music.

Recording: Jennifer Vyvyan, Helen Watts, Peter Pears, Owen Brannigan; Chorus of the London Symphony, London Symphony Orchestra, George Malcolm cond. L’OISEAU-LYRE SOL 60037, 50206. A magnificent achievement: the best soloists England can offer and the (at present) finest orchestra in London. This record is an ideal introduction to another side of Britten’s activity, one less known than the operatic or symphonic, but highly characteristic and most sympathetic. There are a thousand felicitous touches, such as the tender setting of Auden’s “O dear white children, casual as birds.” A most attractive record in every way. The work was also available at one time on Kapp KC 9057-S/9057 in a performance by the Columbia University Chapel Choir, Searle Wright conducting. The disc included a performance by the same forces of a cantata To Saint Cecilia by Norman Dello Joio, the text being adapted from Dryden’s 1687 Song for St. Cecilia’s Day.

Song for St. Cecilia’s Day

In a garden shady this holy lady
With reverent cadence and subtile psalm,
Like a black swan at death came on
Poured forth her song in perfect calm:
And by ocean’s margin this innocent virgin
Constructed an organ to enlarge her prayer,
And notes tremendous from her great engine
Thundered out on the Roman air.
Blonde Aphrodite rose up excited,
Moved to delight by the melody,
White as an orchid she rode quite naked
In an oyster shell on the lop of the sea;
As sounds so entrancing the angels dancing
Came out of their trance into time again,
And around the wicked in Hell’s abysses
The huge flame flickered and eased their pain.
Blessed Cecilia, appear in visions
To all musicians, appear and inspire:
Translated Daughter, come down and startle
Composing mortals with immortal fire.

St. Cecilia seems to be almost as popular with poets as with musicians. And although “occasional” composition seldom brings out the best in any artist, W. H. Auden’s strikingly beautiful text (reproduced in part above) for Benjamin Britten’s Hymn to St. Cecilia must certainly be counted as a brilliant exception.

H. C. Robbins Landon, one of today’s outstanding musicological researchers and writers, was best represented in the pages of HiFi/Stereo Review by his vital delineation of “Haydn’s Castle.”
Returning to the scene of youthful triumphs, a former resident finds that French popular music—live and recorded—is about to be MODernized completely.

The five-column headline across the front page was so huge it pushed the news of General de Gaulle's return from his worldwide tour to the bottom of the page. I wondered what the austere general must have thought of this serious blow to his dignity, though I knew it wasn't the first time it had happened. As a matter of fact, several weeks before, the daily edition of the same newspaper, France-Soir, had run a front-page picture topped by this sensational headline: "Johnny has a new 'copain': Charles de Gaulle." It was true enough that the young fellow seated near Johnny Hallyday, the idol of French rock-'n'-roll, bore a strong resemblance to the chief of state, but the caption went on to explain that he was the General's grandson, a fond admirer of Johnny.

Dismayed, I looked again at the paper the maid had just brought to my room. Outside, on this early September day, the sun glittered, giving a last sparkle of spring-like beauty to the city I had not seen for the past four years. I could vaguely hear the sounds of an accordion somewhere in the street, probably a beggar exercising his talent for a sidewalk-café audience. I had arrived the evening before, and this was the news. I started reading the article which explained, with almost total absence of detail, that France's foremost singing idol had come back exhausted from a recording session in England—a trip made necessary by a strike of French musicians—had shown up at a party, then had secluded himself in the bathroom, where he had attempted to take his life. A mere "fait divers" which, in view of the singer's popularity, had become a national tragedy.

Even in the United States I had heard of Johnny's tremendous impact on French youth. For three or four years, he had been uncontested champion of the younger generation's cause, a kind of Gallic Elvis Presley. He was the "copain," the pal, who had risen from poverty to a multi-million estate, the spokesman of a generation trying to assert itself. In 1965, his marriage to Sylvie Vartan, another singing idol, had taken on the allure of a national event, receiving in the French press a coverage equal to that of the troubles of Eddie Fisher and Debbie Reynolds in this country.

However, his star had seemed to take an adverse course during the past few months. The first blow came with the sudden rise of Antoine, a long-haired, flowered-shirted newcomer who had challenged Johnny's position as France's idol of the youth. (Antoine is the fellow who says he delivers "message" songs; in one of them, he imagines a dialogue between President de Gaulle and himself, and to the President's question: "Antoine, what should we do to save France?", he answers: "Put the contraceptive pill on sale in the five-and-ten.") Almost at the same time, Sylvie announced her intention of leaving Johnny, for reasons that ranged from mere mental cruelty to total irresponsibility. Finally, the government, that huge hydra with a thousand heads that need constantly to be fed, asked the young man for a fortune in back taxes. This was apparently too much for him, and, after trying for weeks to cope with these petty details, he had given up.

To take my mind off the sad news, I turned to the entertainment pages. What attracted me first was an unusual ad: Georges Brassens and Juliette Greco, together for the first time, at the Théâtre National Populaire. It was unusual in many respects: the T.N.P., as it is known, is a legitimate theater that had never before competed with such houses as the Olympia, the Alhambra, or any of the places where such entertainers usually appear. But what was most surprising was the price charged for the show (6 francs top, or $1.20, as
compared to 20 francs, or $4, at the Olympia), and the fact that two huge stars like Brassens and Greco were sharing the bill. It was as if New York’s Lincoln Center were offering at that price, and for a three-week stand, Barbra Streisand and Frank Sinatra.

In the U.S.A., Georges Brassens’ name means very little, despite the efforts of two record companies to promote and sell his albums. The basic reason is that to really appreciate him, one must know French perfectly; no translation, no matter how deft it may be, can render the true sense of the material he writes. Brassens’ songs are a strange concoction of Gallic humor a la Rabelais—quite saucy, "paillard" is the French term—and poetry a la Villon.

As for Greco, she has, on and off, retained her distinctive style and is still very much in favor with the French. She has, I must say, a very appealing charm that has never been hampered by her several unsuccessful attempts at becoming a movie star. It is also to be noted that the girl who was considered the crazy muse of existentialism in the late Forties has become a very polished, even endearing performer.

Boulevard Saint-Germain. . . . I suddenly felt good walking again along this avenue where, as a younger man, I had once been so much at home. In the clear September day, with a sudden ray of sun striking them, monuments and houses had a brand new look, quite charming. I noticed a number of "go-go" stores, their crazy outfits somewhat reminiscent of those I had seen in New York, and all those beautiful young girls, most of them scantily dressed in mini-skirts.

A few minutes later, I was on the Champs-Elysées, by far my favorite walk. At twelve, I was to meet Paul Durand, the composer of Mademoiselle de Paris, one of the biggest musical hits France has ever produced. I decided to spend some time visiting the huge Pathé-Marconi record store, right next to Le Fouquet’s restaurant. As I entered, a familiar song welcomed me: a French version of the Beatles’ Yellow Submarine by—of all people—Les Compagnons de la Chanson, who seemed to have taken a new lease on success with this highly à la mode hit. I noticed that, for the occasion, the submarine in question had become green, or if you prefer, "un sous-marin vert, vert comme la mer...

I gave the record bins a quick glance—mostly pop albums, like anywhere else in the world: Streisand, Dylan, les Beatles, les Animals, Gilbert Bécaud, Charles Aznavour. Also, many sound tracks, neatly arranged in alphabetical order; after one hundred or so, I stopped counting—with ten or twelve more bins to go. Just for the fun of it, I bought My Fair Lady (the French film version), and Comment réussir dans les affaires (the French version of How to Succeed in Business . . .), which was a huge financial disaster—as L’Express explained it: "It is not that the French are prejudiced. . . . They simply don’t like music!” I also looked for the classical section, but had a hard time finding it; it was buried in a corner of the store, and I almost missed it because the most prominent albums displayed were titled: "The Greatest Hits of Erik," "Idols of Always: Félix," "Ludwig’s Greatest Hits." I was just about to ignore that section when the oddity of the first names forced me to give it a second glance. It was the classical section alright, the Ludwig, Félix, Erik, and Johann Sebastian were none other than those great ‘pop stars’

Some idea of the impact popular music and its idols have had on the renowned French sangfroid is this headline from a prominent Paris daily: "The drama which has been developing for several weeks came to a head yesterday evening: After seeing Sylvie again, Johnny Hallyday wanted to die."
of yesteryear, Beethoven, Mendelssohn, Satie, and Bach.

After what seemed like an hour— but was in fact a mere twenty minutes—I left the store. Les Compagnons were still living (for the umpteenth time) in their submarine, and I left them there, knowing they wouldn't sink anyway, and crossed the avenue to meet Paul Durand.

"Rubbish, rubbish! My dear Didier, we live in a strange period: anybody who can strum a guitar is immediately a star; anybody who can beat a pigskin becomes a famous drummer; anybody who can utter two unintelligible sounds in a falsetto voice is a great singer. It all amounts to one thing: be extravagant, make as much noise as you can—the sound deafens the audience so much it can't possibly hear anything anyway—and you'll become a billionaire overnight."

The usually exuberant, round-faced little man whom I had met several years before, and with whom I had become friendly, seemed gloomy. He went on: "Believe me, there are times when I wonder whether I wouldn't make more money by simply popping a wig on top of my head and gyrating on the stage of the Olympia... ye, ye!"

A mini-skirted lovely passed by, her mini K-7 (a small portable tape recorder) pouring out a flow of Mireille Mathieu's latest songs.

"What about her?" I queried.

"Lovely. Quite lovely. I wish at times I were ten years younger... ."

"No, no, I meant Mireille Mathieu."

"Oh, her? Entirely made by publicity. Of course, she has a good voice, but that's what I meant when I told you those youngsters become stars in no time. It took Piaf years of struggling to become the famous singer everyone knew. Almost overnight, Mireille Mathieu has achieved similar recognition, under the pretext that she sings like Piaf. Personally, I don't think so; no one can sing like Piaf. At any rate, that kid has a lot to learn before she can be considered an international star."

Our discussion then covered all the current great names of the French recording industry. Durand was pessimistic: "Charles Aznavour has become too Americanized, at this point, to be truly of interest to the general French public. Gilbert Bécaud, though I admire tremendously what he does, is much too cautious, too careful about his possibilities. In a sense, he restricts himself, and naturally he is overwhelmed by those newcomers. Jacques Brel has decided to call it quits after his last series of recitals. But mostly, what is killing talented singers is the radical change in the policy of radio networks. A few months ago, they still had a chance to be heard on some 'peripheral' stations. But now? France-Inter is fighting like mad to take over Europe No. 1's position as the most-listened-to radio station, and Radio Luxembourg has axed its most popular series, La famille Durand, which had been broadcast for the past twelve years or so. And for what, I ask you, for what? So that, day and night, the same kind of rubbish can be played over and over again: songs by Edouard, Antoine, Johnny Hallyday, Tom Jones, les Beatles, etc. There is no longer any place for good music."

Since there was no place for good music on the air, I decided to go hunting for good places with decent live music. A friend obligingly provided me with a list of must-see Paris underground clubs, so-called not because they are forbidden, but because they are located for the most part at underground level.

Had it been four years before, I most probably would have started my journée des Grands-dires, as it is often called, in Pigalle, like any tourist. This time, however, I knew that Pigalle was definitely OUT, and that other clubs were IN. I went to nine such clubs, nine different places where, all night long, you can enjoy yourself for no more than two or three dollars per club. The first place I went to, the James Paladium, 11 bis, rue du Mont-Dore, is where most celebrities meet. Salvador Dali, Peter Ustinov, Jane Fonda, Roger Vadim, François Truffaut, Claude Chabrol, and Antoine were there the night I dropped in. They're there all the time! In fact, despite the presence on stage of such popular English groups as the Ingoes, the Lemons, and Arthur Brown, the real show took place in the room where, as it turned out, the favorite game was to look like Mr. Everybody Else.

Not far from the James Paladium is the club's twin, the Bus Paladium, where I decided to go once I discovered the idiocy of trying to hold onto a glass at the James. The Bus, at 6, rue Fontaine, was slightly less crowded, but less inspiring too. It is much smaller, and when I arrived Dick Rivers was crooning a version of Georges Brassens' pensive face masks a mordant wit. Though once banned from French radio for obscenity, he is a major star.
Roger Miller’s England Swings—in French, mind you.

I left the Bus for La Locomotive, another club a few blocks away at 82, boulevard de Clichy. It was a disappointment in that it was nearly empty. "It’s too early," the manager told me. "Why don’t you come back at one or two in the morning...?" So, I went on to the Golf Drouot, at 2, rue Drouot. I knew the place; five years before I had worked on a television show that was shot almost entirely at the Golf. Now the club was just warming up. Georges Chelon and a slow rock helped me relax a moment in the arms of a lovely mini-skirted blonde, pretty but dumb. I left the blonde, Chelon, and the Golf, and headed for Milord Mod’s, at 5, rue de Beaujolais, which has the reputation of being the most elegant club of all. The door was closed. I knocked, and Cerberus opened it.

"Are you a member?" he asked me.

"A member of what?" I politely queried.

"Europe No. 1’s fan club."

"Do you mean to say it’s a private club?"

"Sure is."

"But I’m a journalist, the roving correspondent of..."

"We’re not interested..."

"...an AMERICAN magazine..." I finally managed to interject through the brash sound of the music coming from inside the club.

"That’s different," said the mellowed Cerberus. "Here, we like Americans."

He started giving me an earful about how I should apply to the head office of the Europe No. 1 radio station, rue François-Ier, speak to the president of the station, who would surely be delighted to see me ("...because all the foreign correspondents go to London, they never come to Paris," he pouted), and come back as their full-fledged VIP guest. Forget it! Too much bother for too little. Besides, the night was young, and other pleasures and palaces were waiting for me elsewhere—at Les Ecuries du Lion & Argent (The Stables of the Silver Lion), for instance, where they didn’t even ask me whether I was a journalist, a member of what-have-you, or anything. The Stables are at 9, rue Léopold-Bellan, and it is a place I recommend wholeheartedly. It is set in the former stables of a private house, beautifully redecorated to fit the tastes of 1966, though the surroundings are pure sixteenth century. The club is often visited by theatrical people from around the corner: actors, stage managers, prompters, and the lot. When I came in, the Shadows were playing one of their great hits. Don’t ask me which one; it was so loud that I had to leave after admiring the decor and a temptress in dungarees.

My next stop happened to be Le Bilboquet, on the Left Bank at 13, rue Saint-Benoit. "Happened to be" because I had no intention of going there at all. It is the "innest" club of Paris, and you must be chaperoned to get past the door. On my way, I met an old acquaintance who was a member, and he dragged me there. No wonder it’s private—Sylvie Vartan, who didn’t seem too affected by Johnny’s attempted suicide, Sacha Distel, Sophia Loren, and other familiar faces from the silver screen were all there. It was swinging, baby, and Murray the K could go there and learn some more about his trade—if they let him in, of course!

However, I still had a lot to see, and leaving the adorable Françoise Hardy, with whom I had danced the "jerk" (she looks like Julie Christie and sings like an angel), I stepped into the middle of the night, took a cab, and went to Club ‘65. Located at 1, rue du Four, it is known as the craziest club in Paris by far. Eccentric, stupendous, mad, it is one of the funniest places to visit. As for the dancing, it’s on the same level as everywhere else. If you can stomach it, fine, but after a while your

Success never spoiled Juliette Greco, nor did her films; the sometime singer in existentialist bolos is now a polished pro.
head feels like a drum, and your arms and legs automatically adopt any kind of position as long as they're in motion.

Needing at this point to walk for a while, I left the club with a brunette who told me her name was Micky—short for Michèle. Micky was in a romantic mood, and I was again in a swinging mood. After walking for a few moments, we returned to join the jet set where the action was, this time at the Top Ten, right on the Champs-Elysées. Is it the youngest club, the best club, the swing-est? I really couldn't say. All I remember is that Micky left before I did (with a long-haired fellow), and left me moving, rather than dancing, with Chris—short for Christine—and that I woke up the following morning in my hotel room with bizarre sounds floating through my head, a tremendous hangover, and legs as weak as if I had walked a thousand miles. Paul Durand was right: nine clubs, but no place for good music. But oh, that dancing!

Outside, I could hear an accordion, probably the same one as yesterday, playing an old valse-musette. The maid had brought in the newspaper, and I read that Johnny Hallyday was in a "critically fair condition," or something to that effect. Somewhere, a radio loudly played Mireille Mathieu's "Mon Credo." It was raining. I closed my eyes, and thought with delight that tonight I would enjoy another evening of action in Paris... First, a classical concert at the Salle Pleyel, and then...
PIERRE BOULEZ'S LE MARTEAU SANS MAÎTRE

The composer conducts in Turnabout's striking release of an inimitable modern masterpiece.

"The Hammer without a Master," a setting by the French composer Pierre Boulez of poems by René Char, is one of the few works in a contemporary idiom to have had a really wide diffusion and acceptance. Scored for alto, alto flute, viola (also called alto in French), xylorimba, vibraphone, guitar, and percussion (including bongos, maracas, claves, and a whole lot of metallic matter), it has become, since the time of its composition (1954, revised in 1957), more or less the musical classic of the European avant-garde. It is usually described as "totally serial" or "post-Webern," but it marks quite clearly—both in Boulez’s own development and in European music generally—the move away from determinism and Webernism toward a freer and more natural kind of expression, linking up, in Boulez’s case, quite naturally with Debussy and certain aspects of the French musical tradition.

It may seem strange to talk about "tradition" in a work so apparently radical as this one, but in fact it has an almost classical purity in its careful development of certain ideas, combined with the kind of sensuousness and performer virtuosity that have become more and more meaningful to composers in the past ten years. Yet, at the same time, indicative as it is of a new musical approach, the widely performed and widely imitated Marteau is inimitable—even Boulez has had trouble following it up.

What is most immediately striking about the piece is its use of instrumental color: the darker, "off" timbres of the G flute and the viola and the special twang of the guitar are set against the incredible clang and clatter of the vibes and xylorimba, the whole being framed in a precise, imaginative pattern of percussion sound. The work is arranged in nine parts, each with its own instrumentation (there are, despite the composer’s protests and anti-Schoenberg bias, many analogies to Pierrot Lunaire). There are three poems and four vocal movements (one poem is set twice). The instrumental movements are preludes, postludes, and commentaries on the vocal settings. None of this, however, even begins to suggest the incredibly complex richness and imagination of this music, built up as it is in accent, in color density, and in dynamics.

Curiously enough, although the composer conducts here, the piece is not played with any great degree of precision; least of all in the incredibly complex, tumbling fast sections. But it has style. In fact, style, or manner, is important to Boulez; he once criticized a far more accurate American performance of this same work for its lack of this quality. Le Marteau sans maître is precisely and complexly notated, but its complexity results partly from Boulez’s attempt to write down the very things that, a few years later, would be indicated in some kind of open, free, flexible, performer-choice notation. Boulez today plays it as though it had in fact been written that way. In compositional terms, Marteau is a big step beyond the earlier super-rational approach toward new virtuoso performer-practice music.

But a pox on looking at every...
Conductor André Previn: undeniable authority and flair

thing as a transition from this and an anticipation of that. Marteau has its own inner values—a kind of vibrant, abstract, purified sound (like the non-objective paint on a very vital abstract-expressionist canvas) — that are given a new concreteness and expressive imagery through an incredible explosion of rhythmic attack, nuance, and timbre. Boulez had here the vision of a non-linear, non-narrative music which crystallizes and holds in an extraordinary state of suspension precise musical and expressive images of extraordinary and original flexibility and character.

If this work stays with us (and it has a good chance to), we will eventually want more information—and more accurate information—out of its performances. But here, for the moment, we get sensuous color and style (which is its own kind of authenticity), and the recording, made in France a while ago and now finally released here, gets the music across brilliantly.

Eric Salzman

WALTON'S EXUBERANT FIRST SYMPHONY

André Previn leads the London Symphony Orchestra in a brilliant new recording of a neglected work

Although I remember some enthusiastic talk about it during my student days, I had never heard William Walton's Symphony No. 1 (1935) until I set RCA Victor's brilliant new recording of the work spinning on my turntable. The Symphony is hardly ever played in this country, and after hearing this flashy performance by André Previn and the London Symphony Orchestra I would have immediately sat down to write letters to conductors of a few American orchestras demanding explanation if I thought there was the remotest chance of getting enlightening answers. Let us waive the pointless question of the symphony's ultimate "value" or "importance." It is one of those wonderfully young period pieces which, through its sheer talent and exuberance, simply leaves one feeling good. I was mildly depressed about something or other when I started playing it; when it was over, I must admit I felt rather like giving a party.

Apart from the simple pleasure it gives, there are some remarkably interesting things about the piece. I have read, for example, that it reflects the strong impression Sibelius made on English composers of the period. I suppose it's in Walton's symphony if you listen for it—particularly in the first movement and in the more intensely climactic moments of the third—but the work as a whole is so animated rhythmically, harmonically, and contrapuntally in precisely the way that Sibelius' music most characteristically isn't that I'm not sure the influence wouldn't have gone by me if I hadn't been briefed.

What I am very much more aware of is how much the work sounds like a lot of symphonic music that was starting to be composed in the United States at about the same time. The use of undiluted jazz mannerisms, so apparent in a piece of pure camp like Walton's Façade (1925), is assimilated into the rhythmic

6 © BOULEZ: Le Marteau sans maître. Jeanne Deroubaix (alto); instrumental ensemble, Pierre Boulez cond. TURNABOUT TV 34081S $2.50, TV 4081* $2.50.
fabric of his symphony in very much the same way that Americans were to go about it. Asked, cold, to play musical guessing games during the second-movement presto, I would probably have thought it to be by an American. And while flashy fugues in the finales of "modern" symphonies usually give me the pip, I find the cracklingly jazzy one that so impishly asserts itself in the midst of the British Monarchical fanfare of Walton's closing movement a perfect joy. The work's final pages, by the way, will make you think a little of the end of Respighi's The Pines of Rome—rather discreetly and soberly tailored by Bond Street, of course. And there is, amidst all of this, an extremely warm and sensitive slow movement of the sort that used to turn up in Walton's work before his personal, but eclectic, lyricism went cold on him.

I haven't been an easy man to persuade on the subject of André Previn's emergence into the world of serious concert music, but the authority and flair of his conducting in certain of the more conservative areas of contemporary symphonic literature are becoming undeniable. His tendency to overstate, moreover, does no disservice to a work as structurally disciplined and whistle-clean as Walton's symphony.

RCA Victor has provided excellent recorded sound and effective stereo treatment for the occasion. And I hope that Previn's recording will provide at least one possible answer for those conductors who claim to be in perpetually hopeless pursuit of contemporary works that will not frighten their balking subscribers.

William Flanagan


ENTERTAINMENT

TOPICAL SONGS AND SKITS: TWO SCINTILLATING REVUES

Upstairs at the Downstairs, New York's last haven of sophisticated humor, releases a double dose of wit

In the old days (before television), they tell me, New York was fun. Women used to drag silver-dyed mink across the floor at the Stork Club, Rodgers and Hart kept busy writing songs about the town, and every male not ogling the girls in some new Cole Porter revue was punishing the parquet at El Morocco.

Today the swingers have all moved to San Francisco, and the only people to be found on the streets after 2 A.M. are panhandlers and debutantes leaving the Plaza Hotel ballroom. Almost. There's still one pre-dawn haven of last resorts, dedicated to keeping the flame alive, where the most sophisticated part of the Thirties meets the jaded intellect of the Sick Sixties. The last of such hangouts, it's called the Upstairs at the Downstairs, and for the past few years everything new, original, funny, way out, introspective, retrospective, and hip that has happened in New York has happened there first.

The people at the Upstairs have now had the good judgment to combine two of their cleverest revues on one two-disc set selling for the unbelievably low price of $5. A bargain at five times that much, this album is a must for everyone who likes his humor with a dash of tartar on the side, who likes to laugh with his intellect instead of being smashed in the head with a wet brick from some simple-minded TV show. Everything on these four sides is New York-oriented, filled with barbed comments, brilliant songs (I particularly liked the one about Ronald Reagan), and performed "live" by a group of daisy-fresh young people creating their own moods without the aid of costumes, sets, elaborate lighting effects, or more than a handful of props. It is everything a civilized and sophisticated evening in New York should be. It is also unlike anything you will ever see

Janie Sell and Larry Moss
Whatever became of Holden Caulfield?

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in cheap duplication anywhere else, because it has an urbanity, a rhythm, a point of view, a style that cannot be manufactured anywhere else but in an elegant, old, reconverted townhouse on Manhattan's elegant, old, reconverted West 56th Street.

The material deals with voyeurism, mixed marriages, whatever became of Holden Caulfield of The Catcher in the Rye, the Spoleto Festival, the Civilian Review Board, Bobby Kennedy, the camp craze, disc jockeys, politics, Shakespeare, suburban housing, dietetic fads, fetishism, and your friendly neighborhood psychiatrist—everything, in fact, pertinent to the times we live in and to the national pastime of one-upping the nebbishes across the street. The performers are eloquent and talented, the skits seem to have been written by hipsters with very big ears for Nichols and May, and the songs are cleverer than anything turned out on Broadway lately. Rod Warren, who conceived, produced, and supervised both shows for this recording, is to be complimented for lighting up the record scene and making it safe again for the recording of revues, thought of nowadays by most producers as bastard children of the legitimate theater. The sketches he has compiled here are like polished silver in a world full of dirty brass. Rex Reed

THE IMPERIOUS VOICE
OF JUNIOR WELLS

New Vanguard release absorbingly communicates the yearning and bitterness of urban blues

One of the more penetrating singers in Vanguard's excellent three-volume set called "Chicago/The Blues Today" was Junior Wells. In the same label's new "It's My Life, Baby!", Wells has an album all to himself, and it is an exemplary documentation of the essential heart of contemporary black urban blues singing and playing.

Wells' voice is lean but vibrant, and his harmonica is also an imperious voice—it has many of the same speech cadences and a mordant harshness of color that complements the dark yearning and occasional bitterness of Wells' singing. The guitar of Buddy Guy provides a third voice—more mellow, yet more tensile, and always pulsating with a surety and depth of swing that keep the insistent drums and bass from being inflexible.

The result is a series of absorbing conversations in the blues. The tempos change, the moods shift, but at the core of this truth-telling are the images, the loneliness, the satisfactions, the distinct rhythms, and the wit of the black city subculture, the subculture so illuminatingly explored in Charles Keil's recent book Urban Blues (University of Chicago Press).

Part of this album was recorded in Pepper's Lounge on Chicago's South Side and the rest in a studio. But even in the studio location, Wells seems to be speaking directly to an audience whose own lives form the subjects of his songs. The songs focus on particular times of the day and night, on the elemental concern of trying to stay whole amid the pressures and impermanencies of urban ghetto life, and on the overwhelming need to love and be loved. The recording is crisp and spacious, and the stereo quality heightens the interplay of the vocal and instrumental voices.

JUNIOR WELLS: "It's My Life, Baby!" Junior Wells (vocals, harmonica), Buddy Guy (guitar), FreddieBelow and Little Al (drums), Leroy Stewart (bass), Walter Beasley (rhythm guitar in the studio sessions). It's So Sad to Be Lonely; Shake It Baby; Early in the Morning; Slow, Slow; and eight others. VANGUARD VSD 79231 $5.79, VRS 9231 $1.79.
AR Extends Turntable Guarantee From 1 to 3 Years

AR TURNTABLE GETS ITS FINAL TESTS: Operator checks each AR turntable as it comes off the production line. Turntables must conform to professional NAB Standards for rumble, wow, flutter, speed accuracy, and speed regulation in order to pass.

Increase Applies Retroactively to Present Owners

CAMBRIDGE, MASS. Dec. 1. Roy Allison, plant manager of Acoustic Research, has announced that on the basis of favorable field experience the AR turntable guarantee, formerly for a one-year period, has been extended to three years. The extended guarantee applies retroactively to all AR turntables bought less than three years ago.

Covers All Repair Costs

The new guarantee, like the old one, covers all repair costs plus U.S. freight charges to and from the factory and a new carton when necessary. AR turntables are guaranteed to meet NAB specifications for professional broadcast equipment on rumble, wow, flutter, speed accuracy.

Move Criticized

Critics of AR's latest move have called it an empty gesture, since, they claim, AR products never fail. Mr. Allison denied the charge, saying that while the return rate of AR turntables is indeed outstandingly low for a device of this nature, it is not zero. He cited AR records to show that of turntables manufactured during 1965, 4.9% have needed repair or adjustment under the guarantee.

Speaker Guarantee Extended to 5 Years in 1961

In 1961 the AR speaker guarantee, which has the same features as the turntable guarantee, was also extended retroactively to its present five years. Mr. Allison pointed out that here, too, the increase of protection was meaningful, since the return rate of most AR speaker models over the 5-year life of the guarantee is almost one per cent.

The price of the 2-speed AR turntable—$78 including an oiled walnut base and transparent dust cover—remains the same.

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Your interest in Epic's remarkably convincing new recording of Albéniz's masterpiece, *Iberia*, will depend on two factors—apart from your feeling for the music itself. First of all, rather like Munch's *Pictures at an Exhibition*, the solo-piano original lends itself so compellingly and convincingly to orchestral adaptation that, should you have grown up with the more celebrated and effective orchestral excerpts (like Fétis-Diez de Seville), all your most determined purist convictions may go out the window in disappointment over the original. Furthermore, the original piano work is long, inordinately difficult to sustain effectively, difficult to supply with sufficient variation of dynamic contrast and articulative and rhythmic impulse. Put simply, it isn't an easy piece to make work at the piano.

So saying, we can deal with Alicia de Larrocha's admirable new recording of the work in piano solo. She impresses one immediately by hanging onto all the notes as if she had the hands of a man, and, in the biggest passages, she does so with an impressively voluminous sound that just has to be more than canny electronics. Furthermore, she shapes each piece convincingly, personally, and always with distinction.

It is only in the area of what used to be called "color" that one might question her work here—and even in this area, it is perhaps a legitimate matter of taste. I myself tend to differentiate Spanish nationalism from the French impressionism that, in so many cases, drew upon the former by precisely this coloristic approach. The impressionistic thing is multi-colored, subtle, rarefied in my mind; the Spanish thing is more startling in sharply contrasted blacks and whites, with a strong, unyielding rhythmic drive to heighten the effect—if not more "primitive," at least less suffused, less subtly nuanced.

There is, then, a good deal of what I think of as French in Miss de Larrocha's approach to this music. But even offering this as a qualification to the excellence of her work here, I recognize the fact that it may very well be the key to her having sustained the work over its considerable length as successfully as I have ever heard it done.

Epic's recorded sound and stereo seem to me to be effective. W. F.

**DEFINITIONS OF SPECIAL MERIT**

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  - **Mono** (stereophonic recording)
  - **Stereo**
  - **Superior quality of the vocal and instrumental renditions**
  - **Mnemonic** (monophonic recording)
  - **Stereo version not reviewed for review**

**Explanation of Symbols:**

- **=** stereophonic recording
- **=** monophonic recording
- **=** mono or stereo version not reviewed for review

**RECORDING OF SPECIAL MERIT**

- **ALBENIZ: Iberia; Navarra, Alicia de Larrocha (piano). Epic BSC 158 two discs $11.59, SC 6058 $9.59.**

**Performance** Compelling

**Recording** Good

**Stereo Quality** Good

Your interest in Epic's remarkably convincing new recording of Albéniz's masterpiece, *Iberia*, will depend on two factors—apart from your feeling for the music itself. First of all, rather like Munch's *Pictures at an Exhibition*, the solo-piano original lends itself so compellingly and convincingly to orchestral adaptation that, should you have grown up with the more celebrated and effective orchestral excerpts (like Fétis-Diez de Seville), all your most determined purist convictions may go out the window in disappointment over the original. Furthermore, the original piano work is long, inordinately difficult to sustain effectively, difficult to supply with sufficient variation of dynamic contrast and articulative and rhythmic impulse. Put simply, it isn't an easy piece to make work at the piano.

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Epic's recorded sound and stereo seem to me to be effective. W. F.
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— Viewpoint —

3 OF BARTOK: Violin Concerto No. 2; Six Duos (from Forty-Four Duos): No. 28, Sorrow; No. 31, New Year's Greeting; No. 33, Habsburg; No. 36, Bagpipe; No. 41, Scherzo; No. 42, Arabesque. Yehudi Menuhin, Nell Gotkovsky, New Philharmonia Orchestra, Antal Dorati cond. Angel S 36360 $5.79, 36360* $4.79.

Performance: Opulent
Recording: Spacious
Stereo Quality: Excellent

I don't know precisely what is happening to the image of Béla Bartók "the Modernist," but I get the impression that it is evaporating more quickly than that of just about any of his "revolutionary" contemporaries. Even the progressive conservatism of much of, say, Stravinsky's neoclassicism offers more of a challenge to the enlightened layman. So, for that matter, does Le Sacre du printemps. It may be our emerging cognizance of the fact that, behind Bartók's bark, there lurks primarily the gentle lapping of romantic lyricism; it may be—and this is somewhat more to the point where this new release is concerned—that there is, in apparent recognition of this, an emerging performance tradition of Bartók's work that stresses the lyrical and rhapsodic side of the composer's work at the expense of the harmonic bite and rhythmic precocity.

I will grant you that the Second Violin Concerto is hardly an illustration of Bartók at his most avant-garde and challenging. And I must insist that these observations are, of themselves, not an attempt on my part to downgrade the composer's music simply because it is popular. But I have made them with some hope of accounting for the fact that the Messrs. Menuhin and Dorati, at the insistence of one or the other, or in tandem, have given us here a performance of the Second Violin Concerto that is so lush, swarming, oily, and even sentimental, were it not for the neoclassical craftsmanship and the composer's strongly identifiable personality, it might be taken for the work of any especially gifted post-Romantic composer. I can indeed point to pages in Mahler and Stravinsky's neoclassicism; it may be—and this is somewhat more of any especially gifted post-Romantic composer. I can indeed point to pages in Mahler that seem braver and more "modern" than anything to be heard on this disc.

Menuhin, of course, "plays" beautifully, but he turns on the golden glowing tone as if it were the switch for the Christmas tree lights at Rockefeller Center. And Dorati's ordinarily taut—sometimes even dry and businesslike—style is here uncharacteristically loose and improvisatory.

All together, it is my guess that we are somewhat saturated with Bartók, primarily because of overexposure of his more accessible works. One thing is certain: at this precise moment in the history of twentieth-century music, I myself find the bulk of his output extremely difficult to evaluate.

The six duos for two violins are, by the way, delightful, inventive, delicious works—touching, witty, and evocative by turn. And they are impeccably performed, at that. The recorded sound and stereo, moreover, are just about ideal.

W. F.
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CONNOISSEUR SOCIETY CS

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$5.79, CM 1566* $4.79.
Perfomance: Extraordinary "Pathétique"
Recording: Superior
Stereo Quality: Natural

Moravec's way with Beethoven is personal but not capricious, always musical but not always orthodox. His interpretations invariably say something to the listener, and this is not only unusual but extremely welcome in an age when pianists tend to sound mechanized. Moravec's "Moonlight" and his Für Elise are first-rate performances, although one can hear many other recordings which, particularly in the case of the Moonlight, provide equivalent satisfaction. His "Pathétique," however, is an extraordinary achievement altogether, so gripping is it in its impact and intensity. This is a performance no Beethoven lover can afford to miss. Connoisseur Society, as usual, has provided some of the richest piano sound to be heard today on disc. I am not convinced of the relevance to the music of the album cover (a moonlit nude torso—female, of course—against the water), but if it encourages people to listen to Moravec's "Pathétique," I can think of no cause for complaint. I. K.

BEETHOVEN: Quintet in E-flat, for Piano and Winds (see MOZART)

RECORDING OF SPECIAL MERIT

Performance: Hard-driving
Recording: Spacious
Stereo Quality: Good

Compared with the intimately miked and infinitely nuanced Amadeus Quartet reading of this music for DGG, this performance by the Smetana Quartet is characterized by sharp dynamic contrast, steady onward drive, and, in the formidable Grosse Fuge, slashing virtuosity. The quartet is played here as Beethoven originally conceived it: the simpler and shorter alternate finale that he wrote later is replaced by the Grosse Fuge, the work's first finale.

As I intimated above, the fast movements come off beautifully, but the anguished Cavatina fares less well—too cool to convince, to bring about genuine involvement on the part of the listener. But there is no gainsaying that the Grosse Fuge performance is a humdinger, and the rather bright and spacious recording enhances its effect.

Those who desire a separate recording of Op. 130 in its original form will find good value here, though for $9.95 one can obtain the excellent Concert-Disc album with the Fine Arts Quartet playing this music and all the other late Beethoven quartets.

D. H.

BOULEZ: Le Marteau sans maître (see Best of the Month, page 69)


(Continued on page 80)
Richard Wagner
TRISTAN UND ISOLDE

Birgit Nilsson
Wolfgang Windgassen
Christa Ludwig
Martti Talvela
Eberhard Waechter
Karl Böhm
Bayreuth Festspiele
1966

39 221-5; Stereo 139 221-5

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American Record Guide

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New York Times

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Life Magazine

"A cause for rejoicing"
Hi Fi/Stereo Review

FRITZ WUNDERLICH:
DIE SCHOENE MUELLERIN
The superb song cycle and other Schubert lieder in a performance of "intense musical beauty" (High Fidelity)
39 219-20; Stereo 139 219-20

MOZART: 2 SINFONIAS CONCERTANTE
Karl Böhm leads the Berlin Philharmonic in a "topnotch performance" (High Fidelity) of Mozart masterpieces.
39 156; Stereo 139 156

MOZART: THE MAGIC FLUTE
Roberta Peters, Evelyn Lear, Dietrich Fischer-Dieskau, Fritz Wunderlich in "a splendid production" (High Fidelity). Berlin Philharmonic; Böhm, cond.
18 961-3; Stereo 138 961-3

BEETHOVEN: MISSA SOLEMNIS
Gundula Janowitz, Christa Ludwig, Fritz Wunderlich and Walter Berry "stride away with honors" (Cue Magazine). "A very beautiful, well considered interpretation" (High Fidelity). Berlin Philharmonic; Karajan, cond.
39 203-9; Stereo 139 203-9

HENZE: 5 SYMPHONIES
The composer conducts the Berlin Philharmonic in "a musical experience as moving and meaningful as anything the 20th century has to offer" (High Fidelity)
39 203-4; Stereo 139 203-4

MOZART: ABDUCTION FROM THE SERAGLIO
39 213-5; Stereo 139 213-5

FISCHER-DIESKAU SINGS DICHTERLIEBE
The "poetic performance" of the Schumann cycle chosen by High Fidelity as one of the year's best recordings. Album includes Liedererküsse.
39 109; Stereo 139 109

CAVALLERIA & PAGLIACCI
Karajan conducts "the healthiest offspring to date of the DGG/La Scala union." (High Fidelity). Fionenza Cossotto, Joan Carlyle, Carlo Bergonzi, others.
39 205-7; Stereo 138 205-7

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JEAN-PIERRE AUMONT
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the Devil
Chamber Ensemble conducted by
LEOPOLD STOKOWSKI

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EURIDICE
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TERESA STICH-RANDALL
Euridice
HANNY STEFFEK
Amore
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"Now Mackerras has done what Berlioz did not... he has gone back to Gluck's original contralto music for the Viennese production... In doing so, the young American-born Australian conductor has given us what may be the only really authentic version of "Orfeo" to be found on or off discs... Forrester is superior... she generates passion and fury... the Mackerras-Forrester performance is the one which best fuses the elements which must have gone into the original composition and production of the opera; the dramatic passion of the Catalani libretto, the dramatic setting of the recitative... and, the thing most often left out... the ornaments and cadenzas."
—Howard Klein, The New York Times

Neither of these readings of the Brahms Third Symphony impels me to discard either my Szell or my Klemperer recording. Bernstein's treatment is broadly gauged and fervent, gaining an added dimension through the use of the repeat of the first-movement exposition. The real high point of his disc, however, is the Academic Festival Overture, the most rousing treatment of this work since the legendary Wilhelm Mengelberg prewar 78's with the Amsterdam Concertgebouw. This is alone worth the price of the record.

Karajan is all elegance and refinement, both in the symphony and in the Haydn Variations, with sound to match from DGG. Both these Karajan performances have been available heretofore in other couplings, the Variations as a filler to the Brahms German Requiem and the symphony as part of the integral album of the four issued a couple of years ago.

BRITTEN: Serenade for Tenor, Horn, and Strings (see BARBER)

While the idea might seem like an interesting one, the musical results of coupling a pair of string quartets by two composers who worked most consistently and successfully in the symphonic medium are rather less than compelling. The Elgar Quartet, at least, is a respectable enough exercise in the medium. Its post-Brahmsian manner suits the medium. The piece is tightly, if rather academically, constructed, and its central slowish movement has moments of eloquence. But generally, the material itself is conventional—if not weak—and, so far as the medium itself goes, the composer has merely met its minimal demands.

The Sibelius Quartet doesn't manage even that. Even with the full symphony orchestra for coloristic distraction, I have always found Sibelius' most celebrated symphonic works painfully tedious: over a harmonic rhythmic span in which almost any composer might use four chords. Sibelius is likely to drain a single triad dry.

(Continued on page 82)
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let us arm you with the facts.

Probably the most critical way to evaluate the quality of any changer is by closely inspecting the tone arm and its capabilities. Let's examine the tone arm of the BSR McDonald 500 automatic turntable. This is the resiliently mounted coarse and fine vernier adjustable counterweight. It counter-balances the tone arm both horizontally and vertically and assures sensitive and accurate tracking. Here you see the micrometer stylus pressure adjustment that permits ½ gram settings all the way from 0 to 6 grams. This assures perfect stylus pressure in accordance with cartridge specifications. Here's another unique and valuable feature... the cueing and pause control lever that lets you select the exact band on the record, without fear of ever damaging the record or the cartridge. It even permits pausing at any point and then gently floats the tone arm down into the very same groove! Whenever the turntable is in the "off" position the arm automatically returns and securely locks in this cradle to protect it and keep it from movement. This is the low-mass tubular aluminum pick-up arm... perfectly counter-balanced both horizontally and vertically to make it less susceptible to external shock. Of course, there are many other quality features on the BSR McDonald, just as you would find on other fine turntables that sell for $74.50 and higher. The big difference is that the BSR McDonald 500 sells for much less.

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CIRCLE NO. 9 ON READER SERVICE CARD

APRIL 1967

81
FRANCAIX: Concertino for Piano and Orchestra (see SATIE)

RECORDING OF SPECIAL MERIT


Performance First-rate
Recording: Very good
Stereo Quality: Excellent

Instead of making available another conventional version of Orfeo ed Euridice, the producers of this set embarked on an adventure in creative musicology which resulted in a performance that differs from any heretofore recorded. Without retelling here the complicated tale of this opera's history—which is informatively dealt with by John W. Barker and Charles Mackerras in the set's annotations—suffice it to say that all previous recordings (and virtually all contemporary stagings) are based on the 'Berlin' version of 1859. The present version, however, which was edited in Vienna with access to Gluck's original score, is based on the original (1762) conception. It is to Mr. Mackerras' credit that his eager search for the 'Utechi' did not blind him to Gluck's post-'762 improvements; three vital sections of the opera which were added for the Paris version of 1774 are retained in the present recording.

Thus the differences between this performance and other recordings are manifold. The text is Calzabigi's original Italian libretto and not the compromise that resulted from the recutting into Italian of the French text Berlioz used in 1859. Amore's aria is heard in a longer form, while Orfeo's first-act aria, 'Addio o miei sospiri', considered by many authorities to be an interpolation, has been omitted. Trumpets and trombones are prominent in the orchestra, and the harpsichord is allotted a very active role. Even more significantly, the vocal parts are interpreted with faithful regard to eighteenth-century performance practices in the matter of embellishments and appoggiaturas. While some of these changes may elude the superficial listener (for example, the perfectly sensible yet unconventional dotted figures introduced in 'Che faro senza Euridice'), Orfeo's 'Che pria cieco' emerges with a virtually new melodic line.

It is not the purpose of this review to pass judgment on the musicological validity of this experiment, and it is certainly not my intention to imply that such previous Orfeo authorities as Berlioz, Toscanini, Beecham, and Ascher were guilty of stylistic misinterpretation. But it is undeniable that this performance works; the editing is logical and respectful, the embellishments are not exaggerated (this is Gluck and not Bellini!), and the singers are both capable and energetically musical. Maureen Forrester in the role of Orfeo represents particularly happy casting. She is a true mistress of the classical style as well as that rare contemporary phenomenon, a true contralto. With a sumptuous and steady voice she responds to Mackerras' vigorous leadership and creates a character of strong and vital presence. As Euridice, Teresa Stich-Randall is just about perfect, offering a warm, womanly, vocally captivating interpretation.

On the negative side, however, I must note that while Mr. Mackerras brings vigor and excitement to the music, he does this at the expense of refinement. There are imprecise attacks and occasional lapses of 'togetherness,' and the choral work is very often ill-balanced and lacking in incisiveness. He conducts much of the second act at a rather inflexible tempo, and his pacing for the Dance of the Faeries is decidedly hurried. A further debit is due in the area of textual communication: Miss Forrester's Italian pronunciation could stand improvement, and Miss Steffek's is downright offensive. These reservations prevent me from recommending the set as the decided preference among the opera's contemporary versions, but they do...
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MOPHON SLPM 139153 $5.79, LPM 39153° $5.79. **Performance:** Very commendable. **Recording:** Very good. **Stereo Quality:** Excellent.

Although this cantata consists mainly of da capo arias interspersed with recitative and a few duets, and has only two characters, there is considerable variety of mood and instrumental scoring. This is a relatively early Handel (1708), but there is nothing immature about the composer's treatment of the subject. The performance, which includes some modest efforts at decorating the vocal da capos, is an extremely good one, somewhat more polished than I recall the older L'Oiseau-Lyre version to have been. The two vocalists are well suited to the parts, though Giebel tends to skim the dramatic possibilities. The instrumental soloists are first-rate.

This is the most comprehensive recorded document ever assembled of Franz Liszt as a composer of songs, comprising about one third of his entire output and including several first recordings. Eight singers and three accompanists are involved, ostensibly to match each song with the best available (Hungarian) interpreter. The album is attractively packaged, with excellent annotations and pertinent historical data. Why should the Hungarian record industry, with its relatively modest output, be the source of such an unusually elaborate production? Because, for all his cosmopolitan and universalist tendencies, Hungary has never ceased to claim Franz Liszt as her own.

The song form attracted Franz Liszt on and on and again throughout his long artistic life. Here, as in other fields, he followed many influences and worked in many idioms. His choice of poets (Petrarch, Goe- the, Heine, Schiller, Lenau, Hugo, Tenny- son) shows high discernment, though his musical treatment of the texts was not always respectful. Seldom succumbing to the virtue of understatement, he had a tendency to in- flate the poetic utterance, to repeat lines or otherwise become redundant and formless. Brief poems, in particular, were not Liszt's métier, and it is not surprising that his Im Rhein, im schonen Strome is no match for Schumann's treatment.

But Liszt did have the magic of individuality, and his boldness of conception, rich- ness of pictorial detail, and harmonic ad- ventureousness are to be admired even in his most unbridled moments. His Liremay may be uneven, but its wild Romantic evocation is far more exciting than the folk-like simplic- ity of Silcher's better known treatment. And, of course, there are a number of real gems among the songs which, not surpris- ingly, are all here: Oh quand je dors; Die drei Zigeuner; Es muss ein wunderspa- re; the Petrarch Sonnets. Not the least of their attractions are, predictably, the powerful and brilliant piano parts.

The major work of love art of a Fisch- er-Dieskau, who has recorded seven of these eighteen songs on DGG 138793, is not matched by any of the Hungarian singers, but the new set offers many creditable achievements. The big surprise is a hetero- tônisch, known lyric tenor named Jozsef Heti, who discloses not only a voice of exceptional beauty and evenness, but also refined vocal art and flawless Italian diction in the three Petrarch sonnets. Soprano Laszlo and barit- ono Mells are up to a high international level, and so is the young balcony voice, Bende, who performs the interesting, if overlong, ballad Gastibelza, full of Meyerbeian vocal flourishes. The other singers are consid- erably less impressive, and some renderings also suffer from unbalancing tempos and a general lack of sparkle.

The accompaniments are never less than competent; in the case of Zempleni, they are quite often exceptional. The sound is clear, full, and well balanced. Altogether, a welcome, instructive, and very pleasant release.

(Continued on page 86)
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The internationally renowned Hungarian Quartet—now in residence at the University of Colorado—captures the essence of Beethoven's genius. Sixteen quartets and the Great Fugue—an ideal gift, at an astonishingly low price. The Beethoven cycle heads a wonderful Seraphim release for April: Another spanning new recording offers a feast of Nine Mozart Overtures by the dynamic English conductor Colin Davis. Seraphim also brings back two vintage triumphs, Beniamino Gigli's Sacred Songs (recorded 1932-1947) and the memorable 1940 Cavalleria rusticana, with Gigli as Turridu. Mascagni himself conducts the complete recording (2 discs) and gives a brief spoken introduction.

**MILHAUD**: Le Bœuf sur le toit (see SATIE)

**5 MILHAUD**: Symphony No. 3, "Hymnus ambrobianus," with Chorus, Concerto for Two Pianos and Orchestra, Ina Marika and Genevieve Joy (pianists); Elisabeth Brassard Chorale; Conservatoire Orchestra, Darius Milhaud cond. WESTMINSTER WST 17101 $4.79, XWN 19101 $4.79.

- **Performance**: The composer's say
- **Recording**: Good
- **Stereo Quality**: Good

While we generally think of Milhaud's most vital work as coming out of the Twenties and Thirties, both the Symphony No. 3 with Chorus (1947) and the Concerto for Two Pianos and Orchestra (1949)—each composed during the composer's residence in the United States—are works of sharp musical profile and intense creative energy. They are, as well, craggy, massive musical edifices, mixing those elements of the just-shot-of-ponderously epic and the French sensiousness that have long been the composer's most favored expressive gestures.

Of the works heard here, I am inclined to admire the symphony more and to take the greater pleasure from the two-piano concerto. The former is full of Milhaud's richest song, most complex textural detail, startling choral-instrumental effect, and, I suspect, deepest feeling—since it was composed to celebrate the end of World War II in Europe. Still, in some odd way, it bends—if it does not quite break—under its own weight, and the final effect is as exhausting as it is moving.

The two-piano concerto, on the other hand, seems to shape up quite handsomely, in spite of a slow movement that begins beautifully but stretches out a shade tenuously. The piano writing is bright and inventive, the score runs high on melodic invention, and the work as a whole mixes solemnity and jollity with impressive sleight of hand.

As for the performances, I continue to find Milhaud's interpretations of his own work a shade perfunctory and lacking in brilliance, although all the pieces are well known and often recorded (the C Minor Fugue, however, in its later string arrangement, this is the only disc to combine them). The performances are not new (they were once available on the higher-priced Vox label), but they are as sound as one may hear. The lively ensemble work is splendid, the interplay is highly satisfying, and the reproduction (save for slight deterioration at the end of side two) is very good. My review copy, however, was somewhat warped and wouldn't track for the first fraction of an inch at the outset of each side. Stereo is used for maximum separation between the instruments.

**RECORDING OF SPECIAL MERIT**

**5 MOZART**: Quintet in E-flat, for Piano and Winds, Op. 16, Vladimir Ashkenazy (piano), London Wind Soloists, LONDON GS 6494 $5.79, CM 9494* $4.79.

- **Performance**: First-rate
- **Recording**: Balanced clarity and depth
- **Stereo Quality**: Attractive

Coincidences like this don't just happen. Beethoven's Quintet, written in 1797 for a musical evening at the house of his fat fiddler friend Schuppanzigh, was obviously meant to provide another piece of repertoire besides the Mozart for a particular assembled ensemble (wind quintet without flute). But there was no real requirement to write it in E-flat, in three movements with slow introduction and so forth. It was the fancy of a young man very sure of himself to go so obviously into competition with Mozart—and Beethoven almost gets away with it. The pastoral first movement, the lyrical second, and the Singspiel finale have the best qualities of Beethoven's first period. But the Mozart, written in Vienna in 1784, is also one of that composer's most superb creations, and one of his most original. While the Beethoven is a very lively concertante piece, rather florid and somewhat conventional in form, the Mozart is in a class by itself, unique in its genre—somewhere between the concerto, the divertimento, and true chamber music.

Both pieces are handled magnificently here. Ashkenazy and his colleagues have just the right combination of clarity, articulation, big phrase, forward motion, and flexibility to make up a really meaningful and expressive classic style, and everything they do is enhanced by the excellent recording. Highly recommended.

**E. S.**

**RECORDING OF SPECIAL MERIT**

**5 MOZART**: Violin Concerto No. 4, in D Major (K. 218); BACH: Violin Concerto No. 1, in A Minor (BWV 1041; Erica Morini (violin); Princeton Chamber Orchestra, Nicholas Harsanyi cond. DECCA DL 710134 $5.79, DI. 10134 $4.79.

- **Performance**: Warm-hued
- **Recording**: Likewise
- **Stereo Quality**: Good

At least a half-dozen violinists of major stature are represented in competitive recorded versions of one or both of these works. But though only Decca has seen fit to pair the two on one disc, Erica Morini brings to her solo performance flawless taste in phrasing and dynamics, impeccable technique, and a beguiling warm, luminous sound. Her recording captures the performances of the Bach at various times, and it's a pleasure to hear one that flows so easily. The harpsichord concerto

(Continued on page 88)
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APRIL 1967

CIRCLE NO. 40 ON READER SERVICE CARD
The Mozart performance is an almost equal joy, save for occasional slackness of line in the orchestral accompaniment in the first movement. Otherwise Nicholas Harsanyi and his Princeton players do a thoroughly creditable job. The recorded sound is of a spaciousness and warmth quite in keeping with the character of the performance.

Granting a certain strained and curiously awkward eloquence, this symphony by the little-known British composer Edmund Rubbra (b. 1901) is something less than a success or even particularly convincing work of art. I say this in spite of the fact that the main spark with a quite personal accent and that, furthermore, the creative impulse seems authentic. What's the trouble, then? It isn't easy to pinpoint. For one thing, what might have been originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as intolerable for originality strikes me as
Angel's new "MESSIAH" employs a counter-tenor, 36 instrumentalists, a chorus of fewer than 40 singers, and continuo with harpsichord and chamber organ.

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A choice between these two recordings of Schubert's ever-sensible and lovely 'Trout' Quintet depends on whether one wants a brilliant concert performance or a more relaxed reading in the spirit of informal home music-making. It always has seemed obvious to me that the latter type of reading is more in keeping with what Schubert wrote, and this is what Viola Perlemuter and his French colleagues offer us on the Monitor disc. The Pascal Quartet, whose memorable readings of the Beethoven quartets were once available on the now inactive Concert Hall label, makes a long awaited return to the Schwann Catalog listings with this disc. This is a performance full of warmth, delicacy, and essential vitality—though perhaps without quite the bounce that we get from Peter Serkin and the Schneider Quartet on Vanguard. Of equal distinction and vitality is the Pascal Quartet's reading of the intensely dramatic C Minor quartet movement—a more exciting filler than the rather languorous Naturzauber offered on the DGG disc.

The Koeckert-led DGG ensemble plays brilliantly, but to my way of thinking rather joylessly—and with a somewhat wary first violin sound, too. This is not to my taste, though it may be fine for those who insist on even their Hausmusik Schubert in high-voltage style.

## RECORDING OF SPECIAL MERIT

### 5 SCHUBERT: Die schöne Müllerin, Op. 25, Der Einsame; Frühlingsglaube; An Sylvie; Weidensiel; Ständchen; Liebesbotschaft zu wiegen; Gruß der Liebe in zwei Gestalten; Adieu; Musik. Fritz Wunderlich (tenor); Hubert Giesen (piano). DEUTSCHE GRAMMOPHON SLPM 139219/20 two discs $11.58. LPM 39219/20* $11.58.

**Performance:** Enthralling  
**Recording:** Very good  
**Stereo Quality:** Natural

All the admirable qualities noted in Fritz Wunderlich's earlier recording of *Die schöne Müllerin* (Eurodisc, reviewed in February, 1966) are present in the new version: the voice is free and ringing, the approach suitably ardent, the style unmannered and uncompromisingly artistic. There are no basic changes between the two interpretations. Eurodisc's engineering gives the voice more forward prominence and more brilliance; DGG's more distant perspective creates a mellower impression. In a few instances—a more suitable choice of tempo for *Das Wunder*; a stronger suggestion of depth for the *Bläser*—interpretive touches can be noted which reveal deepening artistic maturity. The overall performance, however, continues to place more emphasis on tonal beauty and direct communication than on subtleties of vocal coloration or inflection.

A curious view may perhaps dismiss this kind of lieder singing as "operatic," but I refuse to see it in a negative light. Singing that reveals so much lyric beauty and natural expressiveness carries its own artistic validity, and further stress on "interpretation" may rob it of the magic of spontaneity. Furthermore, while there is no shortage of intelligent and thoughtful interpreters, the gift of beautiful vocalization blended with strong musicality is far less common. The seven songs that make up the fourth side of the disc are all admirably suited to bringing out the best in the artist. The accompaniments of Hubert Giesen are always competent, the recorded sound is fine. All's well here except for the distressing thought that the splendid voice and art of Fritz Wunderlich are forever stilled.

**SIBELIUS: String Quartet in D Minor, Op. 56**

### 6 TARTINI: Violin Concertos in E Major, G Major, and D Major. André Gerlier (violin); Zurich Chamber Orchestra, Edmond de Stoutz cond. VAN-}

Without ever having thought Villa-Lobos the Almighty's answer for twentieth-century music, I've always been rather partial to the unaffected lyricism and easy stylistic naturalism of his work, and, perhaps, to his style of performance. He was never a composer to get into a state about—either one accepted the beautifully natural grace of his way with a long-lined tune, or else one simply shrugged one's shoulders indifferently.

But so saying, I'm not very happy with the Guitar Concerto (1951) recorded here. Either the guitar writing is rather self-consciously fussy in its figural detail or Senior Almeida manages to make it sound that way in his playing of it. The piece is, furthermore, a little crudely orchestrated—or, again, is it the composer trying unsuccessfully to be adventurous? Worst of all, I don't find myself in the least enchanted by the large part of the melodic material, which is the area in which I would look for compensation for what I regard to be the other shortcomings of the work.

The Weiss transcription—if it is true to the Banque lute suite from which it was arranged—strikes me as but rarely having been touched with the true spirit of its original intent. But since almost all such transcriptions (including the present one of the arioso from the Harpsichord Concerto in F Minor by J. S. Bach) seem to me to emphasize the ingenuity of the guitarist rather than the music itself, I am perhaps ill-equipped to deal with the entire second side of this release. The recorded sound and stereo treatment are good.

(Continued on page 94)
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**94**

**HIFI/STEREO REVIEW**

choral work. Werner's direction of the orchestra is very capable, as is the Soloists' ability to handle the florid passages. The recording is very attractive.

**COLLECTIONS**

**ARCHIVE OF PIANO MUSIC:**

**HAROLD BAUER PLAYS BEETHOVEN:***


**RECORDING OF SPECIAL MERIT:**

**WALTON: Symphony No. 1 (see VILLA-LOBOS)**

**JOSEF HOFMANN CONCERT.***


**ARCHIVE OF PIANO MUSIC:**

**ALFRED CORROT CONCERT.***


**ALFRED CORROT PLAYS BEETHOVEN.***


**ARCHIVE OF PIANO MUSIC:**

**IGNACE JAN PADEREWSKI PLAYS CHOPIN.***


**RECORDING OF SPECIAL MERIT:**

**WALTON: Symphony No. 1 (see VILLA-LOBOS)**

**ALFRED CORROT PLAYS BEETHOVEN.***


**RECORDING OF SPECIAL MERIT:**

**A Handel's Music.*

Handel's music is best known today, the children's version is available on DGG (Westminster WST 1'103). *WALLER: Suite in A Minor (see VILLA-LOBOS).***

**RECORDING OF SPECIAL MERIT:**

**ARIADNE UND DER FLUCH.***

Offenbach: *Ariadne.* Alfred Cortot (violin). The recording is very good.

**RECORDING OF SPECIAL MERIT:**

**JOSEF HOFMANN CONCERT.***


**JOSEF HOFMANN CONCERT.***

again sound normal? And how does one explain the Polish pianist's relatively dry pedaling here? Harold Bauer's two Beethoven sonatas point up a few more problems heard sporadically in the recitals: there are some glaring mistakes in the slow movement of the "Pathétique" and towards the end of the "Appassionata" the left-hand part seems to disappear from time to time. This means that either the reproducing piano or the rolls themselves were at fault, certainly a disaster. But the performances make use of modern instruments rather than the slightly less brassy and penetrating ones contemporary with this period. Perhaps for this reason, and in spite of a few occasional cracklings, the liner-note listings of the discs' contents are studded with errors and inconsistencies. For those interested, the additional records in the series are, briefly, as follows: X 901, 'Paderewski plays Paderewski and Liszt'; X 903, 'Josef Hofmann plays Beethoven'; X 904, 'Josef Hofmann plays Chopin'; X 906, 'Ferruccio Busoni Concert' (Bach, Chopin, Liszt); X 907, 'Serge Prokofiev Concert' (Prokofiev, Moussorgsky, Scriabin, etc.). X 911, Harold Bauer Concert' (Saint-Saëns, Bach, Chopin, Schubert, Weber). X 912, 'Maurice Ravel plays Ravel'; and X 913, 'Percy Grainger plays Grainger.'

(Continued on next page)}
TELEFUNKEN SAWT
between music by William Byrd and William The bulk of this collection is divided be- 9481* $5.79.hardt Consort, Gustav Leonhardt, director.
Leonhardt (harpsichord and organ) ; Tomk-kins: A sad Pavan for these distracted times Suite No. 2, in F Major; Sonata No. 7, in 3 a 3; Miserere; Fantasia No. 2 a 6. Lawes: (Continued on page 99)

RECORDING OF SPECIAL MERIT

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Karlheinz Stockhausen's MOMENTE is compellingly performed by MARTINA ARROYO, soprano; ALOYS KONTARSKY, Hammond organ; ALFONS KONTARSKY, Lowrey organ; GIORGIUS & MEMBERS OF THE SYMPHONY ORCHESTRA OF RADIO COLOGNE, under the composer's direction.
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CIRCLE NO. 25 ON READER SERVICE CARD

HIFI/StereO REVIEW

Performance: Variable
Stereo Quality: Excellent

The program speaks for itself: challenging, imaginative, a far cry from the stereotyped "baritone recital." But then Geraint Evans, an unusually versatile and resourceful artist, can be expected to disdain the predictable. In spanning the three centuries that separate Handel from Britten, he moves with complete assurance and a keen stylistic awareness, projecting intelligent and strongly in- flected characterizations that are illuminated by an exceptional clarity of enunciation. Regrettably, however, Mr. Evans is far less effective on records than he is on stage, where his considerable theatrical powers support his work. Here, he is most satisfying in the stately Semele aria, which lies in the effective lower half of his range, and where he rolls out a steady stream of warm and rounded tones. His handling of the Fidelio excerpt is also very fine—in coloration and dramatic force his is an ideal voice for Pizarro. But everywhere else his perform-
ances suffer from the limited effectiveness of his high register and from a tendency to spread notes around true pitch. Particularly disappointing is the graceless "Der Vogel-
fanger," since I would have thought Evans to be an ideal Papageno.
The somewhat rushed and inflexible tem-
pos of the conductor are not too helpful, par-
icularly in "Madamina" and "Non piu an-
drai," which the artist can surely perform more expressively than he does here. The sound, however, is sumptuous. G. J.
This new color TV component is made for videophiles who are dissatisfied (as all of them should be) with what passes for accurate picture and sound reproduction in commercial, mass-produced color TV sets.

It is part hi-fi audio system and part monitor color TV receiver. Both parts are of equal quality: high.

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295 sq. in. picture area / automatic background color switching / 3-way optical control switch / pre-set fine tuning for VHF / transistorized UHF tuner / pushbutton power tuning / 3-stage video IF / perforated metal cabinet / finished walnut front trim / AC connection for ventilating fan / wireless remote control adaptability.

For Booklet Write: Clairtone Corporation
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Price: $699.
The most important projection of accents and phrase. It and always on top of the music. The first ing of the sort. Casals is brisk, brilliant, and, I suppose, over-Romanticized. Noth-
and the home of the Electors. As usual, the music chosen has some association with the locale, although in the case of the generous assemblage of five excerpts from Handel’s tenth opera, Amadigi, the first performances took place in 1715 in London, albeit with the Hannoverian George I in attendance. Impressively festive is the Schmeizer orchestral sonata, as well as the brief Sarroto sinfonia, both featuring clarino (coiled) trumpets.

The quality of performance on all points is very high, with some very effective embellishing of the vocal du capo (though such an elementary matter as vocal cadential trills seems to have been overlooked). The orchestral playing is first-rate, and the vocalists are particularly good.

I. K.


Performance: Attractive
Recording: Intimately scaled
Stereo Quality: Subdued

Intimacy is the keynote to this recital. In contrast to her tonally more luxuriant contemporaries (though such an elementary matter as vocal cadential trills seems to have been overlooked). The orchestral playing is first-rate, and the vocalists are particularly good.

I. K.


Performance: Hard going
Recording: Adequate
Stereo Quality: Good

If musicianship and stylistic authority alone could do it, this would be a marvelous recital. As for voice—which is, after all, an ingredient one ought not to overlook in the consideration of an operatic program—Gérard Souzay appears to be severely overmatched by the task.

He brings rare authority to the “classical” portion of the program (Monteverdi to Mozart), where the sensitive shading and moving inflections he shows in the Monteverdi lament are as impressive as the ample breath support that allows the artist to spin out the winding Handelian phrases of Partenope with laudable smoothness. The Gluck arias, however, are not quite up to expectations, and if the Don Giovanni arias leave little to be desired in terms of elegance and crispness, the Figaro excerpt proves strenuous all the way. All selections suffer from various vocal limitations: insufficient resonance, straining for volume, or a persistent waver on sustained notes.

Invoking Titta Ruffo’s classic renditions of the Hamlet and L’Africaine arias as points of comparison would hardly be fair to Mr. Souzay, but the regrettable fact is that he comes off second best against the more readily approachable standard of his present-day colleague Robert Massard (Thais) and Michel Dens (Roméo et Juliette) as well. The orchestral contribution is adequate, with some glossing over of details and insufficient definition. There is some distortion as well as artificial “enhancement” of the voice quality. In sum: an imaginative program, a gallant try—and a partial success.

G. J.

An Epic Keyboard—A Collection of Great Albums

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This Contemporary model with pleated, textured grille fabric, is of open-grain oiled walnut. Mediterranean and Early American cabinets are of select distressed pecan. Suggested price, $895.

The 1200 XL series represents the finest loudspeaker system Jensen has ever built. Hear it at your Jensen dealer soon. For descriptive literature write to: Jensen Manufacturing Division, The Muter Company, 6601 South Laramie Avenue, Chicago, Illinois 60638.
5. **The Baroque Inevitable**: The Baroque Inevitable. The Baroque Inevitable (instrumentals). Turn Down Day; Wild Thing; Strangers in the Night; Eleanor Rigby; and seven others. Columbia CS 9387 $4.79, CL 2587 $3.79.

6. **The New Society**: The Baroque Sound of the New Society. The New Society (vocals); orchestra, Lincoln Mayorga cond. and arr. Dawn of Sorrow; Of You; The Good Times; Child of Summer; and eight others. RCA Victor LSP 3676 $4.79, LPM 3676 $3.79.

7. **Anita Kerr Singers**: Slightly Baroque. Anita Kerr Singers (vocals); orchestra; Anita Kerr arr. Mona Lisa; One Note Samba; Love Lies; It's Not Unusual; and eight others. Warner Brothers WS 1665 $4.79, W 1665 $3.79.

When the Swingle Singers first came to prominence on the pop music scene they were a delightful and ingratiating surprise. Since that time there has been a host of imitators, most of them pretty bad. Two of these albums are no exception to that trend, and the third (by the Anita Kerr Singers) has only its intense professionalism to recommend it.

Randy Sparks, who first loosed the New Christy Minstrels upon us, is responsible for the New Society. The liner notes tell of his search to find the appropriate components for this group. He feels that he was so successful that they (the New Society) are now referred to as ‘a work of art.’ Hardly. They sound like a group of well fed, clean-cut young people of no particular talent, who might be found performing at any church social (California style, that is). It’s all very cheerful, very vapid, and very boring.

The Baroque Inevitable” arrives fashionably gotten up with a pop art cover and inappropriately cute liner notes. On the turntable it develops into a one-idea album stretched well beyond its limit. The idea of taking contemporary hits such as Turn Down Day and Strangers in the Night and performing them in Baroque style with an assortment of Baroque instruments and an occasional added electric guitar with the big beat isn’t really all that original, and the results aren’t all that interesting.

“Slightly Baroque” is a slightly different case. The Anita Kerr Singers are a very good group, and I’ve enjoyed them on other albums. But their style, and the arrangements made for them here by Miss Kerr, really can’t be adapted to any Baroque sound. Simply adding a few harpsichord notes here and there doesn’t alter their liveness very much, so what we have here on most songs is a harpsichord obbligato added to standard interpretations. When they forget all the Baroqueries, as in It’s Not Unusual, they sound like their customary splendid selves.

8. **Maria Cole**: Love Is a Special Feeling. Maria Cole (vocals); orchestra. Gordon Jenkins cond. and arr. On a Clear Day; He Touched Me; Blue Prelude; Violets for Your Furs; The Music That Makes Me Danc; and seven others. Capitol ST 2612 $4.79, T 2612* $3.79.

The Capitols call the shots as far as their songs are concerned. They see them; the results may be a little too graphic for those who go around whistling The Girl That I Love—but it is all quite real and vivid. In short, I couldn’t find a trace of dishonesty or phoniness in their work. If you like gutsy music, I think you’ll like The Capitols.

9. **Ettoire Bastianini**: Songs of Italy. Ettoire Bastianini (vocals); unidentified orchestra. O sole mio; Vieni; La Serenata; Finita che l’hai; and six others. London SW 99412 $4.79, TW 99412 $3.79.

The late Ettoire Bastianini, billed as a baritone for all seasons (“...Bastianini’s talent is too broad and his repertoire too wide to be truly appreciated in just a single performance”), turned out to be quite an adept interpreter of light Italian music. All the old chestnuts are here, tastefully and well sung, although Bastianini’s voice shows considerable strain at the top. The music naturally cannot bear any close critical scrutiny, and it would be unfair to judge Bastianini’s voice in the singing of it. Suffice it to say that if you have a particular fondness for this sort of thing, you will find the album a pleasant memento of the young baritone’s career. Bastianini suffered from cancer of the throat for a number of years, but courageously continued to perform as long as possible. He died in Italy on January 25 at the age of forty-three.

**RECORDING OF SPECIAL MERIT**

**The Capitols**: We Got a Thing. The Capitols (vocals and instrumentals). Knock on Wood; It’s Goo Goo Goo Goo; Let’s Go Get Stoned; Wild Thing; and eight others. Argo SD 35201 $4.79, LP 35201 $3.79.

**Maria Cole**: Love Is a Special Feeling. Maria Cole (vocals); orchestra. Gordon Jenkins cond. and arr. On a Clear Day; He Touched Me; Blue Prelude; Violets for Your Furs; The Music That Makes Me Dance; and seven others. Capitol ST 2612 $4.79, T 2612* $3.79.

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Maria Cole’s voice is like melted molasses poured on vanilla ice cream: it’s sweet and old-fashioned, but one or two bites and you’ve had enough. Still, I don’t mean to really knock a sound that is as warm and solid and graceful as hers. She sings well and in tune, and she is a real pro capable, in charge of her music, and right on the note. It’s just that there is nothing in Miss Cole’s choice of songs (mostly tried-and-true, old-and-blue) or in Gordon Jenkins’ overly lush string-section arrangements to spice up the collection.

**Explanation of symbols:**

- S = stereophonic recording
- M = monophonic recording
- * = mono or stereo version
- n.r. = not received for review
GET $100.00 WORTH OF PRE-RECORDED STEREO TAPES FOR ONLY $39.95...

but there's a catch

A former Dick Tracy vocalist, she gave up singing after marrying Nat King Cole (except for rare appearances with her husband). This album is her first in several years. No newcomer, she knows music, musicians, and songs. It's nice to hear her tasteful female baritone massage the old songs nobody does any more, such as Matt Dennis' "Violets for Your Furs" and the old evergreen "Blue Serenade." Happily, she has had the foresight to include the almost forgotten Ellington-John Latonche "Talk Love Easy," with which Dorothy Dandridge used to set audiences on fire. Less interesting is the new material, like the boring Morgan Ames-Johnny Mandel tune "Quietly There." Maria Cole brings a heritage of classy but straightforward jazz thing, a musical knowledge acquired over the years. No newcomer, she knows music, musicians, and songs.

This disc of Vic Damone singing gentle jazz-inflected bossa-nova arrangements by Ernie Freeman (a jazz pro) is welcome to these tired ears. Vic has always been one of the most technically brilliant interpreters of popular music in America, but he had to outgrow some grade-Z MGM musicals in which he played second banana to the likes of Debbie Reynolds and Ann Miller before he learned what to do with his abilities. Now he seems to be entering a new, groovier phase of his career. The old power behind the tonsils is still there, but like Mel Torme and Mark Murphy, he seems to be thinking more about how to channel it. The beat is soulful-light, but there is convincing power. The material and the arrangements are lush, swinging, and sensitive at the same time. And the tunes—well, there isn't one dud on the entire disc.

Vic Damone is singing better than ever, and this recording provides some badly needed work. The trouble is that this is the jet age, and Mark Murphy, he seems to be thinking more about how to channel it. The beat is soulful-light, but there is convincing power. The material and the arrangements are lush, swinging, and sensitive at the same time. And the tunes—well, there isn't one dud on the entire disc.

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This combination of PAS-3X preamplifier, FM-3 tuner, and Stereo 120 amplifier represents the highest level of quality which can be attained with high fidelity components. It combines the virtues of both tubes and transistors in a flexible modular system without skimping to squeeze it into one unit.

Two of these components have passed the test of time — years of increasing public acceptance. The Stereo 120 is an all new design. All have been engineered and produced with the same underlying Dynaco philosophy of offering superlative performance at the lowest possible cost — when you buy it, and as long as you own it. Everyone recognizes that Dynaco is "best for the money." We know that it should be judged regardless of price — Dynaco quality has never been compromised by cost considerations.

Our sole concern is sonic perfection. We don’t follow the herd in engineering, styling or promotion. Fads, status and "revolutionary new sounds" never enter our planning. We avoid regular model changes and the planned obsolescence they engender. We take the extra time to do things right the first time. That probably explains why our limited product line has become increasingly popular each year. It’s why our kits are so easy to build; why maintenance is so easy; and service problems so few. We constantly strive to improve our products though, and when we do, these changes are available to our customers to update existing equipment at low cost.

Our detailed literature, available on request, gives the full specifications which help to explain why the Dynaco components illustrated (PAS-3X, FM-3 and Stereo 120) will provide the finest sound possible. Specifications are important, but the most complete specifications cannot define truly superb sound. Go to your dealer, and compare Dynaco with the most expensive alternatives, using the very best speakers and source material you can find. Be just as critical, within their power limitations, of our best-selling Stereo 70, Stereo 35 and SCA-35.

Of course, if you are now a Dyna owner, don’t expect us to convince you to replace what you already have.

But your friends might benefit!
Part of a night at El Matador in San Fran-
co, the first side of this album focuses on
pianist Guaraldi. He is an airy, crisply
swinging musician whose conception often
does not bear close scrutiny because it tends
to be shallow though certainly cheerful. On
the second side, Brazilian guitarist Bola Sete
appears, and here the level of music-making
is much higher. Sete constructs warm, sinu-
sous lines over pulsing chording. A master
of modal shading, he evokes with conversa-
tional intimacy. Guaraldi complements him
exceptionally well. Special credit is due en-
gineer James Easton for a model of what
location recording can be.

ANITA KERR SINGERS: Slightly Bar-
roque (see page 101)

Jim Kweskin's jug band has a heterogene-
ous repertoire: ragtime, jug-band songs, pop-
ular novelty, pop, blues, and some jazz num-
ers (in this set, Onyx Hop and Christopher
Columbus, dating from the 1930's). The ap-
proach is usually light-hearted, with fre-
quency infusions of high camp. They do not
try to imitate any of their sources, neither
the vintage jug bands nor the jazz groups.
Instead, they have created their own casual,
wholly unpretentious, and eclectic style that
allows them to move freely into practically
any idiom, including rock-and-roll. Only
one track in this set falls entirely flat: Two
That Record Owe, a stupid joke that should
have stayed there. The music of Kweskin
and his revellers will not bear close analysis.
It's fun and games.

JOHN D. LOUDERMILK: Sings a
Bizarre Collection of the Most Unusual
Songs. John D. Loudermilk (vocals and gui-
tar); chorus. To Hell with Love; Interstate
40; The Lament of the Cherokee Reservation
Indian; and nine others. VANGUARD VSD
79235 $1.79, VRS 9234 $4.79.

Performance: Bucoic
Stereo Quality: Superior

Here's a record from Nashville that lives
up to its title. The genial, folksy Mr. Loud-
ermilk tackles the most curious ballads—idio-
tics on such offbeat subjects as a Southern
lady who won't sell her house to make way
for the TVA, a child who is ordered not to
play in the snow because a news item re-
ports it's radioactive, and a fellow suffering
agonies of guilt over a pheasant he shot on
Christmas Eve. There's a "talking blues"
about an affluent rock-and-roll singer who
has his revenge on an automobile salesman
who refuses to wait on him, a tirade against
the artificiality of a world made up of paper
plates and plastic spoons, and a catchy little
number about a happy bum "walking and
cussing down an immaculate new high-
way. There are also a few sticky songs of a
sentimental nature, but these are balanced by
unexpected pieces like To Hell with Love.
If this album makes musical non-history, it's
the monstrosity of the tunes which spoils an
otherwise promising thing—that, together
with the clever chorus and a guitar with a
dismally dogged beat.

CHARLEY MUSSELWHITE'S
SOUTH SIDE BAND: Stand Back! Char-
ley Musselwhite (vocals, harmonica), Har-
vard Mandel (guitar), George Goldie (pi-
ano, organ), Bob Anderson (bass), Fred
Berkness (drums). No More Lonely
Nights; Help Me; Strange Land; Sad Day;
Anita; When You're Gone; Nobody's
Baby. RCA Victor LSP
3497 $4.79, LPM 3497 $3.79.

Performance: Good
Stereo Quality: Very good

Among the young white musicians who are
(Continued on page 106)
Soundsibility — superb sound with sensible features — it's a tradition with Viking tape recorders. In keeping with this tradition Viking introduces the new Model 423 — designed to bring you excellence in performance, true stereo fidelity and the utmost in practical operating convenience.

A three-speed unit with solid state stereo electronics, Model 423 also has three motors for highest reliability. Other features include hyperbolic heads, illuminated recording meters and directional control levers. A remote pause control* fits every Model 423 and lets you interrupt and resume recording or playback conveniently from your easy chair. So sensible even the model number is meaningful — 4 tracks, 2 heads, 3 speeds. Uniquely, with all these features, it's less than $250.00.

You'll also find soundsibility in other Viking models which set a standard of excellence for tape recorders.

88 Stereo Compact
The "final touch" for stereo music systems. Features tape monitor with three heads, sound-on-sound recording, exceptional fidelity even at slow speed for less than $340.00.

880 Stereo Portable
Some features as Model 88 plus detachable speakers, power amplifier with stereo headphone output in portable case. Carry along for "on the spot" recording or connect to music system for less than $440.00.

807 "Tape Turntable"
Connects to music system for playback only of all standard monaural or stereo tapes. Features two popular speeds. Use it also to duplicate tapes with another tape recorder. Walnut base included for less than $125.00.

*Remote pause control and walnut base optional accessories.
trying to become part of the urban Negro blues tradition are twenty-two-year-old Charley Musselwhite and his colleagues on this set. He has, according to annotator Pete Welding, learned from, and played with, several of the most persuasive Negro bluesmen in Chicago. And it is true that the spirit of big city black blues is rather well emulated in the instrumental sections of these performances. But when Musselwhite sings, he is still clearly a young white man trying to sound like a black man imprisoned in the ghetto. He knows the devices, but he hasn't lived the life, and the difference shows. Why listen to Musselwhite when you can get the real thing from Junior Wells? It is possible that, on the foundation of this idiom, the more devoted and talented white disciples—Musselwhite is among them—will shape a style and repertoire which will reveal itself, the metal plate seals the lens against dirt or damage. (The Rollei 16 shown above looks like it's winking because the viewfinder is partially withdrawn. When closed, the metal plate seals the lens against dirt or damage.)

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Seventeen American倒ten pictures, however, are reserved for Edith Piaf. She is, of course, the latest of a long list of celebrities who have contributed to this series as a way of raising money for the Palm Beach Band. The rest of the pictures are by the French photographer, Yvon Chouet, who has done the photography for most of the Palm Beach Band's work. The pictures are not only beautiful, but they also convey the feeling of the music. Edith Piaf is a legend in life and in song. She is a symbol of the French resistance and a symbol of the French spirit. Her music is a symbol of the French way of life.

On the back of the picture, there is a note: "Don't expect the greatest stereo reproduction on these bands. They've been reconditioned into what Capitol calls "duophonic" sound, but they sound only as clear as might be expected of old recordings not made in stereo. A few of them are scratchy and almost blottery, but it doesn't matter. I'd rather listen to Piaf through earphones on an overseas transmitter than to none out of ten of the beautifully recorded shouters we have to put up with today. Life taught her everything, and she brought everything to a song. Thanks to the vast recorded Piaf library and to magnificent collectors' items like this, the world will never forget the lesson."


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APRIL 1967
Forties, all featuring the Severinsen trumpet, and all lightly enjoyable and uninvolving.

J. G.

§ § FRANK SINATRA: That's Life.
Frank Sinatra (vocals); orchestra, Ernie Freeman cond. and arr. I Will Wait for You; What Now My Love, Winchester Cathedral; The Impossible Dream; and six others. Repr. PFS 1020 $4.79, T 1020 $3.79.

Performance: In the tradition. Recording: Excellent. Stereophonic Quality: Excellent.

Sinatra sounds sloshed on the Winchester Cathedral track; he sounds great on the I Will Wait for You track. Neither will make much difference to many of the people who buy them. Sinatra long ago stopped being a singer and became a useful symbol. Considering his enormous talent and the excellent uses to which he has put that talent during a long and mostly successful career, his role as a symbol is more his fault than it is Sinatra's. His private and professional life have, for the last several years, been splashed over all of our communication media, and he is now a part of the national consciousness. Sinatra deserves his fame. He is a superior performing artist, both as singer and as actor, and if his claque would allow me to forget their self-projections on him, I would probably be as fervent a fan as any.

These self-projections include: "Orpheus of the Underworld." a particular favorite of untalented and sleazy night-club singers who snap their fingers and sing their ballads at ringside to the ladies with the strange hair-dos who always seem to accompany the gentlemen with diamond pinkie rings and colorless nail polish; "Lover at Large," usually a salesman of something during the day and at night an insecure and not-so-young man who wanders from night club to late-spot to key-club in search of equally insecure young women who are amused and annoyed by him and who frequently capitulate because he's "so smooth"; "Mr. Dangerous to Know," a selfish near-alcoholic who gambles compulsively, has been jilted and is unwilling to let others forget it, and spends most of his time trying, through aggressive and combative behavior, to provoke punishment from what he judges to be a uniformly hostile world; "King of the Hippies," a successful middle-aged adolescent who gathers a group of cronies about him and who, in the manner of boyhood secret societies, shares with them private jokes, private words, and a melodramatic sense of loyalty to each other.

The variations are endless, and several, at root, are relatively harmless aids in girl-catching. But that does not alter the fact that all of these pathetic types think they have divined much of their behavior in the behavior of Sinatra. They seem to disregard the fact that he is an acknowledged winner in a world where they are just as obviously losers. But they need the seal of approval on the same time. The main trouble with Sledge in the nature of a gospel singer. This, of course, is hardly news any more, especially since the days of Ray Charles and Aretha Franklin have been upon us. But Sledge gets right down to the nitty-gritty; his purpose seems to see how rapidly, from a standing start, he can escalate into the rarified strata of frenzied emotionism. Most of the time, he manages to do it pretty quickly.

His accompaniment is not named, but is more or less standard for this kind of thing — loud, pulsating, and insinuating at the same time. The main trouble with Sledge himself is that his frenzied performances tend very quickly to sameness. The only one that sticks in my memory without playing it again is Oh How Happy, because it sounds uncomfortably like Deutschschulter Aller. J. G.

Frank Sledge
As man and artist, one of a kind

is scratchy and worn. Aside from that, however, everything seems pretty much as it has been on most of his recordings for the last ten or fifteen years — i.e. superb. P. R.

§ § PERCY SLEDGE: Warm and Tender Soul. Percy Sledge (vocals), unidentified accompaniment. Love Me Tender; It Tears Me Up; So Much Love; Heart of a Child; and eight others. ATLANTIC SD 8132 $4.79. LP 8132 $3.79.


Percy Sledge sings pop material in the manner of a gospel singer. This, of course, is hardly news any more, especially since the days of Ray Charles and Aretha Franklin have been upon us. But Sledge gets right down to the nitty-gritty; his purpose seems to see how rapidly, from a standing start, he can escalate into the rarified strata of frenzied emotionism. Most of the time, he manages to do it pretty quickly.

His accompaniment is not named, but is more or less standard for this kind of thing — loud, pulsating, and insinuating at the same time. The main trouble with Sledge himself is that his frenzied performances tend very quickly to sameness. The only one that sticks in my memory without playing it again is Oh How Happy, because it sounds uncomfortably like Deutschschulter Aller. J. G.
Whatever happened to the big powerful tenor sound that drove critics on Manhattan’s tabloid papers to compare Enzo Stuarti to Mario Lanza? Not that I miss it any, but it was a lot easier to take than the new, sentimental, crooning sound on this release. We have cool ballad singers like Mel Torme and Tony Bennett who already have a stranglehold on the love-song market. Might the Italian tenors would be wise to stick to 'O sole mio.

The accent here is on intimacy, with most of the songs half yawned in English and half warbled in Italian. Vic Schoen overcooks the arrangements with syrupy violins and an occasional wail from a high-pitched female chorus that makes almost every song sound gooey. Stuarti’s voice occasionally surges through with the old magic on songs like Gilbert Becaud’s ‘What Now My Love’, but only a desire to appeal to the suburban set could have driven him to include such unappealing fare as ‘Strangers in the Night’ or ‘Merci Cherie’. Often his voice seems completely lost in the silky surroundings. So self-conscious, in fact, seems his effort to please the lowbrows that he finally sounds like a singing waiter on his day off.

R. R.

**COLLECTIONS**

- **3 - THE CRAZY HORSE SALOON OF PARIS.** Orchestra, Albert Van Dam cond.
  UA INTERNATIONAL UNS 15503 $5.79, UN 14503  $4.79.

  Performance: Titillating
  Recording: Loud
  Stereo Quality: Hallucinatory

If you are planning to turn your quiet little home into a Parisian strip-tease joint (am I reading your mind?), I can think of no better way to go about it than to acquire a copy of ‘The Crazy Horse Saloon of Paris’ for a starter. The saloon in question, located on the Avenue George V, is described in the liner notes as “famous for its beautiful girls and excellent variety acts. ‘Never vulgar or cheap’, the informative text continues, ‘but always in good taste, the girls take off their clothes in imaginatively staged production numbers. . . . Whether the luscious female be sweltering in a jungle or swinging on a hammock, the audience is unfailingly captivated by the ‘plot’ as well as the girl.”

Neither plot nor girl is supplied with the album, but the record, consisting of frantic orchestral arrangements of tunes by Mr. Van Dam, is ideal music for a wild party. Take ‘Bubbles Galore’, a bump-and-grind number gorged with soapy sound effects; or ‘Voodoo Doll’, spiced throughout with a peppery pizzicato; or that noisiest of latter-day lullabies, ‘Girl in the Hammock’ (Ssshhh!).

I myself favored the luxurious strains of the ‘Belly Button Bounce’. But to each his own.

P. K.

(Continued on next page)
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JAZZ

JULIAN AND NAT ADDERLEY:
"Third Stream" in the kind of music that used to be called "New Music." I prefer to call it dissonance. This new disc, \textit{Third Stream}, is just possibly the most excruciatingly painful listening experience of the year. The form is loose, the lines fat from interesting, and Coltrane doesn't have a fraction of the agility Charlie Parker had, even at Bird's lowest ebb. It is so cold-fish, so far out, so dangerously close to being hysterical that it cannot possibly hold the interest for more than a few minutes at a time. The mood is austere, passionless, brittle, and uncompromising—all qualities that jazz should never have. The color is gray with occasional flashes of white. Coltrane knows his instrument, but he pours it into submission in a death dance. There is an evil beauty to parts of \textit{My Favorite Things}, which lasts for one whole side and a half of the flip. But it's all kicks, more posing than playing. He pieces together so many shifts in tonal patterns and floats about in so many rhythms and tonalities that I never feel it is anything but exercise music. The whole album has the sound of isolation about it, and of what value is isolated in music if it prevents communication with the listener? 

JIM CULLUM: Jim Cullum's Happy Jazz, Jim Cullum, Jr. (cornet); Gene McKinney (trombone); Willson Davis (tuba); Cliff Jones (piano); Curly Williams, Ben Valbre (bass); Harvey Vander (drums). \textit{Third Stream} in the kind of music that used to be called "New Music." I prefer to call it dissonance. This new disc, \textit{Third Stream}, is just possibly the most excruciatingly painful listening experience of the year. The form is loose, the lines fat from interesting, and Coltrane doesn't have a fraction of the agility Charlie Parker had, even at Bird's lowest ebb. It is so cold-fish, so far out, so dangerously close to being hysterical that it cannot possibly hold the interest for more than a few minutes at a time. The mood is austere, passionless, brittle, and uncompromising—all qualities that jazz should never have. The color is gray with occasional flashes of white. Coltrane knows his instrument, but he pours it into submission in a death dance. There is an evil beauty to parts of \textit{My Favorite Things}, which lasts for one whole side and a half of the flip. But it's all kicks, more posing than playing. He pieces together so many shifts in tonal patterns and floats about in so many rhythms and tonalities that I never feel it is anything but exercise music. The whole album has the sound of isolation about it, and of what value is isolated in music if it prevents communication with the listener? 

GARY McFARLAND
A strong aura of greatness
than music which will endure on its own.

Happy Jazz Records, Inc., is at 110 Oak Park Drive, San Antonio, Texas 78209. N. H.

5) EARL HINES: Life with Fat. Earl Hines (piano), Calvin Newborn (guitar), Carl Pruitt (bass), William English (drums). Tea for Two; Willow Weep for Me; Satin Doll; Rosetta; and four others. VSP VSRS 35 $2.49. VS 35 $2.49.

Performance: Substantial, but not his best
Recording: Very good
Stereo Quality: Good

Originally included in the album "Earl's Pearls" (MGM E-3832), these are relaxed quartet sessions. Hines is not stimulated by inner imperatives or by his colleagues to achieve here the inventive incandescence of which he is capable, yet he plays with sufficient power, wit, and rhythmic ingenuity to warrant adding this recital to your Hines collection. And on one track, Willow Weep for Me, he creates an unusually mellow, reflective mood which underlines the fact that beneath the smiling showmanship is a musician of acute sensitivity.

5) BILLY LARKIN AND THE DELEGATES: Hold on! Billy Larkin (organ), Arthur Theus (tenor saxophone), Jimmy Daniels (guitar), Jesse Kilpatrick (drums). Cuchy Frito Man; Jenne; Blowin' in the Wind; It's Alright With Me; and eight others. WORLD PACIFIC WPS 21850 $5.79, WP 1850* $4.79.

Performance: Plodding
Recording: Good
Stereo Quality: Very good

Whatever its limitations of imagination, a solid organ-based combo with roots in rhythm-and-blues can usually be depended on to play with blistering drive. And that quality has been evident in previous recordings by Billy Larkin and his associates. This time, however, the proceedings are strangely hollow, as if everyone were depressed. The beat is too often soggy, the themes are routinely developed. Occasionally Theus and Daniels indicate awakening enthusiasm, but they are quickly repressed. Had both been given more solo space, the album might have been salvaged. N. H.

RECORDING OF SPECIAL MERIT

5) GARY McFARLAND: Profiles. Gary McFarland Orchestra. Winter Colors; Willie; Sage Hand; Bygones and Boogie; Mountain Heir; Allo's Other Samba. IMPULSE AS 9112 $5.79, A 9112* $4.79.

Performance: Exciting
Recording: Excellent
Stereo Quality: Excellent

This disc is a "live" recording of a real honest-to-goodness jazz concert performed in February, 1966, at Lincoln Center's vast Philharmonic Hall. It was a concert in the sense that it was not just an excuse for a group of hairy musicians to wail fifteen-minute solos held feebly together by brief strands of ensemble playing. The orchestra is the name of this game, and Gary McFarland is doing more for the orchestra than anyone has done since Johnny Richards broke out from under the protective confines of the Kenton band. The music here is intensely listenable.
overwhelmingly played, at impossible tempos, arranged and conducted with impeccable good taste. Besides swinging, McFarland cross-breds his instruments, allowing soloists like Zoot Sims, Bob Brookmeyer, and Clark Terry lush moments to make their own comments and creating new patterns as he and the group move along their separate ways, but always ending up home free. I can’t think of a big band anywhere that could sustain this much intensity over the length of an entire disc. There is such drama in McFarland’s Winter Colors that you feel you are actually sliding across the ice. Willie, his portrait of the late trombonist Willie Dennis—with Zoot Sims doing the solo work—is one of the most moving jazz compositions of recent years. Throughout, the free-blowing jazz feeling is complemented by McFarland’s classical instinct for relating each section to the whole structure. The separate musical elements tie together, blend, fuse, then flow away into separate moments of classic beauty. There are so many breathtakingly sumptuous solos here that it would be impossible to credit them all, but pay special attention to Richard Davis’ bass work on Bygones and Boogie, and to Zoot Sims’ tenor on Sages Hands. Impulse has here lavished its customary handsome and costly packaging on an album worth the trouble and expense. This concert is full of joy, passion, and great happy music. The audience’s applause rises up after the music like seagulls. And no wonder: there is about Gary McFarland a strong aura of greatness.

R.R.

5-7 BUDDY RICH: Swingin’ New Band. Buddy Rich (drums); orchestra. Basically Blues; Up Tight; Sister Sadie; More Soul; and four others. PACIFIC JAZZ ST 20113 $5.79. PJ 101.1^ $4.79. Performance: Crisp and driving. Recording: Very good. Stereo Quality: Excellent. Recorded at The Chez in Hollywood, this is the first album by Buddy Rich’s band, one of the very few new large jazz orchestras of the past decade that appears to have a chance of surviving. The band reflects Rich’s own prodigious energy and cracking beat. Most of the writing on this album places the band’s style about midway between Count Basie and the current Woody Herman band. The way the band leans depends on the particular piece. Basically Blues, for example, is more in the Basie bag—even though the composer, Phil Wilson, was long a member of the Herman trombone section—and Sister Sadie is in the Herman vein. The most ambitious arrangement is Bill Reddie’s “West Side Story” Medley, which is the only score that gives a truly distinctive character to the band.

N.H.

5-8 BUD SHANK: Brazil! Brazil! Brazil! Bud Shank (alto saxophone), Chet Baker (trombone), Latin Almendro and Joe Pass (guitar), Clare Fischer and João Donato (piano), unidentified violins, Samba; Nocturno; Curious; The Color of Her Hair; and eight others. WORLD PACIFIC WPS 21855 $5.79, WP 1855 $4.79. Performance: Supple and relaxed. Recording: Very good. As an anthology of World Pacific’s ventures into bossa nova, this is a consistently pleasurable series of sketches, all of which distill the fine and subtle charm of that Brazilian idiom. All the jazzmen involved are particularly suited by temperament for this kind of soft, flowing, and rather superficial romanticism.

N.H.

5-9 ARCHIE SHEPP: Live in San Francisco. Archie Shepp (tenor saxophone, piano), Roswell Rudd (trombone), Beaver Harris (bass), Lewis Worrell (bass). Keep Your Heart Right, The Lady Sings the Blues; Sylvia; The Wedding; Wherever June Bugs Go; In a Sentimental Mood. IMPULSE AS 9118 $5.79, A 9118* $4.79. Performance: Not up to his best. Recording: Very good. Stereo Quality: First-rate. Recorded at the Both/And Club in San Francisco, this set as a whole is not as continually provocative as some of Archie Shepp’s previous recordings, but it’s of sufficient substance to make it necessary listening for those who want to keep up with the directions of the new jazz. An especially instructive demonstration of Shepp’s scope is In a Sentimental Mood. He begins with the splintered textures and rhythms of the new jazz, then moves into a passionately gruff ballad style with roots in Ben Webster. His work on two of the other tracks (Sylvia, Wherever June Bugs Go) tends to be diffuse, although his piano on Sylvia is intriguing enough to make one anxious to hear more. The Wedding, a poem with music by Shepp, would have been more effective if he had not read it with such an excess of “drama” and vibrato. Here understatement would have been shattering. Shepp’s support is excellent, and again Roswell Rudd indicates how imaginatively he is expanding the possibilities to be found on the jazz trombone.

N.H.

JUNIOR WELLS: “I’ve My Life, Baby!” (See Best of the Month, page 72)
THEATER • FILMS

AN EVENING AT THE UPSTAIRS AT THE DOWNSTAIRS (See Best of the Month, page 71)

RECORDING OF SPECIAL MERIT

5 • IS PARIS BURNING? (Maurice Jarre). Original soundtrack recording. Orchestra, Maurice Jarre cond. COLUMBIA 3030 $5.79, OL 6630 $4.79.

Performance: Exceptional
Recording: Excellent
Stereo Quality: Excellent

With two Academy Awards to his credit, for Lawrence Of Arabia and Dr. Zhivago, Maurice Jarre has another likely contender in his score for Is Paris Burning? If you have seen the film, I am sure you realize just how successful Jarre has been in his intention of making his film scores "an integral part of the dramatic whole." "Once," Jarre has said, "[film] music was used to soften the emotions of the audience, as with the violin. No longer . . . nor at least, when the music keeps its proper place. Today our approach is elliptical. The music is there to convey what cannot be conveyed in any other way. How well Jarre has accomplished this difficult assignment is, I suppose, irrelevant if one is judging this score solely on its merits as a recording. And the disc is an entity of high quality in itself. Jarre uses imaginative orchestration (twelve pianos—six grands and six uppers—employed to create "a sound within a sound": the marching feet of the soldier, the German, and also displays his gifts as a melodist, as in the enchanting little waltz he has written to represent the city of Paris. Jarre's work here makes this my favorite album of film music since the elegant and charming score that John Barry provided for The Knack.


Performance: Boiled-beef British
Recording: Excellent
Stereo Quality: Alive

In this collection of music based on Harold Brighouse's play Holman's Choice should have as good a chance as any. The story of an irrepressible Lancashire shopkeeper trying to marry off his daughter to respectable middle-class would-be "a natural" on the screen—but the plot is basically the same as that of Fiddler on the Roof! Then there's the atmosphere of the 1880's in a bustling industrious town, the scenes in the quaint bootmaker's shop, and the indispensable pub where millhands and merchants can make merry after hours. Judged by the score and by Sammy Cahn's machine-tooled lyrics, however, the present adaptation just doesn't have the goods to back up the sale. George Rose is suitably apoplectic as Henry Horatio Hobson, who tries to tyrannize over his three daughters, but he gets few chances to expostulate in song, and the ones he is given are sadly predictable and forgettable. As Maggie, the eldest girl, who falls in love with the timid shoplifter Will Masson, Louise Troy is primly charming, but her numbers never totally escape banality. Norman Wisdom, as the passive Will Masson, the very essence of all that a Victorian father would not want for his daughter, makes out better than the rest with a few lively turns such as the title song Walk Happy, but even he becomes part of the long, grey, derivative blur.

COLLECTIONS


Performance: Uneven
Recording: Good
Stereo Quality: Good

With all the two-disc composer sets on the market, and with the surprising success of Ben Bagley's Cole Porter and Rodgers and Hart collections still making the cash registers ring, it must have seemed like a good idea to somebody at Evergreen Records (the company that lured Libby Holman out of retirement last year to make her first record in twenty years) to turn out a tribute to Dietz and Schwartz. It was, but this set is far from flawless.

It sounds at times (especially when a tenor or baritone seems to be off in the wrong tempos) like a group of people who got together one Sunday morning with nothing to do. Like most show-tune collections, this one is put together by singers who can belt them out on stage but who cannot overpower the music in a recording studio. Everyone stands too close to the mikes, and the sound is often distorted. Still, the set presents some of the neglected, forgotten, and little-known songs of this hit team, so there is a great deal of historical importance in having it around. Listen particularly to Loadin' Time, introduced by Ethel Waters in 1935, and A Rainy Day, sung first by Clifton Webb in 1932.

This collection is accompanied by extensive liner notes and a 1929-to-1957 calendar covering the Dietz-Schwartz scores from 1929 through 1957. The cast is not particularly distinguished, except for Karen Morrow, a pert blonde with an Ethel Merman voice. Still, this is a real show-music collection's item and a lovely reminder of that dear departed era not so long ago when songwriters lit up Tin Pan Alley with songs that they would get a table that night at El Morocco.

(Continued on next page)
THE ART OF LOVE—Readings from the Kama Sutra. Saded Jaffrey (reader); strings, flutes, and drums (accompaniment). Vanguard VSD 79228 $5.79, VBS 9228 $4.79.

Performance: Perfumed
Recording: Sensuous
Stereo Quality: Seductive

To Vatsayana, the religious student in Benares who wrote the Kama Sutra some time between the first and fourth centuries, sex was to be regarded as a religious ritual, with a set of rigid rules all its own. His book is a kind of Hindu encyclopedia of sexual behavior, and the Indian actor Saded Jaffrey, with his caressing, bedroomy voice and precise enunciation (is it really Peter Sellers putting us on?), is just the man to read it aloud. Accompanied by “selected Indian festive and ritual music on strings, flutes and drums,” Jaffrey insinuates himself into the listener’s confidence and is soon issuing just the kind of information that a fellow really needs if he’s going to make out in the boudoir. In the passage intoxicatingly labeled “The Tryst in the Pleasure Room,” for example, he instructs the aspiring lover in such matters as what to expect by way of refreshments, on which side the lady should be seated, proper subjects for conversation, and how to bridge the embarrassing gap from talk to action. The girl out to win a man gets accurate tips on the sort of present to send him, the art of massage, and who should make the first overture. Later the couple, now married, is advised to sleep on the floor for the first three days, eat food without tasting it, and practice the kind of abstinence that should especially appeal to us highly disciplined Americans. On the fourth day, when they have bathed to music, decorated themselves, dined, and paid their respects to various visiting relatives, the two are led into the bedchamber and told exactly what to do from then on. Sadists may find the section on biting, scratching, and the “delicious pain” from then on. Sadists may find the section on biting, scratching, and the “delicious pain” of scientifically delivered blows especially helpful.

THE BOTH SIDES OF REED FOXX. Redd Fox (performer). Loma L 9901 $3.79.

Performance: Brash
Recording: Adequate

Mr. Foxx, a crude, lewd, and occasionally funny performer, is a kind of dark-skinned Jackie Mason. He tells us about his experiences as a Negro soldier “way back in World War II” (they were not too different from Marion Hargrove’s), the ugliness of his wife, and “the only thing that kept me out of college — high school.” This comic’s digs and jibes at the bigotry and hypocrisy of the whites are occasionally penetrating, but most of the knives in his arsenal are rubber, and before one has heard him bluff his way through two or three rather obvious routines, attention is more than apt to be flagging. P. K.

RECORDING OF SPECIAL MERIT

THE LAURENCE OLIVIER ARTFUL AS CONGREVE’S TATTE.

Pulling the crackling cellophane off a shiny new RCA Victor album containing a performance by the National Theatre of Great Brit-
it, sizzles and crackles from the time we meet Valentine until he is safely on the way to the altar with Angelica at last.

No less silver a tongue than Sir Laurence Olivier's could well simulate stumbling in the role of the villain, Wart, who prefaces all his kiss-and-tell anecdotes with assurances of his immense discretion. Equally fine are Miles Malleson as the ign- rant Foresight, the heroine's uncle; John Stride as the impractical and improvident hero Valentine; and Anthony Nicholls as his choleric father Sir Sampson Legend. As for the ladies, from Geraldine McEwan's Angelica, the pretty heroine with plenty upstairs, to Joyce Redman's Mrs. Frail, a so- phisticated 'woman of the town' who overlooks the amorous activities of no male she encounters, they ripple through their grating lines with stunning grace. Yet, for all their art, none of these fine performers prevent one young lady from stealing the whole show. She is the irresistible Lynn Redgrave, cast as 'a silly, awkward Country Girl' named Miss Prue, and her vigorous shenanigans are easily worth the price of this album by themselves.

Peter Wood handles his battery of gifted forces with a tight, intelligent hand, keeping the action clear and brisk.

M CURTAIN GOING UP. Richard Kiley and Julie Harris (performers); Herb Gait- witz, director. MGM CH 1025 $3.79.


Here is a record with excellent intentions. Ruth Roberts, who has written a number of successful albums for children, has supplied a script and songs for aspiring young actors, and she has had the good fortune to get two of the best actors on radio boards to animate it. Miss Harris and Mr. Kiley do their gestial best and stint nothing of themselves in the attempt to pump life into this worthy enter- prise, but when they are not defeated by a script, as 'a silly, awkward Country Girl' named Miss Prue, and her vigorous shenanigans are easily worth the price of this album by themselves. Peter Wood handles his battery of gifted forces with a tight, intelligent hand, keeping the action clear and brisk.

P. K.

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P. K.

RECORDING OF SPECIAL MERIT


In that handy guide for the conscientious decadent, the novel Against the Grain by the French symbolist Joris Karl Huysmans, the hero daydreams of sex, death, and travel in the comfort of his own home, meticulously decorating various rooms in the styles of ship's cabins, coating in motion, funeral banquet halls, or whatever is needed to grati- fy his raveled whims. In Jean Genet's dream play The Balcony, the customer (something like a reader of Woman's Day) has to go out to indulge his fantasies of lust and pow- er. While he is in the streets he risks the in- convenience of being mowed down by ma- chine-gun fire, since the country in which the action occurs is in the agonies of revolution. But if he reaches Mme. Irna's luxurious brothel in one piece, he can find there all the props, scenery, fancy lighting, and personnel necessary to the satisfaction of his every whim.

Even though The Balcony is an especially visual theatrical experience, the fascination of the whole dream is conveyed uncannily well and even heightened in this dazzlingly paced and brilliantly acted production. It runs slightly over two and a half hours, but never drags, for Howard Sackler has used his fine effect every device of sound, from the far-off rush of convent machine-gun fire to the echo chambers that suggest the mirroring corridors of the play, and has counterpointed his voices stereophonically to heighten the hectic atmosphere of the scenes after power is placed in the hands of Mme. Irna's customers. The cast—Cyril Cusack as a revolu- tionary bishop, Colin Blakely as a general, Roland Culver as a judge, and Nigel Davenport as a revolutionary, Patrick Magee as a swagger- ing chief of police, and Freda Dowie as Chantal, the Joan of Arc of Genet's blood- curdling little revolution—could not have been better chosen, and they perform immacu- lately one and all. Pamela Brown as Mme. Irna might well have been a mite coarser in her early scenes, but there is no disputing her regality once she takes the crown.

I found this recording of The Balcony more gavvnic and persuasive, and certainly faster-moving, than either the highly imagi- native but murky New York off-Broadway stage version or the curiously literal-minded, flat-footed movie that followed. The usual lavish booklet, with text and essays and sketch of the turbulent author by Giacometti, accompanies the package.

P. K.


Remove the wit, winsomeness, and whimsi- cality from the Smothers Brothers, and what you'll have left might possibly be Rowan and Martin. In their feverish, fast-talking attempts to entertain they flit from topic to topic frantically, but the jokes are all retrades and the situations distantly famil- iar, whether the scene is a summer camp, a doctor's office, or a matrimonial bureau. There's a glimmer of fun in a stretch on the hazards of sex education, but for the rest, not only is the material and whole approach sound "electronically rechanneled" from some monotonous as well as monotonous old master.

P. K.
How to be a Hero...

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See the “Hero-making” Sony 350 at your local Sony/Superscope dealer or write for information to Sony/Superscope, Sun Valley, California, Dept. 18.

If you want to add portability, choose the Model 350C, in a smart dark gray and satin-chrome carrying case for less than $219.50.
As the only tape version of this music, it can be highly recommended, although sonically there are moments of construction in the loudest passages; the disc reproduction, too, though not entirely free of distortion, features a fuller bass response and more open-sounding highs than the tape. In quieter passages, however, the tape is a good match for the disc, and the orchestral clarity and the brilliance of the playing are most pleasurable. The leaflet of texts and translations that accompanies the disc must, as usual with Angel, be sent away for.

I. K.

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I. K.

RECORDING OF SPECIAL MERIT

6 MAHLER: Songs from "Des Knaben Wunderhorn". Janet Baker (mezzo-soprano); Geraint Evans (baritone); London Philharmonic Orchestra, Wyn Morris cond. ANGEL ZS 36380 $7.98.

Performance: Excellent
Recording: Moments of constriction
Stereo Quality: Fine
Speed and Playing Time: 7½ ips; 93' 13".

Included here are all the songs of Mahler's "Youth's Magic Horn" anthology of 1888 except for two, Urticat and Es singen dreu Engel, which he was to use, respectively, in his second and third symphonies; included as well are the late additions to the set, Revelge and Der Tamboursg'sell. They are marvelously performed, all their Welterbarm, irony, and sweetness beautifully imparted by the two soloists and the conductor.

Explanations of symbols:
- = stereophonic recording
- = monophonic recording

APRIL 1967

HIFI/STEREO REVIEW'S CHOICE OF THE LATEST RECORDINGS

STEREO TAPE

Reviewed by DAVID HALL • NAT HENTOFF • IGOR KIPNIS • REX REED • PETER REILLY
are the least deeply rooted in American Negro blues, and they have evolved into the most inventive of the three. The Rolling Stones have also moved on to create a more distinctive and personal repertoire while, however, remaining close to the blues spirit as they perceive it. The Animals, as this collection shows, are the most blues-oriented of the three, although they run from time to time stretch out to more contemporary concerns. Eric Burdon, their lead singer, is sometimes quite effective as a spinner of blues moods, but at bottom he still does not sound idiomatically. Instrumentally, the group is occasionally arresting, particularly the unidentified organist on these performances. Why no personnel listing?) But if the Animals are to grow as themselves, they need more of their own material to help them find out more clearly who indeed they are. To make up for recording peculiarities I'd suggest listening to this tape with treble up and bass reduced.

8 BOBBY HEBB: Sunny. Bobby Hebb (vocals); Joe Renzetti arr. Sunny: Where Are You?; A Satisfied Mind; Crazy Baby; Bread: For You; and six others. PHILIPS PTX 600212 $5.95.

Performance: Okay
Recording: Good
Stereo Quality: Excellent
Speed and Playing Time: 31 1/4 ips, 31' 44"

Bobby Hebb combines rhythm-and-blues with country-and-western music and comes a cropper. I'd like to hear his basic, honkey-grits voice on material more deserving of his time, but in this collection he manages to impart a certain splash of honesty and warmth to his own composition Sunny and to the old Sinatra chestnut, Where Are You? Hebb's musical background hints at certain limitations (he was hired by Ray Acuff to play the spoons with the Smokey Mountain Boys on 'Grand Ole Opry' when he was a teen-ager), but with the right handling he might establish a stronghold in the pop field.

I could do without the liner notes, however; they insist brazenly that 'Bobby Hebb is the most irresistible, the most constant, the most basic, and the only native American musical idiom. Now that the Hebb career has been born in the most fertile soil of the music world, this album will nourish heated concerns. As they perceive it. The Animals, as this collection shows, are the most blues-oriented of the three, although they too from time to time stretch out to more contemporary concerns. (Why no personnel listing?) But if the Animals are to grow as themselves, they need more of their own material to help them find out more clearly who indeed they are. To make up for recording peculiarities I'd suggest listening to this tape with treble up and bass reduced.

6 JACK JONES: Jack Jones Sings. Jack Jones (vocals); orchestra, Ralph Carmichael arr. and cond. Antenna Leaves: Watch What Happens: I Don't Care Much; Street of Dreams; and eight others. KAPP KTL 3500 $7.95.

Performance Assured
Recording: Good
Stereo Quality: Good
Speed and Playing Time: 7 1/4 ips; 30' 41"

Criticism of Jack Jones or his singing would seem to be superfluous as far as the general public is concerned. I learned this as I was taking this tape home, with no wrapping around it. Entering the elevator at my place of work, I recognized a lady who had regarded me stonily during other elevator rides. She glanced at my Jack Jones tape and brightened. 'Oh, Jack Jones! I just love Jack Jones!'
compelling. The major limitations are of repetitiveness, musical style. A few basic themes are reiterated again and again—love and lost love and defiant rejected love. Therefore, this collection is best heard a little at a time rather than all the way through at a single sitting.

N. H.

8. JR. WALKER AND THE ALL STARS: Road Runner. Jr. Walker and the All Stars (vocals); orchestra. Road Runner; Pucker Up Buttercup; Last Call; San-Ho-Zay; and seven others. Soul SLX 705 $5.95.

Performance: Steamy
Recording: Good
Stereo Quality: Good
Speed and Playing Time: 3 1/2 ips; 35'15"

Jr. Walker and the All Stars might be just the thing to liven up a party. That is, if your neighbors are of the understanding variety, and your own eardrums are in good shape. Prepare to have them take quite a beating (your ears, that is) when you put on this tape. Jr. is loud and the All Stars are even louder, on some tracks, which appear to have been done before live audiences, the pandemonium swells to almost orgiastic proportions. Pucker Up Buttercup and Money (That's What I Want) are two of Jr. and the group's best numbers, along with the already widely known (I'm a) Road Runner. All are performed in frantic, gutsy style.

This is not an album for your Aunt Bessie, or even for your sister Kate. As a matter of fact, if I were you, I'd leave the family out of this completely. What they don't know won't bother them. But as for that chick down the hall. . . .

FILM MUSIC


Performance: Stiffed
Recording: Excellent
Stereo Quality: Excellent
Speed and Playing Time: 7 1/2 ips; 36' 48"

The real wit in Stephen Sondheim's score for the very funny Broadway burlesque A Funny Thing Happened on the Way to the Forum was all but totally demolished in Richard Lester's vulgar, witless, and overstyled film version. All but a handful of the marvelous Sondheim songs were ditched, the few remaining musical numbers were so integrated into the action that they took a back seat to Lester's self-conscious visual gimmicks, and the riotous Zero Mostel was nearly crowded out of the plot completely.

Now a tape of the movie soundtrack is out, and it is plagued by the same problems. It is less a showcase for Sondheim's witty and sparkling music than for the superficial and incidental movie themes of somebody named Ken Thorne. Out of sixteen tracks, only six are vocal; the rest are instrumental sections that are easily useless insets into an otherwise fine score. Of what is left of the original, Jack Gilford, Phil Silvers, and Mostel perform admirably in Comedy Tonight, and Michael Crawford has a nice moment or two with the only remaining love song, Lovey Dovey. The rest is strictly for the splicing department.

R. R.

CELANSE

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