

SIGHTS & SOUNDS

A Special Supplement To The STATE NEWS



Feb. 3, 1972

Film variety: spice of 'U'

By TONI PELLILLO
State News Staff Writer

Movie-viewing has gained popularity on campus with the advent of quality films, both recent hits and vintage classics, shown at reasonable prices. Students can see a film on campus in a University classroom or auditorium for 50-75 per cent less than it would cost them to view the same movie in a public theater, without sacrificing quality for convenience.

The three largest campus film groups, in terms of activity (consistently providing entertainment every weekend) and popularity are the Beal Film Group, the Auburn Film Co. and Residence Halls Assn. (RHA).

The groups make their selections from film distributor catalogs and usually pay a set rental fee or 50 per cent of the

ticket sales, whichever amount is largest. Other costs include rental of projection equipment, personnel, and charges for use of University property on weekends.

Prices vary with the past popularity of the film, its age, and audience appeal. Horror movies can be obtained for \$37.50, Tom Leach, Haslett senior and film coordinator for RHA, said, while a film like "Woodstock" could be priced as high as \$2,000 for weekend rental.

Infamously known for providing adult and X-rated films such as "Harlot" or "Baby Vicky," the Beal Film Group has also brought famous international films to the MSU campus. Classic cinema favorites such as "Blue Angel" and "Seventh Seal" have been presented by the Beal group in an attempt to provide serious

films as well as sensual ones.

Famous Hollywood films and box office attractions for general audience entertainment such as "Camelot" or "Little Big Man" are the specialty of RHA.

Leach, an RHA film selector for four years, explained that any profits made above rental costs charged by the film distributor go back to the residence halls in a general services fund.

Working with Leach, RHA employs about 12 others to aid in the projection of the films and ticket taking. All receive a steady pay rate, furnished by RHA's University account.

Obtaining popular shows from film catalogs shortly after the film has left the theaters is becoming more difficult for college film groups, Leach said. Pressure from theater owners has caused the distributors to tighten their selections, he

added.

"It took six months to get 'Good-bye Columbus' here on campus, but it will probably take two or three years to get 'Love Story' here — if we can get it at all," he said.

Upcoming attractions sponsored by RHA include "Catch 22" and "The

Conformist," shown Feb. 11-12.

The Auburn group combines entertainment and cultural value in their selection of films. "Man for All Seasons" and "Anne of a Thousand Days" have been Auburn selections as well as some political films such as

(Please turn to page 23)



We would like to thank all the stereo and photo dealers and manufacturers, local and national, for their special help and support in making this supplement possible.

THE STATE NEWS

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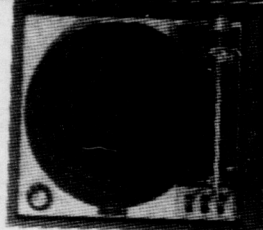
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High power pitch sells stereos

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Gentleman's Quarterly

Power sells things. It appeals to the ego — especially with males. Even the nominally aggressive American male needs that mystique of power — whether it's really him or just his toys. For instance, how many single men would be attracted by an economical, though gutless, six-cylinder auto engine? Apparently, society makes the assumption that a guy who drives a car with a 450-cubic-inch engine must be one hell of a hard-chargin' man elsewhere.

Predictably, the boys who sell stereo equipment have also seized on the power angle. To them, power becomes the absolute scale of quality for stereo amplifiers ("the more power, the better the amplifier"). This simplistic approach is, of course, absurd when discussing an item as complicated as a modern amp — but that in itself wouldn't be so bad if all manufacturers used the same standard measurement.

But they don't. While there aren't quite as many standards of measurement as there are amplifier manufacturers, there are many ways a given manufacturer can, without technically misrepresenting his product, claim that his 25-watt-per-channel amp puts out as much as 200 watts.

Let's say you're Mr. B. S.

Hypothetical, president of Hypothetical Audio Inc., and you've just begun production of your new amplifier, the Hypothetical XP-150. That's a good enough name: the only trouble is that the amp only puts out an honest 12 watts per channel. How in the world are you going to justify the "150" in the model name?

Easy. In fact, here's how to do it in eight simple steps:

1. Impartial audio experts agree that the simplest, most accurate method of measuring an amp's power in watts is to bridge across the speaker output terminals with a heavy-duty 8-ohm load resistor. Then a pure, 1000-cycle sine wave tone is fed into the amp. The a.c. voltage across the load resistor is measured; the square of that figure, divided by the resistor's value (8), is the amp's power per channel in watts. From here on, we'll call this figure the "honest wattage."

2. Okay, let's say the Hypothetical XP-150 can achieve 12 watts per channel consistently over the entire audio spectrum at a bearable level of distortion. However, at all but the extremes of the audio spectrum — the highest and lowest notes you can hear — it can produce, say, 18 watts. This brings us to the "official" method of measuring wattage, as promoted by the hi-fi industry's main front organization, the

Institute of High Fidelity (IHF). This method is known as the "power-bandwidth" method of power rating measurement. According to the IHF standards, the power bandwidth is the range of frequencies over which the amp can produce at least half its advertised power at a given bearable distortion level; it is within this range of frequencies that the tests are made. While the resulting figures aren't really true for the whole audible spectrum, if everyone went by this standard, some sort of valid comparisons could be made. Under this system, the XP-150 would achieve about 18 watts per channel.

3. And now here we go, off into the colorful dream world of Madison Avenue. We're talking about the Hypothetical XP-150 stereo amplifier, right? So, if we can claim 18 watts per channel, it follows that we can get 36 watts from the amplifier as a whole, right? Wrong. The total power available from both channels is not double the amount available from one channel, because the typical amp's power supply just hasn't got the guts to supply full current to both channels simultaneously. The 36-watt-rated XP-150 would put out more like 25 watts — assuming it actually achieves 18 watts per channel, which we already know is a foolhardy assumption. But that's all right, Mr. Hypothetical; go right ahead and claim 36 watts — we're covered.

4. Here's a handy way to boost the rated wattage another 50 per cent or so — on paper, as usual. Remember that 8-ohm resistor we used to derive our pathetic "honest wattage?" Well, all we have to do is use a 4-ohm

resistor instead. The lower the impedance of the load across these terminals, the more current the amp can push through them. Even though practically all speakers have an 8-ohm impedance, we can just go ahead and claim wattage figures at a 4-ohm load, and simply call it the "adjusted power output." Since the clod buying the amp doesn't know what that means, anyway, we can go ahead and claim 54 watts. Not bad, eh?

5. But we can go much further than that. Now comes the most used, most controversial means of making an amp more than it really is. This is the "dynamic-power" rating method — a descendant of the old "music-power" rating method. The renaming has been done, perhaps, to avoid the unsavory image "music power" acquired in the early '60s. Since it's endorsed by the good old IHF, this is sometimes called "IHF power."

The plastic logic behind this system is that, in carrying speech or music, an amp is unlikely to have to handle anything like the continuous sine-wave tone applied during the "honest wattage" test. To carry the logic further, an amp is usually just coasting along; when maximum power is required, it is in rare, short bursts.

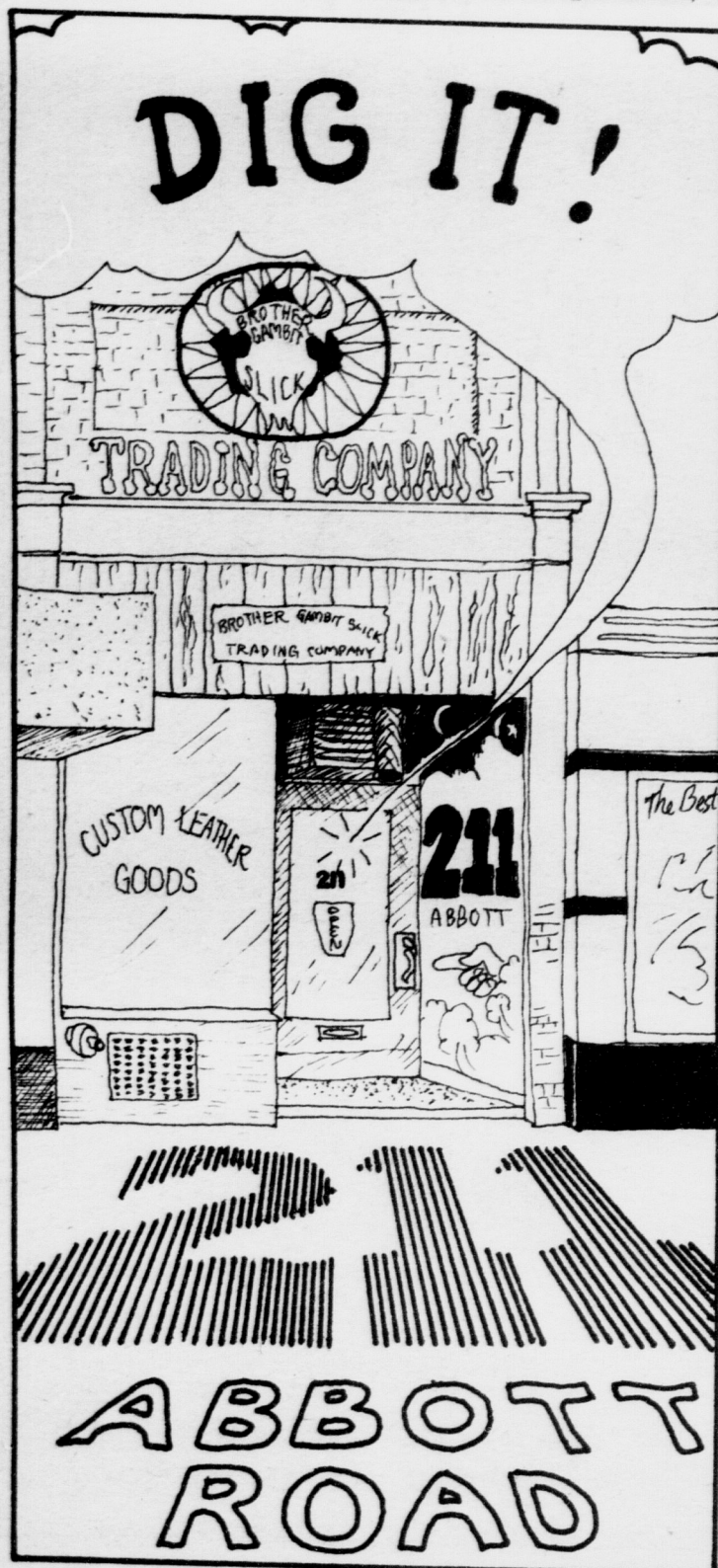
Conveniently, the amount of power an amp achieves during such short bursts is considerably higher than the power it can achieve over a longer period. Two methods have been devised for measuring the power produced on short bursts; they're too involved to get into here, but the effect is a considerably higher rating than "honest wattage." According to

one of this system's defenders, this figure is "more meaningful in terms of the kind of musical service the amplifier actually sees."

There are two giant holes in this vigorously defended theory. First, is that many kinds of music do require sustained flow of power from the amp. Examples are loud organ passages, sustained orchestral and choral climaxes and many kinds of current rock music. These program sources can push the amp up to or beyond its maximum power rating, especially if you like your music loud and are using typical 8-ohm bookshelf speakers. Second, if the amp is truly of high quality, there will be only a small difference between its "honest wattage" and the dynamic power rating; a large difference between the two tests suggests a second-rate, inexpensive power supply. Thus, makers of grade Z amps can show more impressive power-output figures. Even more absurd is that the difference between the two kinds of power is absolutely insignificant in terms of what we hear. With this unreal distinction, the good old XP-150 can be said to achieve about 58 watts. But let's not stop now.

6. If we don't quail at raising the acceptable level of distortion somewhat — thereby flouting all the efforts made to produce high-fidelity sound by creating low-distortion components — we can get a few more paper watts out of the XP-150. The Electronic Industries Assoc. (EIA), another zippy front organization, has a performance standard for packaged console phonographs that specifies 5 per cent total distortion as the level

(Please turn to page 22)



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Searching for a stereo? Take time to look around

By ANITA PYZIK
State News Staff Writer

Despite claims in a recent song that "the music has died," stereo and hi-fi dealers report that the demand for sound systems is rising — to the tune of \$300 million annually in the United States. Primary consumers are college students in the 18-25 year old bracket, regarded by some dealers as "the most uneducated when it comes to stereos... and the easiest to rip-off."

Shopping for stereo equipment doesn't require vast knowledge of technical terms or electronics — a wise purchase can be made by knowing what to look for and taking the time to look around.

The prospective buyer should grasp fully the range of prices in the stereo and hi-fi equipment field. It's important to make up your mind in advance how much you can afford to spend and what you want the equipment to do.

An inexpensive cassette player can be purchased for less than \$20, a good stereo system for as little as \$129 or as much as \$650 and a full-scale console, including phonograph, tape deck, speakers and an AM-FM radio for up to \$3,500.

Make sure the dealer provides a warranty with the product and offers service after the sale. Manufacturers will not warranty a product unless it is bought from an authorized dealer, and without a warranty repair costs are high. Parts are relatively inexpensive to replace but added labor costs of \$15 an hour can result in a big bill.

According to one East Lansing dealer, the first 90 days after the purchase are critical because 75 per cent of the units need repair before leaving the store. Ask if there is a service department in the store — if they have to ship out for service, it may take two to three weeks of unnecessary waiting.

Avoid no-name brands and stick to companies that have achieved a reputation for reliability and quality. Find an established dealer with a good reputation for sales and responsible service facilities.

Check into discounts offered in sound equipment before spending, for this is a highly competitive field. Substantial discounts do occur in the best stores on the best equipment, but a brand with a dubious warranty sold at a cheap price may be no bargain at all.

Visit different stores, listen to the various stereos and compare sound. Good hi-fi shops have a sound room where prospective buyers can listen to loudspeakers while a salesman demonstrates cones and magnets. Never buy a system without listening to the sound it produces.

In judging quality or performance, don't let the advertised power ratings confuse you. Look for systems with a high RMS (revolution per millisecond) or continuous power rating — the higher an amplifier's power rating the more distortion-free will be the sound it produces.

Don't judge loudness as a sign of quality. Some dealers adjust the speaker on the model they're pushing to sound louder and then turn down the volume of other models. Quality and efficiency should be the key in purchasing speakers.

Sound systems are rugged but highly sophisticated instruments and should be periodically checked after the sale. Many stores have free clinics that run stereo equipment through a variety of tests every six months for defects. Records may be ruined if the stylus is worn down or the turntable is warped, but a regular check will keep most stereo systems in good shape.



Sound of music

Do you like to listen to more than your clock-radio? East Lansing offers a wide choice of stereo and music stores that can help you out in filling your ears with music with the latest equipment and recordings.

State News photo by Bruce Remington

WKAR plans format for community

A unique format in radio programming, entitled "Audio Aftermath," is presented on WKAR-FM, 90.5 stereo on Fridays from 10 p.m. until 1 a.m.

Richard P. Rosemont, East Lansing senior and a director of the program, said that programming includes not only music, but information and public services aimed at the young people in the area. Rosemont cited as examples interviews with Dr. Werner of "Doctor's Bag," and information concerning the drug education center. "Audio Aftermath" also ran a series of consumer information programs, explaining to listeners what to look for when buying stereos and stereo equipment.

Daniel L. Wardlow, East Lansing junior, and also a director of the program, explained that because the station does not depend on money from advertising, the directors of "Audio Aftermath" are free to develop any type of program format they feel will be of interest to the community.

"It is kind of an experiment in radio," Wardlow said. "We're trying to use radio to its fullest capacity."

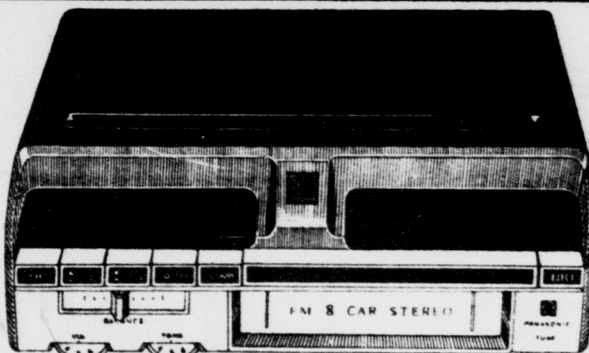
Both directors stressed their interest in presenting to the community a program which is flexible and geared to their audience's interests. They want audience suggestions and reactions to their program.

"What we do depends on what the people want," Rosemont said.

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Headphones curb noise levels

In the past three years, there has been a marked trend toward the use of stereo headphones. This has been especially true on college campuses. With large numbers of students packed into a relatively small living space, separated only by paper-thin residence hall walls, it has become a real problem to find a

way to play one's stereo without disturbing the guy studying next door, or even to hear the stereo above the racket of the party in the other adjoining room. Headphones provide an easy solution to both problems.

Headphones are miniature loudspeaker systems, and when fitted tightly over the ears they

do a good job of screening out external noise. The close coupling to the eardrum also creates a sealed volume of air which increases the efficiency of the system — a very low wattage of electrical power can produce extremely high sound pressure levels in such a sealed air volume. This acoustic seal makes

headphones especially effective in transmitting lower frequencies.

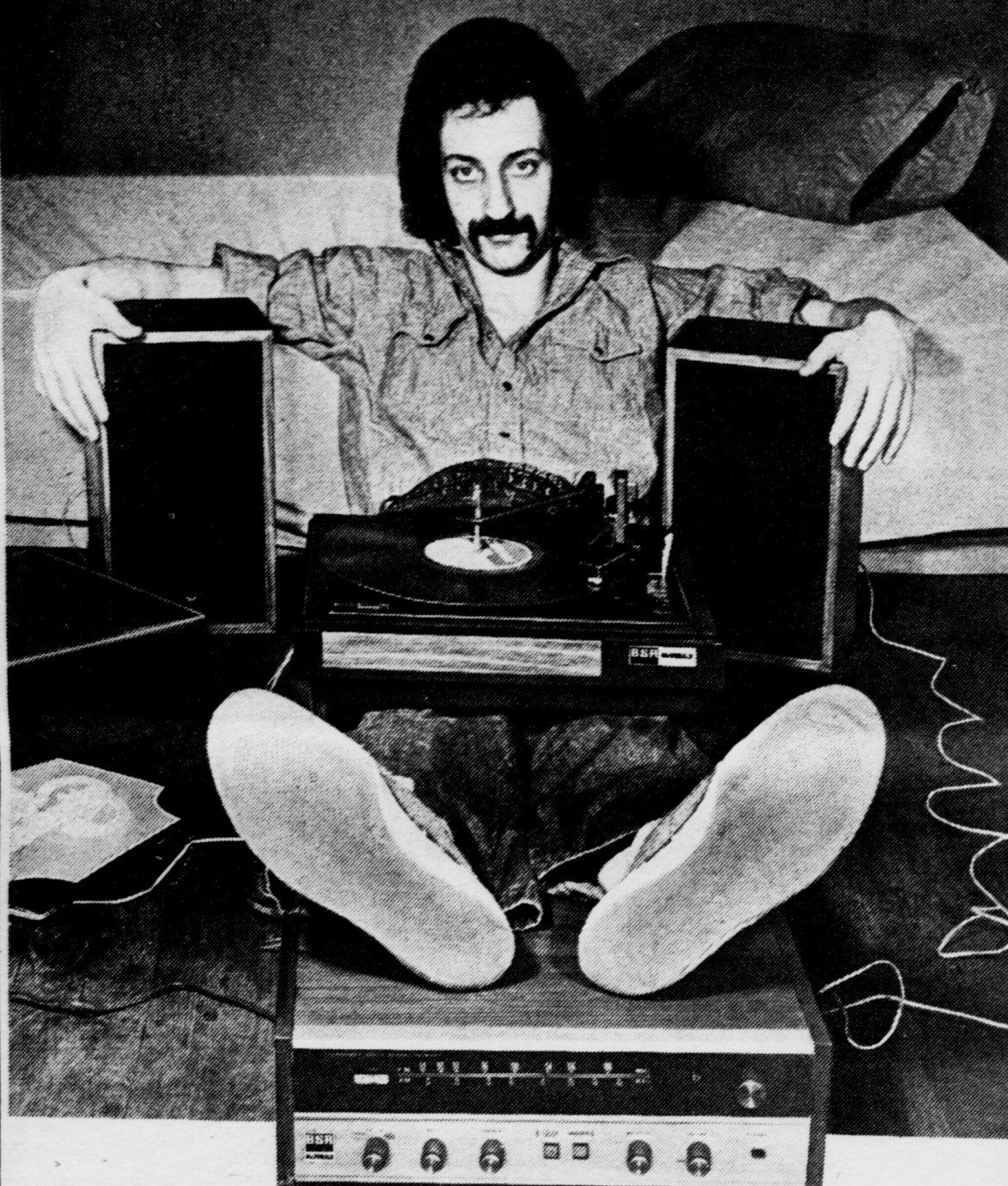
When buying a headset, it is best to get the advice of a dealer in deciding which headphone will best serve your needs and the requirements of your equipment. As a general rule, the quality of the headphone should be matched to the basic quality of your stereo unit. The cost of headphones ranges from a few dollars to well over \$100, but it is usually not wise to go below the \$20 or \$30 price range for a pair.

Since you may well be using the headset for long periods of time, it is important to find a

pair of earphones that are comfortable. The headphones should distribute the weight evenly on your head, and they should fit snugly around your ears to provide an effective seal for cutting out external noise.

Try a number of different sets to discover the combination that is best for you. Listen to each set long enough to get a good idea of its individual sound qualities — its clarity and reproduction fullness. Listen to different types of music at different volume levels to test a full range of responses — the headphones should produce a mellow reproduction that does not blur, even at full volume.

Another satisfied customer.



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Club plans contest for photographers

The East Complex Photography Club will sponsor a photo contest for all MSU amateur photographers.

The contest, "Vision I," is open to any student who is over 18 and does not get more than 25 per cent of his yearly income from photography.

Black - and - white prints in three categories will be accepted. They must be at least 20 square inches in area with a maximum size of 11 by 14 inches. All prints must be mounted, framed or rigidly supported for display. No mounting may be larger than 16 by 20 inches.

The categories are: (1) Portraits, animals, fashions and nudes; (2) Aerial views, architecture, travel or scenes; (3) News, sports, action or experimental pictures.

Fees for contest entrants are 50 cents a print. There is no limit on the number of entries.

On the back of each print the entrant must list his name, phone number, address and student number. Technical specifications (such as camera or technique used) are optional. Students may also indicate if they want to sell their photographs.

There will be five cash or product prizes in each category. Ten honorable mentions in each category will also be given. Entries will be judged by professional photographers from the East Lansing area.

Entry forms will be available in all residence halls starting Feb. 14. Entrants must fill out and mail the attached cards to Vision I, P.O. Box 161, East Lansing, Mich., 48823, by March 4.

Winners will be announced between March 31 and April 1. The winning photographs will be on display at Kresge Art center from April 2 to 8.

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MUSIC STRESSED IN PROGRAMS

Radio stations present variety

By KRISTEN KELCH
Staete News Staff Writer

Contemporary hit music, modern contemporary country, and music which is gentle on your mind, are all part of the sounds of Lansing area radio stations.

While some metropolitan radio stations stress news programs as the backbone of their programming format, Lansing area stations depend on various types of music as their audience drawing card.

Relatively new to Lansing radio is the sound of Stereo Island, WFMK. Its unique format was developed last April.

Typed as having a middle-of-the-road (MOR) format, program director Chuck Tweedle described the music of FMK as ranging somewhere between Top 40 soft rock and the established sounds of Sinatra and Dean Martin.

"The key to the Stereo Island format is to weave a warm place that's a hep sound, but easy listening," said Tweedle.

The music itself is stressed at FMK, not the personalities of the disc jockeys. Tweedle explained that the format calls for music that the listeners can identify with.

"It may be a Carol King song sung by Johnny Mathis," Tweedle said, "but it will be a song the listeners know."

FMK never plays fewer than three records in a row, and

repeats a record once every five hours. The station concentrates on attracting those listeners between the ages of 18 and 49.

Even the commercials of FMK emphasize the more music sound of the station.

"The commercials don't stand out obnoxiously," Tweedle said. "They blend with the music."

FMK interrupts its music format approximately 12 times an hour for commercial material.

Tweedle said that a main problem at FMK is that it is an FM station only. Because only about 20 per cent of all cars have FM radios, FMK is totally out of the competition with the AM stations at peak driving times. These times are early morning and mid-afternoon, when people are driving to and from work, Tweedle said.

Contemporary hit music is

how program director Vahan Ryan describes the sound of WJIM-AM radio.

Last June, JIM switched from a MOR format to that of the contemporary sound.

"Now," Ryan said, "the station has a direction, more excitement, and it moves with society."

Hoping to appeal to the 18-25 age group, JIM, like FMK, stresses the music rather than a personality format.

"Our aim is to provide as much music as possible," Ryan said. "That's what people rely on radio for."

Ryan said he believes that personality is going out of radio.

"There are not as many individual radio stars as there used to be," Ryan explained. There was a time when some radio disc jockeys were as popular as actors, Ryan said, but now the trend is more music and less DJ chatter.

Unlike JIM and FMK, WITL, a contemporary country music station, does stress DJ personality in its format.

Dave Donahue, ITL's program director, said that "the country listener wants more than music." He encourages his DJs to be unique, separate individuals on

STATION	FORMAT	LOCATION
WJIM-AM	Contemporary Hit	1240
WJIM-FM	MOR	97.5
WILS-AM	Contemporary	1320
WILS-FM	Contemporary	101.7
WVIC-AM	Rock	730
WVIC-FM STEREO	Rock	94.9
WFMK-FM STEREO	MOR	99.1
WITL-AM	Modern Country	1010
WITL-FM	Modern Country	100.7

the air.

Donahue said that contemporary country is different from the country and western music of past years.

"Western music went out about 1956," Donahue said. "It was about the cowboy singing to his horse, that kind of thing. Very few stations play western music now."

Donahue said that the contemporary country sound is modern.

"It has the sound of strings and electric guitars, just like the rock groups," he said.

Blue collar workers make up the bulk of WITL's audience. Donahue also mentioned that

white collar workers, originally from rural areas and now working at the Capitol building, are included in ITL's audience.

A 14-year DJ veteran of rock radio, Donahue made the switch to country music almost two years ago when he came to WITL as a programming consultant for Midwest Family, a radio chain with stations located in Michigan, Wisconsin and Illinois.

Believing that people involved in country music are generally friendlier than those in the Top 40 field, Donahue said this could be caused by the competition between rock DJs to "make it in the big radio markets."

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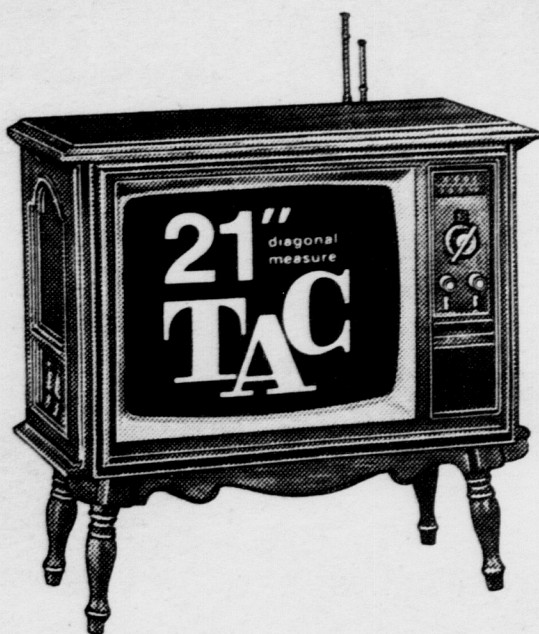
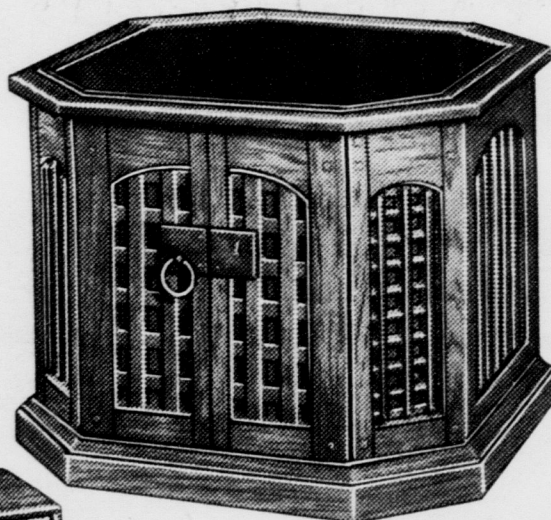
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MANY FEATURES OFFERED

Versatility of cameras varies

By JONATHAN KAUFMAN
State News Staff Writer

Are you seriously interested in photography?

You probably, like most people, already own a camera. But you may want something more versatile that gives better quality pictures than a Kodak or a Polaroid.

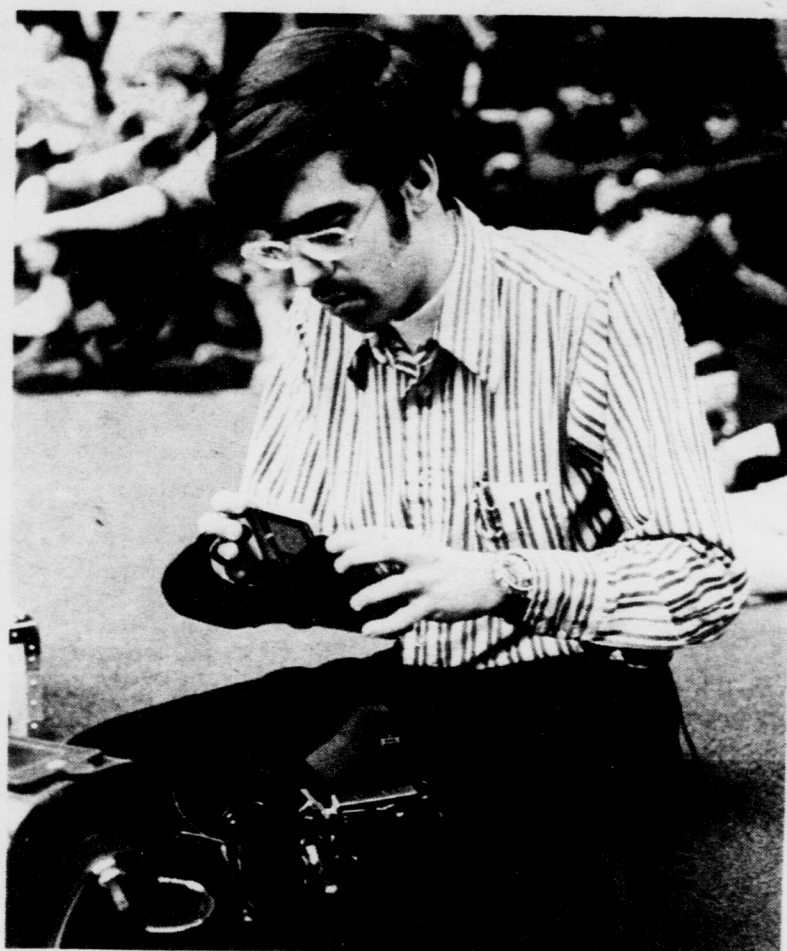
Better cameras are grouped into two categories: roll-film cameras and miniature (or 35mm) cameras. Roll-film cameras have been made for over 70 years. Miniature cameras began to appear in the 1930s.

The best-known roll-film cameras are the so-called "box brownies." While they are easy to operate, they are not for serious photographers.

The more advanced roll-film cameras are called "twin-lens reflexes" (TLRs). These cameras have one lens to focus and compose the picture and another lens to take the picture. Since these lenses are connected, focusing the first automatically puts the second in focus.

Most TLRs give 12 pictures on a roll of film. With a half-frame attachment, some TLRs can give 24 — each one-half the size of the normal picture the camera takes.

The advantage of the TLR is its large negative area. When enlargements are made, the picture doesn't have to be "blown up" as much from the negative as it would from the smaller 35mm size. If there are any negative defects, or if the picture is blurred, it will not show up as much in an enlargement from a TLR as it



Photography as a hobby is growing rapidly in this country, but not every moment is a glamorous one. Photographer Jeff Wilner, Birmingham sophomore, is occupied with one of the routine tasks that are necessary for that great shot to ever "develop."

State News photo by Tom Gaunt

would from a 35mm negative. The TLR is thus useful in taking pictures that will be enlarged greatly or that require a large negative size, such as group shots, portrait work or landscape pictures.

The disadvantages are that TLRs are larger and weigh more than 35mm cameras. Most TLRs do not offer interchangeable

lenses, so they are less versatile than 35mm cameras.

Today the most popular cameras for serious photographers are 35mm. They come in two basic types: rangefinder-viewfinder (RF) and single-lens reflexes (SLRs).

When you focus on an RF camera, you see two images. By turning a ring on the camera the

two images are lined up; when they form one image, the camera is focused on the subject.

Like the twin-lens-reflex camera, the rangefinder-viewfinder camera does not usually offer interchangeable lenses.

The more popular SLRs viewfinder works like a periscope. The image seen in the viewfinder is the same one the camera "sees" through the lens, reflected into the viewfinder by a mirror system. When you take the picture, the lower mirror is lifted so the image can be recorded on the film.

The advantage of this somewhat more expensive system is that the image you see through the viewfinder is the same as the image recorded on film. There is no problem with "parallax" — a final picture which is different than the image you saw through the viewfinder because the viewfinder lens was in a different position than the picture-taking lens. (To illustrate this effect, look at an object first with one eye and then with the other; the slight difference in the position of the eyes causes each one to see a slightly different scene.)

Besides eliminating the

parallax problem, SLRs feature a wide range of interchangeable lenses. Along with their light weight and compact size, lens interchangeability makes the SLR ideal for fast action under a wide variety of picture-taking conditions.

A good SLR is a precision instrument. Depending on what features you want, prices range from under \$100 to over \$1,200 for camera bodies and lenses.

Film for these cameras comes in metal cans called cassettes. A 35mm cassette can hold enough film for 36 pictures. Half-frame 35mm cameras can take up to 72 pictures per cassette, but they are not recommended: they must be enlarged twice as much as full-frame 35mm pictures to get the same size prints, which also means that any defects in the negative or poorly focused areas of the picture will be twice as large.

The smaller negative size also means a smaller picture area covered. If you're using color film the cost of commercial developing and printing is extremely high. However, if you develop your own film or take a lot of pictures and don't care too much about enlargement quality, a half-frame camera may be a good buy.

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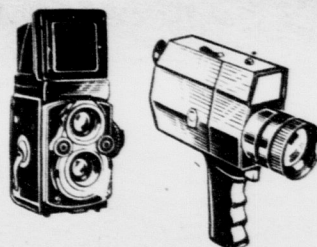
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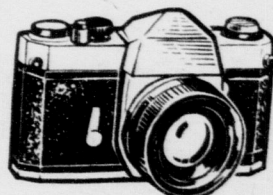
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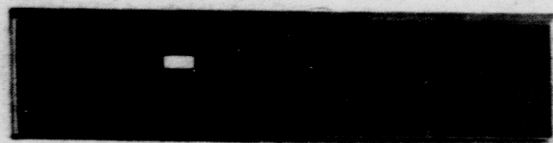
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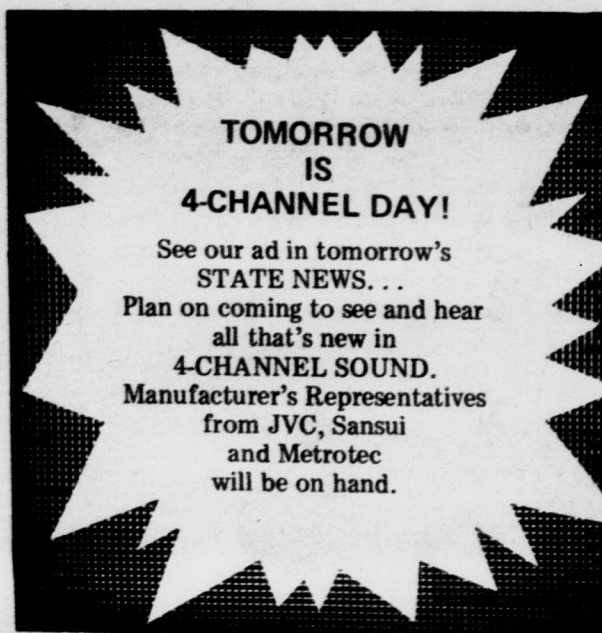
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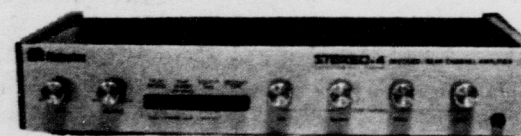
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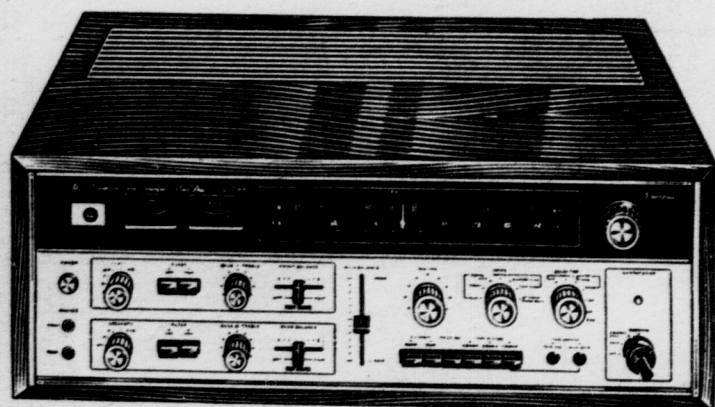


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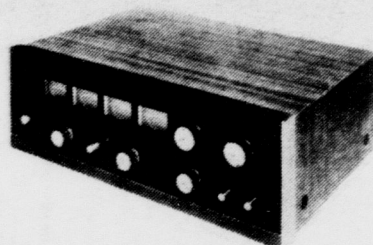
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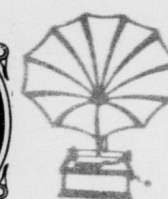


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'Quad' gives top-quality sound

By RAY ANDERSON
State News Staff Writer

"You never heard it so good, huh fella?" the clerk queried. The astounded patron nodded his head in agreement and continued listening, listening, listening, listening.

Quadraphonic has been described by some as an audio bath that can put the listener into the ozone about as fast as a glass of Boone's Farm and a hit of Michigan domestic.

Like other electronic innovations, "quad" came on slowly before the rush of Madison Avenue brought public acceptance.

It was first used in 1904 when Thomas Hood MacDonald designed a phonograph with four separate sound-horns, leading to four needles.

The next major development of four-way sound came from the creator of Mickey Mouse. "Fantasia," Walt Disney's animated classic, made first commercial use of a quadraphonic soundtrack in 1940. It then went into a phase of "benign neglect," a system known only to purists and audiophiles until nearly a year ago when the advantages of

transistors and smaller components began to have their effect.

Quadraphonic is now available to the public in a wide variety of delivery systems. Even more important is its rapid acceptance by the recording industry. Experts forecast that it won't be long before the consumer will be able to get any record, tape, cassette, cartridge and FM station in inundating - four - way - sound.

Personalized music

So, what exactly is quadraphonic, quadrasonic, quadrafonic? It is a very personalized system for musical appreciation. If you dig sitting in orchestra pits, that's where it's at, and it has all the privacy of your own bedroom.

Manufacturers are presently building two separate systems which bring you quad results: "discrete" and "Matrix."

Rather than one (monaural) or two (stereo) signals, there are four distinct signals coming from four or more microphones at the recording end. At the receiving end, "discrete" quad requires a four-track head to separate the sound, two stereo amplifiers to strengthen it, and four speakers to bring it home. Don't expect

to buy "discrete" with an ASMSU loan.

There are a number of good four-channel receivers on the market, ranging in price from \$749.95 for the Fisher Model 801, to a compact Panasonic model that is a "giveaway" at only \$429.95. That friends, does not include the extra pair of speakers required, or the four-track tape or record changer.

Alternative system

But there is an alternative for those desiring quadraphonic without having to mortgage a national defense loan.

"Matrix" four-channel sound has similar recording requirements, but the signal is reduced to two channels with the help of an encoder. To get the benefit of four-channel sound the listener needs a decoder. Audiophiles claim the sound of matrix is not as good as discrete quadraphonic, but the conversion is cheaper and the decoder is said to enhance the performance of any stereo record or tape collection.

The decoders range in price from \$159.95 for a Sansui QS-1 Synthesizer to \$29.95 for a kit version of the Electro Voice EVX-4 Decoder. But these

decoders also require an additional stereo amplifier for the rear channels and two more speakers. The lone exception at this time is the Sony SQA-200 which has an amplifier built in and retails for \$127.50.

There is a peculiar problem with the decoders. They are not universally compatible, and until the industry standardizes the procedure for encoding there will always be a chance that the records or tapes you purchase might not work on your decoder.

Matrix list limited

Record companies at present are leaning toward the matrix - decoder system because they feel the public will be more inclined to alter their present system than to buy completely new ones. But the range of

listening is still definitely limited. The RCA quad catalog contains 68 matrix selections, one of which is Van Cliburn. The Sony SQ system has a jump on others as it was developed in cooperation with Columbia Records who have cut 52 matrix records. These will sell for \$1 more than stereo records.

So, if you have access to someone's checking account or are independently wealthy, get yourself a quadraphonic system and impress your friends. Just remember that speaker placement is extremely important, and if you get too many people no one is going to appreciate the four - way - sound unless everyone stands together in the middle of the room. Come to think of it, that might not be a bad idea.



Progress:
headphones
go 4-track

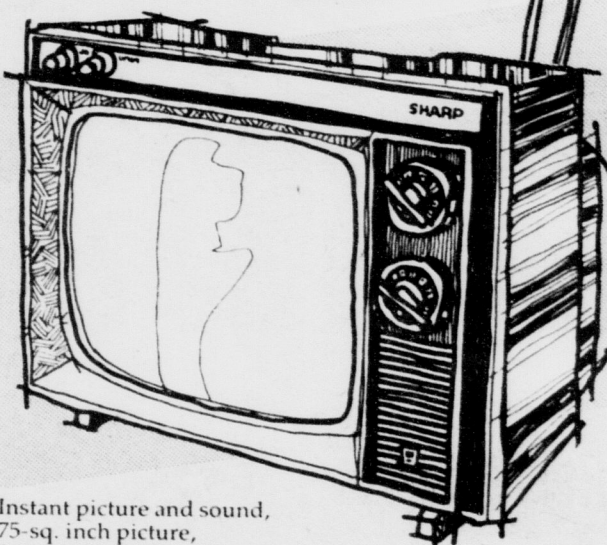
There have been many goodies in the electronic industry during the past couple years. Among the most exciting have been advances in quadraphonic sound. In this game of electronic one - upmanship comes the most striking advance of quadraphonic headphones. Before you shake your head in disbelief and ask, "How in the hell am I supposed to hear four separate sources so close to my head."

The ear, unlike the eye, absorbs senses from every direction and these new headphones developed by Koss (Model K2+2, Quadrafones, \$85) have an extra reproducer slightly behind the normal position in each earpiece to take advantage of that ability.

Electro Voice is planning to do them one better in the near future when they market a quad headphone with a built - in decoder. It will create the effect of four - channel sound when plugged into a conventional stereo amplifier. Price of this piece of equipment has not been listed but it means no additional amplifier and speakers.



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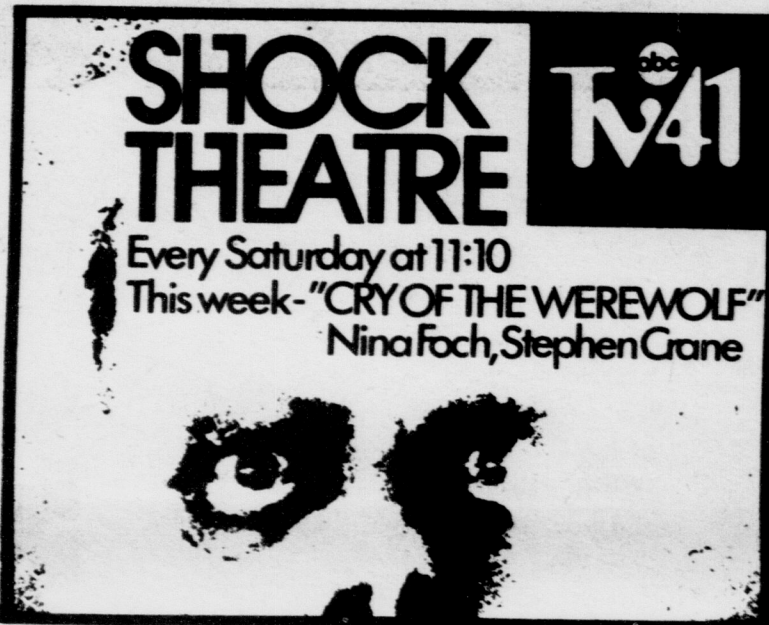
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Pop Entertainment seeks top artists for programs



Up, up

The 5th Dimension concert was one of the series sponsored by the ASMSU Pop Entertainment Committee on campus during each term.

SN photo by Jeff Wilner

By STEVE RADDOCK
State News Staff Writer

About the only thing worth ripping-off of the Pop Entertainment office in the Student Services Building is a jacket somebody might occasionally suspend from the room's pigeon-leg-like coat hanger. The room is that plain. Yet this very same cubicle has been the womb for the groundwork that's filled the bellies of two arenas with thousands of ravenous music freaks.

Formally unpackaged in 1965 when it sponsored a concert by the Serendipity Singers, Pop Entertainment was initially breast-fed by the ASMSU student tax. After producing a couple of sets of successful pop and rock performances, the unit has become a self-sustaining entity.

Picking a group or solo artist to appear at either Jenison Fieldhouse or the Auditorium is like playing spin-the-bottle by yourself. Your choices are rather limited. In the case of Pop Entertainment, selection is further restricted by two factors: (a) the planned dates of a group's tour and (b) the availability of facilities. Even if these two factors are compatible

(which they rarely, if ever, are), a third consideration - group fees - induces the Pop Entertainment committee to rub-out the names of a large clump of candidates with the butts of their pencils.

The cyst on Pop Entertainment's neck has been the spiraling trend of groups' fees and preparatory costs. According to Randolph Webster Jr., asst. director of Student Activities, where it once cost \$5,500 to bring the Lovin' Spoonful at the peak of their popularity to MSU, it would now run Pop Entertainment about \$15,000 to persuade either Dionne Warwick or the 5th Dimension to vibrate their vocal cords on Spartan terrain.

Where Pop Entertainment used to lay down \$2,000, sans group fees, for whipping-up a show in Jenison in 1965, they're now obliged to fork-out about \$8500 per concert. Over \$1500 of the aggregate sum goes for compensating a contingent of cops from the Dept. of Public Safety.

Despite this seemingly one-way flow of cash, Pop Entertainment often strains its way towards a profit margin of 8-12 per cent. Surplus funds are subsequently rechanneled back

into the group's University account and used to either sop-up losses (as was the case with the recent Ike and Tina Turner Revue) or provide the requisite backing for a free concert.

Although some people believe otherwise, the Pop Entertainment group selection process is more scientific than arbitrary. Committee members gnaw on agents' lists of group availabilities, record sales charts, copies of Billboard and student surveys and then see which groups are left stuck between their teeth. A little more picking, and they're about ready to begin direct negotiations with the agents.

During the past two terms, Pop Entertainment has brought such groups as the 5th Dimension and James Taylor to campus. But the prospects for getting "superstars" grow increasingly dim as entertainers' fees continue to rise. This situation has been further aggravated by producers who buy rights to a foreign group's entire American tour and then raffle them off to the highest bidder, usually large municipal coliseums.



And away

Concerts are one of the ways for MSU students to satisfy their hunger for music, such as this one by the 5th Dimension.

SN photo by Jeff Wilner

skating error? no problem!

The largest factor causing decreased record life is skating error. It occurs as the arm on your turntable gets closer to the center of the record. As the radius of the circle that the arm travels becomes smaller, its own inertia forces the arm to push toward the inner groove wall, instead of riding in the center of the groove. This causes three things to happen:

- 1 shortened record life
- 2 rapid deterioration of the stylus
- 3 audible distortion

Rabco's new ST - 4 eliminates tracking error by using a concept called straight line tracking. The arm maintains a perfect right angle to the shaft from the beginning of the record to the end, thus eliminating skating error! This is accomplished when the rubber "wheel" in the arm engages with the rotating shaft below it. As the stylus moves inward the rubber wheel "straightens" the back of the arm, keeping the stylus in the center of the groove.

The 2 - speed ST - 4 uses a synchronous motor for exact speed and very low wow and flutter. The arm is capable of accommodating the lightest tracking cartridges available, and the cueing device is gentle, both up and down. And, unlike all other manual turntables, the arm raises at the end of the record!

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Campus radio: diversity

Students aren't generally aware of the campus radio network, according to Dick Ott, station manager of WMSN radio. His station is one of the six stations operated by the Michigan State Network, the student controlled and operated campus radio system.

WBRB serves the Brody complex, WKME serves Shaw Hall, WEAH serves Wonders and Wilson halls, WMCD serves McDonel Hall, WFEE serves Fee

Hall and WMSN serves all the other residence halls. Each station staffs disc jockeys, managers, sportscasters and newscasters as well as engineers.

The network was founded in 1966 by a vote of on campus undergraduates and provides the campus with music, ABC syndicated news, Lansing and campus news as well as live broadcasts of Spartan soccer, hockey and baseball.

The Radio Board of Control,

made up of the network manager, each station manager, RHA members and managers, ASMSU representatives and two students - at - large meet approximately once each month to "hash out everything." However, Ott said that the board can't tell each station how to operate.

WMSN programming includes soul, rock and progressive music. "We try to play a little bit of everything," Ott said. "We play

anything from Henry Mancini to Jimmy Hendrix, from Frank Sinatra to Melanie, from Johnny Cash to Junior Walker." He described WFEE's programming as all progressive rock, WKME and WMCD programming as mostly progressive rock, and WBRB and WEAH programming as combinations of everything. Ott added that "WBRB has one of the best rock and roll sounds in Lansing."

One major service of the

network that Ott feels most students are unaware of is the free public service announcements offered to any campus organization.

"It's the student's radio station and nobody knows what's going on," Ott said.

The network is attempting to receive more student response and is planning a survey to determine the favorite groups and records of the listeners."

We would like you to hear the "best speaker" made!

The Bose 901's are the most highly reviewed speaker regardless of size or price! Look at what some of the critics say:

e/e HIGH-FIDELITY

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AUDIO

down beat

The Bose have replaced forever our bulky studio speakers with compact, handsome units. The only trouble is—our studio is beginning to look like a living room!

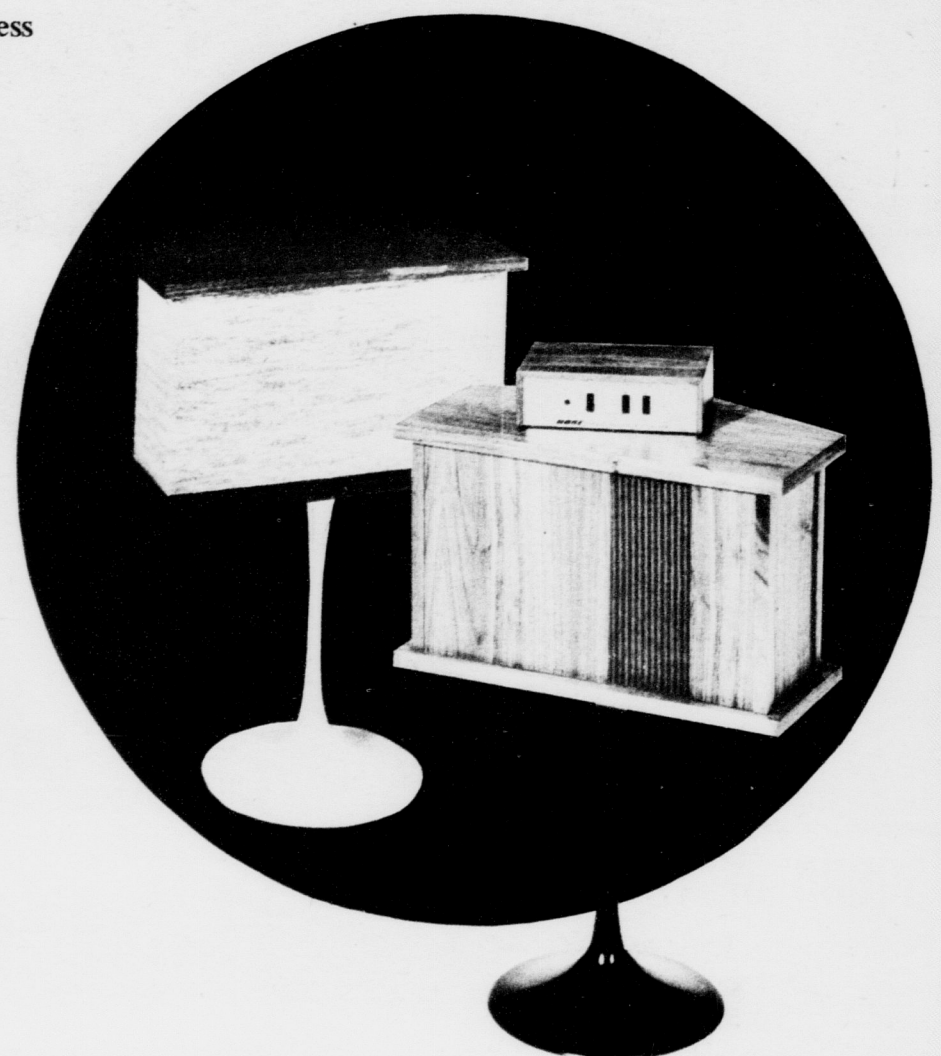
—Chuck Lishon

now the Bose 901 strikes me as the best-sounding speaker system in its size and price class I have yet auditioned. Indeed, it rivals many systems built to larger dimensions and/or costing considerably more.

Stereo Review

In the final analysis, the judgment of a speaker must be subjective and personal in nature. I have, on occasion, warmly praised speakers that I considered to be outstanding performers. Everything I have said in the past is still valid. Nevertheless, at this moment, I must say that I have never heard a speaker system in my own home which could surpass, or even equal, the Bose 901 for overall "realism" of sound.

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Hi-fi terms amplify knowledge

A - B TEST: Comparing performance of two (or more) pieces or systems of hi-fi equipment by switching instantly from one to the other. Dealers use this technique to assist in the buying decision.

ACOUSTIC FEEDBACK: An annoying interference (usually at low frequencies) created when sound or vibrations from loudspeakers are picked up by a microphone or a phono cartridge and amplified by the sound system. Physically separating loudspeakers and microphone or record-playing equipment can solve the problem.

AMPLIFIER: An electronic device for magnifying electrical signals. Stereo amplifiers consist of two power or basic amplifiers in one package. In an integrated amplifier, both preamplifier and power amplifiers are built in one package and made available as a single unit.

BAFFLE: Although this term sometimes applies to the entire cabinet or enclosure that houses a loudspeaker, it is strictly speaking the panel of such an enclosure.

BASS REFLEX: A loudspeaker enclosure in which radiation from the rear of the cone is allowed to escape through a hole (or port) in such a way as to augment the lowest tones. Also called ported, reflex or vented to reflex.

BIAS: An operating current or voltage that fixes the correct performance characteristics.

BOOM: Accentuation of one or more individual bass tones.

CAPSTAN: A rotating shaft in a tape recorder that moves the tape at constant speed.

CARTRIDGE: 1. (See Pickup) A record player pickup is a voltage-generating device with a stylus (or needle) assembly. 2. A tape cartridge or magazine is a pre-

packaged reel or magnetic tape designed for use on a special kind of tape machine.

CASSETTE: A smaller version of the tape cartridge that uses tape that is about one-eighth inch wide.

CHANNEL: A channel is a complete sound path. A monophonic system has one channel. A stereophonic system has at least two full channels designed as a left and a right.

CHANNEL BALANCE: Equal loudness from both left and right channels.

CHANNEL REVERSAL: Left channel is heard from the right speaker and the right channel is heard from the left speaker.

CHANNEL SEPARATION: The electrical or acoustic difference between the left and right channels in stereo. Inadequate separation can mingle the two channels which results in monophonic sound.

CLIPPING: A distortion that occurs, mostly in amplifiers, when maximum obtainable voltage is reached. Can also be caused by too high an input voltage to either a preamplifier or amplifier.

COMPONENT: A stereo component is a specialized item of equipment designed to do a particular part of work in a stereo system.

CONSOLE: A radio and/or phonograph system sold complete in a single cabinet. Consoles may or may not include stereo components. Because speakers and record-playing equipment share a single cabinet, consoles usually pose a threat of acoustic feedback. Consoles are commonly called "packages" by the audiophile.

CROSSOVER: A point in the audio spectrum at which

frequencies are divided. In a two-way speaker system, for instance, the crossover frequency is the point at which the bass information for the woofer is blocked from the tweeter and vice versa.

CROSSTALK: Signal leakage between two channels.

CYCLES: A measure of frequency of electrical impulses or of sound vibration. See frequency.

DECIBEL: Abbr. dB. A unit for

measuring the relative intensity of sound. It is one-tenth of a bel, the fundamental division of a scale for expressing the ratio of two amounts of power.

DIAPHRAGM: The moving member of a loudspeaker or microphone.


DISTORTION: Any information which didn't exist in the original. Harmonic distortion disturbs the original relationship between a tone and other tones naturally related to it. Intermodulation distortion (IM)

introduces new tones caused by mixing of two or more original tones. Phase distortion, or nonlinear phase shift, disturbs the natural timing sequence between tone and its related overtones. Transient distortion disturbs the precise attack and decay of a musical sound.

DOPPLER EFFECT: The change in pitch of a sound due to relative motion of source and listener. Theoretically it occurs in loudspeakers when a low-frequency and a high-frequency

(Please turn to page 19)


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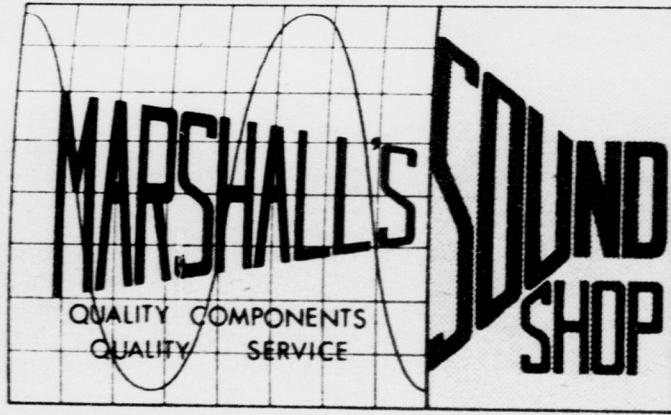
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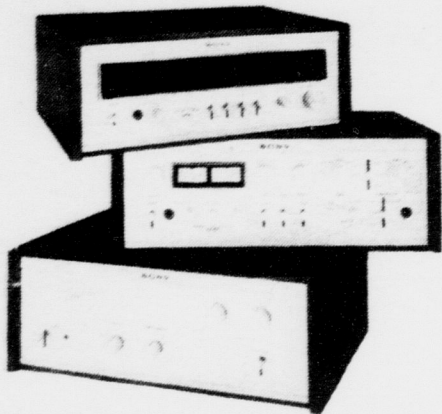
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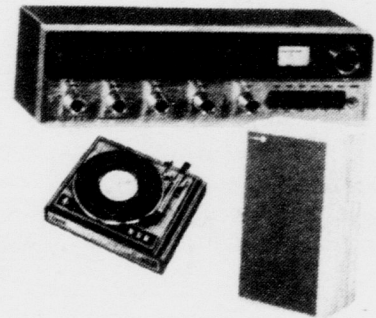
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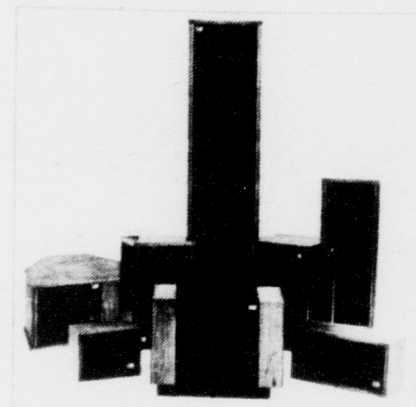
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Stereo jargon amplified

(Continued from page 17)

sound are being reproduced simultaneously. The low-frequency movement will raise the higher frequency when the cone moves forward and lower it when the cone returns. The practical effect is very small.

DUBBING: Copying a tape or record from another tape or record.

ENCLOSURE: An acoustically designed housing or structure for a loudspeaker; also a cabinet to house a component.

FIDELITY: The degree of faithfulness to the original accuracy and honesty in sound reproduction.

FILTER: An electrical or electronic device that permits certain frequencies to pass while obstructing others.

FLUTTER: Rapid variations in the speed of a turntable or tape transport that causes a wavering of musical pitch.

FOUR-TRACK TAPE: Quarter-inch recording tape in which four separate sound paths are

recorded. The use of four tracks permits stereo in both directions of tape movement, or alternately, monophonic recording across four times the length of a given tape.

FREQUENCY: The rate per second of repetition of vibrations of musical pitch as well as of electrical signals. Low frequencies refer to bass tones; high frequencies to treble tones.

FREQUENCY RESPONSE: A curve indicating the relative response of a system, or part of a system, to be flat when response is uniform at all frequencies.

GAIN CONTROL: A control for adjusting the amplification of a system. See volume control.

IMPEDANCE: A quantity analogous to resistance (also measured numerically in ohms), that determines the relationship between voltage and current in an audio or AC circuit.

LEVEL CONTROL: A control intended mainly to ensure that each part of a system produces

the same program by careful initial adjustment; not intended to control volume.

LOUDNESS CONTROL: A control that automatically boosts the bass when the program is played at low volume. This restores a natural balance to the sound that is lost because the ear is less sensitive to low frequencies when volume is low.

MIXING: Blending of two or more audio signals for special effects.

MONOPHONIC (or Mono): The total program is heard on only one channel. That signal channel may be heard from one or many loudspeakers.

NEGATIVE FEEDBACK: An electronic process of sampling the output, combining 180 degrees out of a phase with the input; the result improves the performance of the system.

PITCH: The frequency of the sound that determines its position on a musical scale.

POWER AMPLIFIER: An electronic unit that takes its audio input from a tuner or pre-amplifier and provides power to drive the loud-speaker also called a basic amplifier.

PRE-AMPLIFIER: An amplifier designed to receive the very small electrical inputs from pickups and/or tape head, provide equalization tone control, volume and/or loudness control, and produce output sufficient for the input of a power amplifier.

RECTIFIER: An essential part of the power supply of any system powered by a 60 Hz line; it converts AC into the DC required for operating the equipment.

RESONANCE: A tendency of mechanical parts, e.g. pickup stylus, tone arm, loudspeaker cone, enclosure panel, to vibrate at one particular frequency, causing undesirable overemphasis of that frequency when it occurs in the program. (See also boom.)

RUMBLE: A spurious low frequency sound caused by vibration of the turntable motor or associated machinery, made

audible by being transmitted mechanically to the pickup.

SOLID STATE DEVICE: Any element that can control current without moving parts, heated filaments, or vacuum gaps. All semiconductors are solid state devices. This includes diodes, transistors, and integrated circuits.

STYLUS: The modern counterpart of the old phonograph needle, consisting of a sapphire or (preferably) diamond tip precisely shaped to conform to the groove contour.

TONE ARM: The arm that holds the pickup cartridge and ensures that the needle is correctly aligned with the groove.

TRACKING: The ability of the needle to follow the wiggles in a record groove.

TWEETER: The loudspeaker that handles the highest frequency. **WOOFER:** A loudspeaker unit built specifically to handle the lowest audio frequencies.

WOW: Slow, regular variations in the speed of a turntable or tape transport.

Wash dirty albums to get clean, undistorted sound

Without proper storage and care for records, even an excellent stereo system will have problems reproducing good sound.

Records should be stored vertically with as little room at the top as possible. This cuts down dust accumulation.

When records do become soiled and dusty, they can be restored easily. The record should be held with the left hand under cold running water while the fingers of the right hand are run through the stream of water. Care should be taken not to wet the label excessively. After washing, shake the record to remove excess water. Remaining drops can be

removed by gently running a tissue over the surface.

More heavily soiled records can be cleaned by careful washing in soapy water followed by a rinse as described above. In both cases avoid oversaking the label.

Record cloths are not recommended to protect records because dust is trapped in them and converts the covers into abrasives.

The needle of a stereo is

another item which should not be neglected if you expect undistorted sound.

A diamond needle does not last forever and it is a good idea to have it checked after about six month's use. Then it is possible to estimate the life of the needle and the owner will be prepared to buy another when the original is worn out.

Experts also suggest testing even a new needle before buying it.

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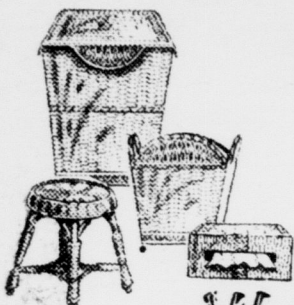
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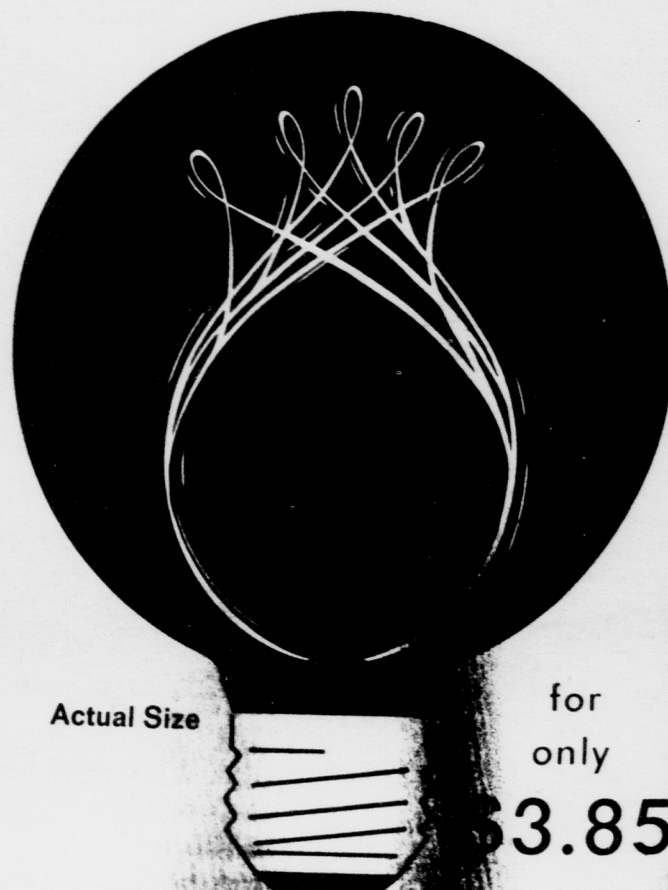
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B. White: off the record

B. HORACE WHITE
State News Critic

1971 was not a vintage year for the record industry. Never before in the history of the victrola had so many companies released so many albums that showed so little talent and originality. Nevertheless, amongst all the dross a few rare gems did manage to sneak through. Below you will find a brief run-down on the cream of the crop, the most pleasing platters of the past year. In short, the anxiously awaited B. Horace White's "Big Ten:"

- "Board Again" by Howlin' Hal Buckner and his Luminous Lackies. A crowd pleaser for years, Howlin' Hal is back with another great release. Cuts include "Where, Oh Where Did Our \$50,000 Go?," "Everything's Coming Up Stempel" and "Who's Afraid of the Big, Bad Judiciary." Good vibes from Jeff D'lackey on the

brownie and Cryin' Kevin Harty.

- "I Got Students on my Mind" by the Academic Councilers. If you liked their last release, "The Massey - McKee - Taylor Tango," you'll love "Students." Cuts include their chart-busting "Win - a - baa - aa - go," plus those old favorites "Doin' the Killingsworth Kick" and "Don't Let Your Salary Go Down."
- "We're in Charge Now" by the Crazy Council Combo. Yes, those lovable musical rogues are up to their old tricks again, churning out heavies like "Don't Pave Me In," "I Got You Pegg-ed" and "Marijuana Ain't No Sin." Combo regulars George Colburn and George Griffiths (known collectively to fans as "George Squared") are joined by Wigglin' Wilbur Brookover at lead guitar. Wigglin' Wilbur replaces Chuck Will, who couldn't get it together for the part.
- "Rockefella Rag" by C. "Reggie" Wharton. Heavy,

psychedelic blues sounds from the master of the electronic metaphor. If you liked his last release, "Southeast Asian Serenade," you'll really dig "Rag," the second in Wharton's "Foundation" series. Included are "I'm in an Appropriations Funk," and "Put Your Trustee in Me." Background by Robert "the poll-cat" Perrin, Aligator Al Ballard and Jim "My Daddy Runs the State News" Spaniolo on the Juelophone.

- "KeynesJam Sounds" by the Economists 3. A melodious blending of the distinctive sounds of those three renowned departmental nightengales: baritone "Handsome Al" Mandelstamm, "Charismatic Walt" Adams on bass and mezzo-soprano C. Patric "I Just Want to be Noticed" Larowe. Mandelstamm rollics through a medley of his best stage hits. Adams does his famous "If I were President" routine while Larowe belts out his often-

ignored "I'm as Good as Louie Bender Ever Was" aria.

- "JI Jive" by the Joint Issue Jog Band. At featured lead typewriter is Chuck Will, formerly of the Funky Coalition. Hits include "I Got the State News Blues," Wee-oo, Oh Student Board Let Us In," "The Radical Rag" and many, many other knee-slappers.

- "More of the Same" by the State News Soul Society. Led by conductor John Juel, this pleasing group of clean-scrubbed, bright-eyed, all-American boys and girls will delight you with offerings such as "Who Needs Controversy," "I'm in Love, I'm in Love With Attila the Huff" and, of course, "You Deserve All the News That Fits." A collector's item.

- "Placement Bureau Blues" by the Merry Multidisciplinary Marching Society. Soulfully sung by the entire student body and faculty of the College of Social Science, this album's theme is the eternal problem of the transition from starving student

to starving welfare recipient. Impresario Clarence Winder does a superb lead with worthy backup from musical masters Baljit Singh and Sheldon Lowery.

- "The Merchant of East Lansing" by the Chamber of Commerce. This is a "must-have" for all opera buffs. Tracing Lums' classic story of life and death in the college student rip-off business, the C of C belts their way through the renowned lyrics of "There's a Student Born Every Minute" and "Whatever You Do, Don't Let Them Register" and many, many more.

- "No Hair!" by the Joint Session (of the legislature.) A must for rock opera buffs. If you dug Hair, you'll really get it on for "No Hair!" the "Oh, Calcutta" of the Geritol Generation. William Ryan sings the lead role as Acting Governor. William Milliken plays his arch-nemesis Mr. Republican. Hits include "Abortion?," "Reapportionment?," "Budget?," etc.

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Choices limited for '10 top films'

By JACK EPPS JR.
State News Reviewer

As a film reviewer I have been asked to compile a list of the best films of 1971. It is impossible for anyone living in the greater Lansing area to establish a thorough list of "The Ten Best of '71" since they couldn't see even one third of the total films released nationally. Any list relying upon the films shown in this area would have to be sadly incomplete.

Let it be mentioned here that if it were not for the Beal film group under Steven and Michael Sunshine and the RHA film series under Tom Leach, this campus would be completely out of touch with the film medium. The Beal film group should be especially praised for their continued excellence in their classical programming.

The following are those films that I have seen that I feel deserve some sort of special mention. They are not necessarily the best of the year, although many of the films deserve best of the year even though they played in this area.

Best in the Lansing Area for '71

- 1.) McCabe & Mrs. Miller
 - 2.) The Conformist
 - 3.) Five Easy Pieces
 - 4.) Little Big Man
 - 5.) Carnal Knowledge
 - 6.) The Devils
 - 7.) Johnny Got His Gun
 - 8.) Hellstrom Chronical
- other than Lansing area
- 9.) The Straw Dogs
 - 10.) The Clowns
 - 11.) Harold and Maud

Best films shown by campus groups

- 1.) The Blue Angel
- 2.) Fellini's Satyricon
- 3.) Beauty and the Beast
- 4.) Point of Order
- 5.) The Seventh Seal
- 6.) Women in Love

Worst of '71

- 1.) Friends
- 2.) Omega Man
- 3.) Kotch
- 4.) Love Story

Biggest Disappointment

- 1.) Billy Jack
- 2.) Summer of '42
- 3.) Who is Harry Kellerman and Why is He Saying All Those Things About Me?
- 4.) Drive, He Said

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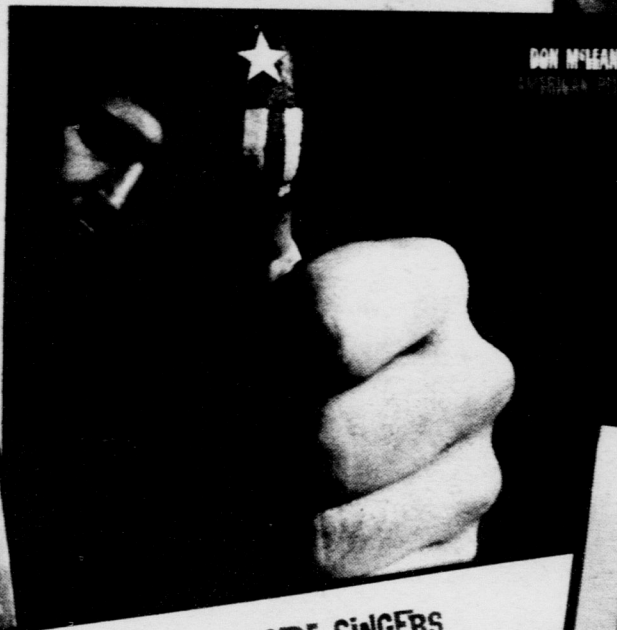
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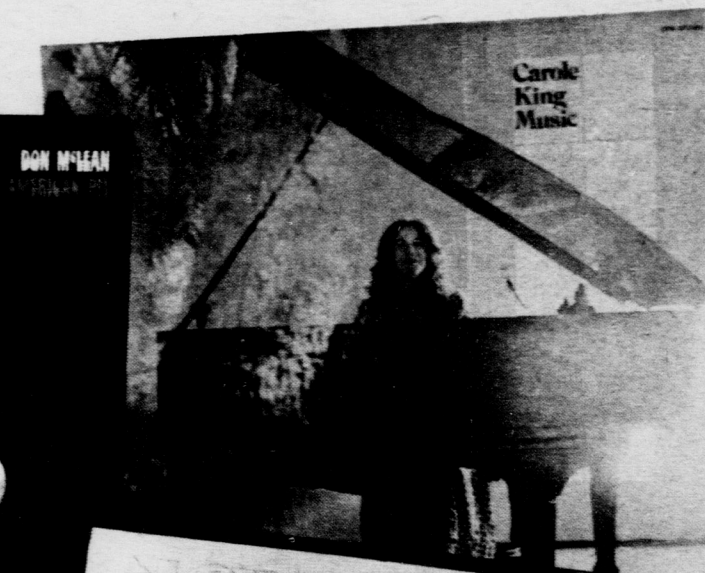
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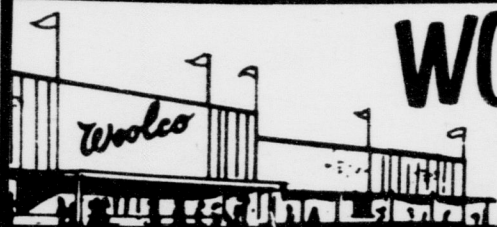
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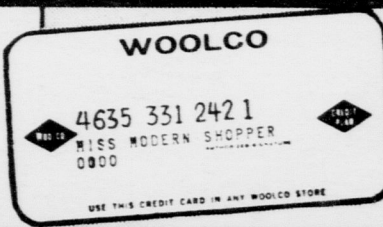
Thoughts of Moving on
I'd Like to Teach the World to Sing
E. Pluribus Funk
Music
The Low Spark of High Heeled Boys
Stones
American Pie



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THE **STEREO SHOPPE**

543 E. GRAND RIVER AVE. PHONE 337-1300
NEXT TO PARAMOUNT NEWS

Power pitch sells stereos

(Continued from page 4)

at which measurements are to be made instead of the usual 1 per cent. This lets us jack the claimed wattage up another 5 to 10 per cent. How about a "conservative" 60 watts for the XP-150, EIA?

7. You may not believe this, but we can double the above figure very easily. All we have to do is go a bit further into the world of mathematical fantasy. An audio signal is an alternating current. There are two ways of describing an alternating current's power. There is "peak power" and its "effective power."

As current flows back and forth, there are instants during each cycle at which its value is zero. There are also instants when its value is at a maximum. A sine-wave test tone provides a compromise that represents the amount of actual work the amp can perform. From the amp's performance with a sine wave, we get its effective power ("honest wattage").

In order to proceed with the "peak power" rating method, not only must the manufacturer be willing to make completely meaningless claims about his product, but he must believe that you and I are too dumb to catch him at it. Okay, here's the angle: the peak power achieved during a sine wave test happens to come out to exactly double the "honest wattage." Okay, Mr. Hypothetical, all we do is say "120 watts peak dynamic music power," or something like that — and there you are!

8. But there's still a way to get it up to 150 watts. A few years ago, one manufacturer thought the public should be aware that an amp billed at producing 100 watts would almost

always achieve somewhat more or less than that, so he tacked onto his power rating ± 1 dB. This means that a so-called 100-watt amp would achieve between 79.4 watts and 126 watts or it wouldn't be sold.

A good idea. But some of the boys saw it as a chance to tack another 26 per cent on the power rating. It must be said that the manufacturer who started all this stopped doing it as soon as it became apparent what was happening. It must also be said that some members of the hi-fi industry are actually embarrassed by the use of this rating method. Of course, if its members ever find this method expedient, there's nothing to stop the IHF from legitimizing it as a "valid" standard. Even if the IHF doesn't, it's perfectly okay to bill the Hypothetical 12-watt cheapie as having an output of a soul-whomping 150 watts, ± 1 dB. So, Mr. Hypothetical, the XP-150 lives up to its name, right?

By now you see that this numbers racket is completely insane and that the only sensible thing to do is use your ears. Not only are they the only valid test instruments you can carry around with you as you shop for equipment, but it's your ears that you're shopping for — not your ego.

From the manufacturer's viewpoint, it's much simpler to select just one of the attributes of a piece of equipment — no matter how inadequate the attribute may be as a standard of quality — and let it stand for the piece of equipment. Actually, the power of an amp is, by itself, quite unimportant to its subjective "quality," and it becomes more unimportant as hi-fi advertising gets further and further out.



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THE ORIGINAL **Fish & Chips**

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Sunday Special:

SHRIMP & CHIPS reg. \$1.49
99¢

TWO GREAT LOCATIONS IN LANSING:

RIGHT PAST FRANDOR AT

2418 E. MICHIGAN

and at **4100 S. LOGAN**

Film variety: spice of 'U'

(Continued from page two)

"Face of War" or "Triumph of the Will," a Nazi propaganda film.

Jim Crawford, East Lansing graduate student and head of the Auburn group, agreed that film distributors often charge high rental rates.

"The distributors know what they're doing — if they think a film has the capacity to draw many people, they'll charge accordingly," he explained.

Although the distributors have no way of telling whether a film was shown four times as agreed in the contract, or 40 times as the exhibitor may do,

Crawford warned that the distributors have checks to insure contract compliance.

He explained that the distributors often compare local advertisement showtimes with number limited by contract. At times, the distributors send their agents to check on the audience

size at the film showing to insure the most profitable return for the distributor, Crawford said.

The Auburn Film Co. will present "Henry VI" and "Cleopatra" this weekend.

Saturday matinees are the specialty of MSU Cineseries, a group which has presented such

classics as "Ben Hur" and "King Kong."

"We don't go for exploitation or violence films," said Tom Merrow, Midwest City, Okla. sophomore, and coordinator for the group. MSU Cineseries hopes to bring more political, cultural and women's liberation films, he said.

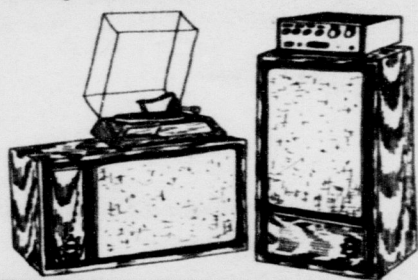
the starter

Your first step into Hi-Fi should give assurance that you own a real component system offering top performance and flexibility.

This is now possible.

The heart of "the starter" system is the amplifier... the Kenwood KA-4002. It offers features never before available in its price range. Delivering 24 RMS watts per channel, IM and harmonic distortion are a low 0.5%. Plus, you can run main and remote speaker systems, and use 2 phono, 2 auxiliary, and a tuner input.

We very carefully chose the Aztec Minuet speaker system to compliment the amplifier. Combining an 8 inch woofer (2½ lb. magnet) and a 3 inch tweeter, you'll hear clean, smooth bass, and well-dispersed highs. And wait until you see them! Really beautiful!



The Garrard 40-B changer completes "the starter." Operate it either manually or automatically, in three speeds! And there's a damped cueing device, too.

complete system price

\$260

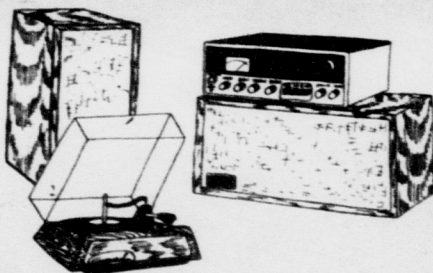
Systems costing less than five hundred dollar used to share a common weakness... inadequate bass response.

This is no longer true.

By taking advantage of the new Smaller Advent loudspeaker with its smooth, extended frequency response, you'll have freedom from distortion and be able to hear all the music... even the lowest bass guitar notes.

The Kenwood KR-4130 receiver will deliver 24 RMS watts per channel into the Smaller Advent speaker. That's enough to assure you of maximum performance. And, don't worry about FM stations. You'll have so many to choose from, you won't want to turn it off.

The perfect companion for playing your records gently, and for several years, is the Garrard SL55B. Our service department installs a Shure M44E cartridge and mounts it in a base and dust cover combination.



complete system price

\$430

the intermediate

FREE

SPECIAL OFFER



During the month of February — if you bring in this coupon, we'll include a FREE walnut case (a \$20 value) for the amplifier in any one of these systems, with the purchase of the system.

Good only thru Feb. 29, 1972 at HiFi Buys or the Disc Shop.

the graduate

"The Graduate" has been our "best value system" for almost a year now. There's good reason for it. We have not yet found any system for less than \$1000.00 that can significantly outperform it.

The Advent loudspeaker introduced a new era of value. It was the result of a determined effort by Henry Kloss to significantly reduce the cost of loudspeaker systems. Henry took advantage of the latest advances in speaker technology, and succeeded in designing a system with performance equal to the finest bookshelf speakers available — but only costing half as much!

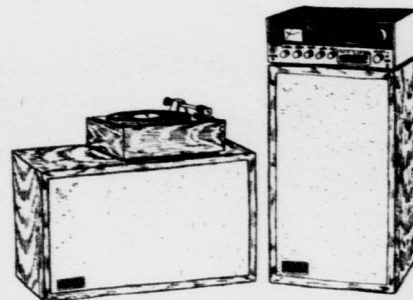
At the same time that Henry was lowering the cost of loudspeakers, advances in transistor technology were lowering the cost of amplifier power. The Kenwood KR-5150 is an excellent example of this. Never before has a receiver in its price range been able to offer 180 watts of IHF output power. (This translates to a continuous 33 watts per channel at 8 ohms, with both channels operating!)

Also, never before has a receiver in the KR-5150's price range been able to offer such excellent AM and FM stereo radio reception! Your favorite stations will come in loud and clear, and with full stereo separation, thanks to such advances as field effect transistors and integrated circuits.

To complete this system we have selected the PE 2038 automatic turntable, complete with base, dust cover, and a Shure M93E stereo cartridge installed in it. They live up to the standards of performance and value established by the Advent loudspeaker and the Kenwood receiver.

COMPLETE SYSTEM PRICE

\$680



HI-FI BUYS

1101 E. Grand River East Lansing
Phone 337-2310



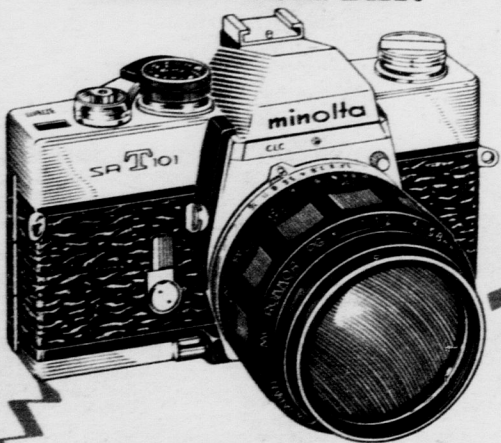
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4 - PC. STEREO SYSTEM WITH KENWOOD RECEIVER

Two Fisher XP - 65 three - way speakers and deluxe stereo headset. Model 4140 if purchased separately - \$259.95

\$399

5 - PC. STEREO SYSTEM WITH KENWOOD RECEIVER

Automatic BSR Turntable. Two three - way speakers and Stereo headset. Model 3130 if purchased separately \$199.95

\$299

Dual 1218



At \$139.50, we expect it to be the most popular turntable Dual has ever made.

For years, the Dual 1219 has been widely acclaimed by hi - fi experts as the finest automatic turntable ever made. And though priced at \$175, it has been the best - selling quality turntable of them all. And still is.

Now, most of the 1219's precision features are available in this new medium - priced model, the \$139.50 Dual 1218. For example: the twin - ring gimbal suspension of the tonearm. Adjustable stylus angle for perfect vertical tracking in single play. Synchronous motor. One - piece cast platter. Pitch - control to compensate for off - pitch records. And much more.

If you find \$175 a bit high, the 1218 is your best buy.



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