KNOW YOUR TURNTABLES | NANETTE: ONE YES, ONE NO | VOCAL CRITICS TRANSLATED | IS THE ROCK ERA OVER?
Automatic repeat.
This is a nice feature, and one that's unique. By unlocking the center spindle the record will cycle and recycle until you stop it. You can do this with single records, or any record in a stack.

The world's finest automatic turntable, the Fisher 502.
$159.95
The Fisher 502 is the top of the Fisher automatic turntable line, and is, in our opinion, the finest turntable money can buy. Not only does it have the features we've already mentioned, but it has a lot of exclusives as well. One of the most important is the adjustment for the vertical tracking angle. As you probably know, the cutter stylus, with which the grooves in the original masters are cut, is not perpendicular to the plane of the record. It's at an exact fifteen-degree angle to the perpendicular. So your stylus should also be at the same fifteen-degree angle. The 502 has an adjustment that lets you keep it that way, whether you set it for one record or for any one in a stack. Or you can leave it at an optimum setting for the stack as a whole. Not many automatic turntables have this feature.

The extra-heavy platter.
The Fisher 502 has a platter that weighs 7.1 pounds. The extra-heavy platter, together with a heavy-duty 4-pole motor, keeps the 502 running at a constant speed. Wow and flutter are less than 0.1% (that's really low).

The Fisher 402. The finest automatic turntable under $100.00.
The Fisher 402 is a bargain. It has most of the features of the 502, and it costs less. Of course, if you insist on owning the best, there's only one turntable for you. But if you'll be satisfied with very good indeed, then consider the 402. The main difference between the machines are the platter weight and the stylus adjustment. The 402's platter weighs 4 pounds. That's massive enough to keep wow and flutter well below professional standards, but not as massive as the 502's platter. And, in the 402, the stylus angle has been preset to a statistically determined optimum. So you lose the versatility of being able to adjust it yourself. Other than those two points, the 402 performs, looks and sounds like the 502, the world's finest automatic turntable. Not bad for $129.95.

The Fisher 302. The finest automatic turntable under $100.00.
There are many more similarities between the 302 and its higher-priced brothers than there are differences. Wow, flutter and rumble are marginally higher in the Fisher 302, but they're still completely inaudible. The tonearm is of the girder-beam type instead of the tubular type (as in the 402 and 502). But the 302's tonearm is low in mass, and perfectly capable of tracking with a force of one gram.

And the other Fisher automatic turntable exclusives we mentioned earlier for the 502 and 402 are all present in the 302.

As a matter of fact, with these features, at $99.95, the Fisher 302 would be pretty tough competition for the 402 and 502.

If the 302 weren't ours.

Accessories.
There are a number of accessories for the Fisher automatic turntable which are optional (at extra cost). You can have a standard base (the B-4 for the 302 and 402, the B-5 for the 502). You can have a separate dust cover (the PC-4). Or you can purchase the deluxe base which comes complete with dust cover (B-404 for the 302 and 402, B-504 for the 502). And there are 45 rpm spindles to fit all the models.
Introducing the first line good enough to be

Until now, when you bought Fisher components, you had to settle for someone else's automatic turntable. Not that that was bad. There were several good models to choose from. But now there's something better. A line of automatic turntables Fisher is proud to call its own. With a combination of features you won't find on any other automatic in their respective price ranges.

You can take faultless performance for granted. Since the new automatic turntables are Fisher's, they perform like Fishers. So it goes practically without saying that wow, flutter and rumble equal recording studio and broadcasting standards, and are inaudible. The tone-arms on all three turntables will accept a full range of the finest cartridges available, and will track flawlessly with a stylus pressure as low as one gram or less. All three turntables have variable anti-skating compensation. They all have a cue control that gently sets the stylus down on the precise groove you select. In all three, the operating functions (start, stop, reject) are controlled with a single, easy-to-use lever. And the turntables all have three speeds: 33⅓, 45 and 78 rpm. But there's more.

The new Fisher automatic turntables are the world's most convenient. If you've ever owned a piece of Fisher equipment, no matter which one, you know that it's a pleasure to operate. There are always those little Fisher exclusives that make the difference between an adequate piece of machinery and a great one. The turntables are no exception. For example, all three, even the inexpensive 302, have a pitch control that lets you vary the speed of your records plus or minus three per cent. Which means you can tune your records to your piano (the reverse would be extremely difficult, right?).

We spoke earlier about the cue control. But we didn't mention that it's viscous damped. Which means that when the arm descends on a record, it descends with record-conserving gentleness. And there's a safety feature in the new Fisher automatic turntables which is absolutely error-proof. It's a sensing device that not only senses the size of a record (or stack of records), but prevents the stylus from descending if there's no record on the platter. (It sounds like a small point, but it may some day save the life of your stylus.)

Prices slightly higher in the Far West. Overseas and Canadian residents please write to Fisher Radio International, Long Island City, N.Y. 11101
Guess whose.
At the risk of seeming immodest, we've had a smashing success in the United States. There are more Garrards being used in component stereo systems here than all other makes combined. Even we find this a curious fact. But the die was cast thirty-odd years ago.

**Not parity, but superiority**

H. V. Slade, then Managing Director of Garrard Limited, decreed, "We will sell a Garrard in the U.S. only when it is more advanced than any machine made there." A commitment to not parity, but absolute superiority.

Spurred by it, Garrard of England has been responsible for every major innovation in automatic turntables.

In the thirties, Garrard pioneered the principle of two-point record support. Still the safest known method of record handling. Oddly, still a Garrard exclusive.

In the forties, we introduced the aluminum tone arm. Today, widely used by makers of fine equipment.

By 1961, increasingly sensitive cartridges had led us to adapt a feature originally developed for professional turntables: the dynamically balanced tone arm, with a movable counter-weight to neutralize the arm and an adjustment to add precisely the correct stylus tracking force.

In 1964, we added an anti-skating control, and patented the sliding weight design that makes it permanently accurate.

Then, in 1967, Garrard engineers perfected the Synchro-Lab motor, a revolutionary two-stage synchronous motor.

The induction portion supplies the power to reach playing speed instantly. The synchronous section then "locks in" to the 60-cycle frequency of the current to give unvarying speed despite variations in voltage.

"We're bloody flattered"

This year one of our competitors has introduced a copy of our Synchro-Lab motor on its most expensive model. To quote Alan Say, our Head of Engineering, "We're bloody flattered. "After all, being imitated is a rather good measure of how significant an innovation really is."

The new Garrard SL95B features another development we expect will become an industry standard. Garrard's viscous damped tone arm descent—originally offered to provide gentler, safer cueing—now operates in automatic cycle as well.

It seems only logical. Yet, for the present at least, it is another Garrard exclusive.

Other 1970 Garrard refinements include a counterweight adjustment screw for balancing the tone arm to within a hundredth of a gram. A window scale on the tone arm for the stylus force gauge. And a larger, more precise version of our anti-skating control.

**Un-innovating**

At the same time, we've eliminated a feature we once pioneered. A bit of un-innovating, you might say. Garrard's disappearing record platform is disappearing for good.

We've replaced it with a non-disappearing record platform. A larger, stronger support with an easy-to-grasp clip that fits surely over the stack.

A small thing, perhaps. But another indication that H.V.'s commitment remains with us.

**$44.50 to $129.50**

Garrard standards do not vary with price. Only the degree of refinement possible for the money.

There are six Garrard component models from the SL95B automatic turntable (above) for $129.50 to the 40B at $44.50.

Your dealer can help you arrive at the optimum choice for your system.
THE MUSIC

YOUNG CLASSICAL MUSICIANS TODAY—AND TOMORROW
Optimism is the keynote among Berkshire Music Center students

THE BASIC REPERTOIRE
Tchaikovsky’s 1812 Overture

A BAD YEAR FOR ROCK
"What goes up must come down," saith our pop-music prophet

WALTER LIBERACE
Another in a series of interviews with recording artists

A SHORTER VOCABULARY OF VOCALISM
How critics try to describe the art of singing

THE ACOUSTIC RESEARCH CONTEMPORARY MUSIC PROJECT
The first six releases in an imaginative cultural effort

"NO, NO, NANETTE": 1925 RECAPTURED
Columbia’s original-cast album is a model show recording

THE EQUIPMENT
NEW PRODUCTS
A roundup of the latest high-fidelity equipment

AUDIO QUESTIONS AND ANSWERS
Advice on readers’ technical problems

AUDIO BASICS
Standing Waves

TECHNICAL TALK
Amplifier Filters: Hirsch-Houck laboratory tests of the Dynaco A-50 speaker system, the Sony STR-6055 and STR-6065 AM/stereo FM receivers, and the Rabco ST-4 semi-automatic turntable

UNDERSTAND YOUR RECORD PLAYER
A practical approach, together with shopping tips

INSTALLATION OF THE MONTH
Desk-o-philic Stereo

TAPE HORIZONS
Out of My Mail Bag

THE REVIEWS
BEST RECORDINGS OF THE MONTH

CLASSICAL

ENTERTAINMENT

STEREO TAPE

THE REGULARS
EDITORIALLY SPEAKING
LETTERS TO THE EDITOR
GOING ON RECORD
ADVERTISERS’ INDEX
CLAY-FOOT FETISHISTS

According to Friedrich Nietzsche, valuing truth higher than appearances is simply moral prejudice. If that looks to you like merely another of the philosopher’s heresies, look again: appearances, it is “true,” can be deceiving, but that fact makes it necessary to consider them part of the whole “truth.” I have been chasing this idea around in my head of late in an unusual connection: I have only recently noticed the disappearance from American life of the quality of glamour. Glamour is defined in the dictionary (evidently by the kind of mind that would be outraged by Nietzsche) as “a spell or charm...through which a person appears delusively glorified.” This definition is obviously an inadequate one for those who respect the real magic of glamour and its sometimes awful powers, but, delusive or not, it has all but vanished from the performing arts (in these I include politics) where it was once considered an absolute essential.

Perhaps among the earliest signals we had that all was not well with glamour were the bulletins on President Eisenhower’s B.M.‘s that graced the news every night following his first heart attack (or was it the ileitis?) That was the beginning, in the years since we have been subjected to such an orgy of “telling it like it is” that we now have a complete inventory, from ingrown toenails to dandruff, on any and every performer who has dared to raise his or her voice in public. That they should all turn out to be kin to Judy O’Grady is a fact rather more depressing than it is surprising—they are, after all, human too. But somewhere along the way we lost a useful and quite likely uniquely productive means of expressing certain praiseworthy human ideals and aspirations.

This loss is the result, I think, of the collision of two powerful ideas and the (I hope) temporary victory of one of them. Glamour (let’s not call it charisma) is quite simply the natural result of human difference and human inequality: we are not, neither in our talents nor in our capabilities, created equal. A wrong-headed interpretation of the idea of democracy, however, says that indeed we are, and many aspects of our popular culture are devoted to proving it. The evidence turns up in many ways and in surprising places. Most conspicuous, perhaps because it everywhere strikes the eye, is the poverty-cult haberdashery that has lately given urban America the look of one vast rummage sale. The style is outrageously expensive. Miss America contests (which are really mythic tribal ceremonies in heavy disguise) come under fire ostensibly because they are “sexist exploitations” of women and vulgar to boot, but really because they celebrate the “undemocratic” fact that some women are more beautiful than others. A rage for “impressionists” has recently overwhelmed the television channels and even a record groove or two. Be not deceived: far from being affectionate obeisances to their subjects, these imitations are redolent of that venemous egalitarian kindergarten we all once fought our way through, where newness and difference were cut down to “equal” size by the pitiless mockery and contemptuous parody that are among the first nasty tricks children discover. (I don’t know how you react to these imitators, but I always feel I’ve received an unsolicited invitation to a stoning.) Audiences, further, have become almost incredibly cruel to those performers they off-handedly decide are on an “ego trip” (what else, indeed, is it?). And finally, performers themselves have developed an almost pathological guilt over their innocent difference. Where along the way we lost a useful and quite likely uniquely productive means of expressing certain praiseworthy human ideals and aspirations.

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Enjoy true sound with Roberts' Glass Head

By "glass head" we mean our revolutionary glass and crystal ferrite head incorporated in the ROBERTS GH-500D Stereo Tape Deck. In conventional heads, tape dust and wear greatly reduce sound quality. But our glass and crystal ferrite head is "dust free" and "wear free" and guaranteed for over 150,000 hours of service life! In case this head should break down before 150,000 hours of use, it will be replaced free of charge.

This head also produces a "focused field" which makes possible the recording and playback of high frequency signals without distortion.

The highly professional ROBERTS GH-500D also features 3 motors, 3 heads, magnetic brake, automatic volume control, automatic continuous reverse, and sensing tape reverse. Frequency response: 30 to 28,000Hz (±3dB) at 7-1/2 ips.

Glass and Crystal Ferrite Head
The head core is made of pure crystal ferrite, and the inner circumference of the head shield is mounted and set in glass.

Automatic Continuous Reverse (Reverse-O-Matic)
This device automatically reverses the tape as per setting. Continuous reverse is possible between any two given points on a tape.

Automatic Volume Control (Compute-O-Matic)
This device provides automatically adjusted sound levels for perfect high fidelity recording.

For complete information, write.

The Pro Line

ROBERTS
Division of Rheem Manufacturing Company
Los Angeles, California 90016
Everything You Need for Exciting 4 Channel Stereo Now...

The Second Hi-Fi Revolution

Some years ago stereo brought a new dimension to the music listening experience. Today, we see the beginning of another revolutionary era in high fidelity—four channel sound. The difference between ordinary 2-channel stereo and 4-channel stereo is even more dramatic than the difference between 2-channel stereo and mono. Four channels of sound offer greater musical separation, distinct clarity, and an increased sense of "presence" as the music envelops you with its richness. No longer will you have to sit and listen from a particular spot in your room as you did with conventional stereo. The surrounding sound of 4-channel stereo involves you from most points in your room. Increasingly, music will be recorded utilizing the unique benefits of four-channel playback. Lafayette's addition of special circuitry in the LA-44 four-channel amplifier will bring out the best in your present stereo program sources, giving them new life rather than rendering them obsolete. Let your ears be the judge.

STEREO REVIEW
Lafayette, in one giant step, has taken 4-channel stereo sound out of the dream stage and made it a reality now... at a price you can afford!

The combination of our new LA-44 4-channel stereo Amplifier and new RK-48 4-channel 8-track stereo cartridge Tape Deck will provide you with the complete electronics for 4-channel stereo. With the pre-recorded 4-channel 8-track stereo cartridges available right now, you need only add four speakers and thrill to an exciting new dimension in sound—a sound that surrounds and involves you in a totally new musical experience.

Our new four channel amplifier also has what we call “PSC” (Program Source Compatibility). An exclusive “Composer” circuit provides “derived” 4-channel sound from any standard 2-channel stereo program source (records, tape, FM) by a special system of “ambience recovery”. This is not a gimmick, but rather another method of deriving 4-channel material already present in most 2-channel program sources. “PSC” means you need not relegate your precious stereo records and tapes to the junk heap. Compatibility means the RK-48 Tape Deck will play back standard 2-channel 8-track stereo tape cartridges as well.

The LA-44 also permits you to set up two separate independently controlled stereo systems (For example, an FM tuner system in one room and a phono or tape system in another). The LA-44 has complete control flexibility with most functions pushbutton controlled. Power output is 170 watts ± 1 db. Six pairs of inputs and jacks for two pairs of headphones are provided. We believe that these Lafayette instruments are truly extraordinary. The Price? Only $219.95 for the LA-44 and $79.95 for the RK-48.

Listen to a demonstration of the newest innovation in the world of high fidelity at your nearest Lafayette dealer. At the same time you can choose from the full line of Lafayette quality speaker systems.
Cartrivision

We were delighted to see the article in your March issue on the video-cartridge concepts of the future ("Can You See a Video Cartridge Player in Your Future?" by Roger Field), but we were quite dismayed to note that our Cartrivision system, slated to be available commercially by the end of this year, was mentioned only in passing.

Cartrivision is a color video-tape cartridge system being developed by Cartridge Television, Inc., a subsidiary of Avco Corporation. It is the only system described to date which features an integral television receiver-recorder and player in a single unit, and which will be supported by a complete library of prerecorded magnetic-tape programming from the day the first set is offered for sale. It is also expected to be the first system available for consumers, and will have longer recording and playing times (up to 114 minutes) than any of those described in your article.

DONALD F. JOHNSTON
Vice President, Marketing
Cartridge Television, Inc.

The Tape Recorder/Mike Equation

Several errors were introduced into my article "Solving the Tape Recorder-Microphone Equation" (March) during the editing process. In Fig. 1(b), the polar response of a bidirectional microphone is shown to be 10 dB down at 40 degrees off axis. A true bidirectional microphone would be down only 4 dB at 45 degrees, and response would not be -10 dB until the sound source was approximately 70 degrees off axis. Also, the narrowing of the angle of acceptance with rising frequency shown in the polar plot for a cardioid microphone (Fig. 1c) does not occur to the degree shown in the illustration. A good but not necessarily expensive cardioid microphone will maintain a uniform angle of acceptance over a 100- to 10,000-Hz frequency range. The impression given in the text that uniform polar response over a wide frequency range is characteristic only of costly cardioid microphones is false.

The terms "unidirectional" and "cardioid" were erroneously equated. "Unidirectional" describes all microphones having one principal direction of sensitivity, of which the various cardioid types are simply examples. The discussion of super- and hyper-cardioid types further-more exaggerated the directional discrimination of these microphones over that of the cardoids. And finally, on page 76, where cable capacitance is treated, a typographical error substituted the word "input" for the correct word, "output."

ROBERT B. SCHULBEIN
Senior Development Engineer
Shure Brothers, Incorporated
Evanston, Ill.

LETTERS TO THE EDITOR
The either-or stereo from JVC

Model 4344 is the latest pacesetter from JVC. With more features, more versatility than any other compact in its field. You can enjoy either its superb FM stereo/AM receiver. Or your favorite albums on its 4-speed changer. Or 4-track cassettes on its built-in player. Or you can record your own stereo cassettes direct from the radio, or use its microphones (included) to record from any outside source. And you get all these great components in a beautiful wooden cabinet that can sit on a bookshelf.

But don't let its size fool you — JVC's 4344 is a real heavyweight. With 45 watts music power, 2-way speaker switching and matching air suspension speakers, illuminated function indicators, handsome blackout dial, separate bass and treble controls, FM-AFC switch. Even two VU meters to simplify recording, and more.

See the Model 4344 at your nearest JVC dealer today. Or write us direct for his address and color brochure.

JVC Catching On Fast

JVC America, Inc., 50-35, 56th Road, Maspeth, New York, N.Y. 11378
THE FIRST CROWN PREAMPLIFIER

IC 150

What would happen to a preamplifier design, if the design engineer could free himself from stereotyped ideas and start fresh with only a list of customers' requests? Well, at CROWN that has just happened, and the result is the IC150, an exciting "new concept" control center with simplified circuitry, controls that are easy to understand and use, several exclusive features, unsurpassed quality, and — to top it all off — a lower price tag.

Crown Engineers discovered that preamp switches don't need to pop: there is something better than the stereo mode switch — that the phono preamp can be dramatically improved, and, that by using IC's, a versatile high-quality, advanced-performance preamplifier can be priced to beat inflation.

Of course, the true uniqueness of such an innovative design cannot be appreciated by reading about it. The only answer is to experience the IC150 yourself. Let us tell you where Crown's "new concept" is being introduced in your area. Write today to experience the IC150 yourself. Let us tell you where Crown's "new concept" is being introduced in your area. Write today for a list of locations.

The First CCR Preamp

World's Quietest Phone Preamp
Infinitely variable stereo gain control
Silent switching and automatic muting at turn-on and turn-off
Integrated circuit modules
Industry's lowest distortion levels
Full range tone and loudness controls
Guaranteed phase response
3-year parts- and labor warranty
Will drive any amplifier
$269. walnut enclosure $33

Ask your dealer also about Crown's new comp anonymous D150 power amplifier, which delivers 200 watts IHF output at 8 ohms or 350 watts at 4 ohms. No amp in this power range — however expensive — has better frequency response or lower hum, noise or distortion. It offers performance equal to the famous IC300, but at medium power and price. It's worth listening to!

Exported as AMCRON

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CIRCLE NO. 16 ON READER SERVICE CARD

IC 150

D 150

Acurious phenomenon of music today is that the conservative or moderate classical composer has less opportunity to be recorded than does the experimental "gimmicky" composer who is selling mere novelty. In former ages, the middle-of-the-road creator of music was understood and appreciated by the general public, thereby enjoying an "audience market." We have turned our back on composers of more conventional techniques in favor of the avant-garde, which has limited appeal. More attention is paid to the past and future than the present! That in itself accounts for much of the estrangement between artists and audiences today.

THOMAS C. BIRDSALL
Fontana, Wis.

I. In his article "The Andy Hardy Syndrome," Richard Freed gently impugned Franklin Delano Roosevelt's musical taste by citing his love for the great American lied Home on the Range. Tut, tut! Doesn't he know that our es- teemed President sensed that it was a variation on a theme from the third movement (Rondo alla Polacca) of Beethoven's Triple Concerto, Op. 56?

Robert Goodman
Riverdale, N. Y.

II. I for one would be agreeable to a price re- structuring in the classical field, though I am not sure that price per twelve-inch disc should govern a purchase. Why should a solo piano cost as much as a Mahler Symphony No. 9?

Robert Goodman
Riverdale, N. Y.

But regardless of price, I do not intend to ac- cept shoddy, shabby merchandise. Here in the boondocks I must order by mail; I shall exercise my return privileges.

Most of my listening is with care, to show off our collections and play our records with pride. And while we have been buying more and more sophisticated equipment, all we hear is the faulty tape splices, the tape hiss, the bumps and dents in the pressings, the static caused by wildly eccentric records, the "pollut- ed" pressings. But there is another answer: more and more sophisticated record buying.

Why should the record manufacturer not be as responsible for his "pollution" as the company which discharges mercury into the river?

JAMES W. BECK
Tuscaloosa, Ala.

III. Serious music-lovers everywhere should be deeply indebted to you for an outstanding in- depth survey of a critical problem in America. However, there are a few areas which were not covered. The first is piracy. Record companies are denied profits because of the countless dup- lications of a single disc; seventy-five per cent of my own extensive music collection is on tape, the sources of which are records bor- rowed from friends or duplicated from excel- lent stereo broadcasts. I wouldn't have it any other way, since I can't afford my own musical tastes.

Secondly, you never discussed what may be a vitally important aspect of the cost problem, which I call "the performance factor." You described and documented the costs of producing a symphonic recording under studio conditions, but is it worth it? Studio recordings are expensive, note-perfect, and for the most part uninspiring. Wouldn't it be better if we were genu- inely moved by a performance in our living room, even though reviewers could justify-ably find technical imperfections? Half of the ex- citement of being at "live" performances is the challenge set the musicians to successfully nego- tiate a difficult work or passage.

GLENNA A. SMITH
Highland Park, N. J.

I. In "The Fading Signal" (February), Matt Edwards suggested that the demise of KFML (AM and FM) here in Denver. In my opinion, it de- served to fail. Its programing was more classical-jukebox than a serious effort. Most of the selections were quite short, and the frequent commercials in between were in bad taste.

Dwight LAURANCE MILLS
Norman, Okla.

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Robert Freeman
Riverdale, N. Y.

But I do not intend to ac- cept shoddy, shabby merchandise. Here in the boondocks I must order by mail; I shall exercise my return privileges.

Most of my listening is with care, to show off our collections and play our records with pride. And while we have been buying more and more sophisticated equipment, all we hear is the faulty tape splices, the tape hiss, the bumps and dents in the pressings, the static caused by wildly eccentric records, the "pollut- ed" pressings. But there is another answer: more and more sophisticated record buying.

Why should the record manufacturer not be as responsible for his "pollution" as the company which discharges mercury into the river?

JAMES W. BECK
Tuscaloosa, Ala.

III. Serious music-lovers everywhere should be deeply indebted to you for an outstanding in- depth survey of a critical problem in America. However, there are a few areas which were not covered. The first is piracy. Record companies are denied profits because of the countless dup- lications of a single disc; seventy-five per cent of my own extensive music collection is on tape, the sources of which are records bor- rowed from friends or duplicated from excel- lent stereo broadcasts. I wouldn't have it any other way, since I can't afford my own musical tastes.

Secondly, you never discussed what may be a vitally important aspect of the cost problem, which I call "the performance factor." You described and documented the costs of producing a symphonic recording under studio conditions, but is it worth it? Studio recordings are expensive, note-perfect, and for the most part uninspiring. Wouldn't it be better if we were genu- inely moved by a performance in our living room, even though reviewers could justify-ably find technical imperfections? Half of the ex- citement of being at "live" performances is the challenge set the musicians to successfully nego- tiate a difficult work or passage.

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POWER
and purpose are implicit in its every distinctive line...

Never before has there been a receiver like the 387. Power and purpose are implicit in its every distinctive line... from its bold new high-visibility dial face to the sweep of its comprehensive control panel. And just wait until you experience the 387's effortless performance! A new kind of receiver power is yours to command — instantaneous, undistorted, unmatched for flexibility and responsiveness.

Inside, the 387 justifies its advanced exterior. Here are tomorrow's electronics... Integrated Circuits, Field Effect Transistors, solderless connections, and electronic safeguard systems to keep the 387's 270 Watts of power totally usable under all conditions.

Decades of manufacturing experience and engineering skill have gone into the 387. But to really appreciate how its designers have totally rejected the ordinary, you must see it and hear it.

SCOTT 387 AM/FM STEREO RECEIVER

Computer-activated "Perfectune" light: Perfectune computer decides when you're tuned for the best reception and lowest distortion, then snaps on the Perfectune light.

387 SPECIFICATIONS
AMPLIFIER SECTION: Total power (+1 dB) 270 Watts @ 4 Ohms; IHF music power, 220 Watts @ 4 Ohms; 140 Watts @ 8 Ohms; Continuous output, with one channel driven, 100/100 Watts @ 4 Ohms; 63/63 Watts @ 8 Ohms; Continuous output, with both channels driven, 85/85 Watts @ 4 Ohms; 55/55 Watts @ 8 Ohms; Harmonic distortion, 0.5% at rated output; IHF power bandwidth, 10 Hz — 38 kHz; Hum and noise, phone, —70 dB. TUNER SECTION: (FM); Useful sensitivity (IHF), 1.9 uV; Stereo separation, 40 dB; Capture ratio, 2.5 dB; Signal/Noise ratio, 65 dB; Cross modulation rejection, 80 dB; Selectivity, 42 dB. TUNER SECTION: (AM); Sensitivity (IHF), 4 uV @ 50 kHz; Selectivity (IHF), 32 dB.

New low price: $399.95
Prices and specifications subject to change without notice.

MAY 1971
Cultural events, and (previously) a free newsletter—it has been expanded into a program guide at $6.00 per year. Financially, KVOD seems fairly secure; the principal reasons for the demise of KFML were the superior programming and good-taste commercials of KVOD.

Another station here, KPOF-AM, has an excellent program director who seems to be trying to play the most obscure classical selections he can find. Since classical programming on KPOF is supported by listener donations, this policy must be finding public acceptance, contrary to what you hear about the nature of public taste. I think there's a lesson in all this—a good classical-music station can succeed, but half measures will not.

Norm Metcalf
Boulder, Col.

Music Editor James Goodfriend's column this month is devoted to the activities of some other of this country's "friends of music."

I would like to comment on the suggestions contained in "Can the Patient Be Saved?" in the February issue. I spent some fifteen years in the record business, beginning as a record clerk and ending as buyer and manager of a large chain of retail stores. I offered a weekly course for my record clerks, conducted by myself, with recorded examples to illustrate my lectures. I like to think that I achieved some measure of success with them. But it was only a tiny step in the right direction and needs to be done on a much larger scale, one which would include salesmen and executives of all the record companies. I well remember asking a record salesman when the promised second LP of Helge Roswaenge was to appear, only to be told that it wouldn't because "she doesn't sell!"

And how about the ad on page 96 of your February issue? Toscanini and the BBC and five favorite overtures. Which overtures? What composers? The record companies must forget about selling records. Instead, they must sell what is contained in the grooves of those records.

Wilfred Hailey
Los Angeles, Cal.

I endeavor to follow the recording industry very closely, having subscriptions not only to STEREO REVIEW, but also to one other American and two English publications. Although a British citizen, I have lived in the United States for over twelve years. I am absolutely amazed at the complete change that has come over the record industry in this country since my arrival. When I first came, I found it the hardest job to choose the recordings I wanted as there were so many on the market to pick from. Now I have been endeavoring to find recordings of certain works currently listed in the Schwann catalog. All the dealers I go to seem to come up with one of the following answers or attitudes:

Their sales are now strictly popular—why should they stock the classics?

No one wants to take the time to help you locate a classical recording.

Every salesman in the store seems ignorant of how to order a record not currently in stock, and there never seems to be a manager or supervisor on the premises when you need one.

The Schwann catalogs are unknown.

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Norm Metcalf
Boulder, Col.
Ron Steele's newest album is Chicago, for Ovation. He's a first call guitarist for artists like Ella Fitzgerald, Barbra Streisand, Nancy Wilson, Liza Minnelli, Dionne Warwick, and one of the best known behind-the-scenes musicians in films and TV.

"The sound is roomy. Good."
That's the real reason for power as big as ours. It gives sound spaciousness at normal levels.

"Man, no distortion. None!"
Less than 0.5% actually. That's because of the two new 5-pole phase linear toroidal filters in our IF stages. They achieve selectivity and distortion values far beyond crystal filters. It's permanent performance, too, because they're permanently aligned.

"You don't over-control. I like that."
Actually we have about all the controls imaginable. What professionals admire is the ability to get a "master tape" sound. It's possible because certain of our controls are cancellable—Loudness, Balance, and Treble/High filter.

"It's dead quiet. Beautiful."
Our tuner-amplifier is full of complicated electronic reasons for that. ICs in the IF and multiplex circuits, all silicon transistor and printed board circuitry, new 4-section front end with dual gate MOSFETs. We've about eliminated noise, wiped out cross modulation, and our overload characteristics are beautiful.

"How come it doesn't cost more?"
That's our secret. But you compare our specs, listen to our performance, look at our price, and you'll probably go away asking yourself the same thing.

Incidentally, the turntable and speakers in our new Professional Series are equally remarkable. If you would like all the facts and figures write: Professional Series, Dept. 74, P.O. Box 1247, Benton Harbor, Michigan 49022.

If the professionals can please recording studio engineers, sound technicians, and musicians, people who make a living making and reproducing great sound, we're confident they can make you very happy, too.

Made in Benton Harbor, Michigan by VM CORPORATION

The VM Professional 1521: Semiconductor complement: 49 transistors, 30 diodes, 3 ICs, 2 MOSFETs.
FM circuit: four ganged front end with 2 dual gate MOSFETs for lower cross modulation, greater sensitivity and overload; two 5-pole phase linear toroidal filters and 2 ICs for selectivity, sensitivity and limiting that surpasses all previous standards in this price range.

Amplifier: Power output: 40 watts RMS/channel power at less than 0.5% distortion; bandwidth 9-30 KHz. IM distortion: less than 0.5%. 2 frequency response: ± 1 db 20 Hz–20 KHz.
Tuner: Sensitivity: 1.9 uv for 30 db quieting. Signal to noise ratio: –75 db. Capture ratio: 1.9 dB. Selectivity: –75 db. SM 100% MOD distortion: less than 0.5%. Stereo separation: 40 db at 1 Hz. Image rejection: –90 db. IF rejection: –100 db. Spurious response rejection: –100 db.
Cabinet: Comes complete with cabinet of oiled walnut veneer hardwood at no extra cost. (Model 1520, same as above except 25 watts RMS/channel power.)
What's New

all the new recordings at one time. When you try a few months later, you find the recording has been deleted.

I have also found that the manufacturers do not always offer exactly what they promise. I have bought opera recordings without the promised libretto; records without the promised "bonus" record; specially prepared albums, with additional inserted pages, only to find the pages are missing. In all cases the records were in the original factory-sealed wrappers and had not been opened. Despite writing to the manufacturers I have never received any satisfaction. It would appear that once the record leaves their factory, they wash their hands of any responsibility. Can you blame the public for not buying?

Brian Shackleton
Sacramento, Cal.

Has Mr. Shackleton ever seen one of the snappy "factory sealers" located in the back rooms of many record retailers?

My thanks to Stereo Review for its timely articles on the classical recording crisis. Putting all these factors together in one essay should be of invaluable service to the recording companies and should provide a good base from which more detailed research can follow. I found the comments by the recording company executives particularly comforting, since it appeared that some new approaches would be instituted. This feeling of comfort suddenly disappeared, however, when I picked up the February 13 issue of Billboard magazine. It appears that both Columbia and RCA are releasing recordings of the 1812 Overture, performed by Eugene Ormandy and the Philadelphia Orchestra. This is particularly distressing, since one of the most important points for improvement mentioned in the Stereo Review articles was to reduce needless repetition of repertoire. Here is a case where they are not only repeating repertoire but with the same artists as well! I cannot see how these companies can expect to make profits when they all release the same works.

John F. Berry
New Rochelle, N.Y.

For more on the new "Battle of 1812," see this month's "Basic Repertoire" column.

Right On, Rex!

I would like to thank Stereo Review for the honest and outstanding record critiques by Rex Reed, a man whose work is frequently disturbing but always stimulating. As entertaining and informative as his work usually is, however, it is the well-deserved criticism of Liza Minelli's latest release (March) which prompts my writing. I am eighteen, and sickened by the "undemanding, brain-washed, rock-polluted young record buyers" with whom I am surrounded. Far too many performers have jumped into unfamiliar areas, rock particularly, in a ridiculous attempt to attract this financially significant portion of the record-buying public. Mr. Reed is to be commended for placing the blame where it belongs, on those blind money-makers who abandon talent, taste, and quality for the sake of profit. This feeling of comfort suddenly disappeared, however, when I picked up the February 13 issue of Billboard magazine. It appears that both Columbia and RCA are releasing recordings of the 1812 Overture, performed by Eugene Ormandy and the Philadelphia Orchestra. This is particularly distressing, since one of the most important points for improvement mentioned in the Stereo Review articles was to reduce needless repetition of repertoire. Here is a case where they are not only repeating repertoire but with the same artists as well! I cannot see how these companies can expect to make profits when they all release the same works.

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Slick Research

Thank you for the Grace Slick sampler you offered to readers of Rex Reed's interview with Miss Slick (November 1970). I consider this disc the best value in my collection of rock records. I liked the article almost as much, and showed it to my friends at school. I also had fun showing the same friends the reactionary letters that followed (Messrs. Burns, Newman, Jowett, Steeves, and King in the January and February issues). I am presently working on a paper which will attempt to analyze right-wing, reactionary, and anti-youth letters. Stereo Review was a great help in providing data.

John L. Henning
Shaker Heights, Ohio

Our thanks to Mr. Henning, and we hope that we can be of as much help to researchers on the other side of the house.

Stereo Review
The new KLH Thirty-Two is the best speaker you can buy for the money.

Bravado has never been our bag. But after carefully comparing the new model Thirty-Two with our competitor's best-selling loudspeaker, we're going to break our rule.

Our product is superior.

You see, the Thirty-Two sounds like a very close relative of our now famous Model Six.

With good reason.

It's designed like a Six. It's built like a Six. And it shares many of the Six's finest listening qualities. Bass response that curls your toes. A mid-range that seduces you with its smoothness. And an overall sound quality that finally puts an end to listening fatigue.

But the Thirty-Two not only sounds like an expensive speaker, it looks like one, too. It is unquestionably the best looking loudspeaker in its price range.

The price?

Almost as amazing as the sound. Just $47.50 ($95 the pair).†

Make sure you hear—and see—the new KLH Thirty-Two soon. And compare it with the best-known speaker in its price range. We are sure you will agree that there's never been anything like it for the money.

Anybody's money.

For more information on the Model Thirty-Two, write to KLH Research and Development Corporation, 30 Cross St., Cambridge, Mass. 02139. Or visit your KLH dealer.
Shure Stylus Force Gauge

- **Shure** has brought out a balance-type stylus-force gauge that is accurate within $\frac{1}{100}$ of a gram throughout the range of $\frac{1}{2}$ to $1\frac{1}{2}$ grams. The gauge, which is designed to measure force with the tone arm in actual playing position, has a notch at one end of its base to accept the turntable spindle. The stylus is placed in a positioning groove on the balance arm that extends from the opposite end of the gauge, and a sliding counterweight is moved along a scale calibrated in $\frac{1}{100}$-gram intervals until balance is achieved. (An angled mirror at the counterweight end of the balance arm permits accurate visual alignment of the arm and a stationary reference bar.) A second stylus-positioning groove nearer the balance-arm pivot is for measurement of forces from $1\frac{1}{2}$ to 3 grams. Price of the gauge (Model SFG-2): $4.95.

Circle 144 on reader service card

Heathkit AA-29 Stereo Amplifier and AJ-29 Tuner

- **Heathkit's** AR-29 receiver is now available as two separate component kits: the AA-29 integrated stereo amplifier and the AJ-29 AM/stereo FM tuner. Power output for the AA-29 amplifier is 35 watts continuous per channel into 8-ohm loads, with harmonic and intermodulation distortion both below 0.25 per cent at rated output. Frequency response is flat from 7 to 60,000 Hz, and the signal-to-noise ratio is 65 dB at the phono input. The amplifier has slider-type controls for volume, balance, bass, and treble, and has pushbuttons for input selection (the usual PHONO, TAPE, and TUNER are offered, plus two high-level auxiliary inputs), tape monitor, mode, loudness compensation, speaker selection (two pairs accommodated), and tone-control bypass for flat response. There is a front-panel headphone jack, and individual input-level controls for each channel of each input.

The AJ-29 tuner employs IC's, FET's, and fixed-tuned inductance-capacitance i.f. filters instead of i.f. transformers. The tuning dial is situated behind a tinted glass plate that becomes opaque when the tuner is turned off. Front-panel facilities include signal-strength and channel-center metering, and pushbuttons for AM and FM, mono, high-frequency blend, and interstation-noise muting. FM sensitivity is 1.8 microvolts, selectivity exceeds 70 dB, and image rejection is 90 dB. The FM section's capture ratio is 1.5 dB. Both kits measure approximately 17 x 5 x 14 1/2 inches. Prices: AA-29 amplifier, $149.95; AJ-29 tuner, $169.95. A pecan cabinet that fits both is available for $19.95 extra.

Circle 145 on reader service card

Sony/Superscope Model 160 Cassette Deck

- **Sony/Superscope**'s new line of stereo cassette decks comprises three models, the foremost of which (the Model 160) is shown. The TC-160 employs a tape-drive system with two capstans, one at either side of the heads. Wow and flutter are 0.1 per cent. Frequency response is 20 to 16,000 Hz, and the signal-to-noise ratio is 49 dB, both with standard oxide cassettes. Fast-wind time for a C-60 cassette is 80 seconds. A front-panel bias switch has a position for standard-formula tapes and a SPECIAL position for increased bias to match the characteristics of cassettes that use tape with low-noise and chromium-dioxide formulas. For recording purposes, two illuminated, calibrated level meters are used in association with a pair of slide-type recording-level controls. A limiting circuit can be switched in to keep signal peaks below the point where severe distortion would occur. Both line and microphone signals are accepted. The TC-160 has the usual transport controls and record interlock, plus a PAUSE control and a headphone jack that will drive 8-ohm phones (there is a two-position switch for the adjustment of headphone playback levels). The entire deck measures 15 3/4 x 10 3/8 x 5 inches, including the walnut base supplied. Price: $199. The other two new cassette decks in the Sony/Superscope line are the Models TC-127 and TC-122, priced at $149.95 and $122, respectively.

Circle 146 on reader service card

Microstatic II High-Frequency Speaker Adapter

- **Micro-Acoustics** has brought out an add-on tweeter adapter intended to augment the high-frequency output and dispersion of high-quality speaker systems of medium to low electro-acoustic efficiency. Two 1 1/4-inch and two 1 1/4-inch cone tweeters make up the Microstatic array; each is mounted at an angle of 45 degrees to its neighbors in the four forward-facing sides of the tiny—9 1/8 x 5 1/8 x 3 3/4 inches—pentagonal cabinet. The Microstatic is installed on top of a conventional full-range speaker system, and the only wiring required is connection to the main speaker system's terminals. (The Microstatic's minimum impedance of approximately 16 ohms should not reduce

(Continued on page 22)
FREE INFORMATION SERVICE

Here's an easy and convenient way for you to get additional information about products advertised or mentioned editorially in this issue. Just follow the directions below and the literature will be sent to you promptly and free of charge.

Tear out one of the perforated postage-free cards. Please print or type your name and address where indicated.

Circle the number on the card that corresponds to the key number at the bottom of the advertisement or editorial mention that interests you. (Key numbers for advertised products also appear in the Advertisers' Index.)

Simply mail the card. No postage is required.

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Introducing Memorex Recording Tape. The tape that can shatter glass.

New Memorex Tape can shatter glass because it records and plays back with exacting precision. Memorex Tape records every note, every pitch, every harmonic, every nuance of music, then plays them back the same way they sounded live.

Quite a claim.
Quite a tape.

We found a singer who could maintain the pitch necessary to shatter glass and projected his voice with enough volume to vibrate a glass to its shatter point. At the same time, we recorded that pitch on Memorex Tape.

Then we played our tape back.
Bam! Shattered glass.

Memorex has increased tape sensitivity, increased high-frequency response, and improved signal-to-noise ratio so much, that now you can record your favorite music and play it back the same way it sounded live.

You'll hear.

MEMOREX Recording Tape
Reproduction so true it can shatter glass.

Incidentally, our cassette tape also shatters glass.
The JBL 4310 is especially designed for mastering, control room installations, mix-down facilities, portable playback systems. It's full of good things like:

- Wide range response. Full 90° dispersion for vertical or horizontal placement. Power handling capability, 50 watts program material.
- Front panel controls for separate adjustment of presence and brilliance.
- 12-inch long-excursion low frequency loudspeaker, massive mid-frequency direct radiator, separate ultra-high frequency transducer.
- Only available through Professional Audio Contractors.

Beneath this mild mannered charcoal gray exterior, is the finest compact studio monitor money can buy.

It should be. The JBL 4310 was developed with the enthusiastic assistance of leading recording engineers. (And they're the only ones who can buy it.)

Now, guess what else the professionals have been doing with the 4310's for the last two years. You're right. They've been taking them home, using them as bookshelf speakers.

That's why we decided to get even.
It's the new JBL Century L100. It would be the finest professional compact studio monitor money could buy except it's not sold to studios. (If that sounds like the JBL 4310, there's a reason. They're twins.)

JBL started with a definition of sound. It's the sound the artist creates, the sound the microphone hears, the sound the recording engineer captures.

Then they added oiled walnut and a new dimensional grille that's more acoustically transparent than cloth but has a texture, a shape and colors like Ultra Blue or Russet Brown or Burnt Orange.

Oh, yes. The JBL Century L100 is the only speaker you can buy with individual controls under the grille so that you can match the sound to the room—just the right presence, just the right brilliance.

And then they checked the rule book. There's absolutely no law against professional sound looking beautiful.
NEW PRODUCTS

THE LATEST IN
HIGH-FIDELITY EQUIPMENT

significantly the load seen by the amplifier.) The Microstatic supplements the output of a system's existing mid-range and high-frequency drivers. Frequency response of the Microstatic covers 3,500 to 22,000 Hz over a horizontal angle of 180 degrees. A rear-panel switch sets the lower end of the unit's operating range to frequencies above 3,500 or 7,000 Hz, depending upon the requirements of the associated speaker. A continuously variable control adjusts output level. The Microstatic will handle a maximum of 60 watts continuous when used with an associated full-range system. Its cabinet is walnut with a beige grille cloth. List price: $77. Two are required for stereo.

Circle 147 on reader service card

Stanton Electrostatic Headphones

- STANTON has brought out a line of stereo headphones, led by the Mark III Isophase headset, which employs electrostatic transducers. The polarizing voltage necessary for the transducers' operation is provided by a separate power-supply unit into which the phones are plugged, and which is in turn connected to the speaker terminals of an amplifier or receiver and to a 120-volt a.c. outlet. The speakers themselves are wired to a junction box with spring-loaded terminals. This arrangement permits speaker or headphone operation to be selected through a rotary switch located on the front panel of the polarizing unit.

Also on the polarizing unit are two pushbuttons for resetting protective circuit breakers for each stereo channel. These act to interrupt operation when levels that might overload the phones or eventually impair the listener's hearing (110 dB and above) are handled for any extended period. The ear cups of the phones have foam-filled cushions and universal joints that attach them to the headband. The headband is padded and adjustable via a knob at the top which extends or retracts the arms of the band through a rack-and-pinion device. Frequency response is 30 to 15,000 Hz ±3 dB (20 to 20,000 Hz ±6 dB). Amplifiers capable of at least 10 watts continuous output are specified. The headphones weigh 15 ounces and come with an 11-foot flexible cable. Dimensions of the polarizing unit are 5¾ x 2¾ x 7¼ inches. Price of headset and polarizer: $159.95. A second headset alone costs $75, with a "Y" adapter for connecting two phones to the polarizer priced at $9.95. Ten-foot extension cables are also available at $15.95.

Circle 148 on reader service card

Smaller Advent Loudspeaker

- ADVENT is introducing a new speaker system, dubbed the Smaller Advent Loudspeaker. The system employs a ¾-inch dome tweeter with a wide roll surround and a woofer with a nominal 8-inch diameter. In the 20 x 11½ x 9¼-inch enclosure the woofer has the same resonance and frequency response as that of the larger Advent speaker system, but is slightly less efficient and has somewhat lower power-handling capability at very low frequencies. Nominal impedance is 4 ohms; the crossover between woofer and tweeter takes place at 1,500 Hz. Minimum recommended amplifier power for a system incorporating Smaller Advent Loudspeakers is 15 watts continuous per channel. The enclosure is clad in walnut-grain vinyl. Suggested price: under $80.

Circle 149 on reader service card

SAE Mark IIIA Power Amplifier

- SAE has expanded its line of audio electronics with three new stereo power amplifiers: the Mark IIIA (shown), Mark IIB, and Mark IVB. All three are direct-coupled designs, with separate power supplies and input-level controls for each channel. With both channels driven into 8-ohm loads, the Mark IIIA has a continuous output of 120 watts per channel from 20 to 20,000 Hz. Under the same conditions, the power outputs of the Mark IIB and Mark IVB are 90 and 60 watts per channel, respectively. Maximum distortion at full output over the range of 20 to 20,000 Hz for the three amplifiers is 0.1 per cent harmonic and intermodulation. Hum and noise are at least 100 dB below rated power output. A signal input of 1 volt will drive the amplifiers to full output. The units have dimensions of 17 x 13½ x 5¼ inches. Decorative front panels permit the amplifiers to be installed in locations where they will be visible. Prices: Mark IIIA, $550; Mark IIB, $450; and Mark IVB, $350.

Circle 150 on reader service card
The basic difference between them and us is distortion. We have none.

Your French horn, for example, comes through a Marantz system in great shape. Not battered, bent or twisted by the distortion of ordinary (them) circuitry.

Sound, any sound from any source; tape, disc or off the air, is virtually unchanged by Marantz. So that when you listen it's as if there is nothing between you and the source of sound. The result is an exciting immediacy. A startling sense of reality. Pure stereo.

Marantz makes the most expensive stereo equipment on earth. Our Model 19 FM receiver costs $1000. But we also have a $219 Marantz, and others in between.

Visit your Marantz dealer. Marantz stereo at any price is damn well worth it.
Choose any seat in the concert hall without moving from your armchair!

A turn of the AKG K180 Headphone adjusting knobs gives you infinite selection, immediately. We call it Subjectively Controllable Sound and it's new, even for AKG. SCS lets you precisely vary acoustically effective auditory volume. No matter what seat in the concert hall you prefer, you choose it with ease, every time. We defy you to distinguish between AKG K180 fidelity and that of an actual performance.

Front Row Center... with drivers in close proximity to the ear you enjoy the brilliant sound and perfect tone clarity of up-front listening.

Mid-Orchestra... With drivers mid-way you experience the perfect blending of pure sound enriched by the concert hall's acoustics.

Back Of The Hall... with drivers fully retracted you hear diffuse yet resonant sound traveling to you over a filled concert hall.

Write for complete information:

MICROPHONES•HEADPHONES

NORTH AMERICAN PHILIPS CORPORATION
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CIRCLE NO. 39 ON READER SERVICE CARD

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AUDIO QUESTIONS and ANSWERS

By LARRY KLEIN Technical Editor

Tuner/Phono Switching Problem

Q. When I switch from tuner to phono on my receiver there is a moment before the tuner signal cuts out when the sound coming from the right speaker becomes dull, heavy, and somewhat louder. Is this a sign of incipient trouble?

A. No, it probably means that the circuits that supply the equalization for the phonograph section in the right channel are being switched in a fraction of a second before the tuner signal is completely switched out. When you balance the small annoyance of the momentary distortion against the (probably) large cost of repair, it would seem wisest to ignore the problem as best you can.

Dolby Report

Q. You recently wrote that Ampex will be recording all their cassettes using the Dolby noise-reduction system. My dealer tells me that a large majority of the new Ampex releases he's getting are not Dolbyized. Who's right?

A. Ampex either changed their corporate mind or someone in their publicity department goofed. Not all Ampex releases will be Dolbyized, just those, in Ampex's words, that will benefit from the noise reduction provided by the Dolby equalization. On just that point, for reasons known only to themselves, Ampex chose to release as their first Dolbyized cassettes two operas (Norma and Tosca), neither of which had been mastered using the Dolby professional system. The hiss in the original master tapes was bad enough that the noise-abatement potential of the Dolby equalization was never heard. Dolbyization prevents the addition of noise during duplication, but can't eliminate noise already on the master tape.

It should be evident that Dolbyization is not a noise cure-all. It won't cover up lack of care in processing or inadequate duplicating equipment. For example, I checked some of Sony/Superscope's non-Dolbyized cassette releases and their peak signal level was perhaps 6 dB louder than those of the current Ampex releases. In practice this means that, given a reasonably quiet master tape, the Superscope releases approached (and sometimes bettered) the playback noise level of the Dolbyed cassettes. The low signal level on the Ampex (and other manufacturers') cassettes is certainly not the fault of the Dolby equalization, but has to do with the care and, mostly, with the equipment used in duplicating. As of the moment, it looks as though the home user with a Dolbyed cassette deck (or a Dolby adapter hooked up to his deck) can turn out far quieter cassettes than most of the commercial duplicators.

Transistor-Amplifier Protection Circuits

Q. Julian Hirsch stated not too long ago that today's transistor amplifiers are now blowout proof and that it is practically impossible for a user to deliberately or accidentally damage an amplifier. How is this achieved?

A. An unprotected transistor is easily damaged because, unlike a vacuum tube, the transistor has no built-in current limitation. In an amplifying vacuum tube the internal element structure and the electron emission from the cathode put a limit on current that can be drawn through the tube. The output current of a transistor, on the other hand, will increase without limit until its internal connections burn out.

Transistor burnout can take place in milliseconds—far faster than a fuse can blow out. For this reason, many early attempts to protect transistor output stages with fuses were expensive failures—the transistor blew out first and protected the fuse.

One "brute-force" approach is to use very heavy-duty power transistors, capa-

(Continued on page 26)

STEREO REVIEW
“My perfect martini?
Skip the vermouth.
Just put the perfect martini gin on the rocks,
Seagram’s Extra Dry.”
Break out the Gilbey's Gin, boys, and keep your martinis dry!

Because the number of questions we receive each month is greater than we can reply to individually, only those questions selected for this column can be answered. Sorry!
Just clean, pure sound.

Because when you spend more than $160 for an AM/FM stereo receiver, you're mostly paying for more power, not better sound.

Sure, you get a few more knobs and switches. Sensitivity is a little bit better. Channel separation is slightly greater. And distortion is undetectably less.

But at just $160, the Nikko STA-301 is already as good as or better than most speaker systems, no matter what they cost. Frequency response is 20-50,000 Hz ± 1 dB (IHF) and harmonic distortion is 0.8% at rated output. Try to find a speaker system that good at any price.

And if you really need more power for a bigger room or just bigger sound, there's always our STA-501 with 50W or our STA-701B with 70W. Both with a bit more sensitivity, slightly more separation and only slightly more expensive than the 301.

But still no bells and whistles.


Distributed in Canada by Superior International Electronics Ltd.

MAY 1971

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Empire's newest Greendrier is the only high powered omni-directional wide angle lens down facing woofer speaker system priced under $110.

Wait till you hear the difference a true stereophonic design can offer. The kind of sound no box can deliver, and at a spectacularly low price.

In Empire's stereo cylinder, the woofer faces down, for bass so "live" it gives you goosebumps, while our exclusive acoustic lens spreads the highest of highs through a full 160 arc.

There is no ugly grill cloth; the walnut finish goes all the way around; the marble top is meant to be used; and the sound is superb no matter where you put it.

If you're talking at least $100 for a speaker system, think about this great Grenadier value. Nothing else in the world comes close.

Model 6000 Grenadier Specifications
Height - 24 inches, diameter - 18 inches
3 way System up to 75 watts per channel
Price $109.95; with imported marble top $119.95.

For information and further details write
Empire Scientific Corp., 1055 Stewart Ave.,
Garden City, N.Y. 11530

EMPIRE

CIRCLE NO. 230N READER SERVICE CARD

STANDING WAVES

The acoustics of the listening room affect the sound from your stereo equipment in many ways. Some of the effects are beneficial and some are harmful. Among the harmful ones, the hardest to eliminate is the standing wave, because it is produced by something the listener has little control over—the structural dimensions of the room itself. Each sound frequency has a certain specific wavelength: the physical length a single compression-rarefaction cycle of the frequency takes up in the air. (Dividing the speed of sound—about 1,130 feet per second—by the frequency gives this wavelength.) When a sound wavelength bears a certain mathematical relationship to one of the room's dimensions, a resonance (standing wave) occurs that reinforces the frequency corresponding to that wavelength. The principle is essentially the same as for an organ pipe, which sounds a basic tone of a wavelength (and therefore frequency) determined by the pipe's size.

How does a standing wave work? Well, let's pick a frequency—56.5 Hz, for example—and feed it to a speaker facing into a 10-foot-wide room (56.5 Hz was chosen because its wavelength is 20 feet, just double the width of the room). The speaker cone performs its usual in-and-out movements to produce the alternating high- and low-pressure components of the sound waves. As these travel out and across the room, some are bounced directly back toward the speaker again. Having traveled precisely a full wavelength (10 feet to get there, 10 feet back), these waves will arrive just in time to synchronize with the speaker cone's next in-and-out cycle, and cause a significant reinforcement of the 56.5-Hz tone. You've experienced the effect if you've ever heard—from a well-designed speaker in a particular room—a plucked string bass boom unnaturally on certain notes, or a descending organ-pedal figure "reach bottom" before it musically should. The term "standing wave" is descriptive in that it suggests, instead of random interactions of sound waves, constant reinforcement for a particular frequency in certain areas of a room.

Certainly not all rooms are plagued by standing waves. But any dimension of a room can produce a standing wave under the right conditions. Although the precise frequency reinforced may not exist on the usual organ keyboard (56.5 Hz doesn't), adjacent frequencies, and certain multiples of those frequencies, will often be affected. Can anything be done? Three things: (1) Move your listening position. Standing waves are typically a local effect in a room. Walk around while the offending note is being played and see if a more satisfactory listening location can't be found. (2) Move the speaker. The speaker in our example could not excite the 56.5-Hz resonance if it were halfway between the two walls. Even a minor speaker repositioning, determined through experiment, can help. (3) Change the dimensions of the room. A very large and solid room divider or a big piece of furniture may partially alter the acoustical shape of a room. But this is a chancy approach, and expensive. If nothing else works, the final solution may be to move your audio equipment—or at least your speakers—to a different listening room.

STEREO REVIEW
This new receiver cleans your signal, without cleaning out your bank account

It's a dirty world out there. And even though an FM station transmits a clean signal, by the time it reaches your house, it may be mixed up with 20 or so other signals, and some interference sources, many of them strong enough to swamp the signal you want to hear. The new Sony 6045 FM stereo/FM-AM receiver spares no detail to deliver a clean signal to your speakers.

Its FM front end uses passive r.f. circuitry, so that those strong, but undesired signals can't overload the input, to swamp your station or to pop up at several random places on the dial. (The passive input stage can't generate any hiss, either). By the time the signal does reach an active stage, most of the undesired signals have been shorn away—and since that stage is an FET, it's virtually immune to overloading anyway.

Six solid-state i.f. filters clean the signal even further. They combine uniform response over the entire FM channel with almost complete attenuation everywhere else. You can pluck the station from a host of stronger ones or adjacent frequencies. And solid-state i.f.'s never need realignment. Together, these ideally-matched FM circuits provide:

- 2.6 uV (IHF) sensitivity
- 70 dB signal-to-noise ratio
- 80 dB of selectivity
- 100 dB of spurious signal rejection
- A capture ratio of 1.5 dB— all at a total harmonic distortion of only 0.4%. AM performance is equally outstanding.

Cleanliness doesn't stop at the 6045's tuner stage. Its amplifier uses the same dual-power-supply, direct-coupled approach as our more expensive amplifiers and receivers, so there's no coupling capacitor to stand between you and the music. The 6045 gives you the best sound your speaker is capable of, because you get the full damping factor at all frequencies, and perfect transfer of all 75 watts dynamic power output* at only 0.5% distortion. Noise at full output is a miniscule 0.13 millionths of a watt, virtually inaudible. Still, no matter how clean the receiver's circuits, some stations still put out a dirty signal, some records are worn or scratched and some tapes have hiss. The 6045 has an answer for that one, too: a high filter that cleans such signals up.

Price is not a dirty word either. $229.50** which, in this day of rising prices, is just clean miraculous. Sony Corporation of America, 47-47 Van Dam St., Long Island City, New York 11101.

SONY 6045

*CIRCLE NO. 52 ON READER SERVICE CARD

*IHF standard constant supply method at 8 ohms. **Suggested retail price.
finally! A visually perfect sine wave!

The sine wave above was generated by Shure's design computer—it looks like the sine wave that was generated by the Shure V-15 Type II Improved Super Track Cartridge in the Hirsch-Houck testing laboratories... "the first cartridge we have tested to have done so," according to their published report. This perfect sine wave was generated during the playing of the heavy bass bands on the Cook Series 60 test record at \( \frac{3}{4} \) gram, and the 30 cm/sec 1,000 Hz band of the Fairchild 101 test record at 1 gram. They were impressed, and we were pleased. And we'll be pleased to send you the full Hirsch-Houck Report on the "trackability champion." Shure Brothers Inc., 222 Hartrey Ave., Evanston, Ill. 60204.
AMPLIFIER FILTERS: Most amplifiers and receivers have filter circuits that can be switched in to reduce unwanted noise in the program material. High-cut ("scratch") filters are more common than low-cut ("rumble") filters, although in the higher price ranges it is not unusual to find both types. A filter operates by reducing the relative level of all frequencies above or below a given frequency. If, say, there is severe tape hiss or record-surface noise concentrated in the frequency range above 8,000 Hz, then switching in a high-cut filter that sharply reduces the amplifier's response above that frequency would serve to make the tape or disc somewhat more "listenable."

Obviously, any filter that changes the frequency response of an amplifier has to affect the content—music or whatever—of the program material to some degree. In the past, there have been many ingenious attempts to design dynamic filters whose action was not fixed, but rather was controlled by the amplitude (relative levels) and frequency content of the program material. The goal was to retain as much as possible of the original frequency response of the program while removing hiss and other unwanted sounds. Unfortunately, these circuits frequently had audible and undesirable side effects and ultimately disappeared from the consumer side of the high-fidelity scene.

The total audible effect of a filter is not only a function of its cut-off frequency, but also is determined by the slope of its response after the cut-off frequency, and both factors must be considered for the best compromise between noise reduction and loss of program material. ("Slope" refers to the rate at which the amplifier output decreases with changing frequency. This rate is usually attained about an octave or so beyond the cut-off frequency.) The slope is expressed in decibels (dB) per octave. As is evident from the graph on the next page, the "cut-off" frequency is perhaps more properly referred to as a "slope-off" frequency. It is an engineering convention to refer to the point on a filter slope that is 3 dB down as the cut-off, or, for that matter, "crossover" point. The most gradual slope (6 dB per octave) is the easiest and cheapest to realize in practice, and is used in the vast majority of filter circuits in audio equipment. It is also the least satisfactory, in that it has the greatest effect on the program content. Frequency response is affected for an octave or more below the cut-off frequency (or above it, in the case of a low-frequency filter). Consequently, one rarely finds a simple 6-dB-per-octave filter that gives really satisfactory results. Given the above situation, it is fortunate indeed that most program sources are not noisy enough to require the use of a filter.

The solid curve on the graph shows the response of a 6-dB-per-octave high-cut filter with a cut-off frequency of 3,000 Hz, at which point it is 3 dB down. High-cut filters generally have cut-off frequencies between 2,000 and 6,000 Hz, with the best overall results usually being obtained with frequencies in the upper part of that range. Low-cut filters generally have cut-off frequencies between 50 and 150 Hz. Near the lower end of the range, they have little effect on either program or rumble, whereas when the cut-off is above 100 Hz you can expect to sacrifice the lower bass along with the rumble. Although few modern record players—even many of the relatively low-price automatic turntables—require the use of a rumble filter, some records have considerable low-frequency noise recorded into them, and we have heard some distressingly high rumble in FM broadcasts. The low-frequency portion of the solid curve shows the response of a typical 6-dB-per-octave rumble filter cutting off at 80 Hz.

A few filters are designed with a slope of 12 dB per octave, which not only minimizes the loss of program material, but does a much better job of eliminating hiss or rumble. The improved effectiveness of
To achieve the same amount of attenuation at 30 and 8,000 Hz as 12-dB-per-octave filters (dashed line), 6-dB-per-octave filters (solid line) must employ earlier "cut-off" points and impose greater losses upon the program material.

A steeper filter slope can be seen from the dashed-line curve on the graph. At the high-frequency end, even though the cut-off frequency is 5,000 Hz (almost an octave above that of the simpler filter discussed previously), the attenuation of the 12-dB-per-octave filter exceeds that of the 6-dB-per-octave filter at all frequencies in the range above 8,000 Hz, where most hiss energy is found. At the same time, it provides 2.5 dB less loss of output in much of the musically important frequency range between 3,000 and 6,000 Hz.

A similar situation exists at low frequencies, where we have shown a 12-dB-per-octave filter cutting off at 50 Hz. The lower audible octaves, from about 35 to 150 Hz, have up to 2.5 dB more level than with the 6-dB-per-octave filter, yet at 30 Hz and below, where most rumble is concentrated, the steeper filter is far more effective. If you find a filter useful in your own listening situation, look for a 12-dB-per-octave filter (or one with an even steeper slope) in your next amplifier or receiver.

Frequently the action of a 6-dB-per-octave filter can be duplicated, and sometimes improved upon, by using the amplifier's tone controls instead. These circuits usually have the same slopes as the filters, and if they are of the popular Baxandall type, they offer the possibility of shifting the cut-off frequency to suit your needs. One of the multi-band tone equalizers would provide even more filtering flexibility.

Finally, for the purist, there are a few amplifiers of British manufacture (such as Quad) with high-cut filters that provide a choice of several cut-off frequencies and very steep (and sometimes variable) slopes adjustable up to 25 dB per octave. These are the only universally effective filters I have found; they are often able to remove hiss with negligible effect on the program material. When the program bandwidth is limited to, say, 5,000 Hz or so, these filters can also remove much of the distortion found in well-worn 78-rpm and other old records. Their steep slopes permit them to attenuate the higher harmonic distortions, yet leave the program essentially unmodified. These amplifiers are not inexpensive, and may lack some of the operating flexibility and high power of domestic amplifiers, but they could be ideal for anyone with a library of old recordings.

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**EQUIPMENT TEST REPORTS**

By Hirsch-Houck Laboratories

**DYNACO A-50 SPEAKER SYSTEM**

- **Dynaco's A-50** is a two-way, three-speaker system that in some respects resembles an enlarged version of their popular A-25 bookshelf system. The fully sealed A-50 cabinet is more than twice the size of the A-25's, and contains two 10-inch woofers to the A-25's one. At 1,000 Hz, there is a crossover to a single 1½-inch, soft-dome tweeter. The woofers' response is designed to roll off naturally above 1,000 Hz, and a simple series capacitor excludes low frequencies from the tweeter. A five-position switch in the rear of the cabinet adjusts the tweeter output level.

The interior of the cabinet is divided into two compartments, joined by an acoustically damped slot. In the 50 to 150-Hz region, the rear radiation of the two woofers is confined to one compartment. Below the system resonance frequency of about 50 Hz, the second compartment becomes acoustically coupled to the first, and the woofer enclosure volume is effectively doubled. The useful frequency range of the woofers extends considerably below that of the A-25 (which is comparable in size to the upper compartment of the A-50).

The dome tweeter, though similar in size to that of the A-25, is claimed to have improved mid-range dispersion. Except at very low frequencies, the Dynaco A-50 and A-25 have nearly identical impedance, efficiency, and sonic characteristics. This point is emphasized by Dynaco in recommending the speakers for their "Dynaquad" (multi-channel) reproducing system.

The A-50's shape is somewhat unusual. It is 28 inches high by 21½ inches wide, but only 10 inches deep. Although intended primarily for floor mounting, it is equipped with fittings in each corner of the rear panel, permitting it to be suspended (weight is 40 pounds) from (Continued on page 34)
The cassette revolution threw the industry a wild equalization curve. We fielded it.

With a bias-equalization circuit that lets your TEAC A-24 stereo cassette deck record and playback the most advanced low-noise, high-output tapes with crystal clarity. But then, being on the leading edge of tape technology is a way of life at TEAC.

Sure, we could have joined the club and traded on the novelty, rushing out anything that could play a cassette. Instead, we started right on the drawing board to bring you the finest deck we could devise. Five years later, here it is—the consummate cassette deck.

With these fine features: input selector for easy access to live programming, tuners, line sources or existing stereo systems. Auto-stop that disengages the drive mechanism at the end of tape to preserve the life of precious tapes and precision components. Wow- and flutter-free hysteresis-synchronous outer-rotor motor. Foolproof piano-key controls. Advanced solid-state, low-noise circuitry, life like frequency response and signal-to-noise specs.

All this too rich for your blood? You can have the same fine deck without the embellishments of input selection and auto-stop at a price attractively below that of the A-24. It's all there in the standard-tape A-23. Comes the next revolution, you'll be well armed with either one of these outstanding TEACs.

TEAC

TEAC Corporation of America, 2000 Colorado Avenue, Santa Monica, California 90404

TEAC Corporation, 2-8-8 Tsunohazu, Shinjuku-ku, Tokyo, Japan • TEAC EUROPE N.V., Kabelweg 45-47, Amsterdam—W.2, Holland

In Canada: White Electronic Development Corp., Ltd., Ontario

MAY 1971

CIRCLE NO. 57 ON READER SERVICE CARD 33
The outstandingly fine tone-burst performance of the Dynaco A-50 is exhibited in these oscilloscope photos taken at (left to right) 80, 1,400, and 7,000 Hz.

suitable wall fasteners. The Dynaco A-50, finished in oiled walnut, is priced at $179.75.

- **Laboratory Measurements and Listening Tests.** In our measurements, the Dynaco A-50 had a smooth frequency response overall, with a slight emphasis between 70 and 130 Hz, and a somewhat depressed response between 1,500 and 6,000 Hz. In both cases, the deviation from a "flat" response was only 3 to 5 dB. At maximum tweeter level, the output between 7,000 and 10,000 Hz was boosted about 5 dB, with negligible effect below 2,500 Hz. The high-frequency output dropped quite rapidly above 12,000 to 13,000 Hz.

The low-frequency harmonic distortion, at a 1-watt drive level, was under 2 per cent down to 60 Hz, increasing to 5 per cent at 45 Hz and 10 per cent at 37 Hz. Increasing the drive to 10 watts shifted the "break point" of the distortion curve only slightly, with 5 per cent distortion at 53 Hz and 10 per cent at 43 Hz. The useful lower limit of the speaker's response appeared to be between 40 and 45 Hz.

High-frequency dispersion, while not remarkable, was quite satisfactory. The tone-burst response, like that of the A-25, was outstandingly fine at all frequencies—about as good as we have ever observed in this test of transient response. The build-up and decay times of a burst at any frequency were less than 1 cycle, which would be hard to improve upon. Dyna's claims of uniform electrical impedance were also confirmed. Between 20 and 5,500 Hz, the system impedance remained between 7.5 and 15 ohms, even at the system resonance of 55 Hz. It dropped slightly at higher frequencies, to a minimum of 5 ohms in the 10,000 to 15,000-Hz region.

The simulated "live-vs.-recorded" listening test results were completely consistent with our frequency-response measurements. On most program material the highs were very good at the "normal" tweeter-level setting. Only extreme high-frequency program material, such as the sound of wire brushes, revealed the reduced output above 12,000 Hz. The slight mid-range depression could also be heard in this test, although it was not evident in ordinary listening. We took several steps to improve the overall balance, including a higher setting of the tweeter-level switch and the use of amplifier tone controls. We used a Dynaco SCA-80 amplifier, whose shelved tone-control characteristics are especially well suited to modifying the response of this speaker. None of these approaches brought the A-50 to precise imitation of the "live" source, but all made some improvement. In any case, we would rate the Dynaco A-50 as "very good" in the live-vs.-recorded test.

Since our test data on the A-50 showed the expected similarity to that of the A-25, except in the region below 500 Hz, we made a critical comparison of the sound of the two systems. As Dyna says, they have almost identical impedance curves. Their efficiencies, as far as we could tell, are equal, and they sound like identical twins—except for the bass end. The A-50 has a definitely stronger output in the lowest octaves. It is not in any sense "heavy" sounding, but it is easily distinguished from its junior relative. The two made an excellent stereo pair. Subjectively, the dispersion of the A-50 seemed to be a bit better than that of the A-25.

It is interesting to note that the Dynaco A-50, whose response at the lowest and highest frequencies is surpassed by several competitively priced speakers, and whose overall frequency-response flatness is good but not outstandingly so, nevertheless managed to be one of the most satisfying speakers we have heard. This seems to indicate, as we have pointed out on occasion, that these parameters, while important, do not adequately define the performance of a speaker system.

**Summary.** As we write this, we have been listening to a pair of Dynaco A-50 systems for several hours. They are surely among the most relaxing, unstrained, and natural-sounding speakers we have had the pleasure of using. The A-50 has all the sonic virtues of the A-25, plus a few more. As Dyna points out, the A-50 is more than twice as expensive as the A-25. It does not give you "twice the sound" (whatever that might be)—things just don't work that way. Fortunately, the A-50 definitely represents a worthwhile improvement over an already excellent speaker system, with no sacrifice except in increased cost. If your budget permits, include the Dynaco A-50 in your listening schedule when shopping for a speaker system.
THE CRITICS’ CHOICE

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"the lowest speed error . . . encountered in [fixed speed] turntables . . . no hint of rumble . . . silent and accurate operation."

Stereo Review (Julian Hirsch)

"The three-year guarantee [like that for other AR products] . . . attests to the basic reliability of this turntable, whose performance is unsurpassed and is, at best, equalled by only two or three much higher-priced record players."

Toute l'Électronique (C. Datevella)

"It seems to me that once again they [AR] have executed a master stroke in putting on the market a turntable that we do not hesitate to describe — the word is not too strong — revolutionary."

THE GRAMOPHONE (Percy Wilson)

"I have, in fact, only one criticism of the AR turntable and arm: it is greatly underpriced."

The AR turntable has a suggested retail price of $87 including base, dust cover, and accessories.

Acoustic Research, Inc.
24 Thorndike Street, Cambridge, Massachusetts 02141, Dept. SR-5
Please send a free copy of your illustrated catalog, as well as specifications of the AR turntable, to

Name

Address

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ble volume knob for both channels and a concentric (but independent) balance adjustment. The loudness compensation of the STR-6055 is switched on or off by a pushbutton next to the volume controls; on the STR-6065 this function is assigned to a lever switch adjacent to the similar high-cut filter and FM-noise muting switches. Both units have slide-rule dials with linear scales and a single zero-center FM tuning meter that reads relative signal strength when tuning AM stations. The STR-6065 has a longer dial window, but the scale lengths are identical. Stereo FM reception is indicated by a red light on the STR-6055 and by the illuminated word STEREO on the STR-6065.

In all other respects the two receivers have identical front panels. Lever switches control power, FM muting, high-cut filter, and tape-monitor functions. The input selector is Sony's dual type, which we have always found exceptionally convenient to use. A lever selects AUX 1 or PHONO (PHONO 1 on the STR-6065) in its top and bottom positions. In its center position it connects a program source selected by an adjacent knob. The choices include FM AUTO, FM MONO, AM, and AUX 2, which is connected through a stereo phone jack adjacent to the control on the front panel. The STR-6065 also has a second phono-input position (PHONO 2) on this control.

The conventional bass and treble tone controls are concentric types for independent adjustment of the two channels. The MODE selector has STEREO (normal and reversed), L + R, and either L or R played through both speakers. The speaker switch activates either or both of two pairs of speaker systems, or shuts them off for headphone listening via the adjacent front-panel jack. In the rear are the various inputs and outputs, plus an AM ferrite-rod antenna. There are FM-antenna connections for 75-ohm unbalanced and 300-ohm balanced lines. The tape-deck inputs and outputs are duplicated by a DIN five-pin connector for simplified connection to a suitably equipped tape machine. The STR-6055 has conventional screw-type barrier terminals for speaker connection, while the STR-6065 has the more convenient spring-loaded types.

Sony rates the STR-6055 at 2.6 microvolts IHF sensitivity and 30 watts per channel output, both channels driven into 8 ohms, with less than 0.2 per cent distortion from 20 to 20,000 Hz. The STR-6065 FM sensitivity is rated at 2.2 microvolts, and its power output is specified at 50 watts per channel under the same test conditions. The price of the Sony STR-6055 is $299.50, and the STR-6065 costs $399.50. Optional walnut cabinets for the units are available at $26.50.

Laboratory Measurements. Although no schematics were supplied, examination of the instruction manuals and of the receivers suggested that their circuits are essentially identical, except for audio-output stages and probably the FM-tuner "front ends." Both units use FET FM tuners, and their i.f. amplifier stages have six ceramic filters. We measured the IHF sensitivity of the STR-6055 at 3 microvolts, and the STR-6065 at 1.9 microvolts. Limiting, as evidenced by minimum distortion and full audio output, was complete at 5 microvolts in the STR-6055 and 3.5 microvolts in the STR-6065. This indicates that both receivers are completely suitable for noise-free reception of weak signals, in spite of the spread in their measured IHF sensitivity figures. Both had minimum FM distortion—between 0.43 and 0.51 per cent—which is approximately the residual distortion of our signal generator.

FM frequency response, measured at the tape outputs, was down 2.5 dB at 30 Hz and 4 to 5 dB at 15,000 Hz on both receivers, but was very flat across the major portion of the audio range. These receivers have 16-kHz low-pass filters in their multiplex circuits; these effectively remove any 19- or 38-kHz signals from the audio outputs, but also apparently have a slight effect on high-frequency response. Stereo channel separation at mid-frequencies was 35 dB for the STR-6055 and 40 dB for the STR-6065. Both had 15 to 18 dB separation at 30 Hz and 12 to 15 dB at 15,000 Hz. Inasmuch as their FM i.f. and multiplex sections appear to be identical, these minor differences are probably normal production variations. In any event, their stereo FM performance can be classified as very good in all respects.

(Continued on page 38)
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2. The most expensive turntable and amplifier connected to any other speakers.

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For those interested in the twelve years of research that led to the design of the 901, copies of the Audio Engineering Society paper ‘ON THE DESIGN, MEASUREMENT AND EVALUATION OF LOUDSPEAKERS’, by Dr. A. G. Bose, are available from BOSE Corporation for fifty cents.

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BOSE 901 DIRECT/REFLECTING® Speaker System $476 the stereo pair including Active Equalizer. Slightly higher south and west. Pedestal bases and walnut facings optional extra.

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Both receivers have nondefeatable AFC, which makes tuning noncritical but, because of a special design, does not make it difficult to receive a weak signal close to a strong one. We found that the high-cut audio filter also had a blending action on FM stereo signals, reducing separation drastically at high frequencies. Neither of these facts is mentioned in the instruction manual or specifications. The quieting action of both receivers was excellent.

The Audio Amplifiers of These Receivers Were of Outstanding Quality, Differing Only in Maximum Power Output.

The STR-6055 clipped at 42 watts into 8 ohms at 1,000 Hz (with 0.55 per cent distortion at that point), at 56 watts into 4 ohms, and at 26 watts into 16 ohms. (All power figures are per channel, with both channels driven simultaneously.) The STR-6055 harmonic and IM distortions were under 0.1 per cent from 0.1 to 75 watts, and was typically about 0.03 per cent. The STR-6065 had less than 0.06 per cent distortion from 20 to 20,000 Hz at any power output up to the rated maximum; distortion was typically below 0.03 per cent. The power output per channel at clipping was 75 watts into 8 ohms, 82.5 watts into 4 ohms, and 51.5 watts into 16 ohms. It is worth noting that, unlike a number of receivers, both of these units maintain full power down to 20 Hz. Clearly, the performance of both units is very close to the "state of the art" in consumer audio equipment and is quite remarkable for receivers costing under $400.

Both receivers had tone controls with sliding inflection-point characteristics in the bass region and hinged characteristics in the treble. The control range was rather large, with a maximum of +20, -16 dB at 40 Hz and +17.5, -15 dB at 20,000 Hz. The RIAA phono equalization was exact from 20 to 15,000 Hz, and down 2.5 dB at 30 Hz. This minor low-frequency loss is identical to that measured on the FM-tuner frequency response, and could be a characteristic of the tape-output circuits, from which both measurements were made.

The dynamic range of the phono inputs on both receivers was excellent. The STR-6055 required only 0.7 millivolt for 10-watts output, but did not overload until 83 millivolts was applied. For the STR-6065, the corresponding figures were 0.52 and 108 millivolts. As of this writing, this is the best dynamic range we have measured in a phono preamplifier. Both receivers had very low, quite inaudible audio noise levels on all inputs: -75 to -78 dB for the STR-6055 and -72 to -74 dB for the STR-6065, referred to 10 watts output.

The high-cut filter response rolled off the highs at a 6-dB-per-octave rate above 3,000 Hz. As mentioned previously, this was accompanied by reduced high-frequency separation in FM stereo reception. The FM interstation-noise muting worked very positively, with a slight click at each station but no noise bursts. The linear FM-dial calibration was fairly accurate on the STR-6065 (within 100 kHz at all points we could check), but on the STR-6055 there were several points on the dial where the error was as much as 200 kHz. This is almost enough to negate the advantage of a linear tuning scale, but the inaccuracies may have been caused by a slight misalignment of the test unit.

The AM quality of both receivers was similar, and can best be described as undistinguished but adequate. The AM frequency response was down 6 dB at 35 and 2,500 Hz, which is not unusual for AM tuners, but certainly not suitable for any serious music listening.

Comment: The logic of the controls on both receivers has been worked out with unusual care, in accordance with good "human engineering" practice. For normal stereo listening, this is the best dynamic range we have measured in a phono preamplifier. Both receivers had very low, quite inaudible audio noise levels on all inputs: -75 to -78 dB for the STR-6055 and -72 to -74 dB for the STR-6065, referred to 10 watts output.

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(High Fidelity Magazine)

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FM operation, all lever switches are horizontal, sparing nonaudiophiles the task of coping with an imposing array of adjustments. The one exception to this rule is the loudness compensation of the STR-6065, which is on when the switch is in its horizontal "up" position. We don't ordinarily think of that as a "normal" position, but certainly this is a minor criticism of a remarkably well-thought-out control panel. Most receivers and amplifiers are surprisingly deficient in respect to ease of use, and Sony is to be congratulated for having given the matter some serious thought.

However, we did not care for the concentric arrangement of the balance and volume controls on the STR-6065. It is very easy to move the balance setting accidentally, and the position of the balance-control indicator tab cannot be seen when the receiver is viewed from slightly above the knob level. Also, the tuning meter of the STR-6055, in contrast to the one on the 6065, was well lit and therefore clearly visible.

Overall, the performance of these receivers was most impressive. It would be difficult to find any combination of separate components that could perform better—not, at least, for less than several times the price of these receivers. The great similarity between the STR-6055 and STR-6065 extends to their silky-smooth controls, their fine tone, and quality, which was absolutely flawless. With most speaker systems, we doubt that anyone could tell which receiver he was hearing, but certainly the greater power capability of the STR-6065 would be audibly advantageous with low-efficiency speakers played loudly.

For more information, circle 157 on reader service card

### RABCO ST-4 SEMI-AUTOMATIC TURNTABLE

- In the ST-4 record player, Rabco has combined a novel radial-tracking servo-driven tone arm with a two-speed turntable. Since the pickup in a radial-tracking arm is always tangent to the record groove, tracking-angle error is essentially nonexistent over the entire record surface, and distortion arising from this source is eliminated. Perhaps even more significant is the complete absence of "skating force" (an inherent problem with conventional pivoted tone arms), which eliminates the need for any form of anti-skating compensation.

  The 5-pound, cast, nonferrous platter, 11 1/2 inches in diameter, is belt-driven by a small synchronous motor. Speeds of 33 1/2 and 45 rpm are selected by a lever (in the rear of the unit) which shifts the belt to either of the two positions on the motor's dual-diameter drive pulley. In use, the tone arm is manually positioned over the desired band of the disc, and the pickup is slowly lowered to the record—or raised from it—by pushing a button that activates a separate cueing motor.

  The Rabco ST-4, complete on a walnut base, sells for $159. An optional smoky plastic cover is available for $15. The removable two-section cover is unconventional. Each section is hinged at its side of the turntable base, so that it opens up from the middle and swings away to the right or left. The ST-4 requires less than 11 1/2 inches of vertical clearance with the covers open. The base dimensions are 15 inches wide by 18 1/4 inches deep with the covers closed or removed. A total width of 21 1/4 inches is required with the covers open.

- **Laboratory Measurements and Use Tests.** The mechanical servo-drive system of the ST-4 tone arm is so simple that one's reaction is likely to be "Why didn't someone think of that before?" The 7-inch arm rests on a 3/8-inch-diameter horizontal shaft. The main point of contact between them is through a small rubber wheel on the arm, which rides on the top of the shaft. Two smaller nylon wheels keep the arm in position on the shaft in the correct relationship to the record radius, but play no part in its basic operation. The shaft rotates slowly (about 10 rpm when the turntable is operating at 33 1/2 rpm). When the arm is tangent to the record groove, the rotational axis of the rubber wheel is parallel to the axis of the rotating shaft, and it turns freely with no effect on the arm position. As the pickup moves inward along the record groove, the wheel axis shifts slightly so that it is no longer parallel to the shaft axis. This causes the arm to be driven inward until parallelism is restored, which occurs when the arm is again tangent to the groove. The arm motion is continuous (unlike the minute "dithering" motion of the electrical servo on the Rabco SL-8 arm), and the servo action is effective in both directions. When the pickup reaches the eccentric groove at the end of a record, its large excursion causes a small mirror at the rear of the arm to reflect a beam of light into a photo-cell, which actuates the arm-lift motor.

In our tests, the arm of the Rabco ST-4 worked exactly as intended. Both output channels of the phono cartridge had identical waveforms when playing very high-velocity test records (the true criterion for correct adjustment of the anti-skating compensation of a pivoted arm), which also confirmed the absence of significant lateral arm friction. Even tilting the turntable some 15 degrees from the horizontal had no effect on the arm's tangency or overall operation. The platter, arm, and motorboard are suspended from spring mounts that very effectively isolate the playing system from external shock and vibration.

The ST-4 arm was able to play records with off-center spindle holes without difficulty. Even a 3/8-inch eccentricity didn't bother it, since the arm is free to pivot about the approximate point of contact between the wheel and the rotating shaft (it is theoretically a line contact only when exact tangency exists). The effective mass of the ST-4 arm (at the stylus) is very low, as evidenced by the fact that it could play a severely warped "test" record with no tendency to jump out of the groove. The Rabco SL-8 is the only other arm we have used that could play our warp-test disc—all pivoted arms we have tried had too much mass, causing the pickup to lose contact with the groove after passing over the ridge of the warp.

The tracking force is set by an adjustable counterweight. We used a Stanton 681EE cartridge operating at 1 gram. Operation at lower forces became a little touchy, however. The arm exhibited a toggling action that reduced the downward force rapidly when the pickup was raised from the record surface. At about 1/2 gram, we found that the force actually reversed when the arm was lifted to its stand-by position, so that it did not always drop to the record surface. At 1 gram there was no difficulty. The center of the

(Continued on page 42)
Look What’s Behind KENWOOD’s NEWEST Most Advanced Stereo Amplifier—KA-7002

The new KA-7002 incorporates such sophisticated circuitry as direct coupling with complementary-symmetry driver stage for minimum distortion and cleaner, purer sound.

It also features provision for 4-channel stereo, Phono 1 impedance selector switch, outputs for three sets of stereo speakers, terminals for two tape decks, and inputs for two phonos, two auxiliaries, plus tuner. And that’s not all. If you really want to know what’s behind the KA-7002, check these important specs!

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Close-up photo shows the platter-drive pulley, speed-change mechanism, and arm-shaft drive pulley—all normally concealed by a metal housing. The light bulb triggers the photecell system for automatic arm lift.

rotating arm shaft (effectively the vertical-pivot axis of the arm) is almost exactly in the plane of the stylus and record, minimizing warp wow. A sweep from 200 Hz down to 10 Hz revealed no arm resonances in that range.

The turntable and its drive system are conventional, except that the start lever gives the heavy platter a "push" to assist the low-torque motor in getting it up to synchronous speed rapidly. A second belt, driven from a pulley around the turntable shaft, powers the rotating tone-arm servomechanism shaft.

The ST-4 we tested was an early prototype. Its turntable ran at the correct speeds, which were unaffected by extreme line-voltage changes—even down to 50 volts! Belt slippage on the motor’s drive pulley limited the available driving torque for the heavy turntable platter. A full-width record-cleaning brush probably could not be used with the ST-4 (the drag of a Dust Bug slowed the turntable speed by 0.6 per cent). However, the drag of any cartridge tracking at less than several grams should not affect operating speed. The rubber mat was of an anti-static composition, effectively neutralizing any dust-attracting static charge on the record.

Rumble was not audible, and in an unweighted measurement (by the NAB standard method) proved to be –30 dB (vertical and lateral combined) and –32 dB (lateral only). The principal rumble frequency was 10 Hz, arising from the 600-rpm motor. Weighting for relative audibility would produce a much better-looking—and more realistic—rumble figure. Certainly the ST-4 would have less audible rumble than most record players with the more conventional 1,800-rpm motors, which introduce a basic rumble frequency of 30 Hz. As evidence of this, a rumble measurement made according to the CBS RRLL weighting system yielded a figure of –55 dB for the ST-4. Wow and flutter were well within the acceptable range: 0.1 and 0.035 per cent, respectively, at 33⅓ rpm, and 0.08 and 0.025 per cent at 45 rpm.

Comments. From a use standpoint, we found it difficult to cue the ST-4’s pickup visually with sufficient accuracy, and correcting the set-down point, once the stylus was in the groove, was a trifle tricky. A finger lift—even a rudimentary one—would help considerably.

The Rabco ST-4 should lay to rest, once and for all, any concern on the part of its owner about tracking error and skating force, since it is inherently free of both problems. Its arm, like the much more expensive Rabco SL-8, will track severely warped or eccentric records that overtax most conventional pivoted arms. Although we would not recommend it for operation below a 1-gram tracking force (for the reasons given earlier), we find this no problem, since a 1-gram tracking force is about as low as we would care to go with any cartridge.

The turntable part of the ST-4 is comparable, although not superior, to many competitively priced single-play or automatic turntables. However, since it has been integrated with the Rabco arm, it is now possible to have the advantages of a linear tone arm at moderate cost.

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9 tips on how to start and stay with a pipe.

- There's no mystery to picking a pipe. Style and shape don't affect the smoke. But, since it does take some experience to judge a briar, stick with a well-recognized brand.

GOING ON RECORD

By JAMES GOODFRIEND

Music Editor

VOLUNTEERS

It would be interesting to know just when it was that the average, middle-class American discovered that the society to which he belonged was not structured in a rational way, that it would not preserve the cultural and economic amenities that both he and the society as a whole agreed were "right" even if he did his own job and created no ruckus. The younger generation saw the clash between the system and their desires very early. But those of us who were a little older, who had matured sufficiently to be reconciled to the loss of something we all agreed should not be lost, found ourselves, almost unknowingly, losing more and more and more. We saw parks torn up for highways, one- and two-family homes destroyed for high-rise future slums, the intellectual broadcasts canceled for popular ones, handsomely produced books discontinued for more impermanent paperbacks, and the custom producer give way to the mass producer even in fields where mass production could not possibly produce the needed (or desired) quality. And we tended to let them go, one after the other, being disturbed while they were going, and afterwards almost forgetting that they had ever been.

When something we valued was threatened we tended to sit back and wait for the "responsible" people, those who enjoyed some position of public power or influence, to do something about it. And we tended to let them go, one after the other, being disturbed while they were going, and afterwards almost forgetting that they had ever been.

When something we valued was threatened we tended to sit back and wait for the "responsible" people, those who enjoyed some position of public power or influence, to do something about it. And sometimes they did, but more and more often they would not or could not. Perhaps the responsible people were no longer so responsible, or perhaps their power and influence were no longer what they once had been. It would be interesting to know, then, also, just when the average middle-class American decided that he himself was going to try to do something about such matters, for he certainly has so decided. "'Volunteers of America,'" sang the Jefferson Airplane. But perhaps not all the 'volunteers' are under thirty or find their lives encompassed by the rock world. Perhaps the Airplane is singing for all of us. It would be a nice twist.

In the field of classical music it is particularly interesting to note where the line ("thus far and no farther") has been drawn. The sponsorship of live music has almost always been the province, in this country, of the wealthy and the socially prominent. It is no wonder than that grass-roots movements to save symphonies and opera houses are rare. But radio is something else again, and it is the discontinuance (or the threat of discontinuance) of good-music stations that has brought to the battle those once quiescent defenders of musical culture who no longer believe that anyone else will fight for them.

As reported in the February issue of STEREO REVIEW, a "Citizens' Committee" in Atlanta, Georgia, formed to preserve the threatened classical programming of WGGK-AM and FM, brought its case all the way to the U.S. Court of Appeals—and got from that court at least an indication that its members' interests were not going to be trampled upon. I thought that this was an isolated instance, but I have been proved wrong.

There is, at present, in Seattle, Washington, an organization called the Classical Music Supporters, Inc., which was begun and organized by a young lady, Mrs. George Sutherland, who was herself as a "housewife"; her organization has thirteen thousand members. Now that's a hell of a lot of people, particularly when we remember that many classical records never sell beyond

(Continued on page 46)
It's the only receiver with the Varitronik™ FM tuner—with 4 FET’s and balanced Varicap tuning for lower distortion and for higher sensitivity. By using 4 FET’s instead of ordinary bi-polar transistors, cross modulation problems are virtually eliminated. And by using 4 double Varicaps instead of a conventional mechanical tuning capacitor, a better balanced circuit performance is achieved with perfect linear tracking. The 725A’s FM tuner also uses a combination of Butterworth and crystal filters for better selectivity and stereo separation. And, it features an advanced muting circuit with full muting at 2.5 µV for quiet tuning without loss of stations. Specifically, here's how the new Altec 725A receiver performs. Harmonic distortion is a low 0.3%, IHF sensitivity is 1.8 µV and capture ratio is 1.3 dB.

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four figures. And those people represent only one relatively small geographical area. And they are all also sufficiently het up about something to be willing to pay dues, make telephone calls, write letters, and generally behave like a pressure group that knows what it wants and has a pretty good idea of how to get it. (The Classical Music Supporters' bulletin suggests to its readers that they buy records at stores that sponsor classical music broadcasts, that they patronize and write to other sponsoring companies to express their appreciation, that they continue to let radio stations know their feelings on programming, etc.) What a switch!

Seattle continues to receive the benefits of good-music broadcasting. It will be both interesting and significant to see how long they can make it stick, given the trend, particularly in FM broadcasting, away from classical music. Noting the seriousness of their dedication, and their probable willingness to exercise a little economic muscle as a group (thirteen thousand buyers of soup, soap, electricity, and so on), I give them a good chance. And I certainly vote for a "Cultural Lady of the Year" Award to Mrs. Sutherland.

In Los Angeles, radio station KFAC has organized its own Listeners' Guild. This is indeed starting matters from the other side of the fence, but KFAC is serious in its intent. So serious, as a matter of fact, that the station's program guide makes a practice of listing classical music broadcasts on other stations, unaffiliated with itself, as well. And KFAC has also recently sponsored two panel discussions (this writer is happy to have served on one) on the problems of classical music today, at the Ahmanson Theatre in the Los Angeles Music Center. The events were sold out both times. So Los Angeles, too, has the makings of an organized pressure group to lobby for classical music.

I also have information that a committee has been organized in Syracuse, New York, to maintain classical music broadcasting on WONO there. Truly, the time has come for this idea.

And just what is the idea? It is economic and political, of course, because these are the pressures to which the people or organizations in power respond. The willingness of a measurably large group of people to support those who will in turn support their interests has always been a basic tool in a democratic, capitalistic society. Classical music has survived in the United States largely without it up to now, but it is unlikely that it will survive without it much longer. The idea is also social, for it marks the turning over of a cultural power from the monied classes who once ruled the area to those whose "nobility," as Beethoven said of himself, resides in the heart and the head. I rejoice in such a transference of power and I hope to see it exercised to the greatest degree for the greatest benefit of music.
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CIRCLE NO. 9 ON READER SERVICE CARD

YOUNG CLASSICAL MUSICIANS TODAY—AND TOMORROW

At the Berkshire Music Center, students are optimistic about their careers in the Seventies

By ROBERT S. CLARK

DURING the past winter of the classical recording industry's discontent, I have thought often of the two days I spent last August at the Berkshire Music Center, the teaching arm of the Boston Symphony Orchestra's summer establishment at Tanglewood, Massachusetts. They were days of listening to some remarkable music-making, sitting in on classes and rehearsals, and, most important, encountering the attitudes and opinions of the students who will tomorrow be our concert soloists, composers, orchestra players, and music teachers.

The Berkshire Music Center was founded in 1940 by Serge Koussevitzky, then musical director of the BSO, to give young musicians the opportunity to study and perform with members of the orchestra and other prominent musicians. For its eight-week term this past summer, the Center had 158 young (nineteen to twenty-nine) instrumentalists, singers, composers, and conductors enrolled in its Fellowship Program, the only thing of its kind in the world operated and wholly paid for by a symphony orchestra. The fellows this past summer worked with such outstanding musicians as Liezst Do- riot Anthony Dwyer, trumpeter Armando Ghitalla, oboist Ralph Gomberg, and concertmaster Joseph Silverstein, all of the BSO; violinists Paul Zukofsky, Aaron Rosand, and Matthew Raimondi; pianists Lilian Kallir, Claude Frank, and Byron Janis; composer Charles Wuorinen and soprano Phyllis Curtin.

In 1970, too, Gunther Schuller assumed artistic co-direction of Tanglewood with Seiji Ozawa, and made the Center his primary responsibility. Although, in his remarks at the opening ceremony, he dismissed any intention of drastic change, his influence was felt at once. The program for conductors, with Leon Barzin in charge, was expanded and the number of student instrumentalists increased, enabling the Center to form a chamber orchestra in addition to the full orchestra and smaller chamber groups of previous years. By means of rotation, each Center student had some exposure to the three different kinds of ensemble and repertoire. Schuller himself worked a great deal with both the chamber orchestra and the full orchestra—one of the summer's outstanding events was the American premiere, under Schuller's direction, of Luigi Nono's cantata for soloists, chorus, and orchestra, Il Canto sospeso, during the annual Festival of Contemporary Music presented by the Center and the Fromm Music Foundation. Another of Schuller's innovations was the "open rehearsal": the Center Orchestra, led variously by Schuller, Ozawa, Leonard Bernstein, Michael Tilson Thomas, and the conducting fellows, performed (for audiences) repertoire that had not received rehearsal sufficient for a finished performance. Thus the participants were able to work on—and the audiences to hear—a range of repertoire broader than would have been possible had a polished rendering been the goal. Schuller also continued the "Contemporary Trends" series, which he, as head of the Center's contemporary music activity, had introduced to the Tanglewood programs in 1968. Last summer, on six evenings, the Center students and audiences heard the Who, Jethro Tull, Joe Cocker, John Sebastian, the Preservation Hall Jazz Band, Odetta, and many others.

I had gone to the Center principally to find out what the students were thinking as they completed their summer of study. How, I wondered, did these young musicians feel about careers in a field whose future was clouded with uncertainty, whose financial condition approached the disastrous in many parts of the country, and whose prestige was low, perhaps particularly among people their own age? It was refreshing to find that these questions, which have worried pundits through many columns of newsprint, were not very much on the students' minds. What was very much on their minds was music—studying it, performing it, composing it.

(Continued on page 50)
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Most of these young performers were optimistic about the future of classical music in America, although one cellist admitted that, for those like himself who 'are not Pinky Zukerman—he had it made when he was fifteen,' a job in the string section of an American orchestra could no longer be counted upon. The young people of today, most of the students felt, are a potential audience for classical music, and current fashions in popular music were providing a kind of 'lead-in' to classical music by borrowing from it. One student pointed out that Rite of Spring would not have sounded out of place between the rock bands that had appeared at a recent 'Contemporary Trends' concert. "A lot of rock fans tell me they think Mahler is groovy," said one girl, a charming pianist whom I had heard playing (and pedaling barefoot) through a lusty rendition of the finale of Brahms Piano Trio in C. "And they'll warm up to Brahms when they get around to hearing it."

I asked a young composer about the problem of finding an audience for his works. He replied that, in our time, when popular music is disseminated largely through recordings, they were the ideal way to reach a classical audience as well. The coming decade, he felt, would see more and more composing with recording in mind—concert performance, with its obvious limitations, would decline in importance. As for style, the 1970's would be an era of eclecticism. "I think we've seen the last of the technique-centered cliques," said a University of Michigan student, "the feeling that if you wrote, say, aleatory music you were on the side of the good guys." And another composer added, "I don't feel it is part of my job to move music in any particular direction." "I'm not content," the first went on, "to appeal just to the university modern-music circles, as composers did in the Fifties and Sixties. We're looking for wider exposure—in centuries past, you know, the leading composers were heard by large numbers of people. Recordings can reach a broad public. The techniques I want to use are available in this medium, too—mixing of electronic, instrumental, and vocal sounds, for example. Rock musicians have moved out a bit in this direction, but they are limited by commercial considerations. I want to say something unique with my music. I think young people are ready to listen to me—but I may be naive about that." And what of the repertoire of the concert halls and recordings today? Will young audiences want to hear Bach and Beethoven as well as the music that will be "now" in the Seventies? "Our concert halls and opera houses are in bad shape, in matters of both finance and morale. Changes will have to come to bring more people in. But the classics won't die. They are too great to die."
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* * *

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The 1812 Overture was characterized by Tchaikovsky himself as being "very noisy" and having "no great artistic value." There can be no quarrel with this evaluation, and yet the work has exerted a magnetic impact on audiences everywhere since it was first performed. As for recordings, there has been an increasing tendency during the past couple of decades to go back to the original grandiose scheme and to present the score with something close to the forces contemplated originally. Cannon and bells were incorporated into a pioneer Mercury (mono) recording in 1954 by Antal Dorati and the Minneapolis Symphony Orchestra. The first recording to have choral participation, if memory serves correctly, was a Decca disc (from a Deutsche Grammophon original) conducted by Ferenc Fricsay. And then, in the early days of stereo, Mercury rerecorded Dorati and the Minneapolis Symphony in the score, with cannon, brass band, bells, and carillon (SR 90054). The disc still sounds amazingly good; there is no chorus, but the orchestra is razor-sharp, the performance crackles with excitement, and the bells at the conclusion are very nearly overpowering. Another recording of music plus cannon plus bells plus carillon is London's performance by Zubin Mehta and the Los Angeles Philharmonic Orchestra (CS 6670). But Mehta's is a harsh, driven performance, bordering on hysteria, with little sensitivity to the subtleties in the score (yes, there are some!).

The most ambitious of all the recordings is Igor Buketoff's (RCA LSC 3051), which incorporates all the extra-musical elements of Dorati's plus a cathedral choir and a children's choir. It is a strangely microphoned performance, with undue prominence given to solo instruments and an ear-piercing acoustic surrounding the sound of the strings.

This brings us up to the current "battle of 1812" being waged between Columbia Records and RCA Records and centering around the Philadelphia Orchestra under Eugene Ormandy. In 1959, when the orchestra was a Columbia property, it recorded a "straight" 1812 performance—that is, without added noise-making elements. That performance was recently rereleased, but with all kinds of additions: the Mormon Tabernacle Choir and Organ, a military band, bells, and carillon (Columbia M 30447). Obviously, the vivid cannon fire and resounding bells at the end are the result of some very fancy tape editing. But as a projection of the natural sound of the Philadelphia Orchestra, the Columbia disc cannot compare with RCA's (LSC 3204), taped earlier this year. The new Ormandy performance is a more committed one than the old, the sound of the orchestra has a much richer bloom and texture, and the auxiliary elements of boom and clang have a more musical and less disruptive effect. But there is one point of clear musical superiority in Ormandy's older performance: in the vivace coda he picks up the pace and sprints toward the finish, whereas in the newer RCA disc he maintains a statelier tempo throughout. In all other aspects, however, the battle of 1812, 1971-style, is won by the new RCA recording.
inspires critic Noel Coppage to present a tentative theory about the cyclical nature of popular music
G R A D U A L L Y, time will take us away from it all and set us where the perspective is less distorted, and we may then be able to see just how screwed-up 1970 was as years go. It had something bad for everyone—pollution scares, bomb scares, riots, economic trouble, war and the threat of more war, ominous rustlings of the political right wing, trouble for the President at the voting booths, polarization, alienation, alliteration, and some guy even destroyed our children's faith in Wheaties.

Obviously, such stuff causes changes in ourselves, but it's even more obvious that we can't round up all the information about everything that went on and make any sense of it. We can profit, though, by looking hard at the things we know best. My concentration has been on rock music; I (among many) know rock had a bad year in 1970, and I am pretty sure its difficulties were connected with ours. Whether we like rock or not, understanding what happened to it should help us understand some of the forces at work on us, because rock music has become, for better or worse, the people's music. It is closer than any other aspect of popular culture to where people live. Some may still regard it as entertainment, but to much of America—especially the young, who set so many of America's styles now—it is much more, almost an appendage. More candid than newspapers and magazines, more graphic than television, more perceptive than radio, rock reflects what people are really up to.

Rock came through 1970 in poorer condition than it has been in for half a dozen years, and there are perhaps a hundred explanations for this hanging in the air. Looking back over rock's year we see at best a patternless mosaic, but after distilling the speculations and explanations I find three ideas that won't go away:

- The old saw that "when the times get hard the music gets soft.
- The idea that the quality of rock music, like other things of this world, is subject to cycles, and in this case it is tied to a new, narrower concept of what a generation is.
- The possibility that music reflected a yearning by many (and action by a few) to get out of the cities and into the country, this yearning having grown to the point of desperation among some of pop culture's point riders.

The claim that rock had a bad year shouldn't cause any riots, but it does perhaps need amplification. It isn't difficult to recall that the news about rock was bad: Janis Joplin dead, Jimi Hendrix dead, Canned Heat's Al Wilson dead, Peter Yarrow (of Peter, Paul and Mary) and Jim Morrison (of the Doors) convicted and jailed, the Beatles dissolved, the Rolling Stones and the Grateful Dead involved in the real live nightmare of Altamont, in which a man was stabbed to death in front of the stage—and they even tied some Beatles songs to Charles Manson and the cult murders. Only slightly less obvious was the degeneration of the sound itself. Sales of hard rock records were down, there was grousing by those who did buy the records and among those who reviewed them. For a graphic demonstration of why, place some 1970 albums by rock's superstars against their 1969 efforts: The Beatles' "Let It Be" against "Abbey Road"; Crosby, Stills, Nash and Young's "Deja Vu" against "Crosby, Stills and Nash"; "The Who Live at Leeds" against the rock opera "Tommy"; or, finally, Bob Dylan's "Self Portrait" against "Nashville Skyline."

It was a lackluster year and one without a central theme. Central themes seem to be important to rock music. In 1967 rock stampeded into psychedelia, everyone trying his hand at drug music; 1968 was the year of the lead guitar; and 1969 was the year of the blues revival. But 1970 saw rock's leaders turning wishy-washy, some drifting toward country-and-western as the Grateful Dead did with "Workingman's Dead," others certain (for a few weeks, at least) that it was the year of the rock-jazz fusion and opting to sound like Brian Auger's group. One of the few good new bands, the Allman Brothers, stuck with the blues and put some Muddy Waters tunes on their first album, but the prince of blues-rock, an albino guitar picker named Johnny Winter, made his first distinctly non-blues album. There was "big band rock" as performed by such groups as Chicago, Ambergris, and Lighthouse, all patterned after musical ideas first worked out by Blood, Sweat and Tears (also partly responsible for the jazz fling). But the central theme never did surface, and Dylan, either a short-range prognosticator or a fast reporter, said so with his "Self Portrait," which went in several directions at once. Several supposed leaders played it relatively safe by releasing albums recorded at their concerts. They included people like the Rolling Stones, who haven't exactly made a career of playing it safe. The "live" sets ranged from as good as "The Who Live at Leeds," to as insignificant as the Doors "Absolutely Live," to as bad as "Ginger Baker's Air Force." All put little new material on the line, the Stones' "Get Yer Ya-Yas Out" contained some songs that had appeared in not one but two earlier albums.

Toward the end of the year, there were three albums that may prove significant as direction-pointers. One was by Dylan and the others by groups called Fairport Convention and Fotheringay. Sandy Denny had sung with Fairport but left it to form Fotheringay; both are noteworthy because of their unabashed emphasis on folk music. Dylan's new one, "New Morning," was more electric than his previ...
ous three and caused great cheer among rock journalists, but some things about it may signal a radical change in their world. We'll get to that.

In any case, some astute pop-culture watchers said flatly that rock was on its way out. Among them was Peter Reilly, whom I consider one of the most perceptive pop-music critics. Most insiders, perhaps remembering similar predictions that didn't work out, stopped short of writing rock's epitaph. Greil Marcus, writing in the New York Times later in the year, suggested that the rock-and-roll audience had fragmented—"Captain Beefheart fans sneer at the legions of Led Zeppelin, who sneer right back"—but seemed to feel it could be brought back together. This was a fairly typical slant; optimism wasn't rampant, but it did exist.

The most optimistic-sounding explanation for 1970 had a tinny ring to it, however. In effect it went that rock was in the process of improving because musicians were being more selective, discarding more of what went before and keeping only the best. Naturally such a process takes time. I don't doubt that this is true as far as it goes—surely the brighter musicians want to grow—but the explanation says nothing about the rest of us. The people who make rock music have always been a lot like the people who listen to it, which is mainly what makes it people's music. Was the audience demanding greater selectivity? Was it craving refinements? I think not. It's true that the audience can sometimes be made to feel it wants something, when that something is for sale. But I think promotion (hype) can sell only bad musicians, and then not for long. I don't think it could sell rock itself if the special connection of attitudes between the musicians and audience ceased to exist, or if it changed—which is what we're thinking about after the past twelve to fourteen months.

The idea that changing times caused changing attitudes—that we are in hard times and will therefore scrub the hard rock of, say, Steppenwolf for the champagne crooning of Engelbert Humperdinck—makes sense because it does consider the sociology involved. The country has been having economic troubles, or has thought it has. Major newspapers have carried articles about high interest rates, flagging construction, and the unemployment rate, and these subjects have been getting air time on the television news shows, too. The fall elections followed hot rhetoric about the state of the economy. Times were hard in other ways, too. People who had never heard the word "ecology" two years ago were never far away from it in the last year. The predictions about what would happen if pollution wasn't stopped were more frightening than the idea of war, which stayed in the back of our minds. Smaller stresses seemed to be increasing; door handles fell off new cars. Time did a piece on why none of our mechanical and electrical doodads seem to work.

Forty years earlier, Americans had little or no money and they hummed such songs as Easy Come, Easy Go and The Best Things in Life Are Free. They liked their movie theaters plush, gaudy, and ornate then, and their music by gushy big bands and orchestras whose players dressed as if for a state funeral. Before that, when times were soft, the entertainment included such "hard" ware as ragtime music, illicit booze, giddy costumes, and crazy dances.

The idea that rock music comes and goes in cycles probably springs from the idea that everything happens in cycles. In the case of rock, it would have the music's quality determined by the physical facts of life upon which it is imposed. It is of course unprovable; rock hasn't been with us long enough for anyone to say what constitutes a cycle. There are those who try, though.

In his book Rock from the Beginning, Nik Cohn writes: "1960 was probably the worst year that rock has been through. Everyone had gone to the moon. Elvis had been penned off in the army and came back to appall us all with his ballads; Little Richard had got religion, Chuck Berry was in jail, Buddy Holly was dead. Very soon, Eddie Cochran was killed in his car crash. It was a wholesale plague, a wipeout." Cohn goes on to assert that there is a definite generation cycle involved with rock and that it runs its course in seven years: a breakthrough consuming
most of one year, then three years of progress and three years of stagnation.

A new generation of pop-culture consumers comes along every four years, sociologists are saying now. This period is not just coincident with the length of time spent in high school or in college—it recognizes the awesome if not grotesque importance of youth to pop culture in this country. One of the standard dictionary definitions of a generation is "a particular category of individuals born and living contemporaneously," which invites such a sociological guideline as four years. In gentler times, a generation was thought to be twenty years or more. An eleven-year-old and a nineteen-year-old are not likely to fit into a "particular category" to which one could sell music, but an eleven-year-old and a fifteen-year-old probably will. Seeing a large portion of the rock market in rows four years wide makes it easy to believe the market can force the musicians' output into cycles, especially since the musicians start out as part of the market. Paul McCartney listed Chuck Berry as an important influence on the Beatles—but the important thing, thinking cyclically, is that Berry couldn't over-influence them. If the boys had been five years older when he and similar musicians dominated their thinking, they might—probably would—have merely copied instead of synthesizing. Think of the singers as old or nearly as old as Elvis Presley and unduly influenced by him: Gene Vincent, Ritchie Valens, Gene Pitney, Tommy Sands. Zap!—a period of musical stagnation made to order. When the boys somewhat younger—McCartney, Pete Townshend, Mick Jagger—got old enough to make music, such influence was assimilated with many other influences and did not become the outstanding surface feature of their music.

You can quibble about Cohn's seven years. To agree with him would be to say that 1970 was the last of three years of stagnation and that 1968 was stagnant, and I don't think it was. But it's difficult to put down the idea of cyclic effect in the influence the occasional giants have on those coming up from the ranks. Those who study cyclical phenomena for a living say that understanding cycles is the trick.

Michelangelo Antonioni claims that music always lags behind what's happening—but he means what's happening among his hip buddies. Rock music has been ahead of the average fellow, in many cases, in identifying the early stages of change in the society. I think the shift of interest from groups to individuals during 1970 may mean that musicians, consciously or not, found in the American mind a desire to quit the cities in favor of the country. This may at first sound ludicrous on two counts—people have been moving out of the cities and into the suburbs for twenty years, you may say, and to strike a parallel between a singer's separation from a group and your desired separation from a group of people (a city) is simplistic, you may add. Well, the suburbs don't count. The rock groups during the past several years made Downtown fashionable again, at least among the style-setting young and hip. Such terms as "street people" would not have been coined if the general atmosphere had allowed the early Sixties folk-music revival to extend through 1970. The people who want to move out now (whether they actually do move or not is academic) want to skip over the suburbs and find open range if they can. Dylan's "New Morning" contains the song Sign in the Window, acclaimed as his best song ever by at least five critics before it was a month old. It's the viewpoint of the guy who didn't get to move West with the rest of them, who says, "Marry me a wife,/Catch me a rainbow trout./That must be what it's all about."

It might indeed. Not long ago, the talk was about making the cities habitable again, getting more money from the legislature for "urban problems" and all that. Now a lot of people seem to have given up on this—mainly, I suspect, because the pollution problems in large cities are considered simply too overwhelming. Those who have the yen to "move West" view the idea of getting out not as dropping out but as a way of saving something. There are musicians for such people: Jesse Winchester, James Taylor, Neil Young, Judy Mayhan, Loudon Wainwright, John Denver, Seals and Crofts, Fred Neil, Kris Kristofferson. And there are leftover folkies who can eas-
ily be re-adopted: Tom Paxton, Tim Hardin, Tom Rush, the Byrds, Judy Collins, Joan Baez, and Tim Buckley, to name a few. These are makers of what I call "new country music." Old country music, or country-and-western, is different in that it presupposes the country-loving listener to be a hick (don't tell me there was any put-on in the lyrics of Okie from Muskogee); new country music presumes him to be hip. (If you like things tied in neat bundles, we could speculate that today's "soft" musicians—Engelbert Humperdinck, Tom Jones, Glen Campbell—are making music for the suburbs.) There is nothing specific about this new country slant in James Taylor's Fire and Rain, to take one of 1970's most popular songs, but it conveys the tone and feeling I'm talking about. Sometimes the lyrics are specific; Neil Young, who became well known in 1970, had written earlier: "What a pity that the people from the city/Can't relate to the slower things that the country brings" and "While people planning trips to stars/Allow another boulevard to claim/A quiet country lane. It's insane."

The music of these new solo performers is derived from rock, of course, and still deals with many of the subjects rock dealt with, but the rock group's harder sound would have its charges stay in the dirty city and fight with the hard-hats or draft board or polluters or whatever. It now seems to me we are being told there is an honorable alternative. And there is something to be said for the sheer physical difference between a group and an individual, and the groups were breaking up in favor of the individuals. A group making hard rock music cannot possibly be as personal as James Taylor singing about having his mind on Carolina, and a desire for more personal entertainment logically would accompany a desire for more physical solitude. In addition to the Beatles, splits occurred among Sam and Dave (after ten years), the Nice, Spooky Tooth, and, for the teeny-boppers, Tommy James and the Shondells. Even the groups that stayed intact were giving their members the freedom to roam around and play solo, or with other groups or behind other soloists. Was James Taylor making better music than the Rolling Stones? In an absolute sense, probably not; the Stones were as good as ever. But we're not dealing with absolutes. Narrow neckties, fashionable a few years earlier, seem pretty dated now that the wide ones are fashionable. So it was that Taylor seemed in better tune with the immediate future, and he was rewarded accordingly.

The times, and probably the immediate future, include the economic letdown and the fear of pollution—and with it the recognition that overpopulation is the overriding cause of pollution. There is also telling evidence in conversations with literate and articulate residents of Manhattan, Chicago, Atlanta, and such places: there is fear and uneasiness about the urban situation.

Is rock music dying? I wouldn't go so far as to say so. As we become adjusted to the dominant new situation—the ecology crisis—we will naturally become less alarmed about it, nobody being able to remain keyed up for the forty years or so it may take to finish us off. The economy frequently dips and rises, so economic hard times could end almost any day. On the other hand, life in the cities doesn't seem likely to become more pleasant for a long, long time, and the yearning to leave them can only intensify over the next few years (they've already been breaking out the gas masks in certain urban areas in Japan). And yet, a real exodus coupled with continued population growth would leave us with no "country" to go to. And if all these factors fell before the rock-generation cycle, who's to say that would bring rock back to its 1965 peak? Rock wasn't with us always; perhaps it merely rides the same cycle that brought us ragtime at the turn of the last century, jazz in the Twenties, swing in the Forties, and will bring something altogether new in the Eighties.

One of the things that makes me think so is what all these musics have in common: they were all disreputable in their time, all initially greeted by traditional, conservative taste as sure signs of cultural decadence. It is, of course, a beautiful irony that ragtime is now, seven decades later, being hailed as "classical" music.
Julian Hirsch suggests that you adopt a more practical, less technical approach when you set out to understand your record player.

Behind the apparent simplicity of the high-fidelity record player there lies a multitude of complex and interrelated factors. Some of these are fundamental to the record-playing process; others are features for the convenience of the user. Consider, for example, some of the following questions: Since phonograph records are easily damaged, does the record player handle the discs gently and easily? Does the tone arm skitter when the reject button is pushed? How gently does the cueing work? Does the change cycle take forever and a day to complete itself? How conveniently does the arm handle? How sensitive is the player to external shock and vibration—including acoustic feedback? The practical significance of these and other "human engineering" factors—seldom mentioned in the ads—far outweighs, for most users, the presence or the absence of a decibel or so of rumble, a couple of percentage points of wow and flutter.

Probably the most important of these conveniences is the automatic changer. For many people, being able to play a number of records in sequence, without interruption, is, if not necessary, at least desirable, which very likely accounts for the continuing popularity of automatic turntables. Purist record collectors have traditionally doubted the ability of an automatic turntable (formerly called a record changer) to handle their records as gently as they can themselves. My experience is that, for the most part, the faults imputed to record changers simply do not exist—at least in the better (meaning higher-price) units. At the low end of the price scale, the various objections to the way changers handle and play records become more real, though not nearly to the extent imagined by many people.

A more reasonable objection to the automatic turntable might be that the vast majority of recordings are complete on a single disc, which must be turned over manually in any case. In recognition of this fact, almost all automatic turntables can also be used as manual, automatic, or semi-automatic single-record players, although they differ considerably in operating procedure and ease of cueing.

Another convenience feature is the availability of more than one speed. Most serious record playing is done at 33 1/3 and 45 rpm, and every turntable, whether automatic or manual, offers both. Most automatic turntables also include a 78-rpm speed, and many of the lower-price models also have 16⅔ rpm available, simply because their operating mechanisms permit it to be easily built in.

Any well-designed turntable will operate close enough to its rated speed to satisfy almost any listener. Sometimes a vernier speed control with an adjustment range of ±2 or 3 per cent around the nominal speed is provided. This feature can be of importance to musicians or to any critical listener who has an accurate sense of pitch. It is especially useful when playing a record that may have been cut slightly off-speed. However, most people will probably set the speed once and forget it.

The maximum number of records that can be stacked on an automatic turntable varies from six to ten, though few users will have need of a longer uninterrupted playing time than is offered by a six-record stack (2 to 3 hours). How a record player handles the discs, however, is important. Practically all modern automatic turntables support the stack at the record centers, dropping them into playing position by means of a mechanism contained within the spindle. Sometimes there is an edge support or overhead arm that levels and stabilizes the discs stacked on the spindle. In some models the overhead arm also serves to trigger the shut-off mechanism after the last record has been played. The record drop can vary from abrupt on some low-price units to very...
A vernier speed control can work either mechanically or electrically. A built-in strobe (visible in window at right) indicating when exact speed is achieved is also a decided convenience.

gentle on the costlier models. The vast majority of hangups during the change cycle—which can result in record damage—are caused by eccentricities or burrs in the center holes of the discs rather than by any fault in the changer. For that reason, it's a good idea to inspect the center holes of new records before using them on a changer for the first time.

If the turntable is to be used only as a changer, arm handling and cueing are of little importance. In general, the pickup is lowered quite gently in automatic operation, and is no more likely to be damaged—or to damage the record—than in manual operation. For the purposes of manual or single-play automatic mode, however, the design of the finger lift is important. Some finger lifts are very short and straight and offer little surface to be gripped; others are large and provide positive control. A cueing lever, now found on almost all automatic turntables and separate manual arms, serves a dual function. It is analogous to the “pause” function of a tape deck, permitting play to be interrupted and (sometimes) resumed at about the same point on the disc. It can also help in the manual positioning of the pickup when selecting an inner band. Some low-price players have undamped cueing systems that permit the pickup to fall as fast as the lever is moved, often with a heavier action than occurs with careful positioning by hand. Most, however, are damped to give a slow and gentle drop. In some automatic turntables, the cueing function does not operate in the automatic mode or if more than one or two discs are on the turntable; this, if you like to stack discs, limits its usefulness. The tone arm should be free of drift during the lowering action—it is annoying to place the stylus carefully over the desired portion of the record and then have it drift outward as it approaches the groove.

Some automatic turntables offer a “power-control” base into which an associated amplifier or receiver can be plugged. When the base is set for its automatic mode, starting the record player automatically turns on the amplifier, and when the last record has been played, the entire system is switched off. The instant-on feature of solid-state amplifiers makes this possible and useful, especially when a stack of records is being played as “background.” Of course, the power-control function can be switched out when the tuner or other program sources are being used.

One new automatic turntable features an electrochemical timer that indicates the number of hours the motor has been operating and therefore (by implication) the amount of playing time on the stylus. This is useful in keeping tab on the condition of your stylus.

Although all automatic turntables come with a tone arm, manual turntables frequently can be used with a number of different tone arms. If you prefer a particular arm, be sure that it is compatible with your choice of turntable. Some companies provide a manual turntable and an arm (sometimes of different brands) as an integrated unit.

Less obvious than the external physical features are the inner mechanisms of the player that determine its actual measured performance. Some aspects of performance are fairly easy to measure and interpret; others, as we shall see, are extremely difficult to evaluate in respect to their practical significance in the listener’s home.

Speed accuracy can be dismissed with little comment—it can be checked with an inexpensive strobo-
scope disc; some expensive turntables even have built-in neon-illuminated strobe markings. If on a new turntable a speed error is seen and there is no possibility of adjustment, your own sense of pitch will determine its acceptability. Those players that have a vernier speed adjustment will, of course, never have problems from this source. It is well to be aware, however, that some non-automatic manual turntables suffer from very low torque or slippage in the drive mechanism, and they may therefore be slowed down by any type of dust-removing device that is used on a rotating record.

Speed constancy is another matter. Short-term speed fluctuations, when they occur at rates between 0.5 and 10 cycles per second (Hz), are referred to as "wow"; between 10 and 300 Hz the effect is termed "flutter." Wow sounds much like its name: it produces a most unpleasant wavering of pitch on sustained notes. Flutter, depending on its frequency and magnitude, may sound like a rapid "gargling," or it may simply impair the clarity and definition of the music without ever being an obviously identifiable anomaly.

Wow and flutter are expressed as a percentage of frequency shift of a recorded test tone. In our tests, a turntable whose combined wow and flutter measures 0.1 per cent or less is very good; lower-price units often have unweighted figures between 0.1 and 0.2 per cent, which is rarely obvious to the ear. If we obtain a flutter reading that substantially exceeds 0.2 per cent, it is unlikely that the turntable will satisfy a critical listener. Unlike rumble, flutter cannot be filtered out or reduced in any way by the user. However, we find that a surprising number of commercial records are issued with built-in audible wow or flutter (and rumble) which is often unjustly blamed on playback equipment.

Rumble is a low-frequency mechanical vibration caused by irregularities, imbalance, or lack of concentricity either in the turntable-platter drive system or (usually) in the motor itself. Since the phono stylus responds to vibration, whether its source is the record groove or not, this mechanical disturbance is converted into an electrical signal that comes through the speakers as low-frequency noise. Rumble is evaluated by measuring the output signal of a phonograph cartridge playing a "silent" or unmodulated groove, and it is expressed as the number of decibels below a recorded reference level.

A rumble figure of –35 dB or better (unweighted) is very good, and many automatic and manual turntables surpass this figure (which happens to be the NAB standard for broadcast turntables). Turntables measuring between –20 and –30 dB may or may not made it exceedingly difficult to remove the record from the platter by having the platter's edge extend out past the disc. The user must practically "insert" his fingers between disc and platter in order to take the record off the machine. On the other hand, when the turntable platter has a significantly smaller diameter than the disc, then the problem arises of centering the disc on the platter when the short single-play spindle is being used.

A ragged center hole on a record is a simply repaired "defect" which, if not taken care of, will cause problems with changers.
be satisfactory: some automatic turntables in this range have noticeable rumble; others with the same measurements produce no audible rumble. The reason for this has to do with rumble frequency, which is usually about 30 Hz and determined by motor speed. Few speakers can reproduce an audible 30 Hz—but they can reproduce the harmonics of the basic rumble frequency when they are present. In our test reports we note any discrepancies between the rumble measurement itself and its audibility—if it occurs.

There are many motor types and drive systems being used in today’s turntables. As far as we can determine, the only advantage of the relatively expensive hysteresis-synchronous motor over the more common four-pole induction motor is its absolutely constant speed, which is determined entirely by the frequency of the a.c. power line. This advantage has been overstressed, however; we have found most modern turntables using variants of the induction motor to be quite stable in speed, despite record weight and line-voltage changes. Moreover, the actual turntable platter speed is still a function of machining tolerances in the drive system. Rumble, wow, and flutter do not seem to be materially reduced by the use of a hysteresis synchronous motor. Low-speed motors and electronic drive systems, with either a.c. or d.c. motors, are used in a couple of the finest turntables. Their major advantages are easily adjustable speed and extremely low rumble, wow, and flutter.

In theory, a belt-driven platter should provide better isolation from the motor, with improved rumble (and flutter) characteristics. But since the change mechanism of an automatic turntable calls for much more driving torque than can be obtained from a belt (unless its isolation is compromised), practically all automatic turntables use the more positive idler-wheel drive. However, as our test reports have repeatedly indicated, the differences in drive systems are not the sole determinants of quality of performance. Attention to the execution of whatever design is employed, plus precision in the assemblies, will produce a better-performing machine than a theoretically better design that is poorly executed.
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<th>MAX TRACKING ERROR (deg./in.)</th>
<th>ANTI-SKATING CORRECTION (see text)</th>
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†SR=Stereo Review EW=Electronics World
††Base and dust cover included when separate prices not shown.

Tone arms seem to be even more surrounded by mystery than the rotating parts of the record player. The tone arm tracking problem can be simply stated. Most arms carry the playback stylus across the record in an arc, but the cutting stylus is carried across the record radially. This geometrical discrepancy (called tracking error) has generated enormous amounts of analysis, discussion, and design effort, all attempting to minimize whatever playback distortion it causes. Despite the many mathematical treatments of the subject, in the minds of many considered to be experts there remain doubts as to the ultimate significance of the discrepancy. Suffice it to say that every arm we have tested in recent years, either manual or automatic, has had a maximum tracking-angle error of less than 1 degree per inch when stylus overhang was properly adjusted. The average was about 0.7 degree per inch, and the best about 0.4 degree per inch. Any of these arms, playing a high-velocity (loud, high-frequency) recording, will increase distortion by less than one per cent, which is likely to be far less than the distortions contributed by the cartridge and the speaker.

There have been several successful radial tone arms which follow the same path as the cutting head and therefore maintain true tangency over the entire record. However, they are more likely to be appreciated for their lack of skating effect and their ability to track warped records. One manufacturer, Garrard, is introducing a turntable with an "articulated" tone arm. The angular offset of the tone-arm head changes over the surface of the record to eliminate tracking-angle error.

Any arm with an angular cartridge offset is subject to a force that tends to move the cartridge toward the center of the record—the so-called "skating force." Caused by the friction between the stylus and the groove walls, this force has the effect of applying more tracking force to the inner wall of the groove than to the outer wall. When playing recorded material that stresses the cartridge's tracking ability, the outer channel will therefore have more distortion than the inner channel.

Rather than have the user set the cartridge for a slightly higher tracking force (which would provide adequate force for the outer wall and higher than
necessary for the inner wall), most tone arms provide anti-skating correction adjustments. These produce a force opposing the inward skating effect, so that the stylus exerts equal force on both groove walls. The effects of the skating force—and the correction for it—can be readily measured, but they are difficult except under rather contrived conditions. Anti-skating compensation is usually set on many turntables by means of a dial calibrated to correspond to the stylus force used. However, our tests have shown that anti-skating must usually be set higher than specified for proper effect.

Insofar as the angle (relative to the vertical) at which the phono stylus moves in response to the groove differs from that used in the cutting of the original record, the playback stylus cannot provide an accurate recreation of the signal fed to the cutting stylus. For several years, a 15-degree vertical angle has been accepted as the standard of the recording and cartridge manufacturing industries. Much has been made of the fact that unless steps are taken to prevent it, the vertical angle changes by several degrees in an automatic turntable between the first and last record of a stack. Several of the higher-price automatic turntables provide means for correcting this change of angle, at least partially, by tilting the cartridge in its shell or by shifting the entire tone arm vertically.

However, since (1) the theoretical distortion resulting from vertical-angle errors of even several degrees is very small (a fraction of 1 per cent), (2) most cartridge designs are several degrees off the “ideal” 15 degrees anyway, and (3) most cartridges are installed in a rather hit-and-miss manner in regard to vertical tracking, the ability of a tone arm to adjust its cartridge’s vertical tracking angle is a dubious refinement. Even if each source of distortion—lateral tracking error, skating force, and vertical tracking error—is quite small, it is possible, I suppose, that minimizing all three can have a detectable effect on the final sound, under optimum conditions.

Low friction in the tone-arm bearing is vital for operation at very low tracking forces. Clearly, an arm with, say, 0.5 gram of bearing friction (not uncommon on some lower-price units) would be unsuitable for use with a cartridge tracking at 1 gram. Although it is difficult to measure, several arm manufacturers claim to have reduced friction in their bearings to a few milligrams, as referred to the stylus tip. In our experience, almost any automatic turntable selling for over $100 can be used successfully with any currently available cartridge.

TIPS TO TURNTABLE SHOPPERS

THOUGH a full quantitative evaluation of a record player can be made only in a properly equipped laboratory, it is possible for a shopper to perform a number of basic qualitative tests in the dealer’s showroom. If possible, they should be made with the same phono cartridge that will be used in the home set-up, since cartridge compliance can have a considerable effect on the arm resonance frequency and thus the rumble level. Also, listen through speakers that have a strong low-bass response, even if they are not your personal choice for your home system.

• Operation: If it is an automatic turntable, how long does the change cycle take? Does it drop records smoothly and shut itself off after playing the last one? Do you hear pops and thumps during cycling or when the machine shuts off? Put several records on the spindle and make sure there are no “hang ups.” Try the cueing control, noting whether the pickup returns to the same point from which it was lifted, or whether it repeats a substantial portion of the record every time it is raised and lowered.

The spring suspension of the player can be checked by observing how much “jiggling” of the arm and turntable is caused by normal operation of the controls. Sometimes actuating the cueing function or the change cycle of an automatic turntable while a record is playing causes the stylus to bounce out of the groove or to skip grooves.

It is difficult to judge, except in the final installation, how sensitive the record player will be to such effects as floorboard flexing caused by dancing or simply walking in the room. All that can be done in the store is to tap the sides of the base gently to see how much impact force is required to jar the pickup out of the groove. Doing this to several turntables in the showroom should give you a “feel” for their relative susceptibility to external shock. Some cartridges in some arms will be more shock resistant (and better able to withstand record warp) than other cartridges in the same arm.

• Speed: With a record on the turntable and a stroboscope disc placed over its label, observe the pattern under fluorescent or neon lighting. If the pattern moves, hold a pencil near the stroboscope disc and count the number of lines or dots passing a fixed point in 10 seconds. At 33 1/3 rpm, three to four dots passing in 10 seconds corresponds to a speed error of 0.3 per cent, which is the limit of the NAB broadcast standard for turntables. A somewhat greater error can usually be tolerated for home use, unless exact pitch is a requirement. In that case, you should have a turntable with a speed adjustment, since many fixed-speed turntables have a detectable speed error—which, incidentally, will vary from sample to sample of a given model. If you intend to use a record-cleaning device such as a Dust Bug, be sure the additional drag does not slow the platter excessively.

• Rumble and Flutter: The STEREO REVIEW Model SR 12 Stereo Test Record has specially recorded bands for evaluating rumble, wow, and flutter without test instruments. It is a worthwhile investment, not only for testing a turntable in the showroom, but also because it permits you to check cartridge tracking with different stylus-force settings and to make an accurate adjustment of an arm’s anti-skating device. Full instructions for using the SR 12 are supplied with the record, which is available for $5.98.
A letter from Mr. John Sunier of Kentfield, California, describes the thinking behind his unusual stereo installation so effectively that we have decided to print excerpts from it and let Mr. Sunier tell his own story. He writes:

"I am the record reviewer for a (San Francisco) Bay-Area newspaper, among other things. Until recently I was always flitting between my desk and the stereo cabinet while typing up reviews or doing other paperwork, and there was usually a lack of space to spread out the many albums I'm always knee-deep in. Then I saw a photo of an installation belonging to Peter Bartók, in which tape recorders were mounted flush in the tops of wooden office desks for ease of editing and room to spread out tapes and materials. Idea!

"I haunted surplus stores for an old solid-oak office desk with a typewriter cabinet of just the right width to accept my Sony 777 tape recorder. When I found one that was suitable, I covered the top, which was pretty scratched up, with white Formica, and sawed into the thick desk top to make a well for my Dual 1219 turntable. The space for the center drawer was a perfect fit for a Heathkit AA-15 integrated amplifier, and all the connectors are easily reached from the rear. The Scott 312-B stereo FM tuner was installed in the same way just above the tape recorder. The three drawers on the right I have retained for normal desk functions. The massive bulk of the desk permits me to type madly away while listening or dubbing without the record player's being jarred in the least."

The remaining components in Mr. Sunier's installation are a Stanton 681EE phono cartridge, two Rectilinear III speaker systems that are to be seen at either side of the desk, and remote speakers of diverse paternities, one pair of which is used in conjunction with a friend's FM receiver to pick up two-station quadrasonic broadcasts in the San Francisco area. The card file on the right edge of the desk contains a partial index of the Sunier collection of 3,000 records and 300 tapes.

Mr. Sunier's work touches on several professional aspects of the audio and video fields. He is co-producer of an educational broadcast series, and has used his equipment to tape and edit programs on recorded music and other topics for various FM stations. His musical tastes as he describes them are broad to say the least, with special emphasis on Scriabin, Scarlatti, Mahler, Kurt Weill, Django Reinhardt, and Fats Waller.

-R.H.
THE night club business in America is in its final death throes, with landmarks like Los Angeles’ Cocoanut Grove closing down every week and major entertainers working less than half the time they used to or still want to. But you’d never know that if you were to catch Liberace at Las Vegas on a Thursday night in a bad week in mid-recession. He’s packing them in at Caesar’s Palace—and everywhere else he goes—in an era when only he and Streisand, Sinatra, and Elvis Presley sell out. They are all, in some way, throwbacks to the 1950’s, and it is the children of that decade and before who come to cheer them. “The young kids can’t afford Vegas night clubs,” explains Liberace. But how does Liberace explain himself? At fifty-two (but looking forty) he has been in show business for more than twenty-five years, playing the pop piano in a dated concerto style and with nary a hit record to his name. At least Streisand, Sinatra, and Presley sing and are heard on the radio. Across the street from Caesar’s Palace, at the Flamingo, Ella Fitzgerald, who’s lasted even longer, is trying contemporary material and arrangements (“I couldn’t beat ‘em, so I joined ‘em,” says the lady), and she’s playing to handfuls.

On the night club stage Liberace hasn’t changed much in a decade and a half. The outrageous clothes he stumbled on as a trademark in 1955 are even more outrageous now, but they seem less so. “The world has finally caught up with me.” He does four changes during his hundred-minute show, complete down to undershorts and socks, making each change in forty-seven seconds flat. He’ll start with something like a black velvet and chinchilla floor-length coat with purple silk lining and move to a double-breasted orange sequined tuxedo, saying, “Well, look me over. I didn’t get dressed up like this to go unnoticed.” The musical selections are still aggressively MOR (Middle of the Road), ranging from The Last Time I Saw Paris to The Theme from “Love Story.” A Bacharach medley and the two best-known songs from Hair are as daring as he ever gets. Liberace’s style of exaggerated gestures and slightly risqué humor (“It’s so seldom I get a chance to dedicate a song to newlyweds this late in the evening”) haven’t changed either.

Neither have his night club audiences. The women are middle-aged to downright old; many are henna-rinsed and wearing Betty Hutton hairdos and mink stoles. The men tend toward ill-fitting sport jackets, white shirts, narrow ties, and even white socks. Milwaukee and other Midwestern accents seem preponderant, and not just because Liberace comes from the beer capital. After performances the fans go backstage for autographs and chitchat; both are freely given, with a dazzling Liberace smile.

But wait. Times have changed, and Liberace, a canny man with more taste than he’s given credit for, is changing with them. After nineteen years and sixty-eight albums (eight of them gold) with three record companies (Dot, Columbia, and Coral), Liberace has signed with the most sophisticated pop label going—Warner Brothers. His first
album for them, aptly titled "A Brand New Me," is going to be his biggest seller yet. It netted him five preliminary nominations for Grammy awards, including those for best album and best instrumental performance. At the Garden State Arts Center in New Jersey, Liberace's audience of ten thousand was polled. Fully one third of them were under twenty-five. So now there are two Liberace audiences, and at the moment they're rolling (or is it gently rocking?) along together.

Backstage at Caesar's Palace, the costumes have given way to a black double-knit jumper and a white silk shirt with puffy sleeves and blue and gold polka dots. And the verbal flamboyance has given way to the soft-spoken assurance of a man who has made it long since and will go on making it as long as he wants to ("You know that bank I used to cry all the way to? I bought it."). For a top performer he's uncommonly charitable about fellow performers, although he thinks a gimmicky no-talent like Tiny Tim "should save his money; he's lasted longer than he should have already." Liberace, who is known as "Lee" although his first name is Walter, spends a lot of his time seeking out and encouraging younger talent, and he's positively deadline-bound. His business manager of twenty years inherited both the contract and Miss Budd from Frank Sinatra, who all but fought his way out of the hotel. Lee prescreens topless lounge shows to see if they'd be all right for Julie to see.

"Dot sort of went out of business," he says of his change in recording arrangements. "They owed me a lot of money, and besides they had no good, modern concept. I needed a fresh approach. My records have always been good constant sellers, but they don't make the top forty charts. I felt we needed something new. Dot kept wanting me to continue with the concerto style. Warner's saw that I was being discovered by a younger generation. They offered me the backgrounds and arrangements that have sold thirty million records for them—guitars from Nashville and the piano, then they recorded the ensemble."

That technique and his material (Neil Diamond's Holly, Holy, John Webb's MacArthur Park, etc.) were new to the pianist. "In the old days if I had two or three days in town between appearances, I'd go in and knock out an album. Now it's weeks of planning and thought as well as recording. Nobody seemed to care about things like balance before. But with things like quadruple stereo the kids are keeping us on our toes."

Now that his records are played on three thousand underground radio stations where he was never heard before, Lee says, "I'm into a whole new top-four groove. The youth audience is something that came to me, I didn't seek it out, but I'm developing it by doing college concerts. It's a wonderful thing that's happening in pop music—the classical sound. Bach and Beethoven sounds are creeping into the pop music field, and kids are beginning to dig more profound music. That fits in beautifully with my classical background. At Warner's they leave holes in the track for me to put a Bach fugue and variations in on a Moog synthesizer."

Commenting on all this "today" activity, he says, "I have to be very careful because the majority of my audience is still made up of adults, and I don't want to offend them. Surprisingly, they respond well to the contemporary stuff I put in, and at the same time the kids are discovering Gershwin. It's amazing. I do tremendous p.a.'s [public appearances] in a time when not many other people do. If I can keep my traditional audience and get the kids under twenty-five to come too, I can keep filling houses and forums and wrap it all up."

Six months of each year are spent wrapping it all up in theaters in-the-round, clubs, and even concert halls. The other six months are spent recording in Los Angeles or relaxing at his gigantic Palm Springs home, replete with piano-shaped swimming pool. "There I can close myself off," he says of the house where he entertained forty house guests over Christmas weekend last year. Other trappings of Liberace's success include a Regency Red and English White Phantom V Rolls, a diamond-candelabra ring, and the only two Plexiglas pianos in the world.

Now that his old recording companies are repackaging his earlier records like crazy to cash in on his two audiences, Lee is ready to try some things he's never been able to do before. "I want to play contemporary material with symphony orchestras that need financial help," he says. "We're going to make a special deal with the musicians' unions, and help create a following for the orchestras and even for Chopin. André Previn is getting the kids to support the London Symphony by playing Beatles music, and he's been criticized a great deal. This holier-than-thou purist crap is what's putting symphonies out of business."

Liberace would also like to do an album of his own compositions, the only one he plays now is his act's closing number Don't Say Goodbye—Say Ciao. He's written a cookbook and may do more writing. He's dying to do a Broadway musical, and David Merrick is dying to have him do one, but Lee says, "I don't want to do a warmed-over version of something that's already been done. It should embody all the elements people associate with me: my clothes, my music, my flamboyance."

The clothes are what we see first and remember longest. "It's hard to come by trademarks, and this one was an accident. It started when I was playing the Hollywood Bowl in 1955, and I switched from a black to a white suit so they could see me in the back row. It caught on and I kept getting further and further out. In 1956 in London they weren't ready for me, and you know what London is like now. People started copying me and soon I had to top myself and the people who were copying me. I used to laugh up my sleeve a bit, but through exaggeration I've been able to set some acceptable styles. That's how the fashion world works anyway. They go to extremes hoping a bit of it will catch on with the general public. We'll take a current fashion trend and go a step further—actual gaucho clothes, for example, jewel it all up. My next wave is going to be Russian."

The millions of dollars made over the years are preserved by a variety of investments now presided over by Liberace himself. His business manager of twenty years died, and Lee took over actual management of the corporation that bears his name. There have been tremendous savings and improved profit margins since. "I dissolved a lot of things he had thought were promising and weren't, and now I'm in surefire things like Tom Jones and Engelbert Humperdinck's company and—are your ready?—a douche company. They come in different flavors, and these days it's no gambler."

Retirement is clearly not in the offing. "The only sort of retirement I'm interested in is preserving my longevity by not wearing out my welcome. I'd like to go on and on, like Chevalier."

MAY 1971
A Shorter Vocabulary of Vocalism

What actually goes on in those silver throats is often indescribable, but critics do the best they can

By HENRY PLEASANTS

A group of us were gathered together in a friend's apartment in New York some months ago, during Dame Eva Turner's most recent visit to the United States, and the talk, inevitably, was of singers and singing. "Madame So-and-so," the legendary Turandot and Aida from Lancashire was saying of a certain soprano known to be in vocal trouble, "carries her chest too high."

Everyone in the group was professionally concerned with music, although not necessarily with singing; but a look at the faces of her auditors, as Dame Eva made her pronouncement, left me with the sudden realization that probably half of those present assumed that she was referring to Madame So-and-so's... or... posture. If so many in so musically sophisticated a circle, I thought, would not know immediately that Dame Eva was referring to Madame So-and-so's handling of the "passage," or transition, from chest register to middle register, what of the poor layman exposed, in reviews and in conversation, to the jargon of vocal comment and criticism? How confusing and bewildering it must be.

Well, some of it can be pretty baffling to the professional, too, even the vocal professional. The terms may be familiar, and the professional who uses them may be sure enough in his own mind what they mean, but they don't always mean the same thing to all professionals, and in some cases there have been century-long disputes as to whether they mean anything at all.

About some terms, happily, there is general agreement. In the classification of voices, for example, bass, tenor, contralto (or alto), and soprano are standard categories, now commonly extended to admit bass-baritone and baritone between bass and tenor, mezzo-soprano between contralto and soprano, and coloratura soprano above soprano. Normal two-octave ranges for these categories would be E to e' for the bass, F to f' for the bass-baritone, G to g' for the baritone, B-flat to b'-flat for the tenor, f to f' for the contralto, a-flat to a'-flat for the mezzo-soprano, b-flat to b'-flat for the soprano, and d' to d'' for the coloratura. These are, of course, arbitrary mean ranges. They may vary from voice to voice.

Until about the middle of the last century there were no marked differences of type or range within the basic categories. A soprano was a soprano. It was expected of her, however, that she be able to meet a variety of requirements, and this expectation was taken into account by the composer in laying out the sequence of her principal scenes. An aria cantabile would show what she could so with a languishing cantilena (song), with emphasis on a fluent legato (the seamless binding of one note to another) and appropriate embellishments (fioriture). A more forceful number, possibly an aria di vendetta, or vengeance aria, would give her a chance to pull out the vocal and emotional stops. An aria di bravura, or aria d'agilità, would show off her range and agility in a kind of virtuoso display now described as coloratura and including trills (the rapid and regular alternation of adjacent notes), staccati, roulades (runs, or divisions, as the British call them), and so on. Each of these arias would normally be introduced by a recitativo (recitative) passage in which the dramatic setting or pretext for the aria would be established and in which the singer would demonstrate her command of declamation.

Singers of other categories were similarly provided for according to their abilities and specialties. With the growing size of theaters and orchestras in the first half of the nineteenth century, however, and with the increased weight of voice required for the dramatic and heroic outbursts of Meyerbeerian, Verdian, and Wagnerian opera, not to speak of Strauss, Mascagni, Puccini, and Giordano, singers found it impossible to be all things to all composers and all operas. The limit of versatility, for sopranos, at least, was probably reached by Verdi with Leonora in Il Trovatore and Violetta in La Traviata.

Singers might conceivably be able to sing both Brünnhilde and Norma. Lilli Lehmann did, and there have been others. But, generally speaking, excellence in one department was achieved, or enjoyed, at the expense of facility in another. Not many singers can shift easily from the weight of voice required by Turandot to the airy flexibility expected of Lucia, as Maria Callas, in our own time, has done; and even of Callas it can hardly be said that she was...
equally at ease in both, or that her ambitions did not shorten her vocal life.

And so, where once there had been just sopranos, there were now the dramatic soprano, the lyric soprano, and the coloratura soprano. Where formerly there had been just tenors, there were now the Heldentenor (heroic tenor), the dramatic tenor (tenore di forza or tenore robusto), the lyric tenor (tenore di grazia, tenore leggiero, or the slightly deprecatory tenorino), the spinto (a lyric tenor pushed toward the dramatic—Gigli, for example, or Bjoerling) and so on.

With the exception of the coloratura, who was expected to sing higher than other sopranos, there was not much difference in the ranges required of these types. Nor was it just a matter of the natural size of the voice; it probably had just as much to do with how much voice the singer was inclined or persuaded to produce, especially in the upper fifth of his range. It was a question of how much voice he was prepared or accustomed to spend on those top notes that brought off the dramatic climaxes, brought down the house, and brought in the cash.

This leads us into the question of registers, and here we leave the area of common agreement for an area endlessly contested. The registers are generally assumed to be three: low, middle, and high, or chest, middle, and head. But some singing teachers have denied that there is any such thing. And even those who believe in such registers will agree that the terms are largely metaphorical, or figurative, representing an attempt to illustrate processes of vocal production that have not, despite the laryngoscope, ever been identified and defined to the common satisfaction of all concerned.

One thing only is certain. Most singers, of every category, have a physical or muscular problem (easily soluble, initially, for the exceptionally endowed) in extending their range or compass up or down much beyond about an octave and a third—for men's voices, say, from B-flat at the bottom to d' at the top. Any layman who has tried to sing The Star-Spangled Banner, which ranges in the lower register from the B-flat below to an f' at the top, has encountered this problem, and very few have solved it. Amateur basses and baritones, as they move up toward the f' on "red glare," find their throats closing, and they either run out of voice altogether or they crack. As the voice rises, the larynx, or voice box, containing the vocal cords rises sympathetically, and sooner or later it will shut off the tone and put the singer out of business. Tenors and sopranos, for whom the upper f' or f" is easy enough, tend to run out of voice and steam as they descend to the B-flat or b-flat on "say" and "gleaming."

A great deal of the jargon of singing centers on this problem of extension. An opera-singer friend of mine in Vienna, many years ago, put it about as simply and as vividly as I have ever heard it put. "Singing," he said, "is just one unending struggle with the Adam's apple." The professional singer solves the problem of extension (or tries to solve it) by controlling the larynx, by learning to keep it out of the way, and by adjusting the weight of the vocal tone, or the weight of the breath on the vocal cords, to what the traffic will bear at any given pitch or sequence of pitches. Most singers, when being examined by a throat specialist, will wave off the wooden tongue depressor. They have learned to depress or they haven't learned to sing.

Whether or not one thinks of registers as metaphorical or actual, there is no doubt that something muscular is accomplished, enabling the singer to move fluently, either up or down, into a region barred to the untutored and the unpracticed. This something is called the passage, also called "register break." Some singers recognize two such passages—one as they move from middle to lower register, the other as they move from middle to upper. For many singers it is the most hazardous spot in the vocal range, neither one thing—or register—or another.

Its difficulties can be exploited, too. The knowledgeable listener hears a tenor, for example, showing signs of distress around f' or f'-sharp, and thinks: "My God, he'll never make it to that b' -flat!" Then comes a glorious b' -flat, and the effect is the more telling for the previous suspense. Martinelli was a good example of this.

In negotiating the passage and moving beyond it, the singer tries to remain "above" the tone, not in the sense of being above the pitch, but rather in the sense of being above, and in control of, the vocal situation, or avoiding, in other words, being choked by his own vocal apparatus. It is a matter of getting up and over—and of staying there.
duing rebellious or recalcitrant elements in the muscular apparatus. If this exertion has to be sustained, the controlling muscles are likely to tire, and the singer is in trouble.

The technical devices employed to overcome these physical problems are many, varied, and sometimes controversial. The terminology employed to identify them and describe them is imprecise and mystifying. Not only the vexing question of registers is involved. There are also the kinds of voice one employs in these registers: chest voice, full voice, head voice (voce di testa), mixed voice (voix mixte), half voice (mezza voce), and so forth.

These all relate, basically, to the weight of breath upon the vocal cords. As with the bow upon the strings of a violin, or the breath upon the reeds of an oboe, clarinet, or saxophone, the greater the weight the greater the tone—and the greater the resistance and the exertion. More breath is required the higher one sings. Singers who learn to moderate the tone to accommodate the exertion sing higher—and they sing longer. But they forgo the excitement generated by the big tone at the top of the range. Some singers, equipped with more strength than skill, can only ascend by giving all they have.

There are advantages and disadvantages in each. Mathilde Marchesi, the most celebrated molder of women's voices in vocal history, herself a pupil of Manuel García, favored the more moderate approach, and achieved, in a score of famous pupils, a wonderfully even (or equalized), seamless scale from bottom to top and from top to bottom, insisting on her pupils' easing off as they got over the passage—or into the head, as it is often described—and on their so mastering the passage that it was indiscernible to the listener and, probably, with ultimate control, to the singer, too.

The result, as can be heard on the records of Nellie Melba and Emma Eames, was the epitome of refined vocal virtuosity, and Marchesi's singers were vocally long-lived. But this kind of singing tended to be a bit bland. Composers in the latter half of the nineteenth century, moreover, were demanding stronger stuff, and there were singers delighted to oblige, whatever the cost. Emma Calvé left Marchesi to become the Carmen and Santuzza of her generation, and Geraldine Farrar rejected Marchesi as a teacher in favor of Lilli Lehmann.

The fashion of forceful utterance required of singers that they carry as much as feasible of the weight and resonance of the normal middle voice into the upper areas. Just how much is up to the singer's skill and discretion. Those who are longer on strength and daring than on skill or discretion tend to become very loud, and some of them, especially tenors, have become very rich. They also tend to be vocally short-lived. The muscles that depress easily in youth become less amenable with age and wear and tear.

This is what the talk is about when you read or hear of the "high e from the chest," the ut de poitrine, which entered vocal history and vocal terminology with Louis-Gilbert Duprez's full-voiced high C's in Rossini's William Tell in Paris in 1837. Again, the term is purely figurative. Prior to Duprez's time, a middle ground had been favored, a combination of head (again, a figurative term) and chest, called a voix mixte, or mixed voice, the French terminology being the more common because French tenors were especially good at it. Depending upon the mixture, it considerably extended the singer's upper range, and for those who favored something closer to a pure head tone this meant, for tenors, pitches well above the high C.

It would be easy to generate a debate by attempting to define the border between head voice and mezza voce, although it may help to remember that mezza means "half." Definition becomes even more problematic when trying to distinguish absolutely between head voice and falsetto. An old rule of thumb had it that a properly sustained head tone could be returned from pianissimo to full voice without a break, whereas a falsetto tone could not. And it is generally agreed that the vocal production employed in yodeling is falsetto.

Falsetto brings one, inevitably, to the category of countertenor, or haut-contre, again a tricky term which has been applied to many types of voice—or vocal production—ranging from the very high operatic tenor to something we think of today as being closer to the adult male alto or soprano. In this latter sense it had almost vanished from the vocal scene, except for male altos in boys' choirs in Great Britain and, less commonly, in the United States. But the vogue of eighteenth-century opera revivals has found
the countertenor a possible solution to the casting of parts originally written for castrati. Some countertenors insist that they are not falsettists. I leave it to the specialists.

After such problematical phenomena of vocal terminology, it is a relief to turn to one which is not problematical at all, however much misused: messa di voce, a term which laymen—and not only laymen—tend to confuse with mezza voce. It comes from mettere (to put), and means literally “the putting of the voice.” In the days of bel canto, the name now given to the virtuosic style of singing that characterized Italian opera from roughly 1700 to about 1830, the messa di voce was the device of attacking a tone pianissimo, swelling it out to the maximum intensity, then diminishing it to the original pianissimo and beyond, all in one breath. It was often used to begin a song or aria, and this explains why so many of the arias of the period begin, textually, on the exclamations “O,” or “Ah!”

Some other common terms are more easily defined. Attack, for example, refers simply to the way a tone is initiated, or launched. A clean attack is one that begins precisely on pitch and with the voice properly focused in terms of register, color, and intensity. Attacking by a sudden, slightly violent closing of the vocal cords, as in a cough, is what is meant by the coup de glotte, literally a “blow” on the glottis, the opening between the vocal cords.

If the tone is attacked from below, one speaks of scooping. Something like the same kind of attack, if employed intentionally as a device of expressive phrasing, is called slurring. This may occur more commonly in the passage from one pitch to another, acceptable or not depending upon the musical context and the singer’s purpose. If unintentional, it is usually deplored as evidence of slovenly vocal habits and as vitiating the normally desired legato. If intentional, it may contribute effectively to the articulation of text and phrase. When such slurring is applied to notes widely separated, it is called portamento (from portare, to carry.)

Appoggiatura is a term much employed nowadays as singers look increasingly to the seventeenth and eighteenth centuries for an escape from the standard nineteenth-century repertoire. It comes from appoggiare, meaning to lean or support, and refers to the insertion—at the singer’s discretion—of a note between two other notes to assist, support or give emphasis and/or elegance to a melodic or harmonic progression, especially at cadences, or closes.

Vibrato and tremolo are vexatious terms, used for both instruments and voices, and most frequently when there is felt to be too much of either—or too little. All voices give some sense of vibration, or vibrato, deriving from slight but regular unevenness in the passage of breath over the vocal cords (actually, according to some students of the subject, variations in loudness and/or very slight variations of pitch). Otherwise, a voice sounds “white,” “straight,” or hoary. The character of the vibrato has a good deal to do with the character of the voice. A very fast, or narrow, vibrato can be irritating, and so can a very slow, or wide, vibrato. I remember old Italian opera connoisseurs describing a very wide vibrato, derivatively, as a permanente, or permanent wave. A controlled wide vibrato, on the other hand, can be rather appealing. Tremolo is less often used in connection with voices, and then usually, I suspect, as a misnomer for vibrato.

Finally, we come to “placement.” Among singers and singing teachers the talk is endlessly of “placing the voice,” of “focus,” which means about the same thing, of “forward production,” of “singing into the mask,” of “throaty” production, and so on. Again, one is dealing with figurative terms. There is no such thing, really, as placing a voice. Tone originates in the larynx and passes through resonating cavities in the head. Talk of placement, or of production, has to do largely, I suspect, with things happening—or not happening—with the larynx, the soft palate, the pharynx, etc., which inhibit, restrict, or modify this normal process. There is no such thing, certainly as a mask. But when the inhibiting factors are dormant, or under control, there is a sense of forward, nasal resonance.

In reviewing all this, it occurs to me that I have dealt more with subjects than with definitions. And that, I fear, is about all one can do. It is what makes the study and discussion of singers and singing so fascinating. One can learn what has to be done and, in a general way, how it should be done. But there are many ways of describing both, all more or less inexact. And beyond the imprecision lies the simple fact that no two singers, in their physical endowment, are precisely alike.

“That,” said Joan Sutherland in a recent interview, “is why there aren’t many good singing teachers. We have the sensations inside us. They only know what they hear outside. And you ask two singers how they get a particular note, and they’ll describe exactly opposite feelings—and what they’re doing may be exactly the same thing. Actually, singers are the last people anybody should ask about voice production.”

Marilyn Horne, in the same Life magazine interview, summed it all up when she said: “What happens is that over a long period of time and practice you find the sensations that work and then put a name to it that means something to you.”
A SWEET-SOUNDING NEW MAGIC FLUTE FROM LONDON

Welsh tenor Stuart Burrows is an important new disc discovery in the role of Tamino

Considering that I don’t believe I have ever seen a wholly satisfactory Magic Flute in an opera house, it is remarkable how well this troublesome Mozart opera has fared on records. At hand is yet another good version, this one fresh from London Records. The cast is a United Nations in miniature, but all the performers are experienced in their roles. The sound is faultless, the important dialogues have been retained, and, if I have some reservations about the overall leadership, one thing can always be taken for granted with Georg Solti: he presents a drama, not a museum piece.

Welsh tenor Stuart Burrows, a regular at Covent Garden and the least renowned member of the cast, is the Tamino, and he takes top honors. He is a major find: a singer who uses his attractive voice expressively and intelligently, and who phrases sensitively and with an impeccable sense of style. The Pamina of Pilar Lorengar is also satisfying. As always, there is a little more than a comfortable measure of vibrato in her singing, but it is less distracting here than it has been on other occasions, and the warmth and femininity she communicates are strong compensations. Hermann Prey offers his familiar (he has sung the role at the Met) and admirable Papageno, full of charm and with just the right amount of jocularity. Renate Holm is his engaging foil Pagagena.

Cristina Deutekom, the Queen of the Night, has a peculiar way of articulating fast passages, but her tones are rich and full, the scale even, the top firm, and the staccati in “Der Hölle Rache” accurate and brilliant. Martti Talvela is a sonorous but somewhat monochromatic Sarastro, Gerhard Stolze a colorful, nasty, and perhaps too unpleasant-sounding Monostatos. Dietrich Fischer-Dieskau lends aristocratic phrasing and dignity to the Speaker’s few lines—an extravagant bit of casting that illustrates the generosity of London’s approach to the production. The Three Ladies (Hanneke van Bork, Yvonne Minton, and Hetty Plümacher) and the Two Armed Men (Rene Kollo and Hans Sotin) are all first-rate artists, and the three (unidentified) members of the Vienna Boys’ Choir are all likewise excellent.

The Vienna Philharmonic performs in the superb manner previous recordings have taught us to expect from them, conductor Solti securing tight ensemble playing at all times and never losing sight of the score’s dramatic qualities. (I don’t remember ever having encountered so much drama in the Tamino-Speaker dialogue before.) At times, however, the dramatic tension seems excessive, the pacing hard-driven. This is particularly noticeable toward the end of Act One, beginning with the Pamina-Papageno scene and ending with a hurried, hectic climax when Monostatos gets his comeuppance from Sarastro. In Act Two, moreover, Solti seems to be rushing things for Papageno,

STUART BURROWS
An attractive voice intelligently used
STEPHEN BISHOP: 
*At ease in the studio.* 
*at ease with Bartók.*

making it rather difficult for Prey to deliver his music with all the geniality at his command. This occasional absence of a feeling of relaxation where it seems necessary is my only serious reservation about an accomplishment that is in other respects full of laudable elements and in many ways the best of all available recorded versions of this challenging opera.

George Jellinek

MOZART: *The Magic Flute.* Cristina Deutekom (soprano), Queen of the Night; Pilar Lorengar (soprano), Pamina; Stuart Burrows (tenor), Tamino; Hermann Prey (baritone), Papageno; Renate Holm (soprano), Papagena; Martti Talvela (bass), Sarastro; Gerhard Stolze (tenor), Monostatos; Dietrich Fischer-Dieskau (baritone), Speaker; Kurt Equiluz (tenor) and Herbert Lackner (baritone), Two Priests; others. LONDON OSA 1397 three discs $17.94, ® R 90182 $21.95, ® D 31182 $14.95.

A BARTÓK PROGRAM

BY STEPHEN BISHOP

*The range and imagination of Bartók’s writing for piano is demonstrated in a new Philips release.*

...and its apogee in the nineteenth century and declined in the twentieth. Yet the late Romantics (with the exception of Brahms) were almost totally uninterested in the piano, and the instrument plays an essential role in the development of nearly all the first generation of “modern” composers.

For such composers as Schoenberg and Berg, the piano was like a sketch pad on which new ideas could be tried; for Debussy, Scriabin, and Prokofiev, all pianists, the instrument was a natural and handy means of expression; for Stravinsky it offered the kind of clean timbre and accent which expressed his aesthetic ideals. For Bartók it was something of all three, and he wrote for the piano throughout his creative life. His *Mikrokosmos*, the sixth book of which is included here, represents one summing up of this activity, but the early, very Hungarian *Sonatina* of 1915 and the colorful, *fauve* “Out of Doors” Suite of the mid-Twenties are equally representative of the range and imaginative quality of Bartók’s percussive/lyric/coloristic keyboard thought.

Pianist Stephen Bishop is deeply into this music. His playing has the energy, the sensitivity, the control, the accentual strength, the variety of touch and timbre, and, most important, the essential simplicity to make this music work, and the recording serves all these purposes very well. One can’t even find fault with the occasional little eccentricities in rhythm and phrasing since, as Philips’ annotator tactfully points...
out, Bishop has intentionally introduced these follow-
ing Bartók’s own performance practice.

Eric Salzman


ENTERTAINMENT

BOB AND RAY: “THE TWO AND ONLY”

The genial satirists of network radio come out of retirement to disport on stage and turntable

Those of us who braved the dangers of the New York night to go out and see Bob Elliott and Ray Goulding in their late, great Broadway show were treated to a stage set that looked as though the contents of every attic and flea market in the land had been dumped onto it. It was perhaps pleasant to speculate as to which of the odd props amid that dazzling litter would be used in the course of the show (none of them were) and to try to distinguish the old Atwater Kent radios from the Philcos. But, as the evening wore on, it began to dawn on some members of the audience that it really wasn’t necessary to see Bob in his baseball cap to appreciate the inter-

BOB AND RAY: puncturers of pretension

view with the old-time ballplayer, nor to actually see his Washington correspondent on a big TV screen in order to enjoy the bumbling attempts to provide an item on “edible foods packaging” for the six o’clock news. It was a short evening anyhow, and we found ourselves dumped out of the Golden Theatre and back on West 45th Street almost before we had warmed up after the ordeal of getting there. Columbia’s marvelous recording of the show proves the point I have been laboring to make: Bob and Ray should be heard and not seen.

On the disc version of The Two and Only, under Joseph Hardy’s superbly timed direction, Bob and Ray do just about everything they did in the Broadway show, except that they recorded it in a Columbia studio on 30th Street with an invited audience who must have needed no coaxing to laugh along loudly. Here is the roving radio reporter out for a hot story on Times Square, interviewing a cranberry grower about his crop while front-page-news shoot-outs, riots, and five-alarm fires resound in the middle distance. Here is Clinton Snidely, who keeps wild boars in his apartment and is more than willing to tell about them on a TV talk show. Here also is the inattentive interviewer asking questions that have just been answered, the government spot announcement in praise of money (“spend some every day”), and the crooked mayor of Skunkhaven, New Jersey, explaining his credo of corruption.

The Slow Talkers of America scene is here as well, with all the excruciating details of its study of a man who won’t be hurried, and the Milton Cross-type filler before curtain time at the opera, and the thoughtful examination of “Susskindisms” such as “pejorative,” “dichotomy,” “expertise,” and other overworked art-words of the airwaves. Here’s Bob trying to order from the children’s menu in a restaurant, asking as soberly as he can for a bowl of “silverbell and cockleshell salad.” There’s also a “news analysis” in depth by a pompous broadcasting personality. And a dog trainer. And a dragon specialist. In fact, there isn’t a dull moment, and when it’s all over you don’t have to go out and hunt down a taxi, brave the terrors of the subway, or stand around waiting for a late commuter train. You just take the record off the turntable and put it away among your treasures. Radio being what it is these days, the phonograph is the ideal medium for Bob and Ray.

Paul Kresh

BOB AND RAY: The Two and Only. Original-cast recording. Bob Elliott and Ray Goulding (comedians); Joseph Hardy, director. Overture; Wally Ballou and Hector Lassie; Introductory Remarks; Komodo Dragon, Gabe Preston; Beautiful Face, Gabe Preston; Larry Lovebreath Show #1—Barry Campbell; Slow Talker; Larry Lovebreath Show #2—Dog Trainer, Grand Canyon Public
Service; Announcement, Truffle Hunter; Biff Burns and Stuffy; In Depth News—Hap Whatney, Sore Loser, David Chetley; Money Announcement, Corrupt Mayor, Gabe Preston #3; Curtain Call, Encores—Children's Menu, McBeebee Twins. COLUMBIA S 30412 $5.98.

BARRY MILES: A NEW DIRECTION FOR JAZZ?

A sampling of his "syncretic music" reveals a fascinating fusion of various jazz elements

It was eleven years ago that Barry Miles first emerged on the music scene, a twelve-year-old prodigy of jazz drumming. Now, at the tender age of twenty-three, he has reappeared as one of the finest jazz pianists and composers I have ever heard. His new record for RCA's Poppy label is simply stunning. His career went briefly into eclipse as a result of the public's demand for rock, but jazz has been on the move again for some time now, and Miles is back with a form of jazz he calls "syncretic music."

According to one dictionary definition, "syncretism" means, philologically speaking, "the fusion into one of two or more originally different inflectional forms." If it works that way for language, why not for music? Miles' use of the term becomes clear as you listen: a veritable history of American jazz patterns, practices, and principles all merged into one. To pull off a significant stylistic change in music, one must first be naturally gifted. Miles is. One must be well-trained. He is. And finally, one must have a personal discipline so severe that the shape of things to come is never corrupted by the creator's vanity or impulse to show off. This Miles has, I think, at the level of genius.

There are only six compositions on this album, and each gives us an insight into Barry Miles, pianist, at work with Barry Miles, composer, interpreting through mood and tempo the basic musical instinct. At the same time, the listener gets something like a short course in modern music. Tap roots go aggressively deep into the musical soil of the North American, European, and African continents, and the lush foliage that results is startling in the complexity and variety of its images. My favorite moment on the album (it was difficult to choose only one) is Alone. As music so often does, it resulted in a powerfully evocative flashback, reminding me at once of a very ancient silent film titled A String of Pearls—and not only that, but the very place I saw it, New York's Museum of Modern Art. I've forgotten the film itself, but the piano accompanying it had remained alive in my aural memory right up to the moment Miles began playing Alone. A small thing, perhaps, but for me a very positive one. Positive things keep happening throughout this disc, and they should happen to you, too. Barry Miles has cast his first long shadow with this album, and I predict that his musical influence will nurture many a prodigy to come.

Rex Reed

BARRY MILES. Barry Miles (piano and RMI electric piano); instrumental accompaniment; Barry Miles arr. and cond. Hi Jack; Contrasts; Aural; Take Your Clothes; Alone; New Derivatives. POPPY PYS 40,009 $4.98.
The $299 speaker for the man who is dying to spend over $1000.

It's a familiar scenario. Rich and idealistic audio perfectionist, his pockets bulging with large bills, sets forth to possess the ultimate loudspeaker and expenses be damned. Sees and listens to giant corner horns, full-range electrostatics, theater systems, wild hybrids with electronic crossovers. Suddenly realizes that a perfectly straightforward, not excessively large floor-standing system priced at $279 sounds as good as, or better than, any of the exotics. Common sense prevails over conspicuous consumption; he buys the Rectilinear III; saves three fourths of his money.

It may sound like the fabrication of a Hollywood or Madison Avenue writer, but the substance of the story has been repeatedly validated by the equipment reviewers of leading hi-fi and other technical publications. (Reprints on request.)

The original Rectilinear III, at $279, has only one small draw-back from our hero's point of view. Its upright walnut cabinet looks handsome but simple, one might almost say austere. Its visual appeal is to the classicist rather than the romantic. And some of the richest audiophiles are incurable romantics.

So, for an extra $20, we turned the Rectilinear III into a stunning lowboy and added a magnificent fretwork grille. In this $299 version it has true visceral appeal, more like a luscious mistress than a handsome wife.

Of course, both versions are identical acoustically and electronically. Both are built around the same 12" woofer, 5" dual-cone midrange driver, two 2½" tweeters and two 2" tweeters, and the same ingenious crossover network. Therefore, necessarily, both sound the same.

But the look of the $299 lowboy makes it easier to forgive yourself that you didn't spend over $1000.

(For more information, including detailed literature, see your audio dealer or write to Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, New York 10454. Canada: H. Roy Gray Co. Ltd., Markham, Ont. Overseas: Royal Sound Co., 409 N. Main Street, Freeport, New York 11520.)

Rectilinear III Lowboy
An enterprising young record label has been quietly reissuing some of those great Columbia Masterworks stereo albums you've been wanting.

1. Your Beethoven collection is incomplete without this acclaimed recording of the Concerto No. 1 in C Major for Piano and Orchestra. Astounding cadenzas by Gould.

2. Sibelius' Concerto in D Minor for Violin and Orchestra is his only concerto for any solo instrument and one of his most moving works.

3. The great George Szell and the Cleveland Orchestra do a brilliant job of demonstrating the Strauss genius for composing music that parallels a story line.

4. A new recording, not a reissue. The music and performances are so unusual that we couldn't resist putting them on a stereo disc, where collectors could find them at a reasonable price.

On Odyssey Records

Performance: Excellent
Recording: Good

The history of the first performances and publications of these works is anything but simple. The Symphony in B-flat, which was printed under two different opus numbers (Op. 9 and 21), was first used by Johann Christian Bach as the overture to his opera Zaraclis. The opening movement of the first D Major Symphony was originally the overture to his La Clemenza di Scipione, and the middle movement comes from his Amadis des Gaules, and all of the second D Major Symphony was first used as an overture to the composer's Endimione. And then there are the two symphonies listed as Opus 18, No. 1; the one in E-flat, as Charles Csudworth points out in his excellent annotations, belongs to a group of symphonies published under that opus number in England, and the Symphony in D Major is one of two printed as Opus 18 in Amsterdam.

Each of these pieces is delightful musically. The style is often very Mozartian, and, in fact, Mozart appears to have borrowed the opening theme of J. C. Bach's E-flat Symphony for the beginning of the "Haffner" Symphony. Mozart, of course, is known to have been a great admirer of the younger Bach, but regrettably Johann Christian today is usually looked on as not much more than a third-rate contemporary of Mozart. The present recording of his works might do much to change that superficial evaluation; these are excellent pieces, brimming with vitality and melodic inventiveness. The performances, too, are very fine, Hurwitz directing in sprightly fashion and Davis emphasizing the works' lyrical aspects. The only drawback is the sonic reproduction, mainly in the second side, which is constricted—sounding.

BARTOK: Mikrokosmos, Book VI; Out of Doors; Sonatina (see Best of the Month, page 74)

BEDFORD: Music for Albion Moonlight (see LUTYENS)

BEETHOVEN: Concerto No. 5, in E-flat Major, Op. 73 ("Emperor"). Artur Schnabel (piano); Chicago Symphony Orchestra, Frederick Stock cond. RCA VICTROLA & VIC 1511 $2.98.

Performance: Important
Recording: Poor

This, the second of Schnabel's three recorded performances of the "Emperor," was made on July 22, 1942. In it, the pianist is very nearly at his best, even though a few of his typical faults are present, including some less than perfect fingering on occasion and a bit of rushing here and there. Still, it is a formidable performance, and, especially because his earlier and later versions (with Sargent and Galliera, respectively) are not currently available, this one can be recommended with great pleasure.

I have some caveats: the orchestral accompaniment is satisfactory but never truly distinguished, and there is the more serious problem of the sonic reproduction, which is constricted, not very transparent except in quiet solo passages, and a bit wavery. The recently reissued Fourth Concerto with the same forces is considerably better. I thought at first it might be the fault of the transfers, but a check with my somewhat worn '78's produced exactly the same results: it's just not a very good-sounding recording. The performance, incidentally, was once available in a previous LP reincarnation in the very early Fifties. I.K.


Performance: Superior
Recording: Superior

This beautifully played collection of chamber music from the late seventeenth century is devoted mainly to Heinrich Biber: included are two of his suites and two sonatas, and they range in scoring from an A Major Trio Sonata to the six-part (two violins, two viola, cello, and harpsichord continuo) D Minor Sonata. The suites are characteristically lighter and more charming pieces, the sonatas rather more serious in tone. In contrast to Biber's individual style, the two sonatas by Johann Rosenmüller (1620-1684), a German one generation older than Biber, are more cheerful, and since Rosenmüller spent some time in Venice, they also sound quite Italianate. The final work, an organ solo by Alessandro Pozzetti, an Italian who worked at the Austrian court and died in 1683, is contemplative in mood and rather untypical of a composer whose style of writing was often bizarre. The performances are most successful in all of this rare repertoire, and the blend and the individual timbres of the old instruments used are quite breathtaking. Another outstanding feature is the exceptional quality of the sonic reproduction heard here. I.K.

BLITZSTEIN: The Cradle Will Rock. Cast of the 1964 production at Theater Four; Ger shon Kingsley (piano and musical director). COMPOSERS RECORDINGS INC. CRI SD 266 two discs $11.90.

Performance: Splendid
Recording: Splendid

Marc Blitzstein's "play in music" began its vivid and strife-ridden existence back in 1937, when issues of war and peace, corporate power
versus the labor-union movement, and the Great Depression made life tense and turbulent in the United States. Far from having "dat-
el"; it is thoroughly in tune with present-day events, and it's good to have this recorded version back in the catalog after an absence of two years. MGM originally issued the album, based on a theatrical production at Theater Four in New York. It is a first-rate job, both dramatically and musically. The voices are good, enunciation is so clear that there's no need for a printed text, and the performers "act" their parts with remarkable dramatic projection. Composers Recordings has done us a favor (though a slightly disturbing one) by reissuing this work, but only in mono. It's a reminder of what a remarkable man of the theater the late Marc Blitzstein was, but, in terms of worldly events, it points up the truth of the old saying: "Plus ça change, plus c'est la même chose."

**RECORDING OF SPECIAL MERIT**

**BUSNOSI: Chansons: Amours nous tracie/Je m'en vais; A une dame; Bel acueil; A une ville; Terrible dame; Maines femmes; Seule apart moy; Accordes moy; Nonesuch Consort, Joshua Rifkin dir.** NONESUCH H-71247 $2.98.

Performance: Scholarly and sensitive

Recording: Very good

The fifteenth-century Burgundian composer Antoine Busnois spent a large portion of his career as a musician in the employ of Charles the Bold; when Charles died, he worked for his daughter and her husband, who was to become Maximilian I. After that, he may have spent some time in Italy; we know only that he died in Bruges in 1492, where he was involved with church music. His musical output, such of it as survives, was not large, consisting mainly of secular pieces; his extremely skilled manner of composing, full of intricate imitations in part-writing, is close to that of his better known contemporary, Johannes Ockeghem, whom he greatly admired. Busnois' craft in writing is not his only strong point, as one reads further into this production; it reminds us what a remarkable man of the theater the late Marc Blitzstein was, but, in terms of worldly events, it points up the truth of the old saying: "Plus ça change, plus c'est la même chose."

**RECORDING OF SPECIAL MERIT**

**CARTER: Concerto for Orchestra. SCHUMAN: In Praise of Shahn (Canticle for Orchestra).**

**DONOVAN: Mass; Magnificat; Antiphon and Chorale. Barratt Chapel Choir, Yale University. Charles Krapek cond.**

**MOEVS: A Brief Mass. Kirkpatrick Chapel Choir, Rutgers University. David Drinkwater cond. COMPOSERS RECORDINGS INC. CRI SD 262 $5.95.**

Performance: Generally good

Recording: Taking Excellent

(Continued on page 82)

**STEREO REVIEW**

**RECORDING OF SPECIAL MERIT**

**BUSNOSI: Chansons: Amours nous tracie/Je m'en vois; A une dame; Bel acueil; A une ville; Terrible dame; Maines femmes; Seule apart moy; Accordes moy; Nonesuch Consort, Joshua Rifkin dir.** NONESUCH H-71247 $2.98.

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Performance: Generally good

Recording: Taking Excellent

(Continued on page 82)

**STEREO REVIEW**
Dr. Szell's final recordings.

Reviewing the Cleveland Orchestra's Schubert Ninth Symphony ("The Great C Major") and Dvořák's Eighth Symphony, Stereo Review designated the performances as "stunning," their recording quality "splendid." These were Dr. Szell's last two albums, and they "simply reconfirm what has already been confirmed many times: he was a virtuoso conductor second to none." They further demonstrate another firmly established fact: his was a virtuoso control of an orchestra second to none.

Sir John's last recordings.

Somehow it was fitting that Sir John Barbirolli should devote his final days to Delius. No conductor since Sir Thomas Beecham had felt such kinship with this composer. "Appalachia" stemmed from Delius' years in America, and its theme from a Negro hymn. "Brigg Fair" paints a pastoral of emotions remembered in tranquility. This performance, with the Ambrosian Singers and Sir John's beloved Hallé Orchestra, captures the ravishing, sensuous moods of both works.

The Chicago Symphony on its mettle.

Our second session with the Chicago Symphony under Seiji Ozawa mirrored the affec tion, and respect, developed during his seven years at Ravinia. And the orchestra's Bohemian contingent assured a sympathetic reading of Janáček's brash Sinfonietta. Of the Lutoslawski Concerto for Orchestra.

Klemperer revisits the Bach Suites.

In 1955, Otto Klemperer recorded Bach's Four Suites For Orchestra—for recordings which have stood as milestones in the Bach repertoire. Now, he has recorded them again to give this glorious music the advantage of today's superior stereo sound. Once more, Dr. Klemperer asserts his af finity for Bach, and his total command of the resources of a superb orchestra. The performance by the New Philharmonia and the sound have already won the highest critical praise: Dr. Klemperer approved them for international release.

From Sir Adrian, more Vaughan Williams.

For over 40 years, Sir Adrian Boult and Ralph Vaughan Williams (left and right here) shared a close musical relationship. After the composer's death, his family set up a trust to ensure the recordings continue. The nine works, Symphonies 1, 3, 4, 5, 6, 8, and 9 are already available. He now adds Symphony No. 7 ("Sinfonia Antartica"), the sonically penetrating composition based on Vaughan Williams' film score for "Scott of the Antarctic." Heroic in scale, it receives a monumental interpretation from the London Philharmonic Orchestra and Chorus.

From Russia with joy.

"I am violently in love with this work," Tchaikovsky told his publisher when he completed his Serenade for Strings in 1880. Obviously, his fellow countrymen in the U.S.S.R. Symphony Orchestra, and their conductor, Yevgeny Svetlanov, share his affection. The sharply etched sound so characteristic of Melodiya/Angel adds to the vibrant feeling of the work. With it is another of Tchaikovsky's most popular compositions, Capriccio italien. Allogether, a happy meeting of orchestra and conductor and music. And sound.

Roger Dettmer (Chicago Today) wrote, "It cuts all competition on disks to pieces," and "the performances Angel has coaxed from our orchestra, and high on the list of Ozawa's outstanding recordings.

Walton conducts Walton. And Menuhin.

For the first time, Sir William Walton's two major concertos are together on one record. Yehudi Menuhin performs his Viola and Violin Concertos, with Sir William conducting the New Philharmonia and the London Symphony. A more felicitous casting cannot be imagined. Trevor Howard (The Gramophone) wrote, "I prefer Menuhin's recording (of the Viola Concerto) by a long way." And Edward Greenfield of The Manchester Guardian concluded that of all Violin Concerto versions, "Menuhin's is the performance I shall now choose."
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Two American composers' contrasting approaches to the creation of liturgical music are on display in this recording. The late Richard Donovan, for many years a professor of music at Yale, is represented by polished, rather Anglo-Saxon-sounding works which reflect both his New England origins and the quiet, gentlemanly New Haven decorum which was his personal manner. They are well wrought and distinguished without being "avant-garde.

Robert Moeyev (born 1920) has been a professor of music at Rutgers for something like a decade. His Brief Mass is stylistically more venturesome than Donovan's music, using choir (speaking and singing), organ (sounding almost like a synthesizer), vibraphone, guitar, marimba, and double bass, and the voice of an ordained priest to recite certain passages. It is a fascinating work, expressionistic in ethos, and yet not redolent of goblins or demons. Only humane intentions are in evidence. I'm not sure this is the ultimate performance of the Mass, though. Choral speaking (especially by student choirs) is seldom adroit, and Catholic priests, whatever their other virtues, are seldom known for Olivier-type elocution. Both of these facts impinge on the Brief Mass's performance in this case. Despite them, however, the music itself is compelling, full of imagination.

L.T.


Performance: Good
Recording: A mite hollow

The Violin Sonata dates from 1880, the year of Dvořák's Violin Concerto and D Major Symphony. Save for the delightful polka-style finale, the music is almost entirely in the Brahmsianer vein that the composer cultivated during his early forties.

The Four Romantic Pieces, from the period that also produced the A Major Piano Quintet and Terzetto for two violins and viola, are by no means inconsiderable chips from the composer's work bench. Two intensely lyrical movements, one serene, the other somber, enclose a pair of faster movements: a dancelike Allegro and a companion piece in an exultantly passionate vein (in the recorded performance here, this movement has been shifted to last from next-to-last, providing thereby a more "upbeat" ending).

The Op. 100 Sonatina, a lightweight four movement-piece composed by Dvořák for his children following completion of the "New World" Symphony, has a lovely slow movement, best known in Fritz Kreisler's arrangement as Indian Lament. Dvořák scribbled the theme on his cuff during the course of a visit to Minnehaha Falls in Minneapolis during the summer of 1893.

Veteran violinist-conductor Henri Temianka plays here with fine romantic fervor, occasionally with a bit too much tonal sweetening for some tastes. The piano accompaniment by Gerald Robbins is both able and vital. The violin-piano balance and the recorded sound are good, but many of the palettes of a slight hollowness that seems to stem from the acoustic coloration of the performance locale.

D.H.

RECORDING OF SPECIAL MERIT

HANDEL: Acis and Galatea. Honor Shpapd (soprano), Galatea; John Buttery (tenor), Acis, Neil Jenkins (tenor), Damon, Maurice Bevan (baritone), Polyphemus; Deller Consort, Stour Music Festival Chamber Orchestra. Alfred Dellor cond. RCA VICTROLA VICS 6060 two 12" discs $13.96.

Performance: Delightfully pastoral
Recording: Excellent

For a number of years an especially fine performance of Handel's lovely opera, Acis and Galatea (1718) has been available on L'Oiseau-Lyre (60011/2), a recording conducted by Sir Adrian Boult and featuring Joan Sutherland, Peter Pears, and Owen Brannigan in the cast and Thurston Dart presiding brilliantly at the harpsichord. This new performance with members of the Deller Consort is a more up-to-date recording technically, and in spite of perhaps less beautiful voices, it is a more pastoral treatment of the score. The ensemble, for one thing, is remarkably small—eleven players plus a chorus of five, the Deller consort. The performance sounds exactly like the sort of thing Handel must originally have heard at the estate of the Earl of Carnarvon at Cannons, a delightful entertainment rather than a larger-scale chamber opera. To be sure, the characterizations are better drawn in the older recording, and there, too, the tragic elements in the plot are far more apparent. Stylistically, neither version does much with the possibilities for embellishment da capo arias. But otherwise the music to the one and to the other in Handel's high-apparing scores, is heard to excellent advantage in both recordings, and one must decide only whether one prefers it as a star vehicle (Sutherland is in splendid voice) or a more informal ensemble piece. Both are quite convincing. The Victrola set is well recorded and includes the text. It is also cheaper by a good bit than the L'Oiseau-Lyre.

I.K.

RECORDING OF SPECIAL MERIT

HAYDN: Piano Trios: No. 25, in G Major; No. 26, in F-sharp Minor; No. 27, in C Major. Beaux Arts Trio. PHILIPS 6500023 $5.98.

Performance: Excellent
Recording: Excellent

The Haydn piano trios are probably the greatest remaining unexplored treasure of the Classical period. The G Major Trio—the first of the three recorded here—has a sort of fame as the work from which the spurious "Gypsy Rondo" was concocted and inflicted on generations of unsuspecting piano students. The original has a dynamic "gypsy" feeling that is quite absent from the familiar little potted piano arrangement. But this charming, slight trio is actually the least interesting of the three pieces here. The unusual F-sharp Minor Trio is a striking work, and the C Major Trio is a masterpiece, right up there with the late symphonies and quartets.

I have not seen, but admiration for the Beaux Arts Trio: they catch the spirit and the style without being bound by any of the usual sterile and false cliché classicisms. The recording is equally fine, but side two of the review copy had a couple of defects and ought to be carefully checked.

E.S.

HAYDN: Symphonies: No. 80, in D Minor; No. 81, in G Major; No. 82, in C Major ("L'Orsa"); No. 83, in G Minor ("La Reine"); No. 84, in E Major ("Acis"); No. 85, in B-flat Major ("La Reine"); No. 86, in D Major; No. 87, in A Major; No. 88, in G Major; (Continued on page 84)

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seem less troublesome than the composer's habit of belaboring obvious melodic points to death. Ideas that are routine in themselves are stretched far beyond any ability they might possess to sustain a listener's interest. Frequent bogging down of harmonic progress does nothing at all to help.

Ozawa gives both works enthusiastic and energy-filled interpretations. The orchestra sounds splendid and, indeed, the performance almost makes the Lutoslawski convincing. But not quite.

LISZT: Mazeppa—Symphonic Poem No. 6; Hungarian Symphonic Poem No. 9; Hamlet—Symphonic Poem No. 10. London Philharmonic Orchestra, Bernard Haitink cond. PHILIPS 6500046. $5.95.

Performance: Good
Recording: Good

Having recorded Les Preludes, Orpheus, and Tasso with the London Philharmonic, Bernard Haitink now offers us three more Liszt symphonic poems. I hope he will be giving us the seven remaining ones, including the fascinating and virtually unknown last of the series, From the Cradle to the Grave.

Even with Haitink's tasteful yet strong interpretation, the musical narrative of the fate of the Cossack Mazeppa fails to transcend, for me, its inherent vulgarity. With Hungarian, essentially a more elaborate and serious "Hungarian Rhapsody," we are on more substantial aesthetic and musical ground. But with this first recording of Hamlet, we finally arrive at peak middle-period Liszt; for this compact character portrait of Shakespeare's tragic hero (with a shadowy evocation of Ophelia in the background) is a work with the Lutoslawski's best works for orchestra, such as the Totentanz, with two episodes from Lenau's Faust (Nocturnal Procession and Mephisto Walts), and the finest things in the Faust Symphony.

As I have already indicated, Haitink's readings are first-rate, and the recording is good, although lacking somewhat in sharply focused transients.

LUTOSLAWSKI: Concerto for Orchestra (see JANACEK)

LUTYENS: And Suddenly it's Evening. Herbert Handt (tenor); members of the BBC Symphony Orchestra, Herbert Handt cond. BEDFORD: Music for Albion Moonlight. Jane Manning (soprano); members of the BBC Symphony Orchestra, John Carewe cond. ARGO ZRG 638 $5.95.

Performance: Excellent
Recording: Excellent

Argo records presents here the music of two English composers of vastly different generations: Elisabeth Lutyens (born 1906) and David Bedford (born 1937). Both are represented by works for voice plus elaboration and sensitive ensemble of instruments; both have first-rate texts, respectively by Salvador Quasimodo and Kenneth Patchen.

In a way, the Lutyens music might be considered the more "original," since it speaks a kind of post-Bergian Expressionism quite unlike the usual manifestations of that ethos. At the same time, there are moments when one is struck with embarrassment by what seems to be naivete in the composer's posture toward her materials, and by the careful self-consciousness of her manner.

David Bedford's Music for Albion Moonlight, on the other hand, seems thoroughly sure of itself. It exemplifies the "very-latest thing" in the kind of harmony-based, fragmented, effectual writing out of which we have a few burgeoning and successful young exponents on this side of the Atlantic. Mesmeric tonal repetitions, glissandos, finger-tappings on violin-backs, all such gossamer audibles are the stock-in-trade of this style, and it can be beautiful indeed. If one does not feel disgruntled by an occasional blood-curdling scream from the soprano (a sure, though pretty obvious, way to wake up your audience) the style can be both handsome and convincing. How far young composers will be able to go with it may soon be open to question, however. Already, with only a few pieces currently going the rounds, they begin to sound distantly like each other. That was the fate of so much post-Schoenberg and post-Webern music. Will it also happen with post-Xenakis, or post-Penderecki, or post-Cage, or post-Feldman, or whatever this style comes to be labeled? I hope not.

L.T.

MOEVS: A Brief Mass (see DONOVAN)

MOZART: The Magic Flute (see Best of the Month, page 73)

POGLIETTI: Ricercar primi toni (see BIBER)

RECORDING OF SPECIAL MERIT


Performance: Superb
Recording: First-rate

The ghost of Sergei Rachmaninoff himself must have presided lovingly over these recording sessions, for Morton Estrin brings to these most mature and sophisticated of Rachmaninoff's solo piano works much of the same strength and virile tenderness that he brought to his own playing of his and other composers' music.

As might be expected, the thirteen Op. 32 Preludes, dating from 1910, have much in common stylistically, and occasionally in substance as well, with the Third Piano Concerto, completed the year previously. The demands on pianistic technique are enormous, most of all in the tremendous last number of the set, yet there is poetry and power from beginning to end. My own favorites are the turbulent C Major opening prelude, No. 3 with its evocation of bells, and the lovely modal B Major, No. 11. An odd feature of No. 13 is the ringing of changes on what amounts to the opening theme of Strauss' Also sprach Zarathustra.

Michael Ponti, in his Vox Box of Rachmani-
not solo piano works, and Constance Keene in her two-disc Philips World Series set of the complete preludes, both offer highly creditable readings of the Op. 32 series, but both are undermined by less than ideal recording. Ponti's piano suffers from overbalancing of the lower keyboard, and Miss Keene from uncomfortably close microphone placement. There is only one word to describe the piano used by Morton Estrin, and Connoisseur Society's recording of it—gorgeous!

D.H.

RACHMANNINOFF: Preludes for Piano (complete), Alexei Weissenberg (piano). RCA LSC 7069 two discs $11.96

Performance: Not entirely felicitous
Recording: Treble weak

Rachmaninoff, like Chopin, wrote twenty-four preludes—one in each of the major and minor keys. Number one, the notorious C-sharp Minor, was written early in his life. The ten preludes of Opus 23, including the well-known G Minor, were published in 1903; Opus 32 (containing the other thirteen) came along in 1910. Except for the two preludes mentioned, these are not well-known works and not often played nowadays. They are late-Romantic works of considerable character, very Russian (a little pretentiously so, sometimes), very Sturm und Drang, extremely difficult (also sometimes pretentiously so), and not quite varied enough to take all at once.

The late set contains the better music, and this set as a whole has more character and more vivid contrasts than its predecessor. This recording does not make a particularly persuasive case for any of this music. The sound is thick and clangy, qualities which tend to obscure the treble. This weakness can undoubtedly be laid to the piano and the playing rather than the recording itself, playing back at a lower-than-normal level helps somewhat. The sonic problem, however, seems a part of a more general insensitivity and musical awkwardness. This is not necessarily a technical matter—the pianist seems to push on through all the difficulties. But he rarely seems to succeed in getting the music into any really expressive and meaningful shape.

E.S.

RAVEL: Alborada del gracioso; Valses nobles et sentimentales; Gaspard de la nuit. Alicia de Larrocha (piano). COLUMBIA M 30115 $5.98.

Performance: Beautiful
Recording: Excellent

Anyone who admires the playing of Alicia de Larrocha as much as I do will welcome this recording to his shelves. All her usual delicacy and coloristic skill are in these Ravel performances. The recording engineers have put an almost clinical, microscopic ear to the piano sounds, and sometimes lose a little "body" as a result. But not enough to spoil things.

The finest performance here is the unbelievably refined and sensuous Gaspard de la nuit. It positively glows. Her way with the Valses nobles et sentimentales is a bit less compelling, though obviously the product of serious interpretive thought. She approaches this work in a deliberate, musing, ruminative manner which, while it sacrifices some of the gaudy splash the piece can produce, does have its own kind of interest. Her playing of the Alborada del gracioso, more traditional, is as ingratiating as that of Gaspard.

L.T.

ROREM: War Scenes; Five Songs. Donald Gramm (bass-baritone); Eugene Istomin (pi-
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RECORDING OF SPECIAL MERIT

SATIE: Piano Music, Volume Four. Gnossiennes, Nos. 4, 5, & 6; Nouvelles pieces froide; Premiere pensée and Sonneries de la Rose-Croix; Deux rêveries nocturnes (rev. Caby); Petite ouverture à danzer (rev. Caby); Quatre variations for Orchestra, in A Minor, Op. 129. Mstislav Rostropovich (cello); Leningrad Philharmonic Orchestra, Gennady Rozhdestvensky cond. DEUTSCHE GRAMMOPHON 2538 025 $5.98.

Performance: Richter good, Rostropovich erratic

Recording: Fair

I'm all for Romantic style in Romantic music, but Rostropovich is so eccentric that Schumann is altogether submerged in a sticky sea of style and manner. The Russian cellist has a way of turning a rubato phrase into a brilliant and heart-rending transition. The only problem is that main themes are not supposed to sound like transitions. Richter's performance of the Piano Concerto is on much sounder ground and could be warmly recommended if it were not for the orchestral lack of presence. Both recordings were released previously with different coupling.

E.S.


Performance: Excellent

Recording: Excellent

Desto Records' new policy of presenting mature but 'younger' American composers in 'one-man shows' of their music is bringing forth interesting results. This disc is devoted to the music of Robert Starer, a Vienna-born composer who fled the Hitler regime in 1938 when he was fourteen years old, continued his musical education at the Jerusalem Conservatory and completed it at the Juilliard School of Music. He has had a very successful career in the world of concert performances. His music is immensely skilled in construction, reflecting both his generation and his background with extraordinary accuracy. Whether he is dealing in part with the twelve-tone method, as he does in the Variants, or with materials organized by different means, the method of discourse is straightforwardly thematic. The lines are lean and rentless, the rhythm almost always an unpunctuated, the harmonies carefully balanced between astringent dissonance and consonant relief. Even when the materials themselves are not compelling, as sometimes happens, their interweaving is achieved with the highest order of craftsmanship.

The performers on this recording are musicians who gave the concert premieres of the works they perform here. All are first-rate. James Oliver Buswell IV, one of the bright lights among today's young violinists, gives a wiry, energy-charged reading of the Variants, and David Garvey is equally vigorous and neat at the piano. Still another excellent pianist, Paul Schoenfield, plays the Sonata No. 2 for Piano with dazzling drive and virtuosity. Indeed, except for a few slightly unpolished spots in the Collegiate Chorale's singing of On the...
Nature of Things, and a bit of shrill tone from David Glazer's clarinet, all the performances are exemplary. L.T.

RECORDING OF SPECIAL MERIT


Performance: Fresh
Recording: Superb

When Stravinsky wrote The Firebird for Diaghilev in 1910, the world's ears had not yet been flooded with impressionism. What a thrill it must have been, at the Paris Opera that June night when the ballet was first performed, to hear for the first time the sensuous music of the "Dance of the Princesses," and the wild "Infernal Dance" as King Kastchei releases his demon, and then to fall under the spell of flute and violin—all are evoked with the utmost care and sensitivity, yet never a whit more sentimentally than the tough-minded composer himself would tolerate. And the playing by the Berlin Radio Symphony is nothing less than stunning. P. K.

TCHAIKOVSKY: 1812 Overture (see "Basic Repertoire," page 53)


Performance: Loving
Recording: Lovely

For me Tchaikovsky's First Symphony is a real charmer, in a league with the best of Mendelssohn and Delibes' music for the stage. The academic development episodes are in a sense irrelevant here; the tunes, the instrumentation, the total ambiance—these are what count, together with inherent resourcefulness in the art of effective harmonic texture.

Michael Tilson Thomas brings an essentially poetic and light hand to this recorded performance of the Tchaikovsky G Minor Symphony, most especially to the central episodes of the middle movements, where his tender loving care is given to subsidiary figuration and inner voices. Occasionally, there is a miscalculation, as in the unison horn recapitulation of the "big tune" of the slow movement, where the resonance of Boston's Symphony Hall makes it come through rather bigger than life. Likewise, the rather sprawling festive finale can't take quite the amount of tempo contrast between the major fugato episode and main-body material and still retain a basic sense of cohesion. However, it must be admitted that Tilson Thomas handling of the accelerando leading from the fugato to the recapitulation makes the tempo contrast almost convincing. The orchestral performance and recorded sound can only be described as gorgeous. D.H.

RECORDING OF SPECIAL MERIT

VAUGHAN WILLIAMS: A Sea Symphony. Heather Harper (soprano), John Shirley-Quirk (baritone); London Symphony Orchestra and Chorus, André Previn cond. RCA LSC 3170 $5.98.

Performance: Masterfully proportioned
Recording: Excellent

Vaughan Williams' stirring celebration of the sea and the human spirit, drawing from the poetry of Whitman and completed in 1910, is a work that has had exceptionally good fortune on records. Back in the early days of the long-playing disc, Sir Adrian Boult made a version of it for London that was one of the first recordings to achieve a convincing balance between large choral and orchestral forces. The performance was a splendid one, and the recording still sounds fine. But naturally, Boult's 1969 stereo remake for Angel reaped the benefits of nearly two decades of technical progress, and Boult's reading, assisted by inspired solo singing from Sheila Armstrong and John Carol Case, had if anything gained authority in the intervening years. And now André Previn, reaching the Sea Symphony in the course of his Vaughan Williams series for RCA, has made choice very difficult by giving it a performance of different character but no less merit.

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Walton: Concerto for Viola and Orchestra. Yehudi Menuhin (viola); New Philhamro...

Performance: Excellent
Recording: Excellent

Here's a disc that ought to interest admirers of Yehudi Menuhin, since he appears as both violin and viola soloist in William Walton's concertos for those two instruments. Surprisingly enough, his performance of the Viola Concerto is more technically perfect than that of the Violin Concerto!

Paul Doktor's beautiful interpretation of the Viola Concerto with Edward Downes conducting the London Philharmonic Orchestra (Odyssey 32 16 0368) is still available, of course, and this new recording does not put it into the shade. This, despite the fact that the correct Allegro moderato tempo for the third movement, which Walton adopts in his conducting, gives a better sense of the music's real meaning than Edward Downes' slightly slower pace. As soloists, however, Menuhin and Doktor are equally fine, with the latter being just a bit more the full-fledged Romantic.

Walton's Violin Concerto, composed exactly ten years later than the Viola Concerto, is a far less convincing piece. The neo-Romantic vocabulary is similar in both works. But, whereas it carries a kind of pungency and precision in the viola work, the Violin Concerto is rather vague in its sentiments. The gestures seem a bit pro forma.

COLLECTIONS

RECORDING OF SPECIAL MERIT

GALLI-CURCI: Golden-Age Coloratura.

Performance: Good to superb
Recording: Good acoustic restorations

Except for the Gavotte from Manon, the selections on this Victrola reissue were all included in the two-disc private recording by Operatic Archives that I reviewed in the April 1970 issue. In that review I found that these selections "are worthy of Galli-Curci's enduring fame. They reveal a sweet and even voice with a plaintive, poetic quality. She had a solid technique, and sang effortlessly according to the best Italian teaching.

In a way, the overall results are even more impressive here, since certain less successful choices in the aforementioned two-disc set are omitted in the Victrola disc, while the added Gavotte is utterly charming. This, then, is a beguiling release indeed, representing the legendary artist in a sequence that is consistently impressive and frequently spectacular. The recordings are all acoustic (1917-1924), generally reproduced with clarity, though it seems to me that more careful processing would have eliminated some of the clicks inherent in the
war for a number of reasons. First, he was that rarity among singers, a true musician. Sec-
second, his art was unique in its combination of two musical worlds: certain native Slavic color-
ations in the timbre, which lend the voice an unmistakable individuality, and a thoroughly
Western (German) musical training which ac-
counts for the artist's profound knowledge and
understanding of German poetry as well as
music. Last, but certainly not least, is the voice
itself: a darkly sonorous instrument of rare
beauty, again a rare combination of power, ca-
ressing warmth, and limitless expressiveness.
The Columbia disc returns to circulation,
after an absence of more than three decades,
the artist's first American recordings (1927-
1931) as well as two Brahms songs originally
recorded for Victor and never previously re-
leased. The two Handel arias are models of
Handelian singing: the Ariodante displays a
flowing legato line, the Berenice a florid cap-
ability rarely associated with voices of this kind.

The recordings of Alexander Kipnis are re-

RECORDINGS OF SPECIAL MERIT

ALEXANDER KIPNIS: Recital. Handel: Ariodante: Al sen ti stringo e parto. Berenice: Si, tra i ceppi. Schubert: Aufenthalt; Am Meer; Der Doppelgänger; Der Wanderer; Der Lindenbaum; Der Wegweiser. Schumann: Wanderlied; Mondnacht. Wagner: Der Doppelgänger; Fiinfthausend Thal-
Meer; Der Doppelgänger; Freiwald; Blinde Kuh; R. Strauss: Traum durch die Dämmerung; Zueignung. Alex-
Kipnis: Don Giovanni (bass) by Berlioz, Franz Bbib, and Ernst Victor Wolff (piano). COLUM- BIA M 30405 $5.98.

THE ART OF ALEXANDER KIPNIS, AL-
bum 3: Wolf: Der Söldner; Der Schreckenbe-
ger: Der Musikant; Grenzen der Menschheit; Cophistisches Lied I; Um Mitternacht; Wie
glänzt der helle Mond; Two Michelangelo Songs; Seven Songs from the "Italian Song
Book." Mozart: Don Giovanni: Catalog Aria Lottanza; Der Wicklzfächer: Fünftausend Thal-
er. Wagner: Die Walküre: Wotan's Farewell. Alexander Kipnis (bass); Gerald Moore, Coen-
raad V. Bos, and Ernst Victor Wolff (piano). Berlin State Opera, Clemens Schmalstich,
Erich Ottmann, and Leo Blech cond. SERA-
PHIM 60165 $2.98.

Performances: Remarkable
Recordings: Well restored

What a satisfaction it must be to eighty-year-
old Alexander Kipnis to see virtually all his
electrical (post-1925) recordings back in circu-
lation again! There are now three Seraphim
collections, one Columbia, and one Victrola.
The last-named appears to have been recently
withdrawn, much to RCA's discredit, but also
and knowledgeable buyers should still be able
to locate it (Victrola 1434) at some stores.
The recordings of Alexander Kipnis are re-

from 1933-1935. (The missing one is included
in the previously issued Album Two, Seraphim
60076.) The Loranzing aria and Leporello's
"Madama" (in German) are certainly not
negligible, but they pale in interest compared
to the revelation of Kipnis as Wotan. Here is
a firm young voice (it dates from 1926, when
Kipnis was thirty-five) that rolls out with a
thundering majesty in the repeated "Leb
nicht," and yet the tenderness and suffering of
the closing utterances are beautifully captured.
It was Ernest Newman, originator of the
Hugo Wolf Society and for a long time sole
champion of that hapless composer, who chose
Kipnis for the recording of these songs, and,
in so doing, set a standard for all time. The first
three songs, set to Eschendorff lyrics, are me-
loically not endearing, but Kipnis conveys
their virile, lusty character to perfection. He is
an ideal interpreter for the two philosophical
Goethe songs also, and the concluding stanzas
of Grenzen der Menschheit is another tour de
force. For the majestic Michelangelo songs and
for the beautiful Um Mitternacht, of course he
is the born interpreter.

Both discs offer more than sixty minutes of
music, including full scores of the works. The
ly informative notes by Robert Jacobson (Co-
olumbia) and Igor Kipnis (Seraphim)—and
both are enthusiastically recommended.

RECORDING OF SPECIAL MERIT

THE SERAPHIM GUIDE TO GRAND
OPERA. Selections from operas by Monteverdi,
Porcelli, Handel, Gluck, Mozart, Beethoven,
Rossini, Donizetti, Bellini, Verdi, Goun-
od, Bizet, Weber, Wagner, Strauss, Borodin,
Mascagni, Massenet, Giordano, Cilea, Janacek,
Stravinsky, Berg, and Britten; sung by
Anna Moffo, Birgit Nilsson, Anneliese Roth-
enerberger, Victoria de los Angeles, Sesto Brus-
cantini, Franco Corelli, Nicolai Gedda, Tito
Gobbi, Eberhard Wächter, and others; various
orchestras and choruses conducted by John
Barbirolli, André Cluytens, Colin Davis, Carlo
Maria Giulini, Erich Leinsdorf, Leopold Ludwig,
Giuseppe Patane, Thomas Schippers, Jer-
zy Szewczyk, Tullio Serafin, and others. SERA-
PHIM SIC 6062 three discs $8.94.

Performance: Mostly superb
Recording: Splendid

Let it be said at once that "The Seraphim
Guide to Grand Opera" comes about as close
to living up to its claim of offering "music
from the entire history of world opera" as any
set of three phonograph records could hope to
do. They are very full records, and add up to a
miniature encyclopedia on the subject. Angel
has been busy recording operas in stereo for
more than a decade, with some of our greatest
singers, choruses, and orchestras under the ba-
tons of some of the finest conductors of our
time. From this storehouse of recordings one
has done a perfectly staggering job of selecting
and programing highlights in a chronological
sequence, and the engineers have dubbed every-
thing with tremendous care, maintaining a re-
markably even quality of sound throughout.
It was Ernest Newman, originator of the
Hugo Wolf Society and for a long time sole
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STereo REVIEW
spectrum of operatic development. And the low price makes the whole package practically a giveaway.

Highlights of operas, like coming attractions of motion pictures, simply make this listener nervous as they leap from one big scene or aria to another with no surcease. What, then, of a survey that rushes from one century to another with no surcease? Surprisingly, it works. There is so much enchanting vocal work here, so many contrasts in style and mood, such a feeling of a great form evolving before you that the program is extremely compelling. From the moment the Glyndebourne Festival Chorus sings Monteverdi's "A te, sovrana augur" from The Coronation of Poppea, right up to the final chords of the "Sunday Morning Interlude" from Britten's Peter Grimes under the vigorous direction of Colin Davis, everything breathes and flows. Of course the singers are Angel's singers, which means that it is Victoria de los Angeles and not Tebaldi who sings "Un bel di," the Fidelio excerpts (unaccountably not from Klemperer's complete recording) are not the best available, Callas is for me too coarse as Carmen, and I would rather hear my Wagner with Solti or Karajan at the helm than with Franz Konwitschny. But to pursue such a line of thought further would be meaningless; there is plenty of magnificent singing and playing here. If there is any hero of the occasion it is Nicolai Gedda, whose rich tenor turns up all over the place in arias from Puccini, Verdi (his "Celeste Aida" is a thrilling one), Donizetti, and even Wagner. Miss de los Angeles also makes several enthralling appearances. If you love her pure lyrical quality, as I do, you can look forward not only to her butterfly—which may not be the greatest on discs, but is deeply affecting nonetheless—but to her work in Cavalleria Rusticana and Dido and Aeneas as well. Other Big Names who live up to their reputations in the course of the pageant are Fritz Wunderlich, Grace Bumbry, Anna Moffo, Birgit Nilsson, Mirella Freni, Tito Gobbi, and Carlo del Monte. Oh yes, and Franco Corelli fans may be appeased by knowing that he is heard in fine fettle in "Di quella pira" from Il Trovatore. The discs are wisely divided up like so: Baroque and Classical Opera; Beethoven and Bel Canto; Verdi and French Opera; Romantic and Wagnerian Opera; Nationalism and Verismo; and Contemporary Opera. The contemporary final side is a singularly fair compilation, made up of moments from Janácek's Jenůfa (the final duet), the finale from Strauss' Der Rosenkavalier, an awesome chorus out of Stravinsky's Oedipus Rex, the horror-charged final scene of the second act of Berg's Lulu, and that ominous interlude from Peter Grimes, foreshadowing the protagonist's downfall. And throughout, the use of overtures, interludes, and orchestral preludes spares the listener the continuous onslaught of the human voice.

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93
In one of the most imaginative promotional efforts of recent years, Acoustic Research, Inc., the well-known manufacturer of audio equipment, has produced the first six recordings of a (presumably) longer series devoted entirely to contemporary American music. Under the directorship of David Epstein, composer, conductor, and faculty member at M.I.T., and with an advisory board composed of such notable musicians as Milton Babbitt, Aaron Copland, Gunther Schuller, and Roger Sessions, the Acoustic Research Contemporary Music Project has thus far recorded seventeen compositions which date, generally, from the mid-Sixties. Most, if not all, of the works have been previously unavailable on records. The tapings were done in this country; the mastering and pressing were handled by Deutsch Grammophon in Cincinnati. The pieces not yet ready for the project have been beautifully accomplished, and sonics, almost without exception, are splendid. The surfaces (on my review copies, at least) are extremely good, if you discount a "pop" on one disc and two "sips" on another. The performances, too, again with modest exceptions, are stunning.

Inevitably, the first questions entering a reviewer's mind when a project like this one is unveiled are: what were its aims, and how well have they been achieved? According to a publicity statement, it was "one of the purposes of the Project to present a balance of works by well-established composers and by composers who have never before had their work broadcast or performed." The key words here are "balance" and "never before." The latter words we need not credit too much, for they are a bit of loose writing. But "balance" and "never be-

The First Six Releases in THE ACOUSTIC RESEARCH CONTEMPORARY MUSIC PROJECT
Reviewed by Lester Trimble

porty composition, and not all of them have a direct kinship either with the Second Viennese School or with the American academic profession. Naturally, only time can demonstrate what the Project's long-range plans are. In the meantime, these first recordings present a picture of a part of American music that is in itself deeply impressive, to say the very least.

Milton Babbitt's Philomel, which begins the present excursion into this segment of American music, is a work that should have been recorded long ago. Composed in 1963, it is a setting (under the word of a text John Hollander wrote especially for this work, basing it on Ovid's tale of Philomela, sister of Procne, who is raped and has her tongue torn out by her brother-in-law Ter-

er, and is subsequently transformed into a nightingale. Bethany Beardslee is heard in the soprano part, which is intricately woven into an elegant, clean texture comprising a recorded soprano voice and synthesized sounds produced on the RCA Mark II Syn-

thesizer at the Acoustic Research Electronic Center. The work is expressionistic in ambiance and almost totally pointillist in its splintering of all musical elements. Despite the high degree of structuring and detail in the piece, it is almost atmospheric in its basic impact. The many dimensions of vocal sound, in which the tape often echoes the "live" voice, give a sense of depth to this atmosphere, while the complexity of patterning in the synthesized portion produces a fascinating, though rhythmically somewhat four-square, surface.

Fred Lerdahl, the composer of Wake, which is coupled with Babbitt's Philomel, is the youngest member of this group of composers. He is a twenty-seven-year-old native of Wisconsin, Lawrence University, and Princeton. The texts for the music are taken from a collection of biographical poems for children written by Rosemary and Stephen Vincent Benet. The composer, in the liner notes, refers to the "simple ironies and convincing obviousness" of the texts as being just right for what he had in mind: "a kind of ritual presentation of music, words and pictures which might have had in mind: "a kind of ritual presentation of music, words and pictures which might have some impact on an audience of diverse make-

up." Perhaps obviousness can be more "con- cinnate" in poetry than in music. Perhaps the "ritual" is lost in this recording. Perhaps the slide projections and dancer would have taken one's mind off the music. But the messy projections in this work, if they were to be heard, would have been more convincing in poetry than in music. Perhaps obviousness can be more "con-

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ments as vibraphone, harp, alto flute, and percussion (among others) fuse in an uncannily perfect amalgam. Crumb is a masterly tone painter, and his sensitive, glowing miniatures are compelling indeed. They keep your ears riveted to them for every nuance. If the consistent colorism and exquisi
tude little tiring over the long span, that's a small price to pay for such effulgent poetry.

I should not be surprising that the fourth record, comprising Roger Sessions' Piano So-
mente into a texture that almost defies them to sing out. This is an impressive work, and a noble addition to Sessions' lengthy catalog. And pianist Robert Helps plays it gorgeously. If I stokes of the gentlest sort of lyricism etched

ting, knotty, darkly impassioned piece, with

t完全是 satisfying discs of the series. The Ses-

ulptures as vibraphone, harp, alto flute, and

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WEST COAST: 1335 WEST 1341ST ST., GARDENA, CALIF. 90241 • CANADA: S. H. PARKER CO., ONTARIO
BOB AND RAY: The Two and Only (see Best of the Month, page 75)

CLIFFORD COULTER: East Side San José. Clifford Coultor (vocals, keyboard instruments, guitar); John Turk (trumpet); Cornelius Bumpus (tenor saxophone); Gino Landry (alto saxophone); Mel Brown (guitar); Jerry Perez (guitar); Jimmy Calhoun (Fender bass); Joe Povost (drums); Billy Ingram (drums). Do It Again; East Side San José; Prayer Garden; Cliff's Place; and three others. IMPULSE AS 9179 $5.98.

Performance: West Coast style
Recording: Very good

Clifford Coultor seems to be trying to revive bebop. He dresses up the old lady with some up-to-date soul threads, snappy rock walking boots, and a few bluesy songs, and aims her straight at the pop market. She may have a tough time of it.

I liked Coultor's pieces but I was bugged by his insistence upon stretching improvisations and simple rhythmic vamps past well past the point of productive return. And his musicians play the sometimes unpredictable charts with admirable enthusiasm but very little sense of style. So let's just say that Coultor is a comer; he writes tunes that always have piquant little turns of phrase, he sings well—somewhat in the Isaac Hayes genre—and he plays dynamite piano. I hope his next recording will have a little more musical focus and a little less sense of hastily chaotic making-do.

CREEDENCE CLEARWATER REVIVAL: Pendulum. Creedence Clearwater Revival (vocals and instrumentals). Chameleon; Molina; It's Just a Thought; Born to Move, and six others. FANTASY 8410 $4.98, M 8410 $6.95, @ M 88410 $6.95, @ M 58410 $6.95.

Performance: Super pro
Recording: Excellent

This one is likely to be another instant hit for Creedence Clearwater. I only wish that their phenomenal success could be matched by my personal enthusiasm. I confess to being awed by their professional acumen (or is it the personal enthusiasm. I confess to being awed that their vitality and their undeniable good humor, the group is just not inventive enough to get through these long pieces without straining. In something like Sloony, which runs a modest (for them) three and a half minutes, they are much more appealing. The old creative saw still applies: things should only be as long as they are good.

DEEP PURPLE: Deep Purple in Rock. Deep Purple (vocals and instrumentals). Speed King; Bloodsucker; Child in Time; Into the Fire; Hard Lovin' Man, and two others. WARNER BROS. 1877 $4.98, @ B 1877 $6.95, M 81877 $6.95, @ M 51877 $6.95.

Performance: Fair
Recording: Good

One thing about Deep Purple: they don't underestimate themselves. Last time out they were putting Sir Malcolm Arnold and the London Philharmonic through their paces in a rock concerto of their own devising. The success of that effort had all the resonance of peas dropped in mud. Not daunted, for their new album cover they have their faces graven in the side of a mountain. Inside they are heard to complain, "Once I had a dream/To sing be-bop, and five others. POLYDOR 244061 $4.98.

BOBBY GOSH: Bobby Gosh (vocals and piano); instrumental accompaniment. As Long as She Will Stay; Alice Blue, Like a Muddy River; Fire and Rain; Don't Know Where I'm Goin'; and five others. POLYDOR 244061 $4.98.

Performance: Nice first try
Recording: Good

Bobby Gosh is like a muddy mongrel pup that ambles up the front lawn one day and just hangs around until you finally give in and like him a little to keep him from licking your hand off. There is nothing unusual or stylish enough about his singing to set him off from all those sound-alikes churning out their manic-depressive states of mind on record albums these days. But by the time he got around to James Taylor's enigmatic love song to a lost Suzanne, Fire and Rain, he had started growing on me. His phrasing is rough—almost growling—but there is an ache in his heart that comes through the icing of the arrangements. His voice has the gravelly quality of Richie Havens', but none of the emotional hard-sell; it has the hoarseness of Joe Cocker without the hysteria. For all of his masculine posing, he is strangely lyrical.

Gosh has been a musician most of his life. He has written songs for Diahann Carroll, Paul Anka, the driving Buddy Greco, and the monotonous Engelbert Humperdinck. He has served his time as a studio musician, and now, to relieve the boredom, he has founded the band of his own that plays on this engaging premiere disc. The years of his professional experience have produced a polished, well-paced, and nicely-planned debut. The selections are

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Arthur Park, Echo Park; Here, There and Everywhere; Holly, Holy/Sweet Caroline; and five others. WARNER BROTHERS WS 1847 \$4.98, ® 81847 \$6.95, © 91847 \$6.95.

Performance: Spangly. Recording: Excellent

Well, kiddies, over the years we've had rock-and-roll, hard rock, soft rock, acid rock, folk rock, and blues rock. Now we have rock candy. Liberace, the gentleman in the forty-pound diamond-encrusted dinner jacket, crosses the generation gap with a product safe enough for consumption in any old-folks' home. He has taken the blue denim of the young music, washed it in his piano-shaped swimming pool, sprinkled it with musical powdered sugar and synthetic sapphires, and donned it as part of his million-dollar wardrobe. The beat is rock, but the ambiance is pure cocktail lounge.

Under Mr. Liberace's tinkling ministrations, Burt Bacharach's sporting tune is transformed into something that should honestly be labeled "Walter Liberace America's bright-eyed boy"

Rhinstones Keep Fallin' on My Head. The pianist's light-fingered little tour of Cherry Hill Park, MacArthur Park, and Echo Park is a romp down a path strewn with paper petals. His Paganini on the Moon leaves the daintiest traces imaginable. And so it goes—the music of the moment translated into terms guaranteed to turn on your grandmother.

What, then, accounts for Liberace's vast popularity and that fat, fabled bank account? It can't be just the sequined jackets, the candelabra, or those tinkling keys, which can be heard in any old-fashioned cocktail lounge. Perhaps it is something winning and doleful beneath the smirk of success on that open face, which appeals to the mothers (by this time mostly grandmothers) of America. Here is a bright-eyed boy who won't turn on them in ingratitude, making the night tremble with insolent and raucous music, shattering respectability with jeering electronic chords and splitting rhythms. And now, like some St. George of the popular arts, he has slain the dragon of the New Sound, returning with its musical head on a platter to reassure his admirers that all is well, even in the rebellious land of rock. He has certainly earned his following.

P.K.

JOHNNY AND JONIE MOSBY: My Happiness. Johnny and Jonie Mosby (vocals);
instrumental accompaniment. My Happiness; Third World; Bye Bye, Love; You Go Back to Your World; Leaning on Your Love; and five others. CAPITOL ST 556 $4.98, OXT 556 $6.98, OXT 556 $6.98. Performance: My despair Recording: Good

Johnny and Jonie are one of those cheerful California couples—the kind that tell you they’re "just fine" when you ring them up even before you’ve asked—and their gift to music consists of a series of unjustifiably optimistic old-fashioned ballads, in the course of which grey skies turn to blue (and baby-blue, I'll wager), foundering marriages are salvaged through Compromise, and the blinding sun of cozy connubial joy drenches everything in sight in domestic bliss. (Third World—"We meet in secret and kiss in shadows"—might be a likely candidate for the official marching song of the Gay Liberation Front, on the other hand.) It was quite a relief, in fact, when Johnny sang his own composition, You Go Back to Your World and I'll Go Back to Mine, raising my hopes that the eternal cuteness of these two had finally got on the nerves of both of them, as it had on mine, and we could all call it quits. "Because of their genuine human qualities and unsurpassed talent," writes an anonymous admirer on the back cover of this musical jelly omelette, "Johnny and Jonie have become known as 'Mr. and Mrs. Country Music'. Hundreds and hundreds of husbands and wives—lovers too—can identify some of their own thoughts and feelings in the songs that Johnny and Jonie choose to sing. For example, just about everyone who breathes sees himself in 'I'm Leavin' It Up to You'... a song which asks the agonizing question, 'Do you want my love or are we through?'. Everyone except me, I guess. We are through."

JACK PALANCE: Palance, Jack Palance (vocals), instrumental accompaniment. Brother River; Dancing Like Children; The Meanest Guy That Ever Lived; My Elusive Dreams; Heartaches by the Number; and six others. WARNER BROS. 1865 $4.98. Performance: Bad guy, heart of gold Recording: Fair

Some actors run for office; others resort to making records. Not content with his assured place in Hollywood's heaven as the embodiment of swaggering evil—he's played the heavy in at least ten million movies—Mr. Palance has gathered up all the shamelessly sentimental old ballads he could find and committed them to vinyl. Softly, as in a morning smog from Los Angeles, he lifts a husky baritone with only half a hold on a tune in sad songs of self-sacrificing drabs with names like Hannah; of traveling salesmen driven to telephoning their own wives from lonely motel rooms when Sally, Lucy, and even Linda turn out to have other plans; of "heartaches by the number" and a song actually entitled A Little Bitty Tear, of which no further description could possibly be necessary. Only once—in a thoroughly funny spoof—written, by the way, with creditable skill by himself—does Mr. Palance lift himself out of this musical morass. It's a number called The Meanest Guy That Ever Lived, which happens to describe just the sort of character this actor used to play (and still does), and on which he built his reputation. He puts it over. The rest is sorry stuff. P.K.
PEARLS BEFORE SWINE: The Use of Ashes. Pearls Before Swine (vocals and instrumentals). The Jeweler; From the Movie; Rock- et Man; God Save the Child; Song About a Rose; Tell Me Why; Margery; The Old Man, Riegel; When the War Began. REPRISE RS 6403 $4.98, ® B6403 $6.95, ® M 86403 $6.95, ® M 54063 $9.95.

Performance: Promising
Recording: Very good

This is the second Pearls Before Swine album that Reprise has released. The first was released without fanfare and died. This one is being advertised, but it is still a bargain. The album is a mixed bag, with some excellent songs and others that fall flat. Overall, it's a worthwhile addition to the Pearls Before Swine catalog.

Performance: Bitter
Recording: Good

For those of you who are new to the band, Pearls Before Swine is a unique and innovative group. Their music is a blend of rock, folk, and classical influences, and their performances are always memorable. The album is available in stereo and mono formats, and it's definitely worth checking out if you're a fan of alternative rock or just looking for something new and different.

TOM RUSH: Love, a Kind of Hate Story. Tom Rush (vocals); instrumental accompaniment. I've Got a Message to You; Dim-light; Where Do You Go to My Lovely, You Can't Stop Yourself; Sad Song; Georgia by Morning; Ole to an Old Ball; Sympathy; I Know These Two People, Jamie Sue. TIM ROSE: Love, a Kind of Hate Story. Tom Rush (vocals); instrumental accompaniment. I've Got a Message to You; Dim-light; Where Do You Go to My Lovely, You Can't Stop Yourself; Sad Song; Georgia by Morning; Ole to an Old Ball; Sympathy; I Know These Two People, Jamie Sue. TIM ROSE: Love, a Kind of Hate Story. Tom Rush (vocals); instrumental accompaniment. I've Got a Message to You; Dim-light; Where Do You Go to My Lovely, You Can't Stop Yourself; Sad Song; Georgia by Morning; Ole to an Old Ball; Sympathy; I Know These Two People, Jamie Sue.
much. The album persistently gives me the vague feeling there's something wrong with—it I think it may be that it lacks emphasis—and yet I keep wanting to hear it again.

The album isn't many wasted moments. Tom's rich, always unexpectedly deep voice is ideal for the two James Taylor songs included—its richness simply engulfs Sweet Baby James—and he has written a fine song of his own, Starlight, which sounds influenced by Taylor and should have some future. The title song, which is pretty good, Merrimac County, which is a pretty ordinary neo-folk thing, and Rotunda, which just isn't my type, were written by Rush and Trevor Veitch, the Canadian guitarist who backs him with vocals and instruments here.

Rainbow's a collection of fine, mellow sounds, with something vaguely wrong but with several things that are obviously right about it.

N.C.

GARY AND RANDY SCRUGGS: All the Way Home. Gary Scruggs (lead vocals, bass, piano, organ); Randy Scruggs (guitar, banjo, vocals); various accompaniments. Louisiana Man; If I Were a Carpenter, Shady Grove; I'll Be Your Baby Tonight; Road to Nowhere; Black Mountain Rag; Woodstock; and four others. VANGUARD VSD 6538 $4.98.

Performance: Maundering
Recording: Very good

I assume these are the sons of Earl Scruggs, the famous banjo player. I was all set to verify that, but then I listened to the record, and it suddenly seemed more trouble than it was worth. The elements are Grade-B vocals, passable but pedestrian, the usual impressive technical skill with the instruments, and every arrangement cliché of the last five years. It sounds as if the arrangements just sort of, you know, happened, you know, with everyone taking turns struggling until finally someone says, "Well, let's try this." And so we have a heavy pause here, a girl chorus saying "Aaah" there, one of those pretentious John-Hartford-type banjo riffs somewhere else, and so on. It really gets sad when Dylan's I'll Be Your Baby Tonight ends with a fairly well-known classic Spanish guitar riff—about as sensible in that song as planting palmettos in Anchorage. Woodstock, Let It Be, and If I Were a Carpenter are the major disasters; Joan Baez's Sweet Sir Galahad is treated best.

The lesson seems to be that it takes more than musical skill to produce good pop music. I'm glad.

N.C.

PAUL SIEBEL: Jack-Knife Gypsy. Paul Siebel (vocals, guitar); various musicians. Jasper and the Miners; If I Could Stay, Prayer Song; Legend of the Captain's Daughter; Chips Are Down, Pinto Pony, and four others. ELEKTRA EKS 74081 $4.98, @ M 84081 $6.95, @ M 54081 $6.95.

Performance: Catchy
Recording: Very good

Melody is back with us, as all but the blindest Steppenwolf fans know, and this album is almost a celebration of its return. Paul Siebel has written several melodies that have the property of being both catchy and easy to follow that they don't sound new, or at least you wonder why no one thought of them before. That kind of melody tends to age rather quickly, and Siebel is no Dylan when it comes to grabbing at immortality with lyrics. Siebel's lyrics are a bit pretentious. I also find his vocals a bit wearing, for he has a sort of whining, honey-dipped singing style that sounds vaguely like Nilson at times. The song Uncle Dudley sounds like Siebel trying to write like Randy Newman and sing like Nilson. Unlike Nilson, he seems to understand few of the subtleties of the whine as a musical sound.

Buddy Emmons' pedal steel guitar, dominant among some excellent backing arrangements, gives the record a country feel, and the occasional honky-tonkiness in Ralph Schuckett's piano and the appearances of Doug Kershaw's fiddle (he sure gets around) add to that. Some of the songs should be quite commercial, but I don't think many will last long enough to be considered major works of pop art. Siebel is a gifted musician, however, and I would guess he has some truly extraordinary songs still inside his head.

N.C.

MAVIS STAPLES: Only for the Lonely. Mavis Staples (vocals), orchestra, Horace Ott on the piano and organ; Randy Scruggs (guitar, banjo, vocals); various accompaniments. Louisiana Man; If I Were a Carpenter; Shady Grove; I'll Be Your Baby Tonight; Road to Nowhere; Black Mountain Rag; Woodstock; and four others. VOLT VOS 6010 $4.98.

Performance: Hysterical
Recording: Good

Mavis Staples has a bluesy, no-holds-barred voice that goes hog-wild, jumping, screaming, and falling apart all over the place with power to spare. But this album is a drag. The whole thing is ridiculously over-chaotic, the material is fifth-rate, she repeats herself, and there is something missing called heart. By the time one gets to the second side, it's hard to concentrate. For a sampler, listen to the way she massacres Since I Fell for You. This is a wiseful, heartwarming song; Miss Staples sounds as if she's about to plunge a butcher knife through her left kidney during the final chorus. She has an even rougher, more gospel-based approach than Aretha Franklin, but she hasn't the foggiest idea when to lash out with her assets and when to hold back for an occasional required contrast. I think she's in for pretty barren times ahead.

R R

TEN YEARS AFTER: Watt. Ten Years After (vocals, instruments). I'm Coming On; My Baby Left Me, Think about the Times; I Say Yeah; The Band with No Name; Gonna Run. She Lies in the Morning; Sweet Little Sixteen. DERAM XDES 18030 $4.98, @ M 77050 $6.95, @ M 77850 $6.95, @ M 77650 $6.95.

Performance: Variable
Recording: Very good

The attraction here, as always, is the guitar work of Alvin Lee, one of the more tasteful electricians of rock—but the material in this one, though varied, has little punch. Saying this group's earlier album Cricklewood Green is better than Watt is like saying Lew Alcindor is taller than George Gobel. Perhaps the least successful bit is the pseudo-jazz thing, Gonna Run, which starts out by having the band imitate Canned Heat and ends by having it imitate countless piano-dominated jazz combos. It reminds the listener that Chick Churchill's keyboards—although they can't do much for Gonna Run—could brighten up some of the straight rock stuff if they could be heard.

The various failings of Ten Years After have been hashed over before—Lee's weakness as a vocalist, his lack of originality as a songwriter, his sometimes unwise domination of the
group—and some are so cruel as to argue that Lee's ability to play fast is somehow a weakness. Lee is, in fact, an excellent guitarist, the cleanest of all the "heavy" electric guitarists, and he does some fine work in this collection. The problem with this album is mainly the songs are dull, and the shoptalk approach to arrangements doesn't make them any less so. Dedicated fans will find some bright spots; many others will be bored. N.C.

TOWER OF POWER: East Bay Grease. Tower of Power (vocals and instrumentals). Knock Yourself Out; Social Lubrication; The Peace; Back on the Streets Again, and two others. SAN FRANCISCO SD 204 $4.98. Performance: Funky rock-jazz. Recording: Very good

Here's more of the brassy jazz-rock that has proved so successful for Blood, Sweat & Tears, Chicago, and the like. Tower of Power is a San Francisco-based group, one of the first to be signed by the Fillmore's new recording company. The talent is there. Rufus Miller is a strong lead singer, and the band has soloists galore. But the main problem persists: can the group create arrangements and rock rhythms truly be compatible—or, in fact, should they be compatible? I have my doubts, and Tower of Power doesn't do much to alleviate them. The occasional provocative moments are rarely the integrative kind—usually a zinging vocal section or some funky jazz playing, but almost never a combination of the two. This is an enjoyable group, with the beginnings of an identity, but not yet sure about its sense of direction. D.H.

THE WINTER CONSORT: Road. Paul Winter (sax); David Darling (cello); Ralph Towner (guitars); Paul McCandless (oboe, English horn); Collin Walcott (percussion); Glen Moore (bass); Icarus, Fantasy, Fugue, & Ghost Beads; Un Abrace; Ave Maria Stella—Andromeda; General Pudson's Entrance; Come to Your Senses, Requiem; Africanus Brasileiras Americanus. A & M SP 4279 $4.98.

Performance: Overreaching. Recording: Very good

It's mostly jazz, but with marked classical and pop influences. Paul Winter's Consort has won some friends on campus during the past several months, largely on the mild and rhythmic sounds, but this recording doesn't quite capture what the group can do. The playing of jazz is either an all-involving experience or it isn't, and when it isn't it usually sounds like exhibitionism—which it too often does here.

Winter's phrasing will remind many of Paul Desmond. But when he really sets up an improvisation problem, as he does with Come to Your Senses, Winter lacks Desmond's smoothness. Andromeda, a long and rippling piece without much of a plot, gives everyone a chance to air everything, and it produces several disappointments, the most notable being David Darling's self-indulgence with the cello. On his own composition Requiem, Darling proves he can be a sensitive, tasteful cellist.

Both Winter and Paul McCandless are capable, but there are times I wish they weren't both playing at once. A sax and an oboe or a sax and an English horn don't exactly harmonize; they give the recording two centers of gravity. But Towner, a promising composer—more classical than the others—understands the function of a guitarist in a group like this and I hope the arrangements make more room for him in the future. N.C.

THE OMSK RUSSIAN FOLK CHORUS. Omsk Russian Folk Chorus (vocals with instrumental accompaniment), Georgy Pantukov director. Song of Yermak; Flax; Beyond the Meadow; I'll Turn into a Chokeyerry Tree; Balalaika—Golden Strings; Lyric Laments; As I, So Very Young; In the Moonlight; and eight others. MELODIYA/ANGEL SR 40148 $5.98

Performance: Beautiful but bland. Recording: Good

When the Siberian Dancers and Singers of Omsk opened an American tour in Carnegie Hall on January 29 of this year, the attention of the audience was distracted (to say the least) by the stool from ammonia from bottles opened by protesters, by telephone box threats, and by a scattering of leaflets from a balcony box, all arranged by a militant group describing itself as the "Student Struggle for Soviet Jewry." At one point the curtain had to be rung down while a bomb was searched for, and when it went up again there was a standing ovation for the Siberians. As a result of this stupidity—performing artists have enough trouble in the Soviet Union without harassment by extremists when they visit America—the entire evening was thrown out of kilter.

Listening safely in my own apartment to the Omsk Russian Folk Chorus on this record, I wondered if they would really have brought down the house the same way under normal circumstances. The mere idea of there being a chorus in the frozen spaces of Siberia is no doubt remarkable, and this is a thoroughly professional group that would do honor to anylocale in the world. Yet as they sing these time-honored folk tunes about abandoned sweethearts, maltreated waves, girls who turn into cherry trees with nightingales in their branch-es, and patriotic salutes to "Mother Siberia" ("this song is as happy and beautiful as life in Siberia"), they inevitably invite comparison with more vigorous and enthralling groups like the Red Army Chorus. All the balalaikas and accordions in the Soviet Union could not conceal a certain blandness in the vocal arrangements and a heaviness in the choral harmonies. The Shostakovich arrangement of As I, So Very Young, in fact, comes as a pleasant exception, and shows there are spookier ways to the heart of a folk song than the customary stolid approach of the Omsk Chorus. Still, it must be a warming thing to hear them on a frozen evening in their native habitat, and the program as a whole is authentic, pleasant, and well recorded. P.K.


Performance: Soothing. Recording: Very good

Like an underground river beyond reach of the world's pollutants, Pentangle happily gurgles along, singing the traditional folk songs of years gone by. Pentangle is a quintet of perfectly matched musical voices that chases the melodies of loves gone by and captures the gentle sentiments of a world that has lost its innocence (if it ever did). Their folk tales of maids and robber bridgegrooms and highwaymen and lords and ladies in distress are tall and sad and fanciful. Pentangle weaves its vocals, its instruments, and its tasteful harmonies in and out of these folk songs with the deftness of a shuttle. Encounters with folk singers usually have an instant eye-glazing effect on me. Pentangle passes the eye-glaze test. Their music is meaningful today, but it is certainly easy on the ears. R.R.

LOS PINGUINOS DEL NORTE: Music of La Raza, Vol. I. Los Pinguinos del Norte (vocals and instrumentals). El Contrabando del Paso; Jacinto Trevino; El Gallino; Dos Herma nos; Tejano Americano, and four others. AR- HOLIE 3002 $5.98.

Performance: Corridos of courage. Recording: Good

On the cover of this album is the familiar well-padded Mexican trio in panama hats, holding the three babble backing vocals and guitar, and behind them the rows of bottles in a well-stocked cantina. I braced myself for the usual strolling Mariachi sugar cane. What's inside is something else again. These are topical songs from the Rio Grande Valley border (la raza) that reflect the sullen anger and aspirations of a people who have been pushed around since 1845, when Texan troops moved in with the help of U.S. forces to assert their claim on the Mexican side of the river. Ever since then there has been exploitation of the peons, sometimes by the Texas Rangers, sometimes by their own dictators such as Diaz. Out of this has grown a border music comparable in its sly political content to the calypso of Trinidad in the days when improvisation of topical songs reflected the authentic expression of popular feeling on the leading issues of the day.

The Mexicans call this kind of a song a corri do—a running story in song—and each of the ballads offers a rudimentary plot with political overtones. The element of protest is usually more implied than overtly stated. Gregorio Cortez, for example, tells the story of a Mexican peon who shoots a sheriff and is pursued by dogs until he turns himself in, but there is no sologanning. Benjamín Argumedo celebr ates the exploits of a popular hero who smiles insolently when he is about to be shot by his captors. El Contrabando del Paso tells of Mexican prisoners sent to Leavenworth for dealing in contraband on the Texas border. In Jacinto Trevino, a brave peon challenges the "cowardly rangers" and warns them, "You are not fighting with children." The corridos are sung generally by roving groups who perform for their audiences of field workers in cantinas, dance halls, on the streets, at picnics. Los Pinguinos del Norte (The Penguins of the North) is one such group. Their fervor and sincerity come across well on this disc, although it must be said that there is a certain monotony to the music. I long for the melodies seldom live up to the words in power. Texts in both English and Spanish are supplied. P.K.

(Continued on page 106)

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This record is the result of two years of intensive research in the sound libraries of Deutsche Grammophon Gesellschaft, Connoisseur Society, Westminster Recording Company and Cambridge Records Incorporated. The Editors of Stereo Review have selected and edited those excerpts that best demonstrate each of the many aspects of the stereo reproduction of music. The record offers you a greater variety of sound than has ever before been included on a single disc. It is a series of independent demonstrations, each designed to show off one or more aspects of musical sound and its reproduction. Entirely music, the Record has been edited to provide self-sufficient capsule presentations of an enormous variety of music arranged in a contrasting and pleasing order. It includes all the basic musical and acoustical sounds that you hear when you listen to records, isolated and pointed up to give you a basis for future critical listening.

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MAY 1971
I

Is our nostalgia getting out of control?
When No, No, Nanette opened on Broadway in 1925, it had already been panned in Detroit and Cincinnati tryouts. "We were the flop of all time," Irving Caesar, the lyricist of Tea for Two, recalls. The show did a lot better in Chicago, chalking up the longest run in the city's history. Then it ran for 321 performances in New York after a happy summer in Boston, and more than twice that long in London, where tea, after all, is the national beverage. There's been a movie of it almost every decade since—a technicolor one in 1930; a 1940 remake with Anna Neagle, Richard Carlson, and Helen Broderick; a 1950 version, with a different plot and Doris Day and Gordon MacRae, called Tea for Two. All of them were flops. I also saw a television production, fairly faithful to the original, around 1950, but can't find anybody else who remembers it. Now the lines stretch out of sight from the 46th Street Theatre in New York, and the show is liable to spawm as many road companies as the legendary Chu Chin Chow. How come?
The book has been rewritten and the music rearranged in Ralph Burns' orchestrations—burnished up, anyhow, but it's still the same old silly story about a schoolgirl named Nanette, the daughter of a Bible publisher, who wants to kick up her heels before she settles down and marries handsome Tom Trainer. She's tired of being told "No, no, Nanette," and she and all her friends go off for an Act Two spree in Atlantic City against her parents' wishes. But the whole cast, including the parents, winds up there also, and complications ensue of the type peculiar to old-time musicals: Nanette loses Tom, and all's well that ends well in Act Three. Not one dirty word, nor a nude stalk is gentle without being flabby as her suitor Tom who sings Tea for Two to her in the cottage of their dreams, Bobby Van is youth eternal, Jack Gilford makes the most of the Goodman lyrics ever sung: "Day will break/And you'll awake/And start to bake a sugar cake/For me to take/For all the boys to see..." So why the long lines outside the theater? Ah, but who cares about the words or plot when there's that wonderful Vincent Youmans score: I Want to Be Happy, Tea for Two, I've Confessed to the Breeze, Call of the Sea, and all the rest, including the title song, which has always reminded me of the last movement in Dohnányi's Suite in F-Sharp Minor. Now Youmans is dead, Otto Harbach is dead, and only Caesar is alive to tell the tale, but adapter Burt Shevelove has managed to bring Busby Berkeley, Patsy Kelly, and even Ruby Keeler herself back in person from the afterworld of the Late, Late Show for a grand resurrection and people are turning out in droves to seek shelter in the innocence of Nanette's easygoing ambiance. The Columbia original-cast recording is a marvel of musical-comedy album-making. Produced by Thomas Z. Shepard at the CBS 30th Street studios in New York, where so many good things have happened on discs, the record reflects the high spirits of the event fully and generously from the time Helen Gallagher, the gay divorcée of the piece, sings Too Many Rings Around Rosie to the moment when Patsy Kelly as the housemaid comes on for a turn in Take a Little One-Step. The whole score tingles and scintillates, with lots of resourceful use of stereo and every sort of tonal and rhythmic variety to bring you the impact of the vigorous choral singing, orchestrations that evoke the period without precisely reproducing its weaknesses, and even the sound of the tap to the moment when Patsy Kelly as the housemaid comes on for a turn in Take a Little One-Step. The whole score tingles and scintillates, with lots of resourceful use of stereo and every sort of tonal and rhythmic variety to bring you the impact of the vigorous choral singing, orchestrations that evoke the period without precisely reproducing its weaknesses, and even the sound of the tap-tap of Miss Keeler, who plays Nanette's mother and says a few words here and there in the same celebrated deadpan drawl that won her that job from Warner Baxter in 42nd Street. Susan Watson pouts winningly as Nanette in song after song, Roger Rathburn, Helen Gallagher, Susan Watson, and Patsy Kelly (vocals). Chorus and orchestra, Bubber Davis cond. Overture; Too Many Rings Around Rosie; I've Confessed to the Breeze; Call of the Sea; I Want to Be Happy; You Can Dance with Any Girl; No, No, Nanette; Tea for Two; and six others. COLUMBIA S 30563 $5.98, © SA 30563 $5.98. © ST 30563 $6.95.

NO, NO, NANETTE (Irving Caesar-Otto Harbach-Vincent Youmans). Original-cast recording. Ruby Keeler, Jack Gilford, Bobby Van, Roger Rathburn, Helen Gallagher, Susan Watson, and Patsy Kelly (vocals). Chorus and orchestra, Bubber Davis cond. Overture; Too Many Rings Around Rosie; I've Confessed to the Breeze; Call of the Sea; I Want to Be Happy; You Can Dance with Any Girl; No, No, Nanette; Tea for Two; and six others. COLUMBIA S 30563 $5.98, © SA 30563 $6.98. © ST 30563 $6.95.

NO, NO, NANETTE. Music from the Broadway musical. The RCA Broadway Strings and Velvet Voices, Johnny Douglas arr. and cond. RCA LSP 4304 $5.98, © P8S 1706 $6.95, © PK 1706 $6.95.
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MAY 1971
JAZZ

RECORDING OF SPECIAL MERIT

CHARLIE BYRD: The Stroke of Genius.

Charlie Byrd (guitar); orchestra. Wave, Parvanne, Brown Baby, Pretty Butterfly, What Is a Friend, Nothing but a Fool, and six others. COLUMBIA C 30380 $4.98, © CA 30380 $6.98.

Performance: Expert

Recording: Excellent

To anyone who likes good guitar playing, Charlie Byrd doesn't need any introduction. He is among the best, and his new album is one of his best efforts. Backed by a small group of first-rate musicians, he gives a silvery performance that ranges from the classic repertoire to the blues. My favorite performance was Everybody's Talkin', which seems to me to sum up all that Byrd is so good at: mood, musical tension, and just plain lovely sound. Other highlights are Parvanne and Something Like the Blues. Byrd truly deserves the title of guitar virtuoso.

P.R.

RECORDING OF SPECIAL MERIT

MILES DAVIS: Miles Davis at Fillmore.

Miles Davis (trumpet); Chick Corea (electric piano); Steve Grossman (soprano sax); Keith Jarrett (organ); Jack DeJohnette (drums); Dave Holland (bass); Airoto Moreira (Brazilian percussion). Wednesday Miles; Thursday Miles; Friday Miles; Saturday Miles. COLUMBIA G 30308 two discs $4.98, © GA 30308 $7.98, © GT 30307 $7.98.

Performance: Quintessential modern jazz

Recording: Good

I was in the audience at the Fillmore East on three of the four nights when these tracks were recorded. The program was curious: Miles Davis group played the opening half, followed by a solo recital of original songs by Laura Nyro. Curious, because despite the similarly charismatic presence that Davis and Miss Nyro bring to their performances, they don't seem to reach the same audiences. The updated contemporary jazz that Davis has been developing in highly original fashion, for the last few years has come to almost overwhelming artistic maturity. The music of the Davis group, on those four nights in December 1969, was one of the high points of my listening year, but its superb qualities had little impact upon most of the Nyro fans, who waited with unharmed beauty and noisy conversation for their idol to appear. A shame, since they were missing a listening experience that was at least the equal of Miss Nyro's best songs.

Anyhow, Columbia's tape recorders were there too, listening and preserving all the magical moments. Just how producer Teo Macero and Davis made their decisions about what to include and what to omit is a mystery, but each choice must have been rendering, because so much of what was played was worth keeping.

For the purpose of the recording, the nights have been broken down so that a compacted version of each evening's set is represented by the side of a disc. To distinguish among them would almost be absurd. Suffice it to say that the sounds might be a little difficult to approach for those who still are hung up on the Davis music of circa 1957 or 1958 (playing sweet love ballads through a Harmon-muted horn). The Davis heard on these discs is fragmented, chaotic, and avant-garde, but also warm, flowing, and sensual. I suspect, too, that his playing has changed less than has the setting that surrounds him. He now chooses to frame himself in a milieu of ripping, grinding electronic sound, complex cross-rhythms, and the stunning acoustic sound effects produced by the percussion instruments of Brazilian Airto Moreira. If you've been reading my reviews lately, you surely are aware of the fact that I've given rave notices to almost everything Miles Davis has put on records for the last few years. I can't stop here, even though I'm running out of superlatives. So don't let my descriptive inarticulateness keep you from experiencing the rare pleasures of Miles Davis at the Fillmore.

D.H.
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Some other factors that affect tonearm performance include its overall length (the longer the better), its dynamic balance, and the position of the cartridge in the tonearm head (affects tracking error).

Still more to consider.
And while the tonearm is performing all these functions, other things are going on.

For example, the record must rotate at precisely the right speed, or pitch will be off. The motor must be quiet and free of vibration, or rumble will be added to the music. The platter must weigh enough for its flywheel action to smooth out speed fluctuations. And, of course, the stylus must get to and from the groove as gently as possible.

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STEREO TAPE

Reviewed by NOEL COPPAGE • DAVID HALL • IGOR KIPNIS • PAUL KRESH

AUBER: Fra Diavolo—Overture (see OFFENBACH)

BERLIOZ: Le Corsaire—Overture (see OFFENBACH)

RECORDING OF SPECIAL MERIT

DEBUSSY: Sonata for Violin and Piano; Sonata for Cello and Piano; Sonata for Flute, Viola, and Harp; Syrinx for Flute Solo. Boston Symphony Chamber Players. DEUTSCHE GRAMMOPHON © 330018 $6.95.

Performance: Exceptional
Recording: Excellent
Playing Time: 45'53"

In 1915 Debussy embarked on what were to be his final creations, an intended group of six sonatas for a variety of instruments, of which only the first three were completed. In style, they belong among the more abstract works of that last period, they are highly sophisticated pieces which make far more demands on the listener than the majority of Debussy's music does. The earlier and brief Syrinx, on the other hand, is more obviously sensuous and colorful, but it makes an excellent fillip to the three last sonatas. These performances are extraordinarily good throughout—creamy in tone and exquisitely balanced (for instance in the Sonata for Flute, Viola, and Harp). I do not ever remember having been as impressed with any performance of the Violin Sonata the way I was with this interpretation, in which color, texture, and phrasing and dynamic details are stunningly projected. That same refined quality is typical also of the Flute, Viola, and Harp Sonatas; Syrinx is warmly evocative, and only the Cello Sonata misses perhaps that last degree of perfection to be heard in the other interpretations here.

The sonic reproduction is airy yet well detailed; a comparison of the cassette and disc versions indicates that the latter is just a touch brighter and more open. The cassette version, with a minimal amount of tape hiss, is nonetheless a very attractive example of how good cassettes can sound.

Explanation of symbols:

Reel-to-reel tape
Four-track cartridge
Eight-track cartridge
Cassette

The first listing is the one reviewed; other formats (if available) follow it.

Monoaural recordings are indicated by the symbol M.; all others are stereo.

FAURÉ: Requiem, Op. 48. Martina Arroyo (soprano); Hermann Prey (baritone); Robert Arnold (organ); Musica Aeterna Orchestra and Chorus, Frederic Waldman cond. DECCA © 73-10169 $7.95.

Performance: Good
Recording: Good
Playing Time: 37'

Writing of the disc issue of this performance of Gabriel Faure’s lovely Requiem in the June 1970 STEREO REVIEW, I mentioned the many fine recordings this music has enjoyed over a period of more than thirty years, and noted that this new Decca disc offers another good one, under the sensitive and knowing direction of Frederic Waldman. Martina Arroyo is in lovely vocal form in the famous soprano solo Pie Jesu, and Hermann Prey sings with warmth and manliness in the Offertory and Libera me. The organ part is effectively balanced and contrasted against the dark-hued orchestral timbre, and the recording itself is endowed with a warm concert-hall ambiance.

As for the cassette issue, which appears to be the work’s first U.S. issue in any tape format, it compares well in every respect with the original disc, save for a very slight motion problem near the beginning of side one of my review copy. I also regret the lack of program notes and text.

GRIEG: Peer Gyn—Incidental Music. Preludes: Morning Mood; The Death of Aske; Anitra’s Dance; In the Hall of the Mountain King; Ingrid’s Abduction and Lament; Arab Dance; Peer Gynt’s Homecoming; Solveig’s Song; Dance of the Mountain King’s Daughter. London Philharmonic Orchestra, Rafael Kubelik cond. LONDON © A 30607 $4.95.

Performance: Idiomatic
Recording: Fair
Playing Time: 40'20"

Fiedler, in his first and only recording with the full Boston Symphony, offers a loving and full-blooded reading of the ’New World,’ well played and excellently recorded. Otto Gerdes, better known as a record producer for Deutsche Grammophon, is brash and insensitive to the music’s poetry. The recorded sound is such as good, but there is an astounding amount of extraneous noise from the orchestra’s players. Kubelik’s reading is the most poetic and idiomatc of the three, but the 1957 recording is a multi-miked, close-up affair, and quite unnatural in its ambiance. In short, neither of the budget-priced cassettes is any bargain. My review copy of the Kubelik is troubled by bad drop-outs at the beginning. And all three cassettes have more background hiss than I care to live with.

D.H.

DUKAS: The Sorcerer’s Apprentice (see OFFENBACH)


Performance: Good
Recording: Good
Playing Time: 53’44"


Performance: Incomplete but pleasant
Recording: Very good
Playing Time: 39’10"

Gilbert quarreled with Sullivan, Maeterlinck despised Debussy’s devotional line—by-line setting of his Pelléas and Melisande, and Grieg’s score for Peer Gynt was nothing but an irritant to Ibsen. He had written an ironical allegory about a Norwegian peasant who boasts and lies his way around the world until his de-
odies and rich variations, will do. There are and scarcely assuage the appetites of us Grieg- 
ifiers. The suites provide only nibbles 
ate Solvejg redeems him 
only one available thus far on a cassette, how-
lacks the chorus which provides so much of the 
third is this collection of ten excerpts under 
100 STEREO REVIEW

MILHAUD: L'Homme et son désir (see SATIE)

OFFENBACH:Gaîté Parisienne. BERLI-
OZ: Corsaire Overture. AUBER: Fra Diavo-
o Overture. Berlin Radio Symphony, Paul 
The Sorcerer's Apprentice. Monte Carlo 
Fréaux cond. HELIODOR © 331201 5498.

Performance: Spanking and sparkling
Recording: Very good
Playing Time: 49' 20".

Here is nineteenth-century French music be-
whole-the-tone chord got hold of it and 
pression took over. It is sparkling stuff, 
big and insubstantial as champagne, and 
it's likely to go dead if light is to stand around. 
strauss, who conducts the Berlin 
radio Symphony in all but one of the pieces on 
program, never allows that to happen. I didn't 
think I would ever hear a Gaîté Parisienne 
the rhythmic flavor and joi de vivre of 
Doriot brought to it on his enduring recording 
for Mercury, but Strauss, if a bit too hard-driv-
and overbearing at times, also lets the 
Ouenbach tunes bubble forth intoxicatingly 
from the sumptuously arranged ballet score, 
heard complete from cant-can to gliding bar-
Berlioz's lustrous overture from Le 
Auber's frivolous and always fresh over-
ture to Fra Diavolo abound with equal 
The Sorcerer's Apprentice, with Louis Fré-
maux at the helm of the Monte Carlo 
Ovation, sounds a bit rushed—he really 
dashes to and fro trying to empty those buck-
ets—but again the brilliance of this orchestral 
tour de force emerges undiminished. The 
and clear, and there are 
rijative liner notes.

RAVEL: Trois Poèmes de Stéphane Mal-
marlène (see SATIE)

RECORDING OF SPECIAL MERIT

SATIE: Socrate (complete). Marie-Thérèse 
Escirhano (soprano), Socrate; Michele Bedard 
(soprano), Phèdre; Emiko Iiyama (mez-
zzo-soprano), Alcibiade; Gerlinde Lorenz 
(soprano), Phèdon; Ensemble "Die Reihe.

Friedrich Cerha cond. VOK © 678030 $9.98.

Performance: Very good
Recording: Dolphized and highly 
Playing Time: 68' 45".

This very-long-playing cassette features vocal 
works written between 1913 (the Ravel cycle) and 
1921 (Milhaud's colorful ballet depicting a 
Imprissive love-death allegory in the jungles of 

AMPEX MAIL-ORDER SERVICE

Ampex, in an effort to supplement the 
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Brazil). In between are the brief and rather 
stravinsky songs (1912-13) and—
the longest selection—Satie's "symphonic drama" 
Socrate (1918-1920), a three-part vocal 
version of sections of Plati's Dialogues. 
Socrate is an extremely avant-garde work, none too 
Satie and, though exquisitely written, quite barren 
of emotion, even in the scene devoted to 
the death of Socrates.

The performances throughout are all very 
good, though I thought of Socrate ren-
dered a little less fluidly, and with a greater feel-
ing for atmosphere, than it is here. The 
Milhaud, which the composer conducts himself, is 
the most colorful and effective performance on 
the entire cassette. As for the recording, this 
cassette could be one of the first to be duplicated us-
ing the Dolphy process. The result is amazing; 
the sound is very clean, with neither any con-
striction or any boxed-in feeling. With Dolby 
in," one simply does not hear hiss. I tried 
a slight treble boost, and it added a bit of 
the bass. The bass was very clear, with neither any con-
striction or any boxed-in feeling. With Dolby 
music without the over-advertised sensibili-
ties (there are no liner notes at all)—she just 
sings. It's a generous program of songs. On 
this cassette, Vanguard offers more than two 
dozen of Miss Baez's recordings for the com-
pany over the past ten years, selected from the 
many albums she has made, and her virtuosity 
is everywhere evident. Here is Mary Hamil-
that sad, sad ballad about the maid caught 
up in the intrigues of Scottish court life and
hanged unjustly; here is Silver Dagger, four brief verses that tell a whole tragic Appalachian love story; here are Bob Dylan's Farewell, Angelina and A Hard Rain's a-Gonna Fall—interpreted almost more definitively than when sung by their author. Here are No Expectations and John Riley and the half-religious, half-defiant If I Were a Carpenter and Geordie and Te Ador and the tearful Manha de Carnaval. Here are songs of political protest, too, against war and poverty, but real songs—not ragged broadsides. A beautiful program, and a splendid job of dubbing too.

P.K.

RECORDING OF SPECIAL MERIT

JOSE FELICIANO: El Fantastico! Jose Feliciano (vocals, guitar); orchestral accompaniment. Tu me hace falta; Mi generous; Un poco tarde; Maria Isabel; Boda gris, Sabor a mi; and six others. RCA © PK-1598 $6.95.

Performance: Fantastico is the word. Recording: Flawless. Playing Time: 35'13".

In a world overcrowded with Latin guitarists and vocalists, all wearing their corsets on their sleeves, what's so special about Jose Feliciano? "Te quiero," sings this blind Orpheus from Puerto Rico to some nameless Eurdice, "I want you." "Tu me hace falta," he tells her, "I need you." All Latin cantores go on like this, but with Feliciano the earnest simplicity of the vocal approach and the tension without tension in the plucking of taut strings purges the old cliches of their weariness. The emotion he celebrates in his singing and playing becomes for once believable. The strings turn out to belong, not to the guitar, but to the singer's heart. How does he do it? Perhaps it is the absence of fat in his tone and in his playing; a kind of polyunsaturated style, free of the heavy-breathing passion that plagues mock most attempts in this vein by lesser talents.

On this superb cassette (RCA's have progressed from being the worst to being the cleanest and best-balanced, with the least hiss and roughness), Feliciano dwells on blighted love, on longing and separation, on a "grey mood" sounds less synthetic than in the rest of the program, but even here it's revealing that the songwriter's notion of happiness is, in his own words, "an old-time movie.

MIHALIS VIOLARIS: The Songs of Mihalis Violaris. Mihalis Violaris (vocals); instrumental accompaniment. Caterina and I; A Girl from Limassol; Even if the Sun Rises Twice; My Sun, My Sun; I Was Twenty; Thodoris; Saturday Evening; Eyes of Dawn; and four others. P. L. © MCPI 135 $6.95.

Performance: Good. Recording: Very good. Playing Time: 36'43".

Somewhere between Zoeba and Spiro Agnew there are a lot of Greeks more typical of the humanity native to that ancient land, and Mihalis Violaris is one of them. Here he shows a conspicuous lack of the bluster too many Americans have come to associate with "the Greek personality," whatever that is. He seems gentle and sensitive and not even very talkative.

Violaris has a clear, pleasant, middle-register voice that goes higher than low and can make some neat ornamental maneuvers when he calls upon it to do so. Usually he doesn't, and he is never unnecessarily fancy in this recording; art is still functional in Greece, even if a lot of things have changed. The melodies are simple, catchy, and forgettable. The arrangements utilizing a variety of native instruments and some from farther west, are clear and bright in tone but could stand more imagination in spots. Although the tape was manufactured in the U.S., the recording was done in Greece (by the Zodiac Company) and it has exceptionally good sound. I don't speak the language, and although the titles are in English the lyrics are in Greek; I gather from the titles they're not political. It's a simple, folksy, pleasant recording, and it's available, by the way, if your dealer never heard of it, through Peters International, 600 Eighth Avenue, New York, N.Y. 10018.

N.C.

PATRICK MOODY WILLIAMS: Carry On. Patrick Moody Williams and others (instruments). Country Road; Jennifer; Long Black Veil; Silent Spring; Carry On; Love Theme from "Macho Callahan"; Junk; Bach: Adagio, from Toccata, Adagio and Fugue in C Major. A & R © M 57103 $6.95, M57103 $6.95.

Performance: Fascinating hybrid.

Recording: Good. Playing Time: 33'45".

Mr. Williams and his anonymous group offer an instrumental program in a style somewhere between Baroque and jazz, with rhythms that are driving but not out to drive the listener crazy, all set in a vaguely sociological frame of reference. Some of their work is distinguished by unusual subtlety, as in the dirge they make out of the John Brown's Body melody in Long Black Veil, and the usual but bitter allusion to Mendelssohn's Spring Song in the poignant and beautifully developed little elegy called Silent Spring. Not all is mournful; intricate, high-spirited rhythms Mark another piece of musical social commentary called Junk, which makes its point better than many a sermon on pollution I have heard, and clever improvisations point up, but do not destroy, the playing of which the songs are based on a piece identified as Toccata, Adagio and Fugue in C Major. This is a praise-worthy stuff.

P.K.
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OUT OF MY MAIL BAG

IN THE two years or so I’ve been doing this column, quite a few readers have written in to ask advice regarding their own specific problems with equipment and recording. I welcome such inquiries, for they help keep me in touch with the sorts of questions that ought to be discussed on this page. I can’t reply to every letter (that would be a full-time job), but I do answer as many as possible, and this month, looking back over my files, I’d like to take up some of the most frequently asked questions.

Unfortunately, the most common inquiry is one to which I cannot honestly respond: “What is the best recorder available for under $400?” or the variant “I’ve read the test reports on the X and the Y tape decks; which should I choose?” It’s a compliment, of course, to be asked for an “authoritative” opinion, but for a number of reasons I can’t supply the definitive answers my correspondents are looking for. In the first place, I have not had personal experience with all or even a significant percentage of the currently available audiophile tape machines, especially the low- and middle-priced models. Secondly, whatever choice I might make even between two “top line” units I had personally tested would not necessarily be the machine best suited to the needs of my correspondent. All I can recommend is that you read the test reports (just as I do) and, if you can, try out the machines in the show room or, preferably, at home, and then make your own decision.

Everyone loves a bargain, and about a third of my mail has to do with this or that “special” recording tape which promises more and costs less than the established brands. I tend to be skeptical of all such claims, for several reasons. My experience has been that unless you have extensive lab facilities that will enable you to test the tape—in which case you wouldn’t write to ask—you’re better off paying the somewhat higher price to get a reputable brand, at least for critical recording. Excessive oxide shedding, dropouts, and poor slitting (which causes the tape to weave up and down across the heads or to stick in a tape guide) are perhaps the most usual defects of non-name-brand tape. Furthermore, the absence of these faults in a particular reel does not guarantee that subsequent purchases of the same brand will be similarly faultless. Since the marketers of unbranded tape frequently obtain their product from various sources, each reel may differ. Some “white-box” audio tapes are actually computer tapes slit down to ½-inch audio-tape widths. Their nonstandard bias and equalization requirements result in problems with frequency response and/or distortion.

More positively, in answer to many letters: yes, I do foresee a future for reel-to-reel recording, though cassettes and cartridges now dominate the prerecorded market. Recording engineers are aware that not even 15-ips master tapes are completely successful in coping with the sonic demands of music. The on-going technical advances required to bring up the slow-speed formats to an acceptable level of fidelity are even now resulting in significant improvements in the open-reel format.
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